General Specifications

GS 01C25W01-01EN

EJXC80A, EJAC80E
EJXC81A, EJAC81E
EJXC50A, EJAC50E, EJXC40A
Diaphragm Seal System

DPharp EJX™
DPharp EJA™

[Diaphragm Seal System]

Diaphragm Seal System can be used to measure liquid, gas, or steam flow as well as liquid level, density, and pressure. Diaphragm seals are used to prevent process medium form entering directly into the pressure-sensing assembly of the differential or Gauge pressure transmitter.

Application which is suitable for diaphragm seal system

For measuring the flow of ;

- high/low temperature fluids
- highly corrosive/high viscosity fluids
- the fluids which may cause clogging of impulse piping in the low temperature
- toxic fluids
- the fluids containing suspended solids which are deposited in the impulse piping and may cause clogging.

Venting/draining can be operated by installing the flushing connection ring,

Refer to GS as of the table below for Fieldbus communication type and PROFIBUS PA communication type for the items marked with "◊."

	Communication Type	GS No.
EJX	FOUNDATION Fieldbus	GS 01C25T02-01EN
	PROFIBUS PA	GS 01C25T04-01EN
EJA	FOUNDATION Fieldbus	GS 01C31T02-01EN
	PROFIBUS PA	GS 01C31T04-01EN

The codes of diaphragm seal system represent a seal system type.

CE and other standard certification are acquired for each transmitter section.

Diaphragm Seal System	Applicable Transmitter
EJXC80A EJAC80E	EJX110A, EJX430A EJA110E, EJA430E
EJXC81A EJAC81E	EJX310A, EJA310E
EJXC50A EJAC50E	EJX530A, EJA530E
EJXC40A	EJX530A



Diaphragm Seal System



Absolute Pressure Diaphragm Seal System

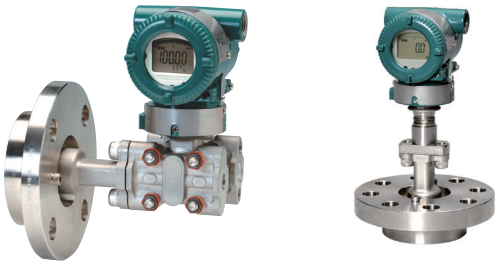


Adapter connection type



Flange connection type

Diaphragm Seal System (Inner Diaphragm type)



Direct Mounted Diaphragm Seal System



Digital Remote Sensor Diaphragm Seal System



Hygienic Diaphragm Seal System

YOKOGAWA

Yokogawa Electric Corporation
2-9-32, Nakacho, Musashino-shi, Tokyo, 180-8750 Japan
Tel.: 81-422-52-5690 Fax.: 81-422-52-2018

GS 01C25W01-01EN
© Copylight May 2016
9th Edition Jun. 2023

• Diaphragm Seal System

Diaphragm Seal System consists of gauge pressure or differential pressure transmitter with one or two diaphragm seal. Suitable for various kinds of pressure measurement.

Transmitter	Diaphragm Seal	Seal System Location	
		High Pressure Side	Low Pressure Side
Differential Pressure Transmitter	Flanged/ Hygienic Diaphragm Seal	Remote Seal	Remote Seal
		Remote Seal	-
		-	Remote Seal
		Direct Mount	Remote Seal
Gauge Pressure Transmitter		Remote Seal	-
Differential Pressure Transmitter	Compensating Capillary Type*2	Direct Mount	Remote Seal with compensation capillary

-: Not applicable

Applicable Products (Transmitter)*1

- Differential Pressure Transmitter
  EJX110A: GS01C25B01-01EN
  EJA110E: GS01C31B01-01EN
- Gauge Pressure Transmitter
  EJX430A: GS01C25E01-01EN
  EJA430E: GS01C31E01-01EN

Process connection size

- Flush Flanged Seal
  1 1/2-inch (40 mm), 2-inch (50 mm), 3-inch (80 mm)
- Extended Flanged Seal
  3-inch (80 mm), 4-inch (100 mm)
- Inner Diaphragm Seal, Adapter Connection Type
  1/2-inch (15 mm), 3/4-inch (20 mm), 1-inch (25 mm)
- Inner Diaphragm Seal, Flange Connection Type
  1/2-inch (15 mm), 3/4-inch (20 mm), 1-inch (25 mm)
- Flush Hygienic Seal (ISO Clamp Seal)
  ISO51, ISO76.1, ISO101.6
- Extended Hygienic Seal
  ISO76.1, ISO101.6

Features

- High performance, high accuracy and high reliability.
- High temperature and high vacuum use (0.013 kPa abs~)
- Fast response: 200 ms
- Segment signal characterizer

• Compensating Capillary Design

Compensation capillary type has a compensating capillary to help balance the volume and temperature of the fill fluids between high and low pressure side capillaries.

This solution reduces the influence of ambient temperature drift whether it is caused by swings day-to-night, season-to-season, or shady-to-sunny.



Differential Pressure Transmitter



Gauge Pressure Transmitter

Diaphragm Seal System





Flange connection type

Diaphragm Seal System (Inner Diaphragm type)



Diaphragm Seal System (Hygienic type)

*1: For the details of each product, please refer to the General Specifications of each model.
*2: Applicable for Flanged Diaphragm Seal.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● Absolute Pressure Diaphragm Seal System

Diaphragm Seal System consists of absolute pressure transmitter with a single diaphragm seal. Suitable for various kinds of pressure measurement.

Transmitter	Diaphragm Seal	Seal System Location	
		High Pressure Side	Low Pressure Side
Absolute Pressure Transmitter	Flanged Diaphragm Seal	●	-

●: Applicable, -: Not applicable

Applicable Products (Transmitter)*1

- Absolute Pressure Transmitter
  EJX310A: GS01C25D01-01EN
  EJA310E: GS01C31D01-01EN

Process connection size

- Flush Flanged Seal
  1 1/2-inch (40 mm), 2-inch (50 mm), 3-inch (80 mm)
- Extended Flanged Seal
  3-inch (80 mm), 4-inch (100 mm)
- Inner Diaphragm Seal, Adapter Connection Type
  1/2-inch (15 mm), 3/4-inch (20 mm), 1-inch (25 mm)
- Inner Diaphragm Seal, Flange Connection Type
  1/2-inch (15 mm), 3/4-inch (20 mm), 1-inch (25 mm)

Features

- High performance, high accuracy and high reliability.
- High temperature and high vacuum use (0.013 kPa abs~)
- Fast response: 200 ms
- Segment signal characterizer



Absolute Pressure Diaphragm Seal System





Adapter connection type

Absolute Pressure Diaphragm Seal System
(Inner Diaphragm type)

*1: For the details of each product, please refer to the General Specifications of each model.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

• Direct Mounted Diaphragm Seal System

Direct Mounted Diaphragm Seal System consists of gauge pressure or differential pressure transmitter with a single direct mount diaphragm seal.

Suitable for various kinds of pressure measurement.

Transmitter	Diaphragm Seal	Seal System Location	
		High Pressure Side	Low Pressure Side
Differential Pressure Transmitter	Direct Mount Flanged Hygienic Diaphragm Seal	●	-
Gauge Pressure Transmitter		●	-

●: Applicable, -: Not applicable

Applicable Products (Transmitter)*1

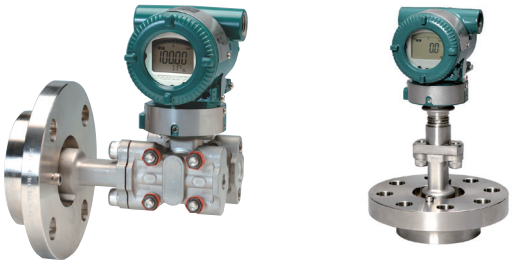
- Differential Pressure Transmitter
  EJX110A: GS01C25B01-01EN
  EJA110E: GS01C31B01-01EN
- Gauge Pressure Transmitter
  EJX530A: GS01C25F01-01EN
  EJA530E: GS01C31F01-01EN

Process connection size

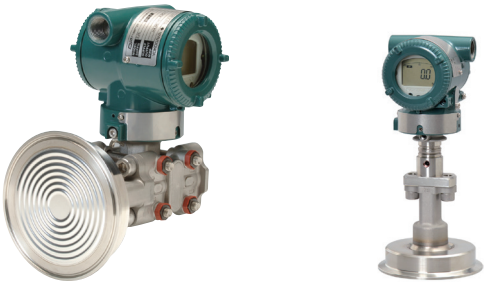
- Flush Flanged Seal
  1 1/2-inch (40 mm), 2-inch (50 mm), 3-inch (80 mm)
- Extended Flanged Seal
  3-inch (80 mm), 4-inch (100 mm)
- Flush Hygienic Seal (ISO Clamp Seal)*2
  ISO76.1, ISO101.6
- Extended Hygienic Seal*2
  ISO76.1, ISO101.6
- Flush Hygienic Seal (ISO Clamp Seal)
  ISO51*2, ISO76.1, ISO101.6
- Extended Hygienic Seal
  ISO51*2, ISO76.1, ISO101.6

Features

- High performance, high accuracy and high reliability.
- Fast response: 120 ms



Direct Mount Flanged Diaphragm Seal System



Direct Mount Hygienic Diaphragm Seal System

*1: For the details of each product, please refer to the General Specifications of each model.
*2: Applicable for EJX110A and EJA110E.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● Digital Remote Sensored Diaphragm Seal System

Digital Remote Sensor (DRS) Transmitter connects two pressure sensors, high pressure side (primary) and low pressure side (secondary) in a remote location, with DRS dedicated communication cable to measure differential pressure.

Transmitter	Diaphragm Seal	Seal System Location	
		Primary (High Pressure Side)	Secondary (Low Pressure Side)
Digital Remote Sensor	Direct Mount Flanged/ Hygienic Diaphragm Seal	●	●
		●	S
		S	●

●: Applicable, S: Screw Mount

Applicable Products (Transmitter)*1

- Digital Remote Sensor Transmitter
  EJXC40A: GS 01C25W05-01EN

Process connection size

- Flush Flanged Seal
  1 1/2-inch (40 mm), 2-inch (50 mm), 3-inch (80 mm)
- Extended Flanged Seal
  3-inch (80 mm), 4-inch (100 mm)
- Flush Hygienic Seal (ISO Clamp Seal)
  ISO76.1, ISO101.6
- Extended Hygienic Seal
  ISO76.1, ISO101.6

Features

- High performance, high accuracy and high reliability
- Suitable for level measurement of a tall tank.
  DRS cable length (maximum): 45 m
- Fast response: 250 ms
- Segment signal characterizer



Digital Remote Sensor
Flange Mounted Diaphragm Seal System



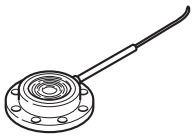
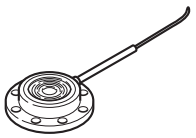
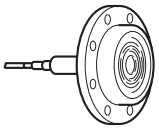
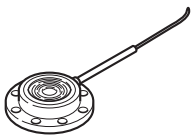
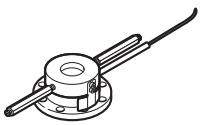
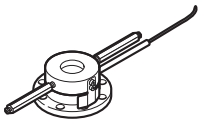
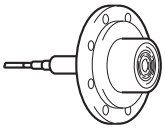
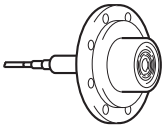
Digital Remote Sensor
Hygienic Mounted Diaphragm Seal System

*1: For the details of each product, please refer to the General Specifications of each model.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

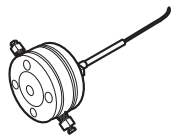
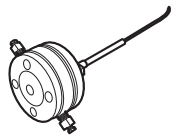
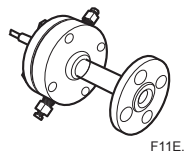
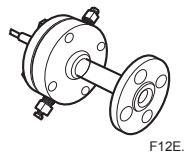
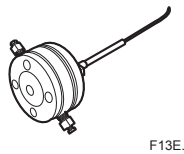
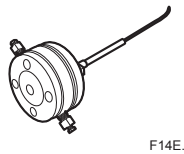
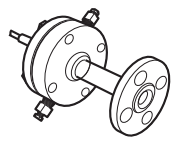
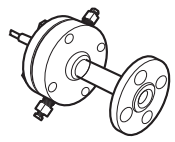
Diaphragm Seal System

■ Remote Mount Flanged Diaphragm Seal

	Model	Process connection Style	Usage	Process connection size (Process flange size)	Capillary Connection Style
 F01E.ai	C80FW	Raised face (RF) Flush type	general use	3-inch (80 mm) 2-inch (50 mm)	Side of diaphragm seal unit
 F02E.ai	C80FW	Ring joint (RJ) Flush type	general use	3-inch (80 mm) 2-inch (50 mm)	Side of diaphragm seal unit
 F03E.ai	C80FW	Raised face (RF) Flush type	general use	3-inch (80 mm) 2-inch (50 mm)	Back of diaphragm seal unit
 F04E.ai	C80FW	Raised face (RF) Flush type	high vacuum use	3-inch (80 mm) 2-inch (50 mm)	Side of diaphragm seal unit
 F05E.ai	C80FW	Raised face (RF) Flush type	general use	1 1/2-inch (40 mm)	Side of diaphragm seal unit
 F06E.ai	C80FW	Raised face (RF) Flush type	high vacuum use	1 1/2-inch (40 mm)	Side of diaphragm seal unit
 F07E.ai	C80FE	Raised face (RF) Extended type	general use	4-inch (100 mm) 3-inch (80 mm)	Back of diaphragm seal unit
 F08E.ai	C80FE	Raised face (RF) Extended type	high vacuum use	4-inch (100 mm) 3-inch (80 mm)	Back of diaphragm seal unit

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

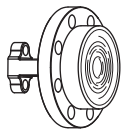
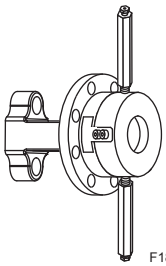
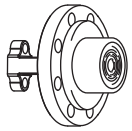
■ Remote Mount Flanged Diaphragm Seal (Inner Diaphragm type)*1

	Model	Process connection Style	Usage	Process connection size (Process flange size)	Capillary Connection Style
 F09E.ai	C81FA C82FA	Raised face (RF) Adapter connection type	general use	1/2-inch (15 mm) 3/4-inch (20 mm) 1-inch (25 mm)	Back of diaphragm seal unit
 F10E.ai	C81FA C82FA	Ring joint (RJ) Adapter connection type	general use	1/2-inch (15 mm) 3/4-inch (20 mm) 1-inch (25 mm)	Back of diaphragm seal unit
 F11E.ai	C81FD C82FD	Raised face (RF) Flange connection type	general use	1/2-inch (15 mm) 3/4-inch (20 mm) 1-inch (25 mm)	Back of diaphragm seal unit
 F12E.ai	C81FD C82FD	Ring joint (RJ) Flange connection type	general use	1/2-inch (15 mm) 3/4-inch (20 mm) 1-inch (25 mm)	Back of diaphragm seal unit
 F13E.ai	C81FA C82FA	Raised face (RF) Adapter connection type	high vacuum use	1/2-inch (15 mm) 3/4-inch (20 mm) 1-inch (25 mm)	Back of diaphragm seal unit
 F14E.ai	C81FA C82FA	Ring joint (RJ) Adapter connection type	high vacuum use	1/2-inch (15 mm) 3/4-inch (20 mm) 1-inch (25 mm)	Back of diaphragm seal unit
 F15E.ai	C81FD C82FD	Raised face (RF) Flange connection type	high vacuum use	1/2-inch (15 mm) 3/4-inch (20 mm) 1-inch (25 mm)	Back of diaphragm seal unit
 F16E.ai	C81FD C82FD	Ring joint (RJ) Flange connection type	high vacuum use	1/2-inch (15 mm) 3/4-inch (20 mm) 1-inch (25 mm)	Back of diaphragm seal unit

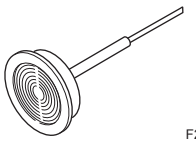
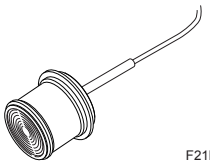
*1: C81FA, C81FD: Bundled capillary type (1 m separated)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

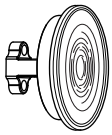
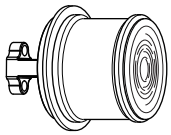
■ Direct Mount Flanged Diaphragm Seal

	Model	Process connection style	Process connection size (Process flange size)
 F17E.ai	C20FW	Raised face (RF) Flush type	3-inch (80 mm) 2-inch (50 mm)
 F18E.ai	C20FW	Raised face (RF) Flush type	1 1/2-inch (40 mm)
 F19E.ai	C20FE	Raised face (RF) Extended type	4-inch (100 mm) 3-inch (80 mm)

■ Remote Mount Hygienic Diaphragm Seal

	Model	Process connection style	Process connection size	Capillary Connection Style
 F20E.ai	C70SW	ISO clamp Flush type	ISO51 ISO76.1 ISO101.6	Back of diaphragm seal unit
 F21E.ai	C70SE	ISO clamp Extended type	ISO76.1 ISO101.6	Back of diaphragm seal unit

■ Direct Mount Hygienic Diaphragm Seal

	Model	Process connection style	Process connection size
 F22E.ai	C30SW	ISO clamp Flush type	ISO51 ISO76.1 ISO101.6
 F23E.ai	C30SE	ISO clamp Extended type	ISO51 ISO76.1 ISO101.6

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

☐SPAN AND RANGE LIMITS

● Flange Mounted Diaphragm Seal System

■ Remote Mounted Seal, Direct Mounted Seal with Remote Seal (Combination type), or Compensation Capillary type

• EJXC80A Differential pressure diaphragm seal system

Measurement Span/Range			kPa	inH_2O (/D1)	mbar (/D3)	mmH_2O (/D4)
M		Span	2 to 100	8 to 400	20 to 1000	200 to 10000
		Range	−100 to 100	−400 to 400	−1000 to 1000	−10000 to 10000
H		Span	10 to 500	40 to 2000	100 to 5000	0.1 to 5 kgf/cm²
		Range	−500 to 500	−2000 to 2000	−5000 to 5000	−5 to 5 kgf/cm²
V	Flush type	Span	0.28 to 14 MPa	41 to 2000 psi	2.8 to 140 bar	2.8 to 140 kgf/cm²
		Range	−0.5 to 14 MPa	−71 to 2000 psi	−5 to 140 bar	−5 to 140 kgf/cm²
	Extended type	Span	0.28 to 7 MPa	41 to 1000 psi	2.8 to 70 bar	2.8 to 70 kgf/cm²
		Range	−0.5 to 7 MPa	−71 to 1000 psi	−5 to 70 bar	−5 to 70 kgf/cm²

• EJAC80E Differential pressure diaphragm seal system

Measurement Span/Range			kPa	inH_2O (/D1)	mbar (/D3)	mmH_2O (/D4)
M		Span	2.5 to 100	10 to 400	25 to 1000	250 to 10000
		Range	−100 to 100	−400 to 400	−1000 to 1000	−10000 to 10000
H		Span	25 to 500	100 to 2000	250 to 5000	0.25 to 5 kgf/cm²
		Range	−500 to 500	−2000 to 2000	−5000 to 5000	−5 to 5 kgf/cm²
V	Flush type	Span	0.28 to 14 MPa	41 to 2000 psi	2.8 to 140 bar	2.8 to 140 kgf/cm²
		Range	−0.5 to 14 MPa	−71 to 2000 psi	−5 to 140 bar	−5 to 140 kgf/cm²
	Extended type	Span	0.28 to 7 MPa	41 to 1000 psi	2.8 to 70 bar	2.8 to 70 kgf/cm²
		Range	−0.5 to 7 MPa	−71 to 1000 psi	−5 to 70 bar	−5 to 70 kgf/cm²

• EJXC80A Gauge pressure diaphragm seal system

Measurement Span/Range			MPa	psi (/D1)	bar (/D3)	kgf/cm² (/D4)
A		Span	0.035 to 3.5	5 to 500	0.35 to 35	0.35 to 35
		Range	−0.1 to 3.5	−14.5 to 500	−1 to 35	−1 to 35
B	Flush type	Span	0.16 to 16	23 to 2300	1.6 to 160	1.6 to 160
		Range	−0.1 to 16	−14.5 to 2300	−1 to 160	−1 to 160
	Extended type	Span	0.16 to 7	23 to 1000	1.6 to 70	1.6 to 70
		Range	−0.1 to 7	−14.5 to 1000	−1 to 70	−1 to 70

• EJAC80E Gauge pressure diaphragm seal system

Measurement Span/Range			MPa	psi (/D1)	bar (/D3)	kgf/cm² (/D4)
A		Span	0.06 to 3.5	8.6 to 500	0.6 to 35	0.6 to 35
		Range	−0.1 to 3.5	−14.5 to 500	−1 to 35	−1 to 35
B	Flush type	Span	0.46 to 16	67 to 2300	4.6 to 160	4.6 to 160
		Range	−0.1 to 16	−14.5 to 2300	−1 to 160	−1 to 160
	Extended type	Span	0.46 to 7	67 to 1000	4.6 to 70	4.6 to 70
		Range	−0.1 to 7	−14.5 to 1000	−1 to 70	−1 to 70

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

• EJXC81A Absolute pressure diaphragm seal system

Measurement Span/Range			kPa abs	psi abs (/D1)	mbar abs (/D3)	mmHg abs (/D4)
M		Span	2.7 to 130	0.8 to 38 inHg abs	27 to 1300	20 to 970
		Range	0 to 130	0 to 38 inHg abs	0 to 1300	0 to 970
A		Span	0.035 to 3.5 MPa abs	5 to 500	0.35 to 35 bar abs	0.35 to 35 kgf/cm^2 abs
		Range	0 to 3.5 MPa abs	0 to 500	0 to 35 bar abs	0 to 35 kgf/cm^2 abs
B	Flush type	Span	0.16 to 16 MPa abs	23 to 2300	1.6 to 160 bar abs	1.6 to 160 kgf/cm^2 abs
		Range	0 to 16 MPa abs	0 to 2300	0 to 160 bar abs	0 to 160 kgf/cm^2 abs
	Extended type	Span	0.16 to 7 MPa abs	23 to 1000	1.6 to 70 bar abs	1.6 to 70 kgf/cm^2 abs
		Range	0 to 7 MPa abs	0 to 1000	0 to 70 bar abs	0 to 70 kgf/cm^2 abs

• EJAC81E Absolute pressure diaphragm seal system

Measurement Span/Range			kPa abs	psi abs (/D1)	mbar abs (/D3)	mmHg abs (/D4)
M		Span	3.4 to 130	1 to 38 inHg abs	34 to 1300	26 to 970
		Range	0 to 130	0 to 38 inHg abs	0 to 1300	0 to 970
A		Span	0.06 to 3.5 MPa abs	8.7 to 500	0.6 to 35 bar abs	0.6 to 35 kgf/cm^2 abs
		Range	0 to 3.5 MPa abs	0 to 500	0 to 35 bar abs	0 to 35 kgf/cm^2 abs
B	Flush type	Span	0.46 to 16 MPa abs	67 to 2300	4.6 to 160 bar abs	4.6 to 160 kgf/cm^2 abs
		Range	0 to 16 MPa abs	0 to 2300	0 to 160 bar abs	0 to 160 kgf/cm^2 abs
	Extended type	Span	0.46 to 7 MPa abs	67 to 1000	4.6 to 70 bar abs	4.6 to 70 kgf/cm^2 abs
		Range	0 to 7 MPa abs	0 to 1000	0 to 70 bar abs	0 to 70 kgf/cm^2 abs

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ Direct Mounted Seal

• EJXC80A Differential pressure diaphragm seal system

Measurement Span/Range			kPa	inH_2O (/D1)	mbar (/D3)	mmH_2O (/D4)
M		Span	1 to 100	4 to 400	10 to 1000	100 to 10000
		Range	−100 to 100	−400 to 400	−1000 to 1000	−10000 to 10000
H		Span	5 to 500	20 to 2000	50 to 5000	0.05 to 5 kgf/cm²
		Range	−500 to 500	−2000 to 2000	−5000 to 5000	−5 to 5 kgf/cm²
V	Flush type	Span	0.14 to 14 MPa	20 to 2000 psi	1.4 to 140 bar	1.4 to 140 kgf/cm²
		Range	−0.5 to 14 MPa	−71 to 2000 psi	−5 to 140 bar	−5 to 140 kgf/cm²
	Extended type	Span	0.14 to 7 MPa	20 to 1000 psi	1.4 to 70 bar	1.4 to 70 kgf/cm²
		Range	−0.5 to 7 MPa	−71 to 1000 psi	−5 to 70 bar	−5 to 70 kgf/cm²

• EJAC80E Differential pressure diaphragm seal system

Measurement Span/Range			kPa	inH_2O (/D1)	mbar (/D3)	mmH_2O (/D4)
M		Span	1 to 100	4 to 400	10 to 1000	100 to 10000
		Range	−100 to 100	−400 to 400	−1000 to 1000	−10000 to 10000
H		Span	5 to 500	20 to 2000	50 to 5000	0.05 to 5 kgf/cm²
		Range	−500 to 500	−2000 to 2000	−5000 to 5000	−5 to 5 kgf/cm²
V	Flush type	Span	0.14 to 14 MPa	20 to 2000 psi	1.4 to 140 bar	1.4 to 140 kgf/cm²
		Range	−0.5 to 14 MPa	−71 to 2000 psi	−5 to 140 bar	−5 to 140 kgf/cm²
	Extended type	Span	0.14 to 7 MPa	20 to 1000 psi	1.4 to 70 bar	1.4 to 70 kgf/cm²
		Range	−0.5 to 7 MPa	−71 to 1000 psi	−5 to 70 bar	−5 to 70 kgf/cm²

• EJXC50A Gauge pressure diaphragm seal system

Measurement Span/Range			MPa	psi (/D1)	bar (/D3)	kgf/cm² (/D4)
A		Span	8 to 200 kPa	1.16 to 29	0.08 to 2	0.08 to 2
		Range	−100 to 200 kPa	−14.5 to 29	−1 to 2	−1 to 2
B		Span	0.04 to 2	5.8 to 290	0.4 to 20	0.4 to 20
		Range	−0.1 to 2	−14.5 to 290	−1 to 20	−1 to 20
C	Flush type	Span	0.2 to 10	29 to 1450	2 to 100	2 to 100
		Range	−0.1 to 10	−14.5 to 1450	−1 to 100	−1 to 100
	Extended type	Span	0.2 to 7	29 to 1000	2 to 70	2 to 70
		Range	−0.1 to 7	−14.5 to 1000	−1 to 70	−1 to 70

• EJAC50E Gauge pressure diaphragm seal system

Measurement Span/Range			MPa	psi (/D1)	bar (/D3)	kgf/cm² (/D4)
A		Span	10 to 200 kPa	1.45 to 29	0.1 to 2	0.1 to 2
		Range	−100 to 200 kPa	−14.5 to 29	−1 to 2	−1 to 2
B		Span	0.1 to 2	14.5 to 290	1 to 20	1 to 20
		Range	−0.1 to 2	−14.5 to 290	−1 to 20	−1 to 20
C	Flush type	Span	0.5 to 10	72.5 to 1450	5 to 100	5 to 100
		Range	−0.1 to 10	−14.5 to 1450	−1 to 100	−1 to 100
	Extended type	Span	0.5 to 7	72.5 to 1000	5 to 70	5 to 70
		Range	−0.1 to 7	−14.5 to 1000	−1 to 70	−1 to 70

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● Hygienic Diaphragm Seal System

■ Remote Mounted Seal, or Direct Mounted Seal with Remote Seal (Combination type)

• EJXC80A Differential pressure diaphragm seal system

Measurement Span/Range		kPa	inH_2O (/D1)	mbar (/D3)	mmH_2O (/D4)
M	Span	2 to 100	8 to 400	20 to 1000	200 to 10000
	Range	−100 to 100	−400 to 400	-1000 to 1000	-10000 to 10000
H	Span	10 to 500	40 to 2000	100 to 5000	0.1 to 5 kgf/cm^2
	Range	−500 to 500	−2000 to 2000	-5000 to 5000	−5 to 5 kgf/cm^2
V	Span	0.28 to 1 MPa	41 to 145 psi	2.8 to 10 bar	2.8 to 10 kgf/cm^2
	Range	−0.5 to 1 MPa	−71 to 145 psi	−5 to 10 bar	−5 to 10 kgf/cm^2

• EJAC80E Differential pressure diaphragm seal system

Measurement Span/Range		kPa	inH_2O (/D1)	mbar (/D3)	mmH_2O (/D4)
M	Span	2.5 to 100	10 to 400	25 to 1000	250 to 10000
	Range	−100 to 100	−400 to 400	-1000 to 1000	-10000 to 10000
H	Span	25 to 500	100 to 2000	250 to 5000	0.25 to 5 kgf/cm^2
	Range	−500 to 500	−2000 to 2000	-5000 to 5000	−5 to 5 kgf/cm^2
V	Span	0.28 to 1 MPa	41 to 145 psi	2.8 to 10 bar	2.8 to 10 kgf/cm^2
	Range	−0.5 to 1 MPa	−71 to 145 psi	−5 to 10 bar	−5 to 10 kgf/cm^2

• EJXC80A Gauge pressure diaphragm seal system

Measurement Span/Range		MPa	psi (/D1)	bar (/D3)	kgf/cm^2 (/D4)
A	Span	0.035 to 1	5 to 145	0.35 to 10	0.35 to 10
	Range	−0.1 to 1	−14.5 to 145	−1 to 10	−1 to 10

• EJAC80E Gauge pressure diaphragm seal system

Measurement Span/Range		MPa	psi (/D1)	bar (/D3)	kgf/cm^2 (/D4)
A	Span	0.06 to 1	8.6 to 145	0.6 to 10	0.6 to 10
	Range	−0.1 to 1	−14.5 to 145	−1 to 10	−1 to 10

■ Direct Mounted Seal

• EJXC80A Differential pressure diaphragm seal system

Measurement Span/Range		kPa	inH_2O (/D1)	mbar (/D3)	mmH_2O (/D4)
M	Span	1 to 100	4 to 400	10 to 1000	100 to 10000
	Range	−100 to 100	−400 to 400	-1000 to 1000	-10000 to 10000
H	Span	5 to 500	20 to 2000	50 to 5000	0.05 to 5 kgf/cm^2
	Range	−500 to 500	−2000 to 2000	-5000 to 5000	−5 to 5 kgf/cm^2
V	Span	0.14 to 1 MPa	20 to 145 psi	1.4 to 10 bar	1.4 to 10 kgf/cm^2
	Range	−0.5 to 1 MPa	−71 to 145 psi	−5 to 10 bar	−5 to 10 kgf/cm^2

• EJAC80E Differential pressure diaphragm seal system

Measurement Span/Range		kPa	inH_2O (/D1)	mbar (/D3)	mmH_2O (/D4)
M	Span	1 to 100	4 to 400	10 to 1000	100 to 10000
	Range	−100 to 100	−400 to 400	-1000 to 1000	-10000 to 10000
H	Span	5 to 500	20 to 2000	50 to 5000	0.05 to 5 kgf/cm^2
	Range	−500 to 500	−2000 to 2000	-5000 to 5000	−5 to 5 kgf/cm^2
V	Span	0.14 to 1 MPa	20 to 145 psi	1.4 to 10 bar	1.4 to 10 kgf/cm^2
	Range	−0.5 to 1 MPa	−71 to 145 psi	−5 to 10 bar	−5 to 10 kgf/cm^2

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

• EJXC50A Gauge pressure diaphragm seal system

Measurement Span/Range		MPa	psi (/D1)	bar (/D3)	kgf/cm² (/D4)
A	Span	8 to 200 kPa	1.16 to 29	0.08 to 2	0.08 to 2
	Range	−100 to 200 kPa	−14.5 to 29	−1 to 2	−1 to 2
B	Span	0.04 to 1	5.8 to 145	0.4 to 10	0.4 to 10
	Range	−0.1 to 1	−14.5 to 145	−1 to 10	−1 to 10

• EJAC50E Gauge pressure diaphragm seal system

Measurement Span/Range		MPa	psi (/D1)	bar (/D3)	kgf/cm² (/D4)
A	Span	10 to 200 kPa	1.45 to 29	0.1 to 2	0.1 to 2
	Range	−100 to 200 kPa	−14.5 to 29	−1 to 2	−1 to 2
B	Span	0.1 to 1	14.5 to 145	1 to 10	1 to 10
	Range	−0.1 to 1	−14.5 to 145	−1 to 10	−1 to 10

● Digital Remote Sensor Diaphragm Seal System

■ Flange Mounted

• EJXC40A Digital remote sensor diaphragm seal system

Measurement Span/Range			MPa	psi (/D1)	bar (/D3)	kgf/cm² (/D4)
A		Span	2 to 200 kPa	0.3 to 29	0.02 to 2	0.02 to 2
		Range	−200 to 200 kPa	−29 to 29	−2 to 2	−2 to 2
B		Span	0.01 to 2	1.5 to 290	0.1 to 20	0.1 to 20
		Range	−2 to 2	−290 to 290	−20 to 20	−20 to 20
C	Flush type	Span	0.05 to 10	7.3 to 1450	0.5 to 100	0.5 to 100
		Range	−10 to 10	−1450 to 1450	−100 to 100	−100 to 100
	Extended type	Span	0.05 to 7	7.3 to 1000	0.5 to 70	0.5 to 70
		Range	−7 to 7	−1000 to 1000	−70 to 70	−70 to 70

■ Hygienic

• EJXC40A Digital remote sensor diaphragm seal system

Measurement Span/Range		MPa	psi (/D1)	bar (/D3)	kgf/cm² (/D4)
A	Span	2 to 200 kPa	0.3 to 29	0.02 to 2	0.02 to 2
	Range	−200 to 200 kPa	−29 to 29	−2 to 2	−2 to 2
B	Span	0.01 to 1	1.5 to 145	0.1 to 10	0.1 to 10
	Range	−1 to 1	−145 to 145	−10 to 10	−10 to 10

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Process temperature, Ambient temperature, and Working pressure

■ EJXC80A, EJAC80E Remote Mounted Seal, Direct Mounted Seal with Remote Seal (Combination type), or Compensation Capillary type Diaphragm Seal System

Table 1-1a. Flange Mounted

	Code	Process temperature*1	Ambient temperature*2	Working pressure	Specific gravity*3
Silicone oil (general use)	A	−10 to 315°C*4 (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure*9	1.07
Silicone oil (general use)	B	−40 to 210°C*4 (−40 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04
Silicone oil*8 (high temp. and high vacuum use)	1	−10 to 250°C*4 (14 to 482°F)	−10 to 60°C*5 (14 to 140°F)	0.013 kPa abs (0.0019 psi abs) to flange rating pressure	1.07
Silicone oil*8 (high temp. and high vacuum use)	2	10 to 315°C*4 (50 to 599°F)	10 to 60°C*5 (50 to 140°F)		1.09
Silicone oil*8*10 (high vacuum use)	4	−10 to 100°C (14 to 212°F)	−10 to 60°C*5 (14 to 140°F)		1.07

Table 1-1b. Hygienic Mounted

	Code	Process temperature*1	Ambient temperature*2	Working pressure	Specific gravity*3
Silicone oil (general use)	B	−10 to 120°C*6 (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Silicone oil (general use)	P	−10 to 120°C*7 (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection

*1: See figure 1a, 1b, 1c and 1d 'Working Pressure and Process Temperature.'
*2: This ambient temperature is the transmitter ambient temperature.
*3: Approximate values at a temperature of 25°C (77°F)
*4: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*5: The upper ambient temperature limit is 50°(122°F) in the following combinations.

Model		Process connection size code
C80FW	Flush type	2 (2-inch) or 8 (1 1/2-inch)
C80FE	Extension type	3 (3-inch)

*6: Temperature limit of cleansing process is up to 150°C (302°F) / max. 60 minutes
*7: Temperature limit of cleansing process is up to 150°C (302°F) / max. 30 minutes
*8: Applicable for both side remote mount flanged differential diaphragm seal or gauge pressure diaphragm seal system.
*9: In case of compensation capillary type, see figure 1j 'Working pressure and capillary length'.
*10: When selecting fill fluid code 4, take into consideration the characteristics of the process to be used. Fill fluid code 1 is recommended especially when using a transmitter in a harsh environment such as a process in which a vacuum state is maintained continuously (even outside of inspections) or a hydrogen generation process.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ EJXC80A, EJAC80E Direct Mounted Diaphragm Seal System

Table 1-2a. Flange Mounted

	Code	Process temperature*1*2	Ambient temperature*3*7	Working pressure	Specific gravity*4
Silicone oil (general use)	A	−10 to 315°C*5 (14 to 599°F)	−10 to 85°C (14 to 185°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil (general use)	B	−40 to 210°C*5 (−40 to 410°F)	−40 to 85°C (−40 to 185°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil (oil-prohibited use)	D	−20 to 120°C*6 (−4 to 248°F)	−20 to 80°C (−4 to 176°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 85°C (14 to 185°F)		1.04

Table 1-2b. Hygienic Mounted

	Code	Process temperature*1	Ambient temperature*2	Working pressure	Specific gravity*4
Silicone oil (general use)	B	−10 to 120°C*8 (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Propylene glycol	P	−10 to 120°C*9 (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

*1: See figure 1e and 1f 'Working Pressure and Process Temperature.'
*2: Indicates high pressure side value. The process temperature limit for low pressure side is –40 to 120°C (–40 to 248°F).
*3: This ambient temperature is the transmitter ambient temperature.
*4: Approximate values at a temperature of 25°C (77°F)
*5: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*6: The process temperature limit for lower pressure side is –20 to 80°C (–4 to 176°F.)
*7: See figure 1g and 1h 'Ambient Temperature and Process Temperature.'
*8: Temperature limit of cleansing process is up to 150°C (302°F) / max. 60 minutes
*9: Temperature limit of cleansing process is up to 150°C (302°F) / max. 30 minutes

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ EJXC81A, EJAC81E Absolute Pressure Diaphragm Seal System

Table 2. Flange Mounted

	Code	Process temperature*1	Ambient temperature*2	Working pressure	Specific gravity*3
Silicone oil (general use)	A	−10 to 315°C*4 (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil (general use)	B	−30 to 210°C*4 (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (high temp. and high vacuum use)	1	−10 to 250°C*4 (14 to 482°F)	−10 to 60°C*5 (14 to 140°F)	0.013 kPa abs (0.0019 psi abs) to flange rating pressure	1.07
Silicone oil (high temp. and high vacuum use)	2	10 to 315°C*4 (50 to 599°F)	10 to 60°C*5 (50 to 140°F)		1.09
Silicone oil*6 (high vacuum use)	4	−10 to 100°C (14 to 212°F)	−10 to 60°C*5 (14 to 140°F)		1.07

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection

*1: See figure 1a, 1c and 1d 'Working Pressure and Process Temperature.'
*2: This ambient temperature is the transmitter ambient temperature.
*3: Approximate values at a temperature of 25°C (77°F)
*4: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*5: The upper ambient temperature limit is 50°(122°F) in the following combinations.

Model		Process connection size code
C80FW	Flush type	2 (2-inch) or 8 (1 1/2-inch)
C80FE	Extension type	3 (3-inch)

*6: When selecting fill fluid code 4, take into consideration the characteristics of the process to be used. Fill fluid code 1 is recommended especially when using a transmitter in a harsh environment such as a process in which a vacuum state is maintained continuously (even outside of inspections) or a hydrogen generation process.

■ EJXC50A, EJAC50E Direct Mounted Diaphragm Seal System EJXC40A Digital Remote Sensor Diaphragm Seal System

Table 3-1a. Flange Mounted

	Code	Process temperature*1	Ambient temperature*2*5	Working pressure	Specific gravity*3
Silicone oil (general use)	A	−10 to 315°C*4 (14 to 599°F)	−10 to 85°C (14 to 185°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil (general use)	B	−40 to 210°C*4 (−40 to 410°F)	−40 to 85°C (−40 to 185°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−20 to 80°C (−4 to 176°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 85°C (14 to 185°F)		1.04

Table 3-2a. Hygienic Mounted

	Code	Process temperature*1	Ambient temperature*2	Working pressure	Specific gravity*3
Silicone oil (general use)	B	−10 to 120°C*6 (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Propylene glycol	P	−10 to 120°C*7 (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

*1: See figure 1e and 1f 'Working Pressure and Process Temperature.'
*2: This ambient temperature is the transmitter ambient temperature.
*3: Approximate values at a temperature of 25°C (77°F)
*4: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*5: See figure 1g and 1h 'Ambient Temperature and Process Temperature.'
*6: Temperature limit of cleansing process is up to 150°C (302°F) / max. 60 minutes
*7: Temperature limit of cleansing process is up to 150°C (302°F) / max. 30 minutes

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ **for EJXC80A, EJAC80E, EJXC81A, EJAC81E Remote Mount Flanged Diaphragm Seal System**

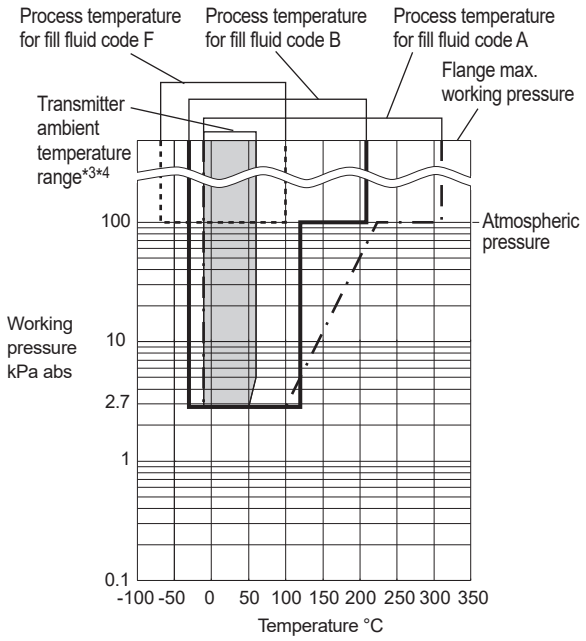


Figure 1a. Working Pressure and Process Temperature (Fill fluid: silicone oil for general and low temperature use)

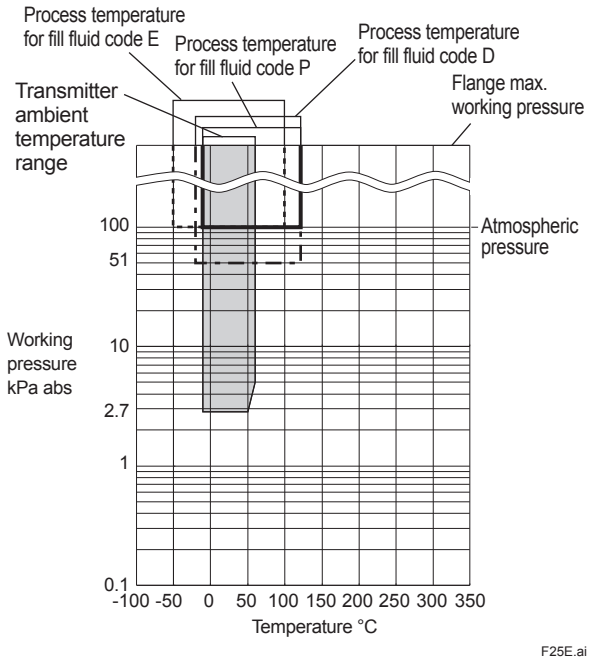


Figure 1b. Working Pressure and Process Temperature (Fill fluid: fluorinated oil for oil-prohibited use, ethylene glycol and propylene glycol)

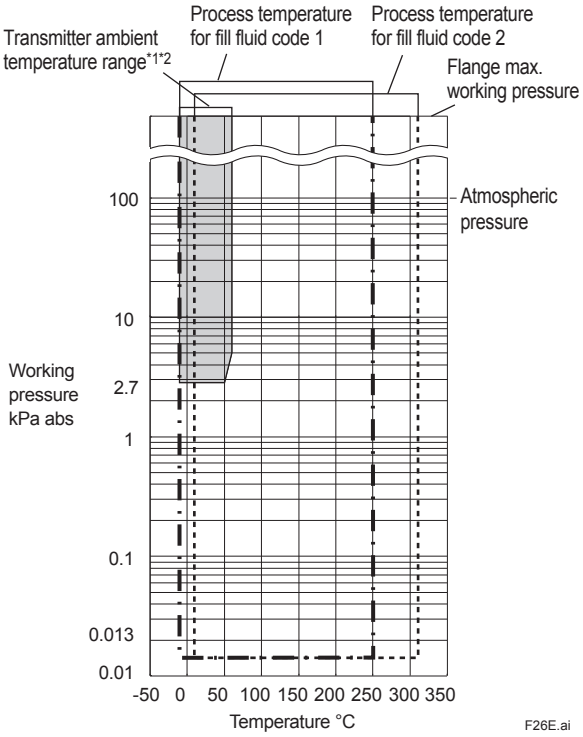


Figure 1c. Working Pressure and Process Temperature (Fill fluid: silicone oil for high temp. and high vacuum use)

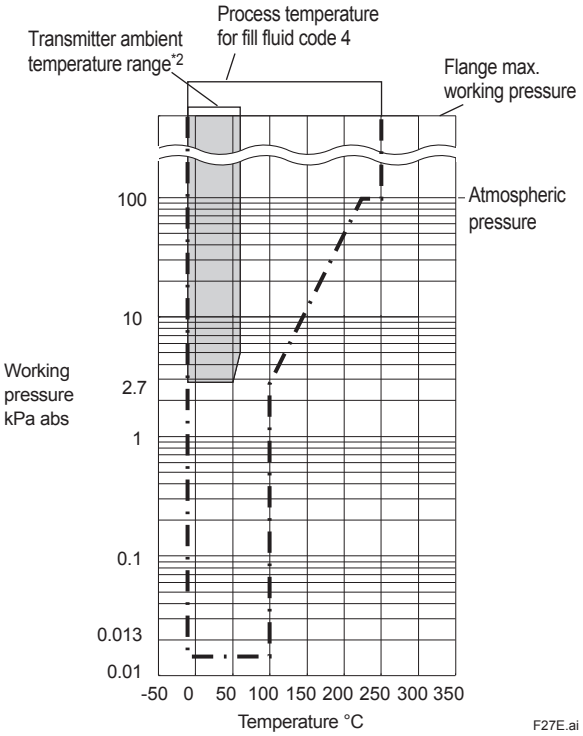


Figure 1d. Working Pressure and Process Temperature (Fill fluid: silicone oil for high vacuum use)

*1: For fill fluid code 2, the lower ambient temperature limit is +10°C for fill fluid code 2.
*2: For C80FW whose process connection size is 2-inch or 1 1/2-inch) or C80FE whose process connection size is 3-inch, the upper ambient temperature limit is +50°C.
*3: For C80FW with process connection size 2-inch or 1 1/2-inch or C80FE with process connection size 3-inch, when the diaphragm material code is “S” and capillary length is 11 m or longer, the lower ambient temperature limit is -10°C and upper ambient temperature limit is +50°C.
*4: For C80FW with process connection size 2-inch or 1 1/2-inch or C80FE with process connection size 3-inch, and the diaphragm material code other than “S”, the lower ambient temperature limit is -15°C and upper ambient temperature limit is +60°C.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ for EJXC80A, EJAC80E Direct Mount Flanged Diaphragm Seal System
EJXC50A, EJAC50E Direct Mount Flanged Diaphragm Seal System
EJXC40A Digital Remote Sensor Flange Mounted Diaphragm Seal System

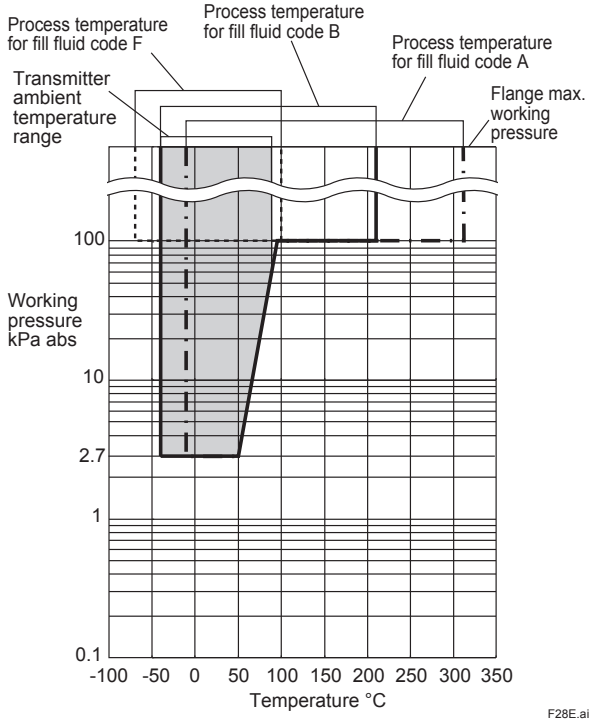


Figure 1e. Working Pressure and Process Temperature (Fill fluid: silicone oil for general and low temperature use)

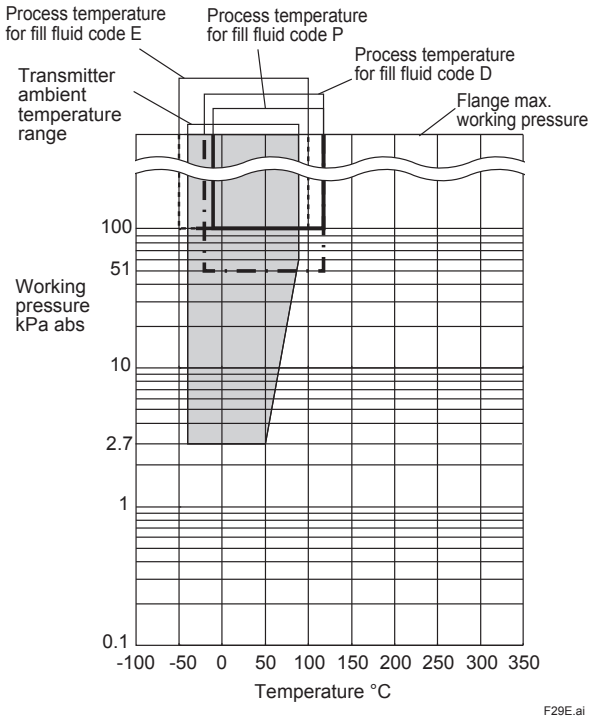


Figure 1f. Working Pressure and Process Temperature (Fill fluid: silicone oil for oil-prohibited use, ethylene glycol and propylene glycol)

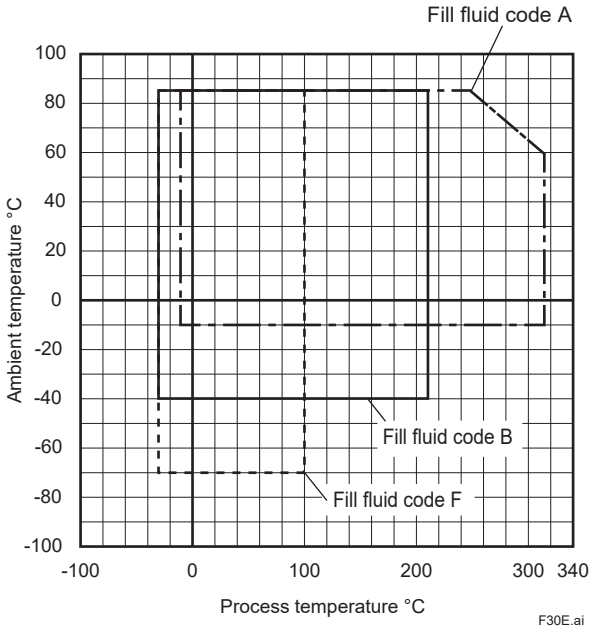


Figure 1g. Ambient Temperature and Process Temperature (Fill fluid: silicone oil for general and low temperature use)

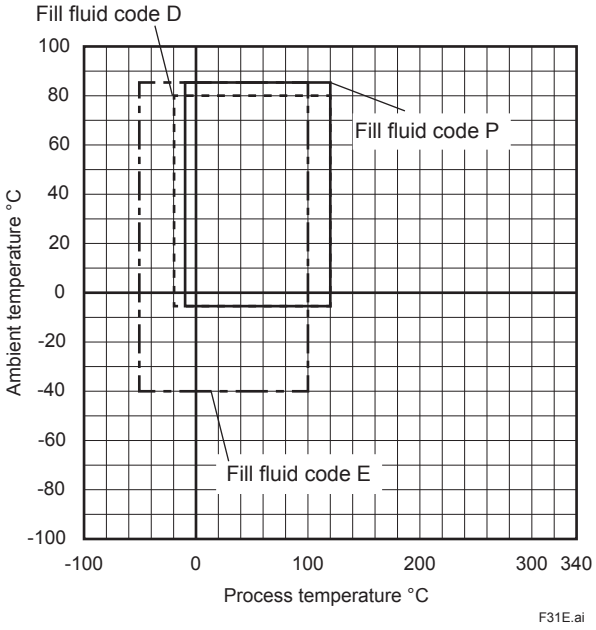


Figure 1h. Ambient Temperature and Process Temperature (Fill fluid: silicone oil for oil-prohibited use, ethylene glycol and propylene glycol)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ **For**
EJXC80A, EJAC80E Remote Mount Hygienic Diaphragm Seal System
EJXC80A, EJAC80E Direct Mount Hygienic Diaphragm Seal System
EJXC50A, EJAC50E Direct Mount Hygienic Diaphragm Seal System
EJXC40A Digital Remote Sensor Hygienic Diaphragm Seal System

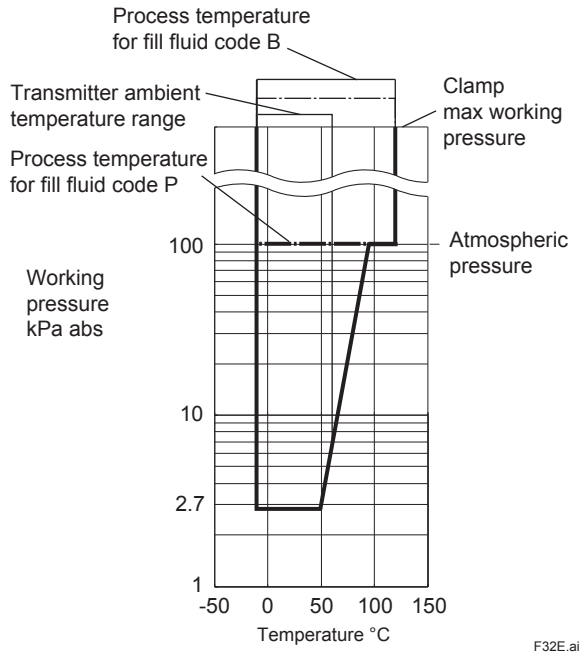


Figure 1i. Working Pressure and Process Temperature (Fill fluid: silicone oil)

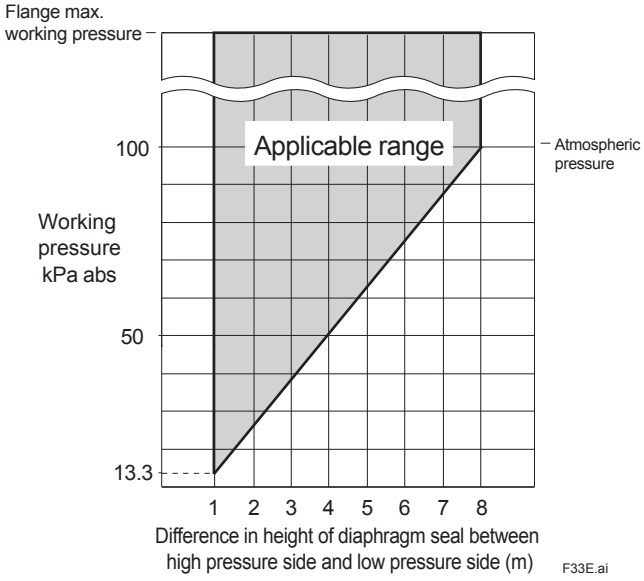


Figure 1j. Working pressure and capillary length

Note: Approximate value at normal temperature when using silicone oil (Code A or B).

Response Time (◇):

■ Remote Mounted Diaphragm Seal System*1

Capsule	Differential pressure transmitter	Gauge pressure transmitter	Absolute pressure transmitter
	M, H, V	A, B	M, A, B
Response time *1	200 ms (approximate value at normal temperature)		

■ Direct Mounted Diaphragm Seal System

Capsule	Differential pressure transmitter	Gauge pressure transmitter
	M, H, V	A, B, C
Response time *2	120 ms (approximate value at normal temperature)	

■ Digital Remote Sensored Diaphragm Seal System

Capsule	Gauge pressure transmitter
	A, B, C
Response time *3	250 ms (approximate value at normal temperature)

*1: When fill fluid code B, and capillary length of 10 m.
*2: When software damping is set to zero and including dead time of 45 ms (nominal)
*3: When software damping is set to zero and including dead time of 90 ms (nominal)
Provided that the amplifier software damping and the static pressure damping of both primary and secondary sensors are set to 0.00s. Dead time is included.

☐FUNCTIONAL SPECIFICATIONS

Damping Time Constant (1st order)

Amplifier damping time constant is adjustable from 0.00 to 100.00 s by software and added to response time.

Note: For BRAIN protocol type for direct mounted diaphragm seal system, when amplifier software damping is set to less than 0.5 s, communication may occasionally be unavailable during the operation, especially while output changes dynamically. The default setting of damping ensures stable communication.

Capillary Fill Fluid Density Compensation (for Remote monted diaphragm seal system, and Output signal code D, E and J)

Compensation of the zero shift by the ambient temperature effect on the capillary tube.

EU RoHS Directive
EN IEC 63000

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

☐NORMAL OPERATING CONDITION (Optional features or approval codes may affect limits.)

Ambient and Process Temperature Limits

See table 1, 2, 3 and following table

Model	Ambient temperature limits with LCD Display type
Remote mount	−30 to 60°C (−22 to 140°F)
Direct mount	−30 to 80°C (−22 to 176°F)

Working Pressure Limits

See table 1, 2, 3
For atmospheric pressure or below, see figure 1a to 1g

☐PHYSICAL SPECIFICATIONS

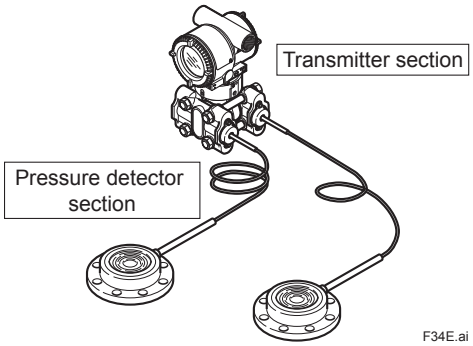
For the details of transmitter part, please refer to each transmitter's General Specifications sheet.

Wetted Parts Materials

Wetted Parts Materials
Diaphragm and other wetted parts;

Refer to "MODEL AND SUFFIX CODES."

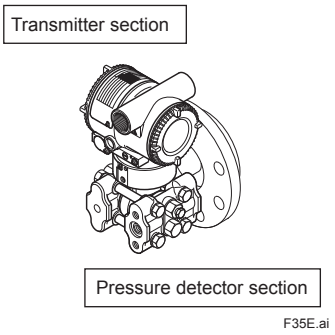
■ EJXC80A, EJAC80E, EJXC81A, EJAC81E Remote Mount Diaphragm Seal System



- Transmitter:2.8 kg (6.2 lb)
  Add 1.5 kg (3.3lb) for Amplifier housing code 2.
  (EJX110A, EJX430A, EJA110E, EJA430E without integral indicator and mounting bracket.)
- Flush type (C80FW):6.7 kg (14.8 lb)
  (3-inch ANSI Class150 flange, capillary length 5 m)
- Extended type (C80FE):9.5 kg (21 lb)
  (4-inch ANSI Class150 flange, extension length (X2)=100 mm, capillary length 5 m)
- Hygienic mounted flush type (C70SW):2.2 kg (4.9 lb)
  (ISO101.6 Clamp, capillary length 5 m)
- Hygienic mounted extended type (C70SE):4.3 kg (9.5 lb) (SO101.6 Clamp, extension length (X2)=52 mm, capillary length 5 m)

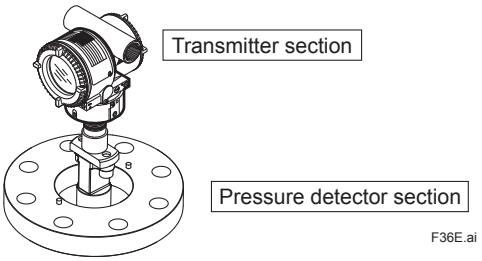
Note) above indicated weight is for a high pressure side or a low pressure side

■ EJXC80A, EJAC80E Direct Mount Diaphragm Seal System



- Transmitter:2.8 kg (6.2 lb)
  Add 1.5 kg (3.3lb) for Amplifier housing code 2.
  (EJX110A, EJX430A, EJA110E, EJA430E without integral indicator and mounting bracket.)
- Flush type (C20FW):.5.5 kg (12.2 lb)
  (3-inch ANSI Class150 flange)
- Extended type (C80FE):10 kg (22.1 lb)
  (4-inch ANSI Class150 flange, extension length (X2)=100 mm)
- Hygienic flush type (C30SW):1.3 kg (2.9 lb)
  (ISO101.6 Clamp)
- Hygienic extended type (C30SE):4.4 kg (9.7 lb)
  (ISO101.6 Clamp, extension length (X2)=52 mm)

■ EJXC50A, EJAC50E Direct Mount Diaphragm Seal System EJXC40A Digital Remote Sensor Diaphragm Seal System



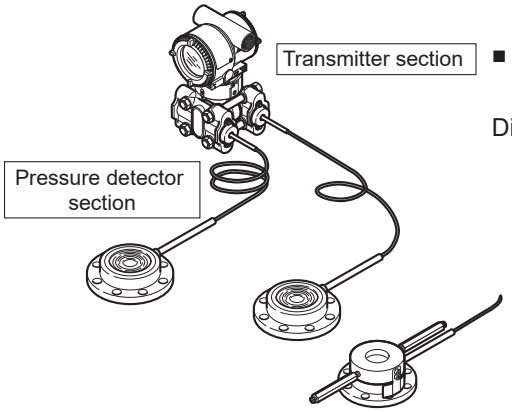
- Transmitter:1.3 kg (2.9 lb)
  (EJX530A, EJA530E without integral indicator and mounting bracket.)
- Flange mounted flush type (C20FW):5.5 kg (12.2 lb)
  (3-inch ANSI Class150 flange)
- Flange mounted extension type (C20FE):10 kg (22.1 lb)
  (4-inch ANSI Class150 flange, extension length (X2)=100 mm
- Hygienic flush type (C30SW):1.3 kg (2.9 lb)
  (ISO101.6 Clamp)
- Hygienic extended type (C30SE):4.4 kg (9.7 lb)
  (ISO101.6 Clamp, extension length (X2)=52 mm)

Note) In case of DRS, above indicated weight is for a high pressure side (primary) or a low pressure side (secondary) transmitter

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

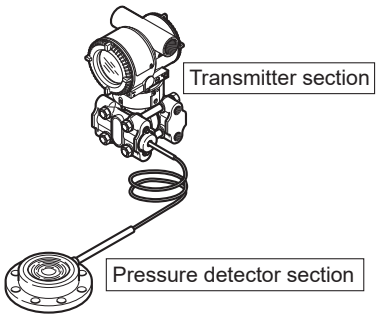
☐MODEL AND SUFFIX CODES

The model codes of Diaphragm Seal System consist of a diaphragm seal system, a transmitter part and a diaphragm seal (s) part. Various kinds of products can be realized by combining a transmitter with diaphragm seal (s)
This sheet describes the codes of the diaphragm seal system and the diaphragm seal part. For the codes of the transmitter part, please refer to the General Specifications of each applicable transmitter.



■ Differential Pressure Diaphragm Seal System
(High and low pressure remote seals)

Diaphragm Seal System
- Differential pressure transmitter
- Remote Mounted Diaphragm Seal (High pressure side)
- Remote Mounted Diaphragm Seal (Low pressure side)
- Flushing connection ring (High pressure side)*1
- Flushing connection ring (Low pressure side)*1

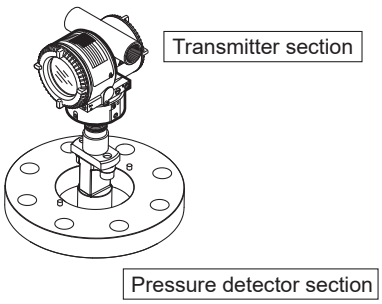


■ Differential Pressure Diaphragm Seal System
(Single pressure remote seals)

Diaphragm Seal System
- Differential pressure transmitter
- Remote Mounted Diaphragm Seal (High pressure side)
- Flushing connection ring (High pressure side)*1

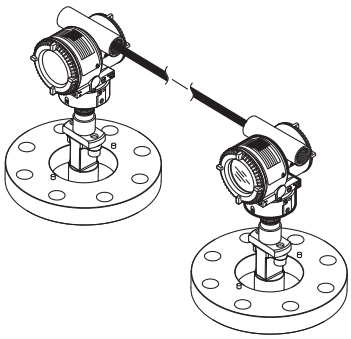
■ Gauge/Absolute Diaphragm Seal System

Diaphragm Seal System
- Gauge/Absolute pressure transmitter
- Remote Mounted Diaphragm Seal (High pressure side)
- Flushing connection ring (High pressure side)*1



■ Direct Mounted Diaphragm Seal System

Diaphragm Seal System
- Gauge pressure transmitter
- Direct Mounted Diaphragm Seal
- Flushing connection ring*1



■ Digital Remote Sensored Diaphragm Seal System

Diaphragm Seal System
- Gauge pressure transmitter (High pressure side (Primary))
- Gauge pressure transmitter (Low pressure side (Secondary))
- Direct Mounted Diaphragm Seal (High pressure side)
- Direct Mounted Diaphragm Seal (Low pressure side)
- Flushing connection ring (High pressure side)*1
- Flushing connection ring (Low pressure side)*1

*1: Specify when a flushing connection ring is required.

F37E.ai

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Transmitter	Model	GS No.
Differential pressure transmitter	EJX110A	GS 01C25B01-01EN
	EJA110E	GS 01C31B01-01EN
Gauge pressure transmitter	EJX430A	GS 01C25E01-01EN
	EJA430E	GS 01C31E01-01EN
	EJX530A	GS 01C25F01-01EN
	EJA530E	GS 01C31F01-01EN
Absolute pressure transmitter	EJX310A	GS 01C25D01-01EN
	EJA310E	GS 01C31D01-01EN
Digital remote sensor	EJXC40A	GS 01C25W05-01EN

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

INDEX

1. Diaphragm Seal System 25

1.1 Diaphragm Seal System 25

1.2 Absolute Pressure Diaphragm Seal System 26

1.3 Direct Mounted Diaphragm Seal System 26

1.4 Digital Remote Sensored Diaphragm Seal System 27

2. Remote Mount Flanged Diaphragm Seal 28

2.1 3-inch (80 mm) / 2-inch (50 mm) / Raised face (RF), Flush type For general use, Capillary Connection Style: Side of diaphragm seal unit 28

2.2 3-inch (80 mm) / 2-inch (50 mm) Raised face (RF), Flush type for general use, Capillary Connection Style: Back of diaphragm seal unit 31

2.3 3-inch (80 mm) / 2-inch (50 mm) Ring type joint (RJ), Flush type for general use, Capillary Connection Style: Side of diaphragm seal unit 33

2.4 3-inch (80 mm) / 2-inch (50 mm) Raised face (RF), Flush type High vacuum / High temp. and high vacuum use Capillary Connection Style: Side of diaphragm seal unit 35

2.5 1 1/2-inch (40 mm) Raised face (RF), Flush type for general use, Capillary Connection Style: Side of diaphragm seal unit 37

2.6 1 1/2-inch (40 mm) Raised face (RF), Flush type High vacuum / High temp. and high vacuum use Capillary Connection Style: Side of diaphragm seal unit 39

3. Remote Mount Flanged Diaphragm Seal (Extended type) 41

3.1 4-inch (100 mm) / 3-inch (80 mm) Raised face (RF), Extended type for general use, Capillary Connection Style: Back of diaphragm seal unit 41

3.2 4-inch (100 mm) / 3-inch (80 mm) Raised face (RF) Extended type High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit 44

4. Remote Mount Flanged Diaphragm Seal (Inner Diaphragm type) 47

4.1 1/2-inch (15 mm) / 3/4-inch (20 mm) 1-inch (25 mm) Adapter connection type, Raised face (RF) for general use, Capillary Connection Style: Back of diaphragm seal unit 47

4.2 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Adapter connection type, Ring type joint (RJ) for general use, Capillary Connection Style: Back of diaphragm seal unit 50

4.3 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Flange connection type, Raised face (RF) for general use, Capillary Connection Style: Back of diaphragm seal unit 52

4.4 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Flange connection type, Ring type joint (RJ) for general use, Capillary Connection Style: Back of diaphragm seal unit 54

4.5 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Adapter connection type, Raised face (RF) High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit 56

4.6 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Adapter connection type, Ring type joint (RJ) High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit 58

4.7 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Flange connection type, Raised face (RF) High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit 60

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

4.8 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Flange connection type, Ring type joint (RJ) High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit....62

5. Direct Mount Flanged Diaphragm Seal (Flush type)....64

5.1 3-inch (80 mm) / 2-inch (50 mm) Raised face (RF)....64

5.2 1 1/2-inch (40 mm) Raised face (RF)....66

6. Direct Mount Flanged Diaphragm Seal (Extended type)....68

6.1 4-inch (100 mm) / 3-inch (80 mm) Raised face (RF)....68

7. Remote mount Hygienic Diaphragm Seal....71

7.1 ISO101.6 / ISO76.1 Clamp Flush type....71

7.2 ISO51Clamp Flush type....73

7.3 ISO101.6 / ISO76.1 Clamp type....75

8. Direct Mount Hygienic Diaphragm Seal....77

8.1 ISO101.6 / ISO76.1 Clamp Flush type....77

8.2 ISO51 Clamp Flush type....79

8.3 ISO101.6 / ISO76.1 Clamp Extended type....81

8.4 ISO51 Clamp Extended type....83

9. Flushing Connection Ring....85

10. Tank Spud....87

11. OPTIONAL SPECIFICATIONS....88

12. PERFORMANCE SPECIFICATIONS....93

12.1 EJXC80A Diaphragm Seal System....93

12.2 EJXC80A Direct Mounted Diaphragm Seal System....94

12.3 EJXC50A Performance specifications....94

12.4 EJXC40A Performance specifications....94

12.5 EJAC80E Diaphragm Seal System Performance specifications....95

12.6 EJAC80E Direct Mounted Diaphragm Seal System Performance specifications....96

12.7 EJAC50E Performance specifications....96

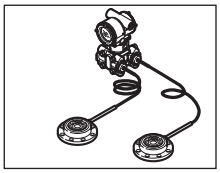
13. Capillary length limitation....97

Applicable Products....128

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

1. Diaphragm Seal System

1.1 Diaphragm Seal System



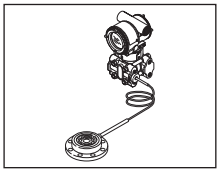
F38E.ai

Model	Suffix Codes	Description
EJXC80A **EJAC80E**	.....	Diaphragm Seal System*2
Measurement type	**-D**	Differential Pressure
	-G	Gauge Pressure
High Pressure Side Style	**8**	Remote mount flanged diaphragm seal
	7	Remote mount hygienic diaphragm seal
	2	Direct mount flanged diaphragm seal
	3	Direct mount hygienic diaphragm seal
	0	None
Low Pressure Side Style	**8**	Remote mount flanged diaphragm seal
	7	Remote mount hygienic diaphragm seal
	0	None
Measurement Span (capsule)	□	Select from measurement span (capsule) codes of the transmitter. (Differential pressure: M, H, or V Gauge pressure: A or B)
Process Connection High-side	**1**	With Rc1/4 female process connector
	2	With Rc1/2 female process connector
	3	With 1/4NPT female process connector
	4	With 1/2NPT female process connector
	W	With Flush type seal
	E	With Extended type seal
	A	With inner diaphragm seal (adapter connection)
	D	With inner diaphragm seal (flange connection)
	N	None
Wetted parts High-side		
High-side Process connector	**C**	Process connector material (ASTM CF-8M*1)
High-side Diaphragm seal	□	Select from diaphragm material codes of diaphragm seal. (Diaphragm material codes: S, V, H, J, T, U, M, or K)
without process connector, and Diaphragm seal	**N**	None
Process Connection Low-side	**1**	With Rc1/4 female process connector
	2	With Rc1/2 female process connector
	3	With 1/4NPT female process connector
	4	With 1/2NPT female process connector
	W	With Flush type seal
	E	With Extended type seal
	A	With inner diaphragm seal (adapter connection)
	D	With inner diaphragm seal (flange connection)
	N	None
Wetted parts Low-side		
Low-side Process connector	**C**	Process connector material (ASTM CF-8M*1)
Low-side Diaphragm seal	□	Select from diaphragm material codes of diaphragm seal. (Diaphragm material codes: S, V, H, J, T, U, M, or K)
without process connector, and Diaphragm seal	**N**	None * In case of Gauge pressure transmitter, It must be selected (Low-side: open to atmosphere)
Fill fluid	□	Refer to table 1
Accessory High-side	**-J**	Bolts: ASTM-B7 carbon steel for Process connector
	-G	Bolts: 316L SST for Process connector
	-C	Bolts: ASTM grade660 SST for Process connector
	-1	With C10FR Flushing Connection Ring
	-N	None
Accessory Low-side	**J**	Bolts: ASTM-B7 carbon steel for Process connector
	G	Bolts: 316L SST for Process connector
	C	Bolts: ASTM grade660 SST for Process connector
	1	With C10FR Flushing Connection Ring
	N	None

*1: Cast version of 316 SST. Equivalent to SCS14A.
*2: See subsection “Applicable Products” .

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

1.2 Absolute Pressure Diaphragm Seal System

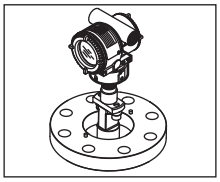


F39E.ai

Model	Suffix Codes	Description
EJXC81A **EJAC81E**	.....	Absolute pressure diaphragm seal system*1
Measurement type	**-A**.....	Absolute Pressure
Style	**8**	Remote seal flanged diaphragm seal
--------	**0**	None
Measurement Span (capsule)	□	Select from measurement span (capsule) codes of the transmitter. (M, A or B)
Process Connection	**W**.....	With Flush type seal
	E.....	With Extended type seal
	A.....	With inner diaphragm seal (adapter connection)
	D.....	With inner diaphragm seal (flange connection)
Wetted parts	□	Select from diaphragm material codes of diaphragm seal. (Diaphragm material codes: S, H, or T)
--------	**N**.....	None
--------	**N**.....	None
Fill fluid	□	Refer to Table 2
Accessory	**-1**	With C10FR flushing connection ring
	-N.....	None
--------	**N**.....	None

*1: See subsection “Applicable Products” .

1.3 Direct Mounted Diaphragm Seal System



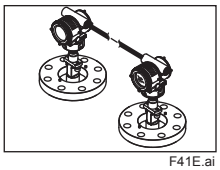
F40E.ai

Model	Suffix Codes	Description
EJXC50A **EJAC50E**	.....	Direct mounted diaphragm seal system*1
Measurement type	**-G**	Gauge Pressure
Style	**5**	Direct mount flanged diaphragm seal
	6	Direct mount hygienic diaphragm seal
--------	**0**	None
Measurement Span (capsule)	□	Select from measurement span (capsule) codes of the transmitter. (A, B or C)
Process Connection	**W**.....	With Flush type seal
	E.....	With Extended type seal
Wetted parts	□	Select from diaphragm material codes of diaphragm seal. (Diaphragm material codes: S, V, H, J, T, U, M, or K)
--------	**N**.....	None
--------	**N**.....	None
Fill fluid	□	Refer to Table 3
Accessory	**-1**	With C10FR flushing connection ring
	-N.....	None
--------	**N**.....	None

*1: See subsection “Applicable Products” .

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

1.4 Digital Remote Sensored Diaphragm Seal System


F41E.ai

Model	Suffix Codes	Description
EJXC40A	.....	Digital remote sensored diaphragm seal system*4
Measurement type	**-D**	Differential Pressure
Primary Style (High pressure side)	**5**	Direct mount flanged diaphragm seal
	6	Direct mount Hygienic diaphragm seal
	S	Screw mount*1
Secondary Style (Low pressure side)	**5**	Direct mount flanged diaphragm seal
	6	Direct mount Hygienic diaphragm seal
	S	Screw mount*1
Digital Remote Sensor	**R**	Digital Remote Sensor
Process Connection for Primary	**W**	With Flush type flanged seal
	E	With Extended type flanged seal
	T	With Screw monted
Wetted parts for Primary		
Primary (High-side) Diaphragm seal	□	Select from diaphragm material codes of diaphragm seal. (Diaphragm material codes: S, V, H, J, T, U, M, or K)
Primary (High-side) Screw mounted	□	Select from GS 01C25W05-01EN (EJXC40A) (Wetted parts material codes: L, or A)
Process Connection for Secondary	**W**	With Flush type flanged seal
	E	With Extended type flanged seal
	T	With Screw monted
Wetted parts for Secondary		
Secondary (Low-side) Diaphragm seal	□	Select from diaphragm material codes of diaphragm seal. (Diaphragm material codes: S, V, H, J, T, U, M, or K)
Secondary (Low-side) Screw mounted	□	Select from GS 01C25W05-01EN (EJXC40A) (Wetted parts material codes: L, or A)
Fill Fluid*2	□	Refer to table 3
Accessory for Primary	**-1**	With C10FR flushing connection ring
	-N	None
Accessory for Secondary	**1**	With C10FR flushing connection ring
	N	None

*1: Applicable when screw mount is specified with either primary or secondary
*2: It must be selected fill fluid from diaphragm seal. When selecting screw mounted either primary or secondary, limits of temperature is following table. and refer to GS 01C25W05-01EN (EJXC40A) for detail specifications.

	Process temperature	Ambient temperature
Silicone	−40 to 120°C (−40 to 248°F)	−40 to 85°C (−40 to 185°F)*3
Fluorinated oil (optional)	−40 to 120°C (−40 to 248°F)	−20 to 80°C (−4 to 176°F)

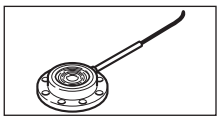
*3: −30 to 80°C (−22 to 176°F) with LCD display
*4: See subsection “Applicable Products” .

Option code /EC□(DRS cable) always must be specified.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

2. Remote Mount Flanged Diaphragm Seal

2.1 3-inch (80 mm) / 2-inch (50 mm) / Raised face (RF), Flush type For general use, Capillary Connection Style: Side of diaphragm seal unit



F42E.ai

Model	Suffix Codes	Description
C80FW	.....	Remote Mount Flanged Diaphragm Seal (Flush type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 2b.
Transmitter connection type	**-S**	for general use
	-C	for compensating capillary type*11
Capillary length*2	**1**	1 m **6** ..... 6 m **B** ..... 11 m
	2	2 m **7** ..... 7 m **C** ..... 12 m
	3	3 m **8** ..... 8 m **D** ..... 13 m
	4	4 m **9** ..... 9 m **E** ..... 14 m
	5	5 m **A** ..... 10 m **F** ..... 15 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*12
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
	R	for process operating temperature correction*3 with PVC sheath
	T	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
	T	With corrosion protection
Process Connection size*4	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Sealing Face	**F**	Raised face (RF)
Gasket contact surface	**1**	Serration (ANSI B16.5) (for ANSI flange with sealing face material S only)
	2	Flat (no serration)
Diaphragm material	**S**	316L SST **M** ..... Monel
	H	Hastelloy C-276*8 **K** ..... Nickel
	T	Tantalum*11 **V** ..... 316L SST
	U	Titanium (Thickness: 0.0055 inch (0.14 mm))
		J ..... Hastelloy C-276*8*9 (Thickness: 0.006 inch (0.15 mm))
Sealing face material	**S**	316L SST **M** ..... Monel
	H	Hastelloy C-276*8 **K** ..... Nickel
	T	Tantalum
	U	Titanium
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)*9
	6	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*6
	P	With platinum plate*7
	N	None
--------	**N**	Always N
Capillary connection	**A**	Side of diaphragm seal unit
Flange size*4	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
	D	DIN

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Flange pressure rating	**1**	class150	**A**.....	10K	**H**.....	PN10/16
	2	class300	**B**.....	20K	**K**.....	PN25/40
	4	class600	**C**.....	30K	**L**.....	PN64
	5	class900 *9	**D**.....	40K		
	6	class1500 *9	**E**.....	63K		
Flange type	**S**	for general use				
Flange material	**A**.....	JIS S25C	**C**.....	316 SST*5		
	B.....	304 SST*10	**S**.....	316L SST*5		
Extended outside diameter	**-0**	None				
Extended length	**0**	None				
--------	**N**.....	Always N				

Table 2a. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH	[H] Hastelloy C-276*8#	[H] Hastelloy C-276*8#
	TT	[T] Tantalum	[T] Tantalum
	UU	[U] Titanium	[U] Titanium
	MM	[M] Monel	[M] Monel
	KK	[K] Nickel	[K] Nickel
	VS.....	[V] 316L (Thickness: 0.0055 inch (0.14 mm))	[S] 316L SST
	JH.....	[J] Hastelloy C-276*8# (Thickness: 0.006 inch (0.15 mm))	[H] Hastelloy C-276*8#

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Applicable for option code /R (Operating temperature correction). In case of "without PVC sheath", must be select code V.
*4: Not applicable to different size between Process connection size and Flange size.
*5: Forged version of the material may be used.
*6: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*7: Applicable for Diaphragm material code T.
*8: Hastelloy C-276 or N10276.
*9: Not applicable for process connection size code 2.
*10: Not applicable for flange standards code D.
*11: In case of compensation capillary type, must be select code "-C" on seal system location code "-L".
*12: Applicable for process connection size code "2" with capillary length more than 6 m.

The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 2b. Process temperature and Ambient temperature

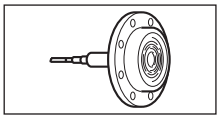
	Code	Process temperature*13	Ambient temperature*16	Working pressure	Specific gravity*17
Silicone oil*14 (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil*14 (general use)	B	−30 to 210°C (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil*15 (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*13: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*14: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*15: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*16: This ambient temperature is the transmitter ambient temperature.
*17: Approximate values at a temperature of 25°C (77°F)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

2.2 3-inch (80 mm) / 2-inch (50 mm) Raised face (RF), Flush type for general use, Capillary Connection Style: Back of diaphragm seal unit



F43E.ai

Model	Suffix Codes	Description
C80FW	.....	Remote Mount Flanged Diaphragm Seal (Flush type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 2d.
Transmitter connection type	**-S**	for general use for compensating capillary type*12
Capillary length*2	**1**	1 m **6** ..... 6 m **B** ..... 11 m
	2	2 m **7** ..... 7 m **C** ..... 12 m
	3	3 m **8** ..... 8 m **D** ..... 13 m
	4	4 m **9** ..... 9 m **E** ..... 14 m
	5	5 m **A** ..... 10 m **F** ..... 15 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*13
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
	R	for process operating temperature correction*3 with PVC sheath
	T	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use (Length:200 mm)
	C	Short type (Length:100 mm)
Process Connection size*4	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Sealing Face	**F**	Raised face (RF)
Gasket contact surface	**1**	Serration (ANSI B16.5) (for ANSI flange with sealing face material S only)
	2	Flat (no serration)
Diaphragm material	**S**	316L SST
Sealing face material	**S**	316L SST*6
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)*11
	6	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*6
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size*4	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
Flange pressure rating	**1**	class150 **A** ..... 10K **E** 63K
	2	class300 **B** 20K
	4	class600 **D** 40K
Flange type	**S**	for general use
Flange material	**B**	304 SST*5
	C	316 SST*5
Extended outside diameter	**-0**	None
Extended length	**0**	None
--------	**N**	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 2c. Diaphragm material and Sealing face material

Wetted parts material[*1]		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Applicable for optional code /R (Operating temperature correction). In case of "without PVC sheath", must be select code V.
*4: Not applicable to different size between Process connection size and Flange size.
*5: Forged version of the material may be used.
*6: Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.

Table 2d. Process temperature and Ambient temperature

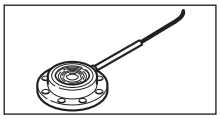
	Code	**Process temperature**[*7]	**Ambient temperature**[*9]	**Working pressure**	**Specific gravity**[*10]
Silicone oil (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil (general use)	B	−30 to 210°C (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil[*8] (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*7: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*8: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*9: This ambient temperature is the transmitter ambient temperature.
*10: Approximate values at a temperature of 25°C (77°F)
*11: Not applicable for process connection size code 2
*12: In case of compensation capillary type, must be select code "-C" on seal system location code "-L".
*13: Applicable for process connection size code "2" with capillary length more than 6 m.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

2.3 3-inch (80 mm) / 2-inch (50 mm) Ring type joint (RJ), Flush type for general use, Capillary Connection Style: Side of diaphragm seal unit



F44E.ai

Model	Suffix Codes	Description
C80FW	.....	Remote Mount Flanged Diaphragm Seal (Flush type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 2f.
Transmitter connection type	**-S**	for general use
Capillary length*2	**1**	1 m **6** ..... 6 m **B** ..... 11 m
	2	2 m **7** ..... 7 m **C** ..... 12 m
	3	3 m **8** ..... 8 m **D** ..... 13 m
	4	4 m **9** ..... 9 m **E** ..... 14 m
	5	5 m **A** ..... 10 m **F** ..... 15 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*13
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
	R	for process operating temperature correction*3 with PVC sheath
	T	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Process Connection size*4	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Sealing Face	**J**	Ring type joint (RJ)
Gasket contact surface	**2**	Flat (no serration)
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*7
Sealing face material	**S**	316L SST
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)*12
	6	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*6
	N	None
--------	**N**	Always N
Capillary connection	**A**	Side of diaphragm seal unit
Flange size*4	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Flange standards	**A**	ANSI
	P	JPI
Flange pressure rating	**2**	class300
	4	class600
	5	class900
	6	class1500
Flange type	**J**	for Ring type joint (RJ)
Flange material	**A**	JIS S25C
	B	304 SST*5
	C	316 SST*5
	S	316L SST*5
Extended outside diameter	**-0**	None
Extended length	**0**	None
--------	**N**	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 2e. Diaphragm material and Sealing face material

Wetted parts material[*1]		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276[*7]#	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Applicable for option code /R (Operating temperature correction). In case of "without PVC sheath", must be select code V.
*4: Not applicable to different size between Process connection size and Flange size.
*5: Forged version of the material may be used.
*6: Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*7: Hastelloy C-276 or N10276.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 2f. Process temperature and Ambient temperature

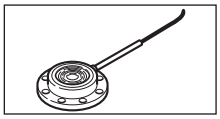
	Code	**Process temperature**[*8]	**Ambient temperature**[*10]	**Working pressure**	**Specific gravity**[*11]
Silicone oil (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil (general use)	B	−30 to 210°C (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil[*9] (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*8: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*9: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*10: This ambient temperature is the transmitter ambient temperature.
*11: Approximate values at a temperature of 25°C (77°F)
*12: Not applicable for process connection size code 2
*13: Applicable for process connection size code "2" with capillary length more than 6 m

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

2.4 3-inch (80 mm) / 2-inch (50 mm) Raised face (RF), Flush type High vacuum / High temp. and high vacuum use Capillary Connection Style: Side of diaphragm seal unit



F45E.ai

Model	Suffix Codes	Description
C80FW	.....	Remote Mount Flanged Diaphragm Seal (Flush type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 2h.
Transmitter connection type	**-S**	for general use
Capillary length*2	**1**	1 m **6** ..... 6 m
	2	2 m **7** ..... 7 m
	3	3 m **8** ..... 8 m
	4	4 m **9** ..... 9 m
	5	5 m **A** ..... 10 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
Capillary Style		[Usage] [Sheath style]
	1	High temp. and high vacuum use with PVC sheath
	2	without PVC sheath
	3	with PVC sheath red-color
	5	High vacuum use with PVC sheath
	6	without PVC sheath
	7	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
	T	With corrosion protection
Process Connection size*3	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Sealing Face	**F**	Raised face (RF)
Gasket contact surface	**1**	Serration (ANSI B16.5) (for ANSI flange with sealing face material S only)
	2	Flat (no serration)
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*7
	T	Tantalum*6
Sealing face material	**S**	316L SST
	H	Hastelloy C-276*7
	T	Tantalum
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)*14
	6	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*5
	N	None
--------	**N**	Always N
Capillary connection	**A**	Side of diaphragm seal unit
Flange size*3	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
	D	DIN

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Flange pressure rating	**1**	class150	**A**.....	10K	**H**.....	PN10/16
	2	class300	**B**.....	20K	**K**.....	PN25/40
	4	class600	**C**.....	30K	**L**.....	PN64
	5	class900 *8	**D**.....	40K		
	6	class1500 *8	**E**.....	63K		
Flange type	**S**	for general use				
Flange material	**A**.....	JIS S25C				
	B.....	304 SST*4				
	C.....	316 SST*4				
	S	316L SST*4*15				
Extended outside diameter	**-0**	None				
Extended length	**0**	None				
--------	**N**.....	Always N				

Table 2g. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH	[H] Hastelloy C-276*7#	[H] Hastelloy C-276*7#
	TT	[T] Tantalum	[T] Tantalum

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Not applicable to different size between Process connection size and Flange size.
*4: Forged version of the material may be used.
*5: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*6: Not applicable for seal fill fluid code 2.
*7: Hastelloy C-276 or N10276.
*8: Not applicable for process connection size code 2.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 2h. Process temperature and Ambient temperature

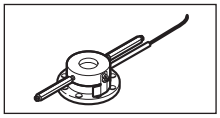
	Code	**Process temperature***9	**Ambient temperature***11	**Working pressure**	**Specific gravity***13
Silicone oil*10 (high temp. and high vacuum use)	1	−10 to 250°C (14 to 482°F)	−10 to 60°C*12 (14 to 140°F)	0.013 kPa abs (0.0019 psi abs) to flange rating pressure	1.07
Silicone oil (high temp. and high vacuum use)	2	10 to 315°C (50 to 599°F)	10 to 60°C*12 (50 to 140°F)		1.09
Silicone oil*16 (high vacuum use)	4	−10 to 100°C (14 to 212°F)	−10 to 60°C*12 (14 to 140°F)		1.07

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*9: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*10: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*11: This ambient temperature is the transmitter ambient temperature.
*12: In case of process connection size code 2, ambient temperature limit is up to 50°C (122°F).
*13: Approximate values at a temperature of 25°C (77°F)
*14: Not applicable for process connection size code 2.
*15: Not applicable for flange standards code D.
*16: When selecting fill fluid code 4, take into consideration the characteristics of the process to be used. Fill fluid code 1 is recommended especially when using a transmitter in a harsh environment such as a process in which a vacuum state is maintained continuously (even outside of inspections) or a hydrogen generation process.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

2.5 1 1/2-inch (40 mm) Raised face (RF), Flush type for general use, Capillary Connection Style: Side of diaphragm seal unit



F46E.ai

Model	Suffix Codes	Description
C80FW	.....	Remote Mount Flanged Diaphragm Seal (Flush type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 2j.
Transmitter connection type	**-S**	for general use
	-C	for compensating capillary type*12
Capillary length*2	**1**	1 m **6** ..... 6 m **B** ..... 11 m
	2	2 m **7** ..... 7 m **C** ..... 12 m
	3	3 m **8** ..... 8 m **D** ..... 13 m
	4	4 m **9** ..... 9 m **E** ..... 14 m
	5	5 m **A** ..... 10 m **F** ..... 15 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*13
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
	R	for process operating temperature correction*3 with PVC sheath
	T	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Process Connection size	**-8**	40A (1 1/2B)
Sealing Face	**F**	Raised face (RF)
Gasket contact surface	**2**	Flat (no serration)
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*6
Sealing face material	**S**	316L SST
	H	Hastelloy C-276*6
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*5
	N	None
--------	**N**	Always N
Capillary connection	**A**	Side of diaphragm seal unit
Flange size	**-8**	40A (1 1/2B)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
Flange pressure rating	**1**	class150 **A** ..... 10K **D** 40K
	2	class300 **B** ..... 20K **E** 63K
	4	class600 **C** 30K
Flange type	**S**	for general use
Flange material	**A**	JIS S25C
	B	304 SST*4
	C	316 SST*4
	S	316L SST*4
Extended outside diameter	**-0**	None
Extended length	**0**	None
--------	**N**	Always N

Note) 40A (1 1/2B) is a reducer type. C10FR (Flushing connection ring) is always necessary to be specified with this size.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 2i. Diaphragm material and Sealing face material

Wetted parts material[*1]		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH	[H] Hastelloy C-276[*6]#	[H] Hastelloy C-276[*6]#

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Applicable for option code /R (Operating temperature correction). In case of "without PVC sheath", must be select code V.
*4: Forged version of the material may be used.
*5: Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*6: Hastelloy C-276 or N10276.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 2j. Process temperature and Ambient temperature

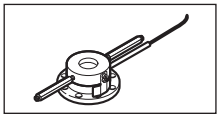
	Code	**Process temperature**[*7]	**Ambient temperature**[*9]	**Working pressure**	**Specific gravity**[*10]
Silicone oil[*11] (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil (general use)	B	−30 to 210°C (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil[*8] (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*7: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*8: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*9: This ambient temperature is the transmitter ambient temperature.
*10: Approximate values at a temperature of 25°C (77°F)
*11: For the process where the process temperature exceeds 250°C, specify gasket usage code –H of C10FR flushing connection ring.
*12: In case of compensation capillary type, must be select code "-C" on seal system location code "-L".
*13 : Applicable for capillary length more than 6 m.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

2.6 1 1/2-inch (40 mm) Raised face (RF), Flush type High vacuum / High temp. and high vacuum use Capillary Connection Style: Side of diaphragm seal unit



F47E.ai

Model	Suffix Codes	Description
C80FW	.....	Remote Mount Flanged Diaphragm Seal (Flush type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 2l.
Transmitter connection type	**-S**	for general use
Capillary length*2	**1**	1 m **6** ..... 6 m
	2	2 m **7** ..... 7 m
	3	3 m **8** ..... 8 m
	4	4 m **9** ..... 9 m
	5	5 m **A** ..... 10 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
Capillary Style		[Usage] [Sheath style]
	1	High temp. and high vacuum use — with PVC sheath
	2	without PVC sheath
	3	with PVC sheath red-color
	5	High vacuum use — with PVC sheath
	6	without PVC sheath
	7	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Process Connection size	**-8**	40A (1 1/2B)
Sealing Face	**F**	Raised face (RF)
Gasket contact surface	**2**	Flat (no serration)
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*5
Sealing face material	**S**	316L SST
	H	Hastelloy C-276*5
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*4
	N	None
--------	**N**	Always N
Capillary connection	**A**	Side of diaphragm seal unit
Flange size	**-8**	40A (1 1/2B)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
Flange pressure rating	**1**	class150 **A** ..... 10K **D** 40K
	2	class300 **B** ..... 20K **E** 63K
	4	class600 **C** 30K
Flange type	**S**	for general use
Flange material	**A**	JIS S25C
	B	304 SST*3
	C	316 SST*3
	S	316L SST*3
Extended outside diameter	**-0**	None
Extended length	**0**	None
--------	**N**	Always N

Note) 40A (1 1/2B) is a reducer type. C10FR (Flushing connection ring) is always necessary to be specified with this size.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 2k. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH	[H] Hastelloy C-276*5#	[H] Hastelloy C-276*5#

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Forged version of the material may be used.
*4: Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*5: Hastelloy C-276 or N10276.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 2l. Process temperature and Ambient temperature

	Code	**Process temperature***6	**Ambient temperature***7	**Working pressure**	**Specific gravity***8
Silicone oil (high temp. and high vacuum use)	1	−10 to 250°C (14 to 482°F)	−10 to 50°C (14 to 122°F)	0.013 kPa abs (0.0019 psi abs) to flange rating pressure	1.07
Silicone oil*9 (high vacuum use)	4	−10 to 100°C (14 to 212°F)	−10 to 50°C (14 to 122°F)		1.07

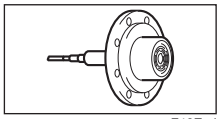
Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*6: See figure 1c, 1d 'Working Pressure and Process Temperature.'
*7: This ambient temperature is the transmitter ambient temperature.
*8: Approximate values at a temperature of 25°C (77°F)
*9: When selecting fill fluid code 4, take into consideration the characteristics of the process to be used. Fill fluid code 1 is recommended especially when using a transmitter in a harsh environment such as a process in which a vacuum state is maintained continuously (even outside of inspections) or a hydrogen generation process.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

3. Remote Mount Flanged Diaphragm Seal (Extended type)

3.1 4-inch (100 mm) / 3-inch (80 mm) Raised face (RF), Extended type for general use, Capillary Connection Style: Back of diaphragm seal unit



F48E.ai

Model	Suffix Codes	Description
C80FE	.....	Remote Mount Flanged Diaphragm Seal (Extended type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 3b.
Transmitter connection type	**-S**	for general use
	-C	for compensating capillary type*12
Capillary length*2*10	**1**	1 m **6** ..... 6 m **B** ..... 11 m
	2	2 m **7** ..... 7 m **C** ..... 12 m
	3	3 m **8** ..... 8 m **D** ..... 13 m
	4	4 m **9** ..... 9 m **E** ..... 14 m
	5	5 m **A** ..... 10 m **F** ..... 15 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*13
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
	R	for process operating temperature correction*3 with PVC sheath
	T	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Process Connection size*4	**-4**	4-inch (100 mm)
	-3	3-inch (80 mm)
Sealing Face	**F**	Raised face (RF)
Gasket contact surface	**1**	Serration (ANSI B16.5) (for ANSI flange with sealing face material C and S)
	2	Flat (no serration)
Diaphragm material	**S**	316L SST **V** ..... 316L SST
	H	Hastelloy C-276*8 (Thickness: 0.0055 inch (0.14 mm))
	T	Tantalum*10 **J** ..... Hastelloy C-276*8*9 (Thickness: 0.006 inch (0.15 mm))
Sealing face material (Pipe and base)	**C**	316 SST
	S	316L SST
	H	Hastelloy C-276*8
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)*9
	6	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*6
	P	With platinum plate*7
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size*4	**-4**	4-inch (100 mm)
	-3	3-inch (80 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
	D	DIN

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Flange pressure rating	**1**	class150	**A**.....	10K	**H**.....	PN10/16
	2	class300	**B**.....	20K	**K**.....	PN25/40
	4	class600	**C**.....	30K		
	5	class900	**D**.....	40K		
	6	class1500				
Flange type	**S**.....	for general use				
Flange material	**A**.....	JIS S25C				
	B.....	304 SST*5				
	C.....	316 SST*5				
	S.....	316L SST*5*11				
Extended outside diameter	**-4**	3.78±0.02 inch (96±0.5 mm)				
	-3	2.8±0.02 inch (71±0.5 mm)				
Extended length	**2**	Length (X2) = 1.97±0.02 inch (50±0.5 mm)				
	4	Length (X2) = 3.94±0.02 inch (100±0.5 mm)				
	6	Length (X2) = 5.91±0.02 inch (150±0.5 mm)				
	8	Length (X2) = 7.87±0.03 inch (200±0.8 mm)				
--------	**N**.....	Always N				

Table 3a. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SC	[S] 316L SST	[C] 316 SST
	SS.....	[S] 316L SST	[S] 316L SST
	HC	[H] Hastelloy C-276*8#	[C] 316 SST
	HS	[H] Hastelloy C-276*8#	[S] 316L SST
	HH	[H] Hastelloy C-276*8#	[H] Hastelloy C-276*8
	TS.....	[T] Tantalum	[S] 316L SST
	VC	[V] 316L SST	[C] 316 SST
		(Thickness: 0.0055 inch (0.14 mm))	
	VS.....	[V] 316L SST	[S] 316L SST
		(Thickness: 0.005 inch (0.14 mm))	
	JC.....	[J] Hastelloy C-276*8*9#	[C] 316 SST
		(Thickness: 0.006 inch (0.15 mm))	
	JS.....	[J] Hastelloy C-276*8*9#	[S] 316L SST
		(Thickness: 0.006 inch (0.15 mm))	
	JH.....	[J] Hastelloy C-276*8*9#	[H] Hastelloy C-276*8
		(Thickness: 0.006 inch (0.15 mm))	

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Applicable for option code /R (Operating temperature correction). In case of "without PVC sheath", must be select code V.
*4: Not applicable to different size between Process connection size and Flange size.
*5: Forged version of the material may be used.
*6: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*7: Applicable for Diaphragm material code T.
*8: Hastelloy C-276 or N10276.
*9: Not applicable for process connection size code 3.
*10: The specified capillary length includes the extension length (X2) and the flange thickness (t).
*11: Not applicable for flange standards code D.
*12: In case of compensation capillary type, must be select code "-C" on seal system location code "-L".
*13: Applicable for process connection size code "3" with capillary length more than 6 m.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 3b. Process temperature and Ambient temperature

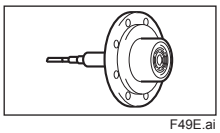
	Code	Process temperature*14	Ambient temperature*17	Working pressure	Specific gravity*18
Silicone oil*15 (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil*15 (general use)	B	−30 to 210°C (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil*16 (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*14: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*15: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*16: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*17: This ambient temperature is the transmitter ambient temperature.
*18: Approximate values at a temperature of 25°C (77°F)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

3.2 4-inch (100 mm) / 3-inch (80 mm) Raised face (RF) Extended type High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit



F49E.ai

Model	Suffix Codes	Description
C80FE	.....	Remote Mount Flanged Diaphragm Seal (Extended type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 3d.
Transmitter connection type	**-S**	for general use
Capillary length*2*8	**1**	1 m **6** ..... 6 m
	2	2 m **7** ..... 7 m
	3	3 m **8** ..... 8 m
	4	4 m **9** ..... 9 m
	5	5 m **A** ..... 10 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
Capillary Style		[Usage] [Sheath style]
	1	High temp. and high vacuum use with PVC sheath
	2	without PVC sheath
	3	with PVC sheath red-color
	5	High vacuum use with PVC sheath
	6	without PVC sheath
	7	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Process Connection size*3	**-4**	4-inch (100 mm)
	-3	3-inch (80 mm)
Sealing Face	**F**	Raised face (RF)
Gasket contact surface	**1**	Serration (ANSI B16.5) (for ANSI flange with sealing face material C and S)
	2	Flat (no serration)
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*7
	T	Tantalum*6
Sealing face material (Pipe and Base)	**C**	316 SST
	S	316L SST
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)*9
	6	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*5
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size*3	**-4**	4-inch (100 mm)
	-3	3-inch (80 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
	D	DIN

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Flange pressure rating	**1**	class150	**A**..... 10K	**H**..... PN10/16	
	2	class300	**B**..... 20K	**K**..... PN25/40	
	4	class600	**C**..... 30K		
	5	class900	**D**..... 40K		
	6	class1500			
Flange type	**S**	for general use			
Flange material	**A**.....	JIS S25C			
	B.....	304 SST*4			
	C.....	316 SST*4			
	S	316L SST*4*9*10			
Extended outside diameter	**-4**	3.78±0.02 inch (96±0.5 mm)			
	-3	2.8±0.02 inch (71±0.5 mm)			
Extended length	**2**	Length (X2) = 1.97±0.02 inch (50±0.5 mm)			
	4	Length (X2) = 3.94±0.02 inch (100±0.5 mm)			
	6	Length (X2) = 5.91±0.02 inch (150±0.5 mm)			
	8	Length (X2) = 7.87±0.03 inch (200±0.8 mm)			
--------	**N**.....	Always N			

Table 3c. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SC	[S] 316L SST	[C] 316 SST
	SS.....	[S] 316L SST	[S] 316L SST
	HC	[H] Hastelloy C-276*7#	[C] 316 SST
	HS	[H] Hastelloy C-276*7#	[S] 316L SST
	TS.....	[T] Tantalum*6	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Not applicable to different size between Process connection size and Flange size.
*4: Forged version of the material may be used.
*5: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*6: Not applicable for seal fill fluid code 2.
*7: Hastelloy C-276 or N10276.
*8: The specified capillary length includes the extension length (X2) and the flange thickness (t).
*9: Not applicable for process connection size code 3.
*10: Not applicable for flange standards code D.

The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 3d. Process temperature and Ambient temperature

	Code	Process temperature*11	Ambient temperature*13	Working pressure	Specific gravity*15
Silicone oil*12 (high temp. and high vacuum use)	1	−10 to 250°C (14 to 482°F)	−10 to 60°C*14 (14 to 140°F)	0.013 kPa abs (0.0019 psi abs) to flange rating pressure	1.07
Silicone oil (high temp. and high vacuum use)	2	10 to 315°C (50 to 599°F)	10 to 60°C*14 (50 to 140°F)		1.09
Silicone oil*16 (high vacuum use)	4	−10 to 100°C (14 to 212°F)	−10 to 60°C*14 (14 to 140°F)		1.07

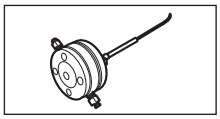
Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*11: See figure 1e, 1f 'Working Pressure and Process Temperature.'
*12: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*13: This ambient temperature is the transmitter ambient temperature.
*14: In case of process connection size code 3, ambient temperature limit is up to 50°C (122°F).
*15: Approximate values at a temperature of 25°C (77°F)
*16: When selecting fill fluid code 4, take into consideration the characteristics of the process to be used. Fill fluid code 1 is recommended especially when using a transmitter in a harsh environment such as a process in which a vacuum state is maintained continuously (even outside of inspections) or a hydrogen generation process.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

4. Remote Mount Flanged Diaphragm Seal (Inner Diaphragm type)

4.1 1/2-inch (15 mm) / 3/4-inch (20 mm) 1-inch (25 mm) Adapter connection type, Raised face (RF) for general use, Capillary Connection Style: Back of diaphragm seal unit



F50E.ai

Model	Suffix Codes	Description
C81FA	.....	Inner Diaphragm, Adapter connection seal (Bundled capillary type)*2
C82FA	.....	Inner Diaphragm, Adapter connection seal (Standard type)
Seal system location	**-H**	Standard type for high pressure side
	-L	Standard type for low pressure side
	-B	Bundled capillary type (1 m separated)*4
Seal fill fluid	□	Refer to table 4b.
Transmitter connection type	**-S**	for general use
Capillary length*5	**1**	1 m*3 **6** ..... 6 m **B** ..... 11 m
	2	2 m **7** ..... 7 m **C** ..... 12 m
	3	3 m **8** ..... 8 m **D** ..... 13 m
	4	4 m **9** ..... 9 m **E** ..... 14 m
	5	5 m **A** ..... 10 m **F** ..... 15 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*15
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Inner Diaphragm Type	**-9**	Inner Diaphragm Type
--------	**S**	Always S
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum*16
Wetted Parts Material (Except for Flange)	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size	**-6**	1/2-inch (15 mm)
	-7	3/4-inch (20 mm)
	-1	1-inch (25 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
Flange pressure rating	**1**	class150 **A** ..... 10K **D** 40K
	2	class300 **B** 20K
	4	class600 **C** 30K
Sealing Face	**F**	Raised face (RF) Flat (no serration)
	G	Raised face (RF) With Serration (ANSI B16.5) (for ANSI flange only)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Flange material (Adapter, Vent plug, Vent screw)	**C**.....	316 SST*6
	S.....	316L SST*6
Flange Usage	**-S**.....	for general use*9
	-P.....	for general use (Gasket material: PTFE Teflon)*10
	-H.....	for high temperature use (Process temperature: 250 to 315°C)*11*12
Vent Plug Style	**S**.....	for general use (with two vent plugs) *13
	L.....	With two long vent plugs*14
	N.....	Without vent plug
--------	**N**.....	Always N

Note: Stud bolts and nuts are attached for the adapter (Material:Stud bolt….B7, NUT….304 SST)
In case of differential transmitter with both side diaphragm seal: 2pcs
In case of differential transmitter with single diaphragm seal or gauge transmitter with diaphragm seal: 1pc

Table 4a. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH.....	[H] Hastelloy C-276*8#	[H] Hastelloy C-276*8#
	TT.....	[T] Tantalum	[T] Tantalum

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Not applicable for gauge transmitter and differential transmitter with single seal type.
*3: In case where capillary length code 1 (1 m), the model code must be selected for C82FA. Not applicable for C81FA.
*4: In case where Model code F81FA is selected, It must be Selected seal system location code B.
*5: Refer to section 12 for limitation of capillary length.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Hastelloy C-276 or N10276.
*9: Gasket material for transmitter side is 316L SST with PTFE Teflon coating.
*10: Applicable for Diaphragm material code T.
*11: When selecting Flange usage code H (for High temperature use), Drain/vent are welded to the flange.
*12: Not applicable for Diaphragm material code T.
*13: Not applicable for Flange usage code H.
*14: Total length: 119 mm (standard: 34 mm); Total length when combining with option code K31 and K35: 130 mm.
*15: Applicable for capillary length more than 6 m.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 4b. Process temperature and Ambient temperature

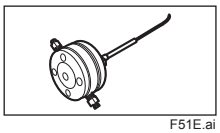
	Code	Process temperature*16	Ambient temperature*19	Working pressure	Specific gravity*20
Silicone oil*17*21 (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil*17 (general use)	B	−30 to 210°C (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil*18 (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*16: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*17: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*18: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*19: This ambient temperature is the transmitter ambient temperature.
*20: Approximate values at a temperature of 25°C (77°F)
*21: For the process where the process temperature exceeds 250°C, specify Flange usage code –H.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

4.2 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Adapter connection type, Ring type joint (RJ) for general use, Capillary Connection Style: Back of diaphragm seal unit



F51E.ai

Model	Suffix Codes	Description
C81FA	.....	Inner Diaphragm, Adapter connection seal (Bundled capillary type)*2
C82FA		Inner Diaphragm, Adapter connection seal (Standard type)
Seal system location	**-H**	Standard type for high pressure side
	-L	Standard type for low pressure side
	-B	Bundled capillary type (1 m separated)*4
Seal fill fluid	□	Refer to table 4d.
Transmitter connection type	**-S**	for general use
Capillary length*5	**1**	1 m*3 **6** ..... 6 m **B** ..... 11 m
	2	2 m **7** ..... 7 m **C** ..... 12 m
	3	3 m **8** ..... 8 m **D** ..... 13 m
	4	4 m **9** ..... 9 m **E** ..... 14 m
	5	5 m **A** ..... 10 m **F** ..... 15 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*15
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Inner Diaphragm Type	**-9**	Inner Diaphragm Type
--------	**S**	Always S
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum*16
Wetted Parts Material (Except for Flange)	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size	**-6**	1/2-inch (15 mm)
	-7	3/4-inch (20 mm)
	-1	1-inch (25 mm)
Flange standards	**A**	ANSI
	P	JPI
Flange pressure rating	**2**	class300
	4	class600
Sealing Face	**J**	Ring type joint (RJ)
Flange material (Adapter, Vent plug, Vent screw)	**C**	316 SST*6
	S	316L SST*6
Flange Usage	**-S**	for general use*9
	-P	for general use (Gasket material: PTFE Teflon)*10
	-H	for high temperature use (Process temperature: 250 to 315°C)*11*12

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Vent Plug Style	**S**	for general use (with two vent plugs) *13
	L	With two long vent plugs*14
	N	Without vent plug
--------	**N**	Always N

Note: Stud bolts and nuts are attached for the adapter (Material:Stud bolt….B7, NUT….304 SST)
In case of differential transmitter with both side diaphragm seal: 2pcs
In case of differential transmitter with single diaphragm seal or gauge transmitter with diaphragm seal: 1pc

Table 4c. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH	[H] Hastelloy C-276*8#	[H] Hastelloy C-276*8#
	TT	[T] Tantalum	[T] Tantalum

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Not applicable for gauge transmitter and differential transmitter with single seal type.
*3: In case where capillary length code 1 (1 m), the model code must be selected for C82FA. Not applicable for C81FA.
*4: In case where Model code F81FA is selected, It must be Selected seal system location code B.
*5: Refer to section 12 for limitation of capillary length.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Hastelloy C-276 or N10276.
*9: Gasket material for transmitter side is 316L SST with PTFE Teflon coating.
*10: Applicable for Diaphragm material code T.
*11: When selecting Flange usage code H (for High temperature use), Drain/vent are welded to the flange.
*12: Not applicable for Diaphragm material code T.
*13: Not applicable for Flange usage code H.
*14: Total length: 119 mm (standard: 34 mm); Total length when combining with option code K31 and K35: 130 mm.
*15: Applicable for capillary length more than 6 m.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 4d. Process temperature and Ambient temperature

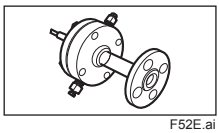
	Code	**Process temperature***16	**Ambient temperature***19	**Working pressure**	**Specific gravity***20
Silicone oil*17*21 (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil*17 (general use)	B	−30 to 210°C (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil*18 (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*16: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*17: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*18: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*19: This ambient temperature is the transmitter ambient temperature.
*20: Approximate values at a temperature of 25°C (77°F)
*21: For the process where the process temperature exceeds 250°C, specify Flange usage code –H.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

4.3 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Flange connection type, Raised face (RF) for general use, Capillary Connection Style: Back of diaphragm seal unit


F52E.ai

Model	Suffix Codes	Description
C81FD	.....	Inner Diaphragm, Flange connection seal (Bundled capillary type)*2
C82FD	.....	Inner Diaphragm, Flange connection seal (Standard type)
Seal system location	**-H**	Standard type for high pressure side
	-L	Standard type for low pressure side
	-B	Bundled capillary type (1 m separated)*4
Seal fill fluid	□	Refer to table 4f.
Transmitter connection type	**-S**	for general use
Capillary length*5	**1**	1 m*3 **6** ..... 6 m **B** ..... 11 m
	2	2 m **7** ..... 7 m **C** ..... 12 m
	3	3 m **8** ..... 8 m **D** ..... 13 m
	4	4 m **9** ..... 9 m **E** ..... 14 m
	5	5 m **A** ..... 10 m **F** ..... 15 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*15
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Inner Diaphragm Type	**-9**	Inner Diaphragm Type
--------	**S**	Always S
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum*16
Wetted Parts Material (Except for Flange)	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size	**-6**	1/2-inch (15 mm)
	-7	3/4-inch (20 mm)
	-1	1-inch (25 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
Flange pressure rating	**1**	class150 **A** ..... 10K **D** 40K
	2	class300 **B** 20K
	4	class600 **C** 30K
Sealing Face	**F**	Raised face (RF) Flat (no serration)
	G	Raised face (RF) With Serration (ANSI B16.5) (for ANSI flange only)
Flange material (Flange, Pipe, Base, Vent plug, Vent screw)	**C**	316 SST*6
	S	316L SST*6

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Flange Usage	**-S**.....	for general use*9
	-P.....	for general use (Gasket material: PTFE Teflon)*10
	-H.....	for high temperature use (Process temperature: 250 to 315°C)*11*12
Vent Plug Style	**S**.....	for general use (with two vent plugs) *13
	L.....	With two long vent plugs*14
	N.....	Without vent plug
--------	**N**.....	Always N

Table 4e. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH.....	[H] Hastelloy C-276*8#	[H] Hastelloy C-276*8#
	TT.....	[T] Tantalum	[T] Tantalum

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Not applicable for gauge transmitter and differential transmitter with single seal type.
*3: In case where capillary length code 1 (1 m), the model code must be selected for C82FD. Not applicable for C81FD.
*4: In case where Model code F81FD is selected, It must be Selected seal system location code B.
*5: Refer to section 12 for limitation of capillary length.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Hastelloy C-276 or N10276.
*9: Gasket material for transmitter side is 316L SST with PTFE Teflon coating.
*10: Applicable for Diaphragm material code T.
*11: When selecting Flange usage code H (for High temperature use), Drain/vent are welded to the flange.
*12: Not applicable for Diaphragm material code T.
*13: Not applicable for Flange usage code H.
*14: Total length: 119 mm (standard: 34 mm); Total length when combining with option code K31 and K35: 130 mm.
*15: Applicable for capillary length more than 6 m.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 4f. Process temperature and Ambient temperature

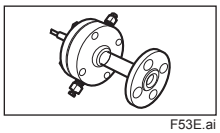
	Code	**Process temperature***16	**Ambient temperature***19	**Working pressure**	**Specific gravity***20
Silicone oil*17*21 (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil*17 (general use)	B	−30 to 210°C (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil*18 (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*16: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*17: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*18: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*19: This ambient temperature is the transmitter ambient temperature.
*20: Approximate values at a temperature of 25°C (77°F)
*21: For the process where the process temperature exceeds 250°C, specify Flange usage code –H.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

4.4 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Flange connection type, Ring type joint (RJ) for general use, Capillary Connection Style: Back of diaphragm seal unit


F53E.ai

Model	Suffix Codes	Description
C81FD	.....	Inner Diaphragm, Flange connection seal (Bundled capillary type)*2
C82FD	.....	Inner Diaphragm, Flange connection seal (Standard type)
Seal system location	**-H**	Standard type for high pressure side
	-L	Standard type for low pressure side
	-B	Bundled capillary type (1 m separated)*4
Seal fill fluid	□	Refer to table 4h.
Transmitter connection type	**-S**	for general use
Capillary length*5	**1**	1 m*3 **6** ..... 6 m **B** ..... 11 m
	2	2 m **7** ..... 7 m **C** ..... 12 m
	3	3 m **8** ..... 8 m **D** ..... 13 m
	4	4 m **9** ..... 9 m **E** ..... 14 m
	5	5 m **A** ..... 10 m **F** ..... 15 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*15
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Inner Diaphragm Type	**-9**	Inner Diaphragm Type
--------	**S**	Always S
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum*16
Wetted Parts Material (Except for Flange)	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size*3	**-6**	1/2-inch (15 mm)
	-7	3/4-inch (20 mm)
	-1	1-inch (25 mm)
Flange standards	**A**	ANSI
	P	JPI
Flange pressure rating	**2**	class300
	4	class600
Sealing Face	**J**	Ring type joint (RJ)
Flange material (Flange, Pipe, Base, Vent plug, Vent screw)	**C**	316 SST*6
	S	316L SST*6
Flange Usage	**-S**	for general use*9
	-P	for general use (Gasket material: PTFE Teflon)*10
	-H	for high temperature use (Process temperature: 250 to 315°C)*11*12
Vent Plug Style	**S**	for general use (with two vent plugs) *13
	L	With two long vent plugs*14
	N	Without vent plug
--------	**N**	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 4g. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH.....	[H] Hastelloy C-276*8#	[H] Hastelloy C-276*8#
	TT.....	[T] Tantalum	[T] Tantalum

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Not applicable for gauge transmitter and differential transmitter with single seal type.
*3: In case where capillary length code 1 (1 m), the model code must be selected for C82FD. Not applicable for C81FD.
*4: In case where Model code F81FD is selected, It must be Selected seal system location code B.
*5: Refer to section 12 for limitation of capillary length.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Hastelloy C-276 or N10276.
*9: Gasket material for transmitter side is 316L SST with PTFE Teflon coating.
*10: Applicable for Diaphragm material code T.
*11: When selecting Flange usage code H (for High temperature use), Drain/vent are welded to the flange.
*12: Not applicable for Diaphragm material code T.
*13: Not applicable for Flange usage code H.
*14: Total length: 119 mm (standard: 34 mm); Total length when combining with option code K31 and K35: 130 mm.
*15: Applicable for capillary length more than 6 m.
The '#' marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 4h. Process temperature and Ambient temperature

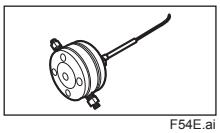
	Code	Process temperature*16	Ambient temperature*19	Working pressure	Specific gravity*20
Silicone oil*17*21 (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil*17 (general use)	B	−30 to 210°C (−22 to 410°F)	−30 to 60°C (−22 to 140°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−30 to 60°C (−22 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil*18 (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−10 to 60°C (14 to 140°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 60°C (−40 to 140°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)		1.04

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*16: See figure 1a, 1b 'Working Pressure and Process Temperature.'
*17: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*18: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*19: This ambient temperature is the transmitter ambient temperature.
*20: Approximate values at a temperature of 25°C (77°F)
*21: For the process where the process temperature exceeds 250°C, specify Flange usage code –H.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

4.5 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Adapter connection type, Raised face (RF) High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit


F54E.ai

Model	Suffix Codes	Description
C81FA	.....	Inner Diaphragm, Adapter connection seal (Bundled capillary type)*2
C82FA	.....	Inner Diaphragm, Adapter connection seal (Standard type)
Seal system location	**-H**	Standard type for high pressure side
	-L	Standard type for low pressure side
	-B	Bundled capillary type (1 m separated)*4
Seal fill fluid	□	Refer to table 4j.
Transmitter connection type	**-S**	for general use
Capillary length*5	**1**	1 m*3 **6** ..... 6 m
	2	2 m **7** ..... 7 m
	3	3 m **8** ..... 8 m
	4	4 m **9** ..... 9 m
	5	5 m **A** ..... 10 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Inner Diaphragm Type	**-9**	Inner Diaphragm Type
--------	**S**	Always S
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum*16
Wetted Parts Material (Except for Flange)	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size	**-6**	1/2-inch (15 mm)
	-7	3/4-inch (20 mm)
	-1	1-inch (25 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
Flange pressure rating	**1**	class150 **A** 10K
	2	class300 **B** 20K
	4	class600 **C** 30K
		D 40K
Sealing Face	**F**	Raised face (RF) Flat (no serration)
	G	Raised face (RF) With Serration (ANSI B16.5) (for ANSI flange only)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Flange material (Adapter, Vent plug, Vent screw)	**C**.....	316 SST*6
	S.....	316L SST*6
Flange Usage	**-S**.....	for general use*9
	-P.....	for general use (Gasket material: PTFE Teflon)*10
	-H.....	for high temperature use (Process temperature: 250 to 315°C)*11*12
Vent Plug Style	**S**.....	for general use (with two vent plugs) *13
	L.....	With two long vent plugs*14
	N.....	Without vent plug
--------	**N**.....	Always N

Note: Stud bolts and nuts are attached for the adapter (Material:Stud bolt….B7, NUT….304 SST)
In case of differential transmitter with both side diaphragm seal: 2pcs
In case of differential transmitter with single diaphragm seal or gauge transmitter with diaphragm seal: 1pc

Table 4i. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH.....	[H] Hastelloy C-276*8#	[H] Hastelloy C-276*8#
	TT.....	[T] Tantalum	[T] Tantalum

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Not applicable for gauge transmitter and differential transmitter with single seal type.
*3: In case where capillary length code 1 (1 m), the model code must be selected for C82FA. Not applicable for C81FA.
*4: In case where Model code F81FA is selected, It must be Selected seal system location code B.
*5: Refer to section 12 for limitation of capillary length.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Hastelloy C-276 or N10276.
*9: Gasket material for transmitter side is 316L SST with PTFE Teflon coating.
*10: Applicable for Diaphragm material code T.
*11: When selecting Flange usage code H (for High temperature use), Drain/vent are welded to the flange.
*12: Not applicable for Diaphragm material code T.
*13: Not applicable for Flange usage code H.
*14: Total length: 119 mm (standard: 34 mm); Total length when combining with option code K31 and K35: 130 mm.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 4j. Process temperature and Ambient temperature

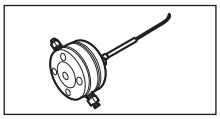
	Code	**Process temperature***15	**Ambient temperature***17	**Working pressure**	**Specific gravity***18
Silicone oil*16 (high temp. and high vacuum use)	1	−10 to 250°C (14 to 482°F)	−10 to 50°C (14 to 122°F)	0.013 kPa abs (0.0019 psi abs) to flange rating pressure	1.07
Silicone oil*19*20 (high temp. and high vacuum use)	2	10 to 315°C (50 to 599°F)	10 to 50°C (50 to 122°F)		1.09
Silicone oil*21 (high vacuum use)	4	−10 to 100°C (14 to 212°F)	−10 to 50°C (14 to 122°F)		1.07

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*15: See figure 1c, 1d 'Working Pressure and Process Temperature.'
*16: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*17: This ambient temperature is the transmitter ambient temperature.
*18: Approximate values at a temperature of 25°C (77°F)
*19: For the process where the process temperature exceeds 250°C, specify Flange usage code –H.
*20: Not applicable for Diaphragm material code T.
*21: When selecting fill fluid code 4, take into consideration the characteristics of the process to be used. Fill fluid code 1 is recommended especially when using a transmitter in a harsh environment such as a process in which a vacuum state is maintained continuously (even outside of inspections) or a hydrogen generation process.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

4.6 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Adapter connection type, Ring type joint (RJ) High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit


F55E.ai

Model	Suffix Codes	Description
C81FA	.....	Inner Diaphragm, Adapter connection seal (Bundled capillary type)*2
C82FA	.....	Inner Diaphragm, Adapter connection seal (Standard type)
Seal system location	**-H**	Standard type for high pressure side
	-L	Standard type for low pressure side
	-B	Bundled capillary type (1 m separated)*4
Seal fill fluid	□	Refer to table 4I.
Transmitter connection type	**-S**	for general use
Capillary length*5	**1**	1 m*3 **6** ..... 6 m
	2	2 m **7** ..... 7 m
	3	3 m **8** ..... 8 m
	4	4 m **9** ..... 9 m
	5	5 m **A** ..... 10 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Inner Diaphragm Type	**-9**	Inner Diaphragm Type
--------	**S**	Always S
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum*16
Wetted Parts Material (Except for Flange)	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size	**-6**	1/2-inch (15 mm)
	-7	3/4-inch (20 mm)
	-1	1-inch (25 mm)
Flange standards	**A**	ANSI
	P	JPI
Flange pressure rating	**2**	class300
	4	class600
Sealing Face	**J**	Ring type joint (RJ)
Flange material (Adapter, Vent plug, Vent screw)	**C**	316 SST*6
	S	316L SST*6
Flange Usage	**-S**	for general use*9
	-P	for general use (Gasket material: PTFE Teflon)*10
	-H	for high temperature use*11*12

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Vent Plug Style	**S**.....	for general use (with two vent plugs) *13
	L.....	With two long vent plugs*14
	N.....	Without vent plug
--------	**N**.....	Always N

Note: Stud bolts and nuts are attached for the adapter (Material:Stud bolt….B7, NUT….304 SST)
In case of differential transmitter with both side diaphragm seal: 2pcs
In case of differential transmitter with single diaphragm seal or gauge transmitter with diaphragm seal: 1pc

Table 4k. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH.....	[H] Hastelloy C-276*8#	[H] Hastelloy C-276*8#
	TT.....	[T] Tantalum	[T] Tantalum

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Not applicable for gauge transmitter and differential transmitter with single seal type.
*3: In case where capillary length code 1 (1 m), the model code must be selected for C82FA. Not applicable for C81FA.
*4: In case where Model code F81FA is selected, It must be Selected seal system location code B.
*5: Refer to section 12 for limitation of capillary length.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Hastelloy C-276 or N10276.
*9: Gasket material for transmitter side is 316L SST with PTFE Teflon coating.
*10: Applicable for Diaphragm material code T.
*11: When selecting Flange usage code H (for High temperature use), Drain/vent are welded to the flange.
*12: Not applicable for Diaphragm material code T.
*13: Not applicable for Flange usage code H.
*14: Total length: 119 mm (standard: 34 mm); Total length when combining with option code K31 and K35: 130 mm.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 4l. Process temperature and Ambient temperature

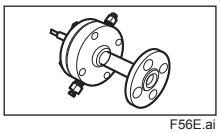
	Code	**Process temperature***15	**Ambient temperature***17	**Working pressure**	**Specific gravity***18
Silicone oil*16 (high temp. and high vacuum use)	1	−10 to 250°C (14 to 482°F)	−10 to 50°C (14 to 122°F)	0.013 kPa abs (0.0019 psi abs) to flange rating pressure	1.07
Silicone oil*19*20 (high temp. and high vacuum use)	2	10 to 315°C (50 to 599°F)	10 to 50°C (50 to 122°F)		1.09
Silicone oil*21 (high vacuum use)	4	−10 to 100°C (14 to 212°F)	−10 to 50°C (14 to 122°F)		1.07

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*15: See figure 1c, 1d 'Working Pressure and Process Temperature.'
*16: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*17: This ambient temperature is the transmitter ambient temperature.
*18: Approximate values at a temperature of 25°C (77°F)
*19: For the process where the process temperature exceeds 250°C, specify Flange usage code –H.
*20: Not applicable for Diaphragm material code T.
*21: When selecting fill fluid code 4, take into consideration the characteristics of the process to be used. Fill fluid code 1 is recommended especially when using a transmitter in a harsh environment such as a process in which a vacuum state is maintained continuously (even outside of inspections) or a hydrogen generation process.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

4.7 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Flange connection type, Raised face (RF) High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit


F56E.ai

Model	Suffix Codes	Description
C81FD	.....	Inner Diaphragm, Flange connection seal (Bundled capillary type)*2
C82FD	.....	Inner Diaphragm, Flange connection seal (Standard type)
Seal system location	**-H**	Standard type for high pressure side
	-L	Standard type for low pressure side
	-B	Bundled capillary type (1 m separated)*4
Seal fill fluid	□	Refer to table 4n.
Transmitter connection type	**-S**	for general use
Capillary length*5	**1**	1 m*3 **6** ..... 6 m
	2	2 m **7** ..... 7 m
	3	3 m **8** ..... 8 m
	4	4 m **9** ..... 9 m
	5	5 m **A** ..... 10 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath*3
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Inner Diaphragm Type	**-9**	Inner Diaphragm Type
--------	**S**	Always S
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum*16
Wetted Parts Material (Except for Flange)	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size	**-6**	1/2-inch (15 mm)
	-7	3/4-inch (20 mm)
	-1	1-inch (25 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
Flange pressure rating	**1**	class150 **A** 10K
	2	class300 **B** 20K
	4	class600 **C** 30K
		D 40K
Sealing Face	**F**	Raised face (RF) Flat (no serration)
	G	Raised face (RF) With Serration (ANSI B16.5) (for ANSI flange only)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Flange material (Flange, Pipe, Base, Vent plug, Vent screw)	**C**.....	316 SST*6
	S.....	316L SST*6
Flange Usage	**-S**.....	for general use*9
	-P.....	for general use (Gasket material: PTFE Teflon)*10
	-H.....	for high temperature use*11*12
Vent Plug Style	**S**.....	for general use (with two vent plugs) *13
	L.....	With two long vent plugs*14
	N.....	Without vent plug
--------	**N**.....	Always N

Table 4m. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH.....	[H] Hastelloy C-276*8#	[H] Hastelloy C-276*8#
	TT.....	[T] Tantalum	[T] Tantalum

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Not applicable for gauge transmitter and differential transmitter with single seal type.
*3: In case where capillary length code 1 (1 m), the model code must be selected for C82FD. Not applicable for C81FD.
*4: In case where Model code F81FD is selected, It must be Selected seal system location code B.
*5: Refer to section 12 for limitation of capillary length.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Hastelloy C-276 or N10276.
*9: Gasket material for transmitter side is 316L SST with PTFE Teflon coating.
*10: Applicable for Diaphragm material code T.
*11: When selecting Flange usage code H (for High temperature use), Drain/vent are welded to the flange.
*12: Not applicable for Diaphragm material code T.
*13: Not applicable for Flange usage code H.
*14: Total length: 119 mm (standard: 34 mm); Total length when combining with option code K31 and K35: 130 mm.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 4n. Process temperature and Ambient temperature

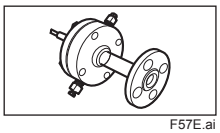
	Code	**Process temperature***15	**Ambient temperature***17	**Working pressure**	**Specific gravity***18
Silicone oil*16 (high temp. and high vacuum use)	1	−10 to 250°C (14 to 482°F)	−10 to 50°C (14 to 122°F)	0.013 kPa abs (0.0019 psi abs) to flange rating pressure	1.07
Silicone oil*19*20 (high temp. and high vacuum use)	2	10 to 315°C (50 to 599°F)	10 to 50°C (50 to 122°F)		1.09
Silicone oil*21 (high vacuum use)	4	−10 to 100°C (14 to 212°F)	−10 to 50°C (14 to 122°F)		1.07

Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*15: See figure 1c, 1d 'Working Pressure and Process Temperature.'
*16: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*17: This ambient temperature is the transmitter ambient temperature.
*18: Approximate values at a temperature of 25°C (77°F)
*19: For the process where the process temperature exceeds 250°C, specify Flange usage code –H.
*20: Not applicable for Diaphragm material code T.
*21: When selecting fill fluid code 4, take into consideration the characteristics of the process to be used. Fill fluid code 1 is recommended especially when using a transmitter in a harsh environment such as a process in which a vacuum state is maintained continuously (even outside of inspections) or a hydrogen generation process.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

4.8 1/2-inch (15 mm) / 3/4-inch (20 mm) / 1-inch (25 mm) Flange connection type, Ring type joint (RJ) High vacuum / High temp. and high vacuum use Capillary Connection Style: Back of diaphragm seal unit


F57E.ai

Model	Suffix Codes	Description
C81FD	.....	Inner Diaphragm, Flange connection seal (Bundled capillary type)*2
C82FD	.....	Inner Diaphragm, Flange connection seal (Standard type)
Seal system location	**-H**	Standard type for high pressure side
	-L	Standard type for low pressure side
	-B	Bundled capillary type (1 m separated)*4
Seal fill fluid	□	Refer to table 4p.
Transmitter connection type	**-S**	for general use
Capillary length*5	**1**	1 m*3 **6** ..... 6 m
	2	2 m **7** ..... 7 m
	3	3 m **8** ..... 8 m
	4	4 m **9** ..... 9 m
	5	5 m **A** ..... 10 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use
Inner Diaphragm Type	**-9**	Inner Diaphragm Type
--------	**S**	Always S
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum*16
Wetted Parts Material (Except for Flange)	**S**	316L SST
	H	Hastelloy C-276*8
	T	Tantalum
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	N	None
--------	**N**	Always N
Capillary connection	**B**	Back of diaphragm seal unit
Flange size	**-6**	1/2-inch (15 mm)
	-7	3/4-inch (20 mm)
	-1	1-inch (25 mm)
Flange standards	**A**	ANSI
	P	JPI
Flange pressure rating	**2**	class300
	4	class600
Sealing Face	**J**	Ring type joint (RJ)
Flange material (Flange, Pipe, Base, Vent plug, Vent screw)	**C**	316 SST*6
	S	316L SST*6
Flange Usage	**-S**	for general use*9
	-P	for general use (Gasket material: PTFE Teflon)*10
	-H	for high temperature use*11*12
Vent Plug Style	**S**	for general use (with two vent plugs) *13
	L	With two long vent plugs*14
	N	Without vent plug
--------	**N**	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 4o. Diaphragm material and Sealing face material

Wetted parts material[*1]		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HH	[H] Hastelloy C-276[*8]#	[H] Hastelloy C-276[*8]#
	TT	[T] Tantalum	[T] Tantalum

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Not applicable for gauge transmitter and differential transmitter with single seal type.
*3: In case where capillary length code 1 (1 m), the model code must be selected for C82FD. Not applicable for C81FD.
*4: In case where Model code F81FD is selected, It must be Selected seal system location code B.
*5: Refer to section 12 for limitation of capillary length.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Hastelloy C-276 or N10276.
*9: Gasket material for transmitter side is 316L SST with PTFE Teflon coating.
*10: Applicable for Diaphragm material code T.
*11: When selecting Flange usage code H (for High temperature use), Drain/vent are welded to the flange.
*12: Not applicable for Diaphragm material code T.
*13: Not applicable for Flange usage code H.
*14: Total length: 119 mm (standard: 34 mm); Total length when combining with option code K31 and K35: 130 mm.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 4p. Process temperature and Ambient temperature

	Code	**Process temperature**[*15]	**Ambient temperature**[*17]	**Working pressure**	**Specific gravity**[*18]
Silicone oil[*16] (high temp. and high vacuum use)	1	−10 to 250°C (14 to 482°F)	−10 to 50°C (14 to 122°F)	0.013 kPa abs (0.0019 psi abs) to flange rating pressure	1.07
Silicone oil[*19*20] (high temp. and high vacuum use)	2	10 to 315°C (50 to 599°F)	10 to 50°C (50 to 122°F)		1.09
Silicone oil[*21] (high vacuum use)	4	−10 to 100°C (14 to 212°F)	−10 to 50°C (14 to 122°F)		1.07

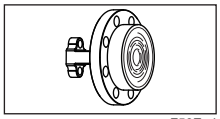
Note: The differential pressure transmitter should be installed at least 600 mm below the high pressure (HP) process connection. However, this value (600 mm) may be affected by ambient temperature, operating pressure, fill fluid or material of the wetted diaphragm.
Contact YOKOGAWA when the transmitter can not be installed at least 600 mm below the HP process connection.

*15: See figure 1c, 1d 'Working Pressure and Process Temperature.'
*16: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*17: This ambient temperature is the transmitter ambient temperature.
*18: Approximate values at a temperature of 25°C (77°F)
*19: For the process where the process temperature exceeds 250°C, specify Flange usage code –H.
*20: Not applicable for Diaphragm material code T.
*21: When selecting fill fluid code 4, take into consideration the characteristics of the process to be used. Fill fluid code 1 is recommended especially when using a transmitter in a harsh environment such as a process in which a vacuum state is maintained continuously (even outside of inspections) or a hydrogen generation process.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

5. Direct Mount Flanged Diaphragm Seal (Flush type)

5.1 3-inch (80 mm) / 2-inch (50 mm) Raised face (RF)



F58E.ai

Model	Suffix Codes	Description
C20FW	.....	Direct mount flanged diaphragm seal (Flush type)
Seal system location	**-H**	for high pressure side*2
	-P	for Primary side (High pressure side)*3
	-S	for Secondary side (Low pressure side)*3
Seal fill fluid	□	Refer to table 5b.
Transmitter connection type	**-S**	for general use
--------	**N**	Always N
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
--------	**N**	Always N
Stay style	**S**	for general use
	L	for high temperature use (long type)*4
Process connection size*5	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Sealing face	**F**	Raised face (RF)
Gasket contact surface	**1**	Serration (ANSI B16.5) (for ANSI flange with sealing face material C and S)
	2	Flat (no serration)
Diaphragm material*1	**S**	316L SST
	H	Hastelloy C-276*9
	T	Tantalum*11
	U	Titanium
		M ..... Monel
		K ..... Nickel
		V ..... 316L SST (Thickness: 0.0055 inch (0.14 mm))
		J ..... Hastelloy C-276*9 (Thickness: 0.006 inch (0.15 mm))
Sealing face material*1	**S**	316L SST
	H	Hastelloy C-276*9
	T	Tantalum
		M ..... Monel
		K ..... Nickel
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)
	6	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	P	With platinum plate*8
	N	None
--------	**N**	Always N
Capillary connection	**B**	Always B
Flange size*5	**-3**	3-inch (80 mm)
	-2	2-inch (50 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
	D	DIN
Flange pressure rating	**1**	class150 **A** ..... 10K **H** PN10/16
	2	class300 **B** ..... 20K **K** PN25/40
	4	class600 **D** 40K
Flange type	**S**	for general use
Flange material	**A**	JIS S25C
	B	304 SST*6
	C	316 SST*6
	S	316L SST*6
Extended outside diameter	**-0**	None
Extended length	**0**	None
--------	**N**	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 5a. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
Process connection size 3-inch (80 mm)	**SS**.....	[S] 316L SST	[S] 316L SST
	HH	[H] Hastelloy C-276*9#	[H] Hastelloy C-276*9#
	TT	[T] Tantalum	[T] Tantalum
	UU	[U] Titanium	[U] Titanium
	MM	[M] Monel	[M] Monel
	KK	[K] Nickel	[K] Nickel
	VS.....	[V] 316L (Thickness: 0.0055 inch (0.14 mm))	[S] 316L SST
	JH.....	[J] Hastelloy C-276*9# (Thickness: 0.006 inch (0.15 mm))	[H] Hastelloy C-276*9#
Process connection size 2-inch (50 mm)	**SS**.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276*9#	[S] 316L SST
	HH	[H] Hastelloy C-276*9#	[H] Hastelloy C-276*9#
	TT	[T] Tantalum	[T] Tantalum
	UU	[U] Titanium	[U] Titanium
	MM	[M] Monel	[M] Monel
	KK	[K] Nickel	[K] Nickel

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Applicable for EJXC50A, EJAC50E, EJXC80A and EJAC80E.
*3: Applicable for EJXC40A.
*4: Applicable for EJXC80A and EJAC80E with Seal fill fluid code A.
*5: Not applicable to different size between Process connection size and Flange size.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Applicable for Diaphragm material code T.
*9: Hastelloy C-276 or N10276.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

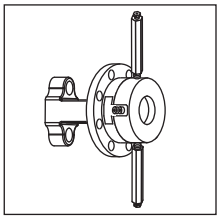
Table 5b. Process temperature and Ambient temperature

	Code	Process temperature*10	Ambient temperature*13	Working pressure	Specific gravity*14
Silicone oil*11 (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 85°C (14 to 185°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil*11*13 (general use)	B	−40 to 210°C (−40 to 410°F)	−40 to 85°C (−40 to 185°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil*12 (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−20 to 80°C (−4 to 176°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 85°C (14 to 185°F)		1.04

*10: See figure 1e, 1f 'Working Pressure and Process Temperature.'
*11: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*12: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*13: This ambient temperature is the transmitter ambient temperature. See figure 1g and 1h.
*14: Approximate values at a temperature of 25°C (77°F)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

5.2 1 1/2-inch (40 mm) Raised face (RF)


F59E.ai

Model	Suffix Codes	Description
C20FW	.....	Direct mount flanged diaphragm seal (Flush type)
Seal system location	**-H**	for high pressure side*2
	-P	for Primary side (High pressure side)*3
	-S	for Secondary side (Low pressure side)*3
Seal fill fluid	□	Refer to table 5d.
Transmitter connection type	**-S**	for general use
--------	**N**	Always N
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
--------	**N**	Always N
Stay style	**S**	for general use
	L	for high temperature use (long type)*4
Process connection size	**-8**	1 1/2-inch (40 mm)
Sealing face	**F**	Raised face (RF)
Gasket contact surface	**2**	Flat (no serration)
Diaphragm material*1	**S**	316L SST
	H	Hastelloy C-276*7#
Sealing face material*1	**S**	316L SST
	H	Hastelloy C-276*7#
Diaphragm diameter	**6**	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*6
	N	None
--------	**N**	Always N
Capillary connection	**B**	Always B
Flange size	**-8**	1 1/2-inch (40 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
Flange pressure rating	**1**	class150 **A** 10K
	2	class300 **B** 20K
	4	class600 **D** 40K
Flange type	**S**	for general use
Flange material	**A**	JIS S25C
	B	304 SST*5
	C	316 SST*5
	S	316L SST*5
Extended outside diameter	**-0**	None
Extended length	**0**	None
--------	**N**	Always N

Note) 40A (1 1/2B) is a reducer type. C10FR (Flushing connection ring) is always necessary to be specified with this size.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 5c. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	HS	[H] Hastelloy C-276*7#	[S] 316L SST
	SS.....	[S] 316L SST	[S] 316L SST
	HH	[H] Hastelloy C-276*7#	[H] Hastelloy C-276*7#

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Applicable for EJXC50A, EJAC50E, EJXC80A and EJAC80E.
*3: Applicable for EJXC40A.
*4: Applicable for EJXC80A and EJAC80E with Seal fill fluid code A.
*5: Forged version of the material may be used.
*6: Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*7: Hastelloy C-276 or N10276.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 5d. Process temperature and Ambient temperature

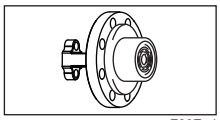
	Code	**Process temperature***8	**Ambient temperature***10	**Working pressure**	**Specific gravity***11
Silicone oil*12 (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 85°C (14 to 185°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil*12 (general use)	B	−40 to 210°C (−40 to 410°F)	−40 to 85°C (−40 to 185°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil*9 (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−20 to 80°C (−4 to 176°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 85°C (14 to 185°F)		1.04

*8: See figure 1e, 1f 'Working Pressure and Process Temperature.'
*9: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*10: This ambient temperature is the transmitter ambient temperature. See figure 1g and 1h.
*11: Approximate values at a temperature of 25°C (77°F)
*12: For the process where the process temperature exceeds 250°C, specify gasket usage code –H of C10FR flushing connection ring.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

6. Direct Mount Flanged Diaphragm Seal (Extended type)

6.1 4-inch (100 mm) / 3-inch (80 mm) Raised face (RF)


F60E.ai

Model	Suffix Codes	Description
C20FE	.....	Direct mount flanged diaphragm seal (Extended type)
Seal system location	**-H**	for high pressure side*2
	-P	for Primary side (High pressure side)*3
	-S	for Secondary side (Low pressure side)*3
Seal fill fluid	□	Refer to table 6b.
Transmitter connection type	**-S**	for general use
--------	**N**	Always N
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
--------	**N**	Always N
Stay style	**S**	for general use
	L	for high temperature use (long type)*4
Process connection size*5	**-4**	4-inch (100 mm)
	-3	3-inch (80 mm)
Sealing face	**F**	Raised face (RF)
Gasket contact surface	**1**	Serration (ANSI B16.5) (for ANSI flange with sealing face material C and S)
	2	Flat (no serration)
Diaphragm material*1	**S**	316L SST
	H	Hastelloy C-276*9
	T	Tantalum*11
	V	316L SST (Thickness: 0.0055 inch (0.14 mm))
	J	Hastelloy C-276*9 (Thickness: 0.006 inch (0.15 mm))
Sealing face material*1 (PIPE, BASE)	**C**	316 SST
	S	316L SST
	H	Hastelloy C-276*9
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)
	6	Diaphragm O.D: 2.4-inch (61 mm)
Diaphragm option	**A**	Gold-plated diaphragm*7
	P	With platinum plate*8
	N	None
--------	**N**	Always N
Capillary connection	**B**	Always B
Flange size*5	**-4**	4-inch (100 mm)
	-3	3-inch (80 mm)
Flange standards	**J**	JIS
	A	ANSI
	P	JPI
	D	DIN
Flange pressure rating	**1**	class150
	2	class300
	4	class600
	A	10K
	B	20K
	D	40K
	H	PN10/16
	K	PN25/40
Flange type	**S**	for general use
Flange material	**A**	JIS S25C
	B	304 SST*6
	C	316 SST*6
	S	316L SST*6
Extended outside diameter	**-4**	3.78±0.02 inch (96±0.5 mm)
	-3	2.8±0.02 inch (71±0.5 mm)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Extended length	**2**	Length (X2) = 1.97±0.02 inch (50±0.5 mm)
	4	Length (X2) = 3.94±0.02 inch (100±0.5 mm)
	6	Length (X2) = 5.91±0.02 inch (150±0.5 mm)
	8	Length (X2) = 7.87±0.03 inch (200±0.8 mm)
--------	**N**.....	Always N

Table 6a. Diaphragm material and Sealing face material

Wetted parts material[*1]		[Diaphragm material]	[Sealing face material]
Process connection size 4-inch (100 mm)	**SC**	[S] 316L SST	[C] 316 SST[*10]
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276[*9]#	[S] 316L SST
	HH	[H] Hastelloy C-276[*9]#	[H] Hastelloy C-276[*9]#
	TS.....	[T] Tantalum	[S] 316L SST
	VC	[V] 316L (Thickness: 0.0055 inch (0.14 mm))	[C] 316 SST[*10]
	VS.....	[V] 316L (Thickness: 0.0055 inch (0.14 mm))	[S] 316L SST
	JC.....	[J] Hastelloy C-276[*9]# (Thickness: 0.006 inch (0.15 mm))	[C] 316 SST
	JS.....	[J] Hastelloy C-276[*9]# (Thickness: 0.006 inch (0.15 mm))	[S] 316L SST
	JH.....	[J] Hastelloy C-276[*9]# (Thickness: 0.006 inch (0.15 mm))	[H] Hastelloy C-276[*9]#
Process connection size 3-inch (80 mm)	**HC**	[H] Hastelloy C-276[*9]#	[C] 316 SST[*10]
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276[*9]#	[S] 316L SST
	HH	[H] Hastelloy C-276[*9]#	[H] Hastelloy C-276[*9]#
	TS.....	[T] Tantalum	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Applicable for EJXC50A, EJAC50E, EJXC80A and EJAC80E.
*3: Applicable for EJXC40A.
*4: Applicable for EJXC80A and EJAC80E with Seal fill fluid code A.
*5: Not applicable to different size between Process connection size and Flange size.
*6: Forged version of the material may be used.
*7: Applicable for Diaphragm material code S and H.
Inside of isolating diaphragms (fill fluid side) are gold plated, effective for hydrogen permeation.
*8: Applicable for Diaphragm material code T.
*9: Hastelloy C-276 or N10276.
*10: Pipe and base material are 316 SST, Block material is 316L SST.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 6b. Process temperature and Ambient temperature

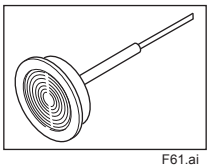
	Code	Process temperature*10	Ambient temperature*13	Working pressure	Specific gravity*14
Silicone oil*11 (general use)	A	−10 to 315°C (14 to 599°F)	−10 to 85°C (14 to 185°F)	2.7 kPa abs (0.38 psi abs) to flange rating pressure	1.07
Silicone oil*11*13 (general use)	B	−40 to 210°C (−40 to 410°F)	−40 to 85°C (−40 to 185°F)		0.94
Silicone oil (low temperature use)	F	−70 to 100°C (−94 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	0.88
Fluorinated oil*12 (oil-prohibited use)	D	−20 to 120°C (−4 to 248°F)	−20 to 80°C (−4 to 176°F)	51 kPa abs (7.4 psi abs) to flange rating pressure	1.90 to 1.92
Ethylene glycol (low temperature use)	E	−50 to 100°C (−58 to 212°F)	−40 to 85°C (−40 to 185°F)	100 kPa abs (atmospheric pressure) to flange pressure rating	1.09
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 85°C (14 to 185°F)		1.04

*10: See figure 1e, 1f 'Working Pressure and Process Temperature.'
*11: In case of diaphragm material code T (Tantalum), process temperature limit is up to 200°C (392°F).
*12: Even in case where fill fluid code D (fluorinated oil) is selected, if degrease cleansing treatment or both degrease cleansing and dehydrating treatment for the wetted parts is required, specify option code K31 or K35.
*13: This ambient temperature is the transmitter ambient temperature. See figure 1g and 1h.
*14: Approximate values at a temperature of 25°C (77°F)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

7. Remote mount Hygienic Diaphragm Seal

7.1 ISO101.6 / ISO76.1 Clamp Flush type



F61.ai

Model	Suffix Codes		Description	
C70SW	.....		Remote Mount Hygienic Diaphragm Seal (Flush type)	
Seal system location	**-H**		for high pressure side	
	-L		for low pressure side	
Seal fill fluid	□		Refer to table 7b.	
Transmitter connection type	**-S**		for general use	
Capillary length*2	**1**		1 m	**6** ..... 6 m
	2		2 m	**7** ..... 7 m
	3		3 m	**8** ..... 8 m
	4		4 m	**9** ..... 9 m
	5		5 m	**A** ..... 10 m
Capillary inside diameter	**2**		Capillary I.D. 2.03 mm	
	1		Capillary I.D. 1.3 mm*10	
Capillary Style			[Usage]	[Sheath style]
	S		for general use	with PVC sheath
	V			without PVC sheath
	W			with PVC sheath red-color
Capillary Tube Connection	**S**		for general use (Length:200 mm)	
	C		Short type (Length:100 mm)	
Process connection size	**-3**		ISO76.1	
	-4		ISO101.6	
Process Connection Style	**C**		Clamp connection	
--------	**2**		Always 2	
Diaphragm material	**S**		316L SST	
	H		Hastelloy C-276*3	
Sealing face material	**S**		316L SST	
Diaphragm diameter	**9**		Diaphragm O.D: 3.54-inch (90 mm)	
	6		Diaphragm O.D: 2.4-inch (61 mm)	
--------	**N**		Always N	
Sealing Face Option	**E**		Electro polishing*4	
	B		Buffing*5	
	C		Buffing and electro polishing*4*5	
	N		None	
Capillary connection	**B**		Always B	
Accessories*6 Clamp and Gasket	Clamp size	**-3**	ISO76.1	
		-4	ISO101.6	
		-N	None	
	Standards and Connection Style	**C**	ISO Clamp for Flush type (Clamp Maximum Working Pressure: 1 MPa (145 psi))	
		N	None	
	--------	**N**	Always N	
	Gasket material	**E**	EPDM (Ethylene Propylene Rubber)	
		N	None	
	--------	**N**	Always N	
Extended Outside Diameter	**-0**		None	
Extended Length	**0**		None	
--------	**N**		Always N	

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 7a. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276*3#	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Hastelloy C-276 or N10276.
*4: Electro polishing for all wetted parts (Diaphragm and Block).
*5: Buffing for Block of wetted part except diaphragm. (JIS-standard: #400)
*6: Clamp and gasket are not required, all of the code are selected "N".
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

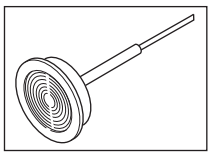
Table 7b. Process temperature and Ambient temperature

	Code	**Process temperature***7	**Ambient temperature***8	**Working pressure**	**Specific gravity***9
Silicone oil (general use)	B	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

*7: See figure 1i 'Working Pressure and Process Temperature.'
*8: This ambient temperature is the transmitter ambient temperature.
*9: Approximate values at a temperature of 25°C (77°F)
*10: Applicable for process connection size code "3" with capillary length more than 6 m.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

7.2 ISO51Clamp Flush type



F62.ai

Model	Suffix Codes	Description
C70SW	.....	Remote Mount Hygienic Diaphragm Seal (Flush type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 7d
Transmitter connection type	**-S**	for general use
Capillary length*2	**1**	1 m
	2	2 m
	3	3 m
	4	4 m
	5	5 m
Capillary inside diameter	**1**	Capillary I.D. 1.3 mm
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use (Length:200 mm)
	C	Short type (Length:100 mm)
Process connection size	**-2**	ISO51
Process Connection Style	**C**	Clamp connection
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*3
Sealing face material	**S**	316L SST
Diaphragm diameter	**4**	Diaphragm O.D: 1.57-inch (40 mm)
--------	**N**	Always N
Sealing Face Option	**E**	Electro polishing*4
	B	Buffing*5
	C	Buffing and electro polishing*4*5
	N	None
Capillary connection	**B**	Always B
Accessories*6 Clamp and Gasket	Clamp size **-2**	ISO51
	Clamp size **-N**	None
	Standards and Connection Style **C**	ISO Clamp for Flush type (Clamp Maximum Working Pressure: 1 MPa (145 psi))
	Standards and Connection Style **N**	None
	-------- **N**	Always N
	Gasket material **E**	EPDM (Ethylene Propylene Rubber)
	Gasket material **N**	None
	-------- **N**	Always N
Extended Outside Diameter	**-0**	None
Extended Length	**0**	None
--------	**N**	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 7c. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276*3#	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Hastelloy C-276 or N10276.
*4: Electro polishing for all wetted parts (Diaphragm and Block).
*5: Buffing for Block of wetted part except diaphragm. (JIS-standard: #400)
*6: Clamp and gasket are not required, all of the code are selected "N".
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

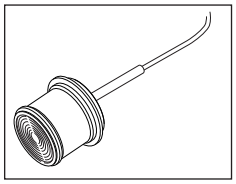
Table 7d. Process temperature and Ambient temperature

	Code	**Process temperature***7	**Ambient temperature***8	**Working pressure**	**Specific gravity***9
Silicone oil (general use)	B	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

*7: See figure 1i 'Working Pressure and Process Temperature.'
*8: This ambient temperature is the transmitter ambient temperature.
*9: Approximate values at a temperature of 25°C (77°F)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

7.3 ISO101.6 / ISO76.1 Clamp type



F63.ai

Model	Suffix Codes	Description
C70SE	.....	Remote Mount Hygienic Diaphragm Seal (Extended type)
Seal system location	**-H**	for high pressure side
	-L	for low pressure side
Seal fill fluid	□	Refer to table 7f.
Transmitter connection type	**-S**	for general use
Capillary length*2	**1**	1 m **6** ..... 6 m
	2	2 m **7** ..... 7 m
	3	3 m **8** ..... 8 m
	4	4 m **9** ..... 9 m
	5	5 m **A** ..... 10 m
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
	1	Capillary I.D. 1.3 mm*10
Capillary Style		[Usage] [Sheath style]
	S	for general use with PVC sheath
	V	without PVC sheath
	W	with PVC sheath red-color
Capillary Tube Connection	**S**	for general use (Length:200 mm)
	C	Short type (Length:100 mm)
Process connection size	**-3**	ISO76.1
	-4	ISO101.6
Process Connection Style	**C**	Clamp connection
--------	**2**	Always 2
Process Connection Style	**S**	316L SST
	H	Hastelloy C-276*3
Sealing face material*11	**S**	316L SST
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)
	6	Diaphragm O.D: 2.4-inch (61 mm)
--------	**N**	Always N
Sealing Face Option	**E**	Electro polishing*4
	B	Buffing*5
	C	Buffing and electro polishing*4*5
	N	None
Capillary connection	**B**	Always B
Accessories*6 Clamp and O-ring	Clamp size **-3**	ISO76.1
	-4	ISO101.6
	-N	None
	Standards and Connection Style **D**	ISO Clamp for Extended type (Clamp Maximum Working Pressure: 1 MPa (145 psi))
	N	None
	-------- **N**	Always N
	O-ring material **E**	EPDM (Ethylene Propylene Rubber)
	N	None
	-------- **N**	Always N
Extended Outside Diameter	**-3**	3.00 inch (76.1 mm)
	-4	4.00 inch (101.6 mm)
Extended Length	**2**	Length (X2) = 2.05 inch (52 mm)
	4	Length (X2) = 4.02 inch (102 mm)
--------	**N**	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 7e. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]*11
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276*3#	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Refer to section 12 for limitation of capillary length.
*3: Hastelloy C-276 or N10276.
*4: Electro polishing for all wetted parts (Diaphragm and Block).
*5: Buffing for Block of wetted part except diaphragm. (JIS-standard: #400)
*6: Clamp and gasket are not required, all of the code are selected "N".
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

Table 7f. Process temperature and Ambient temperature

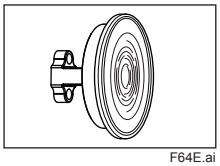
	Code	**Process temperature***7	**Ambient temperature***8	**Working pressure**	**Specific gravity***9
Silicone oil (general use)	B	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

*7: See figure 1i 'Working Pressure and Process Temperature.'
*8: This ambient temperature is the transmitter ambient temperature.
*9: Approximate values at a temperature of 25°C (77°F)
*10: Applicable for process connection size code "3" with capillary length more than 6 m.
*11: Pipe material (non-wetted parts): 316 SST

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

8. Direct Mount Hygienic Diaphragm Seal

8.1 ISO101.6 / ISO76.1 Clamp Flush type



F64E.ai

Model	Suffix Codes	Description
C30SW	.....	Direct Mount Hygienic Diaphragm Seal (Flush type)
Seal system location	**-H**	for high pressure side*2
	-P	for Primary side (High pressure side)*3
	-S	for Secondary side (Low pressure side)*3
Seal fill fluid	□	Refer to table 8b.
Transmitter connection type	**-S**	for general use
--------	**N**	Always N
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
--------	**N**	Always N
Stay style	**S**	for general use
Process connection size	**-3**	ISO76.1
	-4	ISO101.6
Process Connection Style	**C**	Clamp connection
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*4
Sealing face material	**S**	316L SST
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)
	6	Diaphragm O.D: 2.4-inch (61 mm)
--------	**N**	Always N
Sealing Face Option	**E**	Electro polishing*5
	B	Buffing*6
	C	Buffing and electro polishing*5*6
	N	None
Capillary connection	**B**	Always B
Accessories*7 Clamp and Gasket	Clamp size **-3**	ISO76.1
	Clamp size **-4**	ISO101.6
	Clamp size **-N**	None
	Standards and Connection Style **C**	ISO Clamp for Flush type (Clamp Maximum Working Pressure: 1 MPa (145 psi))
	Standards and Connection Style **N**	None
	-------- **N**	Always N
	Gasket material **E**	EPDM (Ethylene Propylene Rubber)
	Gasket material **N**	None
	-------- **N**	Always N
Extended Outside Diameter	**-0**	None
Extended Length	**0**	None
--------	**N**	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 8a. Diaphragm material and Sealing face material

Wetted parts material[*1]		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276[*4]#	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Applicable for EJXC80A, EJAC80E, EJXC50A and EJAC50E.
*3: Applicable for EJXC40A.
*4: Hastelloy C-276 or N10276.
*5: Electro polishing for all wetted parts (Diaphragm and Block).
*6: Buffing for Block of wetted part except diaphragm. (JIS-standard: #400)
*7: Clamp and gasket are not required, all of the code are selected "N".
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

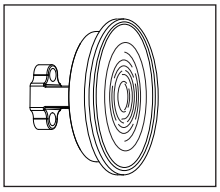
Table 8b. Process temperature and Ambient temperature

	Code	**Process temperature**[*8]	**Ambient temperature**[*9]	**Working pressure**	**Specific gravity**[*10]
Silicone oil (general use)	B	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

*8: See figure 1i 'Working Pressure and Process Temperature.'
*9: This ambient temperature is the transmitter ambient temperature.
*10: Approximate values at a temperature of 25°C (77°F)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

8.2 ISO51 Clamp Flush type



F65.ai

Model	Suffix Codes	Description
C30SW	.....	Direct Mount Hygienic Diaphragm Seal (Flush type)
Seal system location	**-H**.....	for high pressure side
Seal fill fluid	□	Refer to table 8d.
Transmitter connection type	**-S**.....	for general use
--------	**N**.....	Always N
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
--------	**N**.....	Always N
Stay style	**S**	for general use
Process connection size	**-2**	ISO51
Process Connection Style	**C**.....	Clamp connection
--------	**2**	Always 2
Diaphragm material	**S**..... **H**.....	316L SST Hastelloy C-276*2
Sealing face material	**S**.....	316L SST
Diaphragm diameter	**4**	Diaphragm O.D: 1.57-inch (40 mm)
--------	**N**.....	Always N
Sealing Face Option	**E**..... **B**..... **C**..... **N**.....	Electro polishing*3 Buffing*4 Buffing and electro polishing*3*4 None
Capillary connection	**B**.....	Always B
Accessories*5 Clamp and Gasket — Clamp size	**-2** ..... **-N**.....	ISO51 None
Standards and Connection Style	**C**..... **N**.....	ISO Clamp for Flush type (Clamp Maximum Working Pressure: 1 MPa (145 psi)) None None
--------	**N**.....	Always N
Gasket material	**E**..... **N**.....	EPDM (Ethylene Propylene Rubber) None
--------	**N**.....	Always N
Extended Outside Diameter	**-0**	None
Extended Length	**0**	None
--------	**N**.....	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 8c. Diaphragm material and Sealing face material

Wetted parts material[*1]		[Diaphragm material]	[Sealing face material]
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276[*2]#	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Hastelloy C-276 or N10276.
*3: Electro polishing for all wetted parts (Diaphragm and Block).
*4: Buffing for Block of wetted part except diaphragm. (JIS-standard: #400)
*5: Clamp and gasket are not required, all of the code are selected "N".
The '#' marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

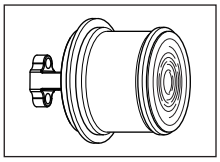
Table 8d. Process temperature and Ambient temperature

	Code	**Process temperature**[*6]	**Ambient temperature**[*7]	**Working pressure**	**Specific gravity**[*8]
Silicone oil (general use)	B	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

*6: See figure 1i 'Working Pressure and Process Temperature.'
*7: This ambient temperature is the transmitter ambient temperature.
*8: Approximate values at a temperature of 25°C (77°F)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

8.3 ISO101.6 / ISO76.1 Clamp Extended type



F66E.ai

Model	Suffix Codes	Description
C30SE	.....	Direct Mount Hygienic Diaphragm Seal (Extended type)
Seal system location	**-H**	for high pressure side*2
	-P	for Primary side (High pressure side)*3
	-S	for Secondary side (Low pressure side)*3
Seal fill fluid	□	Refer to table 8f.
Transmitter connection type	**-S**	for general use
--------	**N**	Always N
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
--------	**N**	Always N
Stay style	**S**	for general use
Process connection size	**-3**	ISO76.1
	-4	ISO101.6
Process Connection Style	**C**	Clamp connection
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H	Hastelloy C-276*4
Sealing face material*8	**S**	316L SST
Diaphragm diameter	**9**	Diaphragm O.D: 3.54-inch (90 mm)
	6	Diaphragm O.D: 2.4-inch (61 mm)
--------	**N**	Always N
Sealing Face Option	**E**	Electro polishing*5
	B	Buffing*6
	C	Buffing and electro polishing*5*6
	N	None
Capillary connection	**B**	Always B
Accessories*7 Clamp and O-ring	Clamp size **-3**	ISO76.1
	Clamp size **-4**	ISO101.6
	Clamp size **-N**	None
	Standards and Connection Style **D**	ISO Clamp for Extended type (Clamp Maximum Working Pressure: 1 MPa (145 psi))
	Standards and Connection Style **N**	None
	-------- **N**	Always N
	O-ring material **E**	EPDM (Ethylene Propylene Rubber)
	O-ring material **N**	None
	-------- **N**	Always N
Extended Outside Diameter	**-3**	3.00 inch (76.1 mm)
	-4	4.00 inch (101.6 mm)
Extended Length	**2**	Length (X2) = 2.05 inch (52 mm)
	4	Length (X2) = 4.02 inch (102 mm)
--------	**N**	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 8e. Diaphragm material and Sealing face material

Wetted parts material[*1]		[Diaphragm material]	[Sealing face material][*8]
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276[*4]#	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Applicable for EJXC80A, EJAC80E, EJXC50A and EJAC50E.
*3: Applicable for EJXC40A.
*4: Hastelloy C-276 or N10276.
*5: Electro polishing for all wetted parts (Diaphragm and Block).
*6: Buffing for Block of wetted part except diaphragm. (JIS-standard: #400)
*7: Clamp and gasket are not required, all of the code are selected "N".
*8: Pipe material (non-wetted parts): 316 SST.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

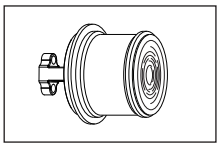
Table 8f. Process temperature and Ambient temperature

	Code	**Process temperature**[*9]	**Ambient temperature**[*10]	**Working pressure**	**Specific gravity**[*11]
Silicone oil (general use)	B	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

*9: See figure 1i 'Working Pressure and Process Temperature.'
*10: This ambient temperature is the transmitter ambient temperature.
*11: Approximate values at a temperature of 25°C (77°F)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

8.4 ISO51 Clamp Extended type



F67.ai

Model	Suffix Codes	Description
C30SE	.....	Direct Mount Hygienic Diaphragm Seal (Extended type)
Seal system location	**-H**.....	for high pressure side
Seal fill fluid	□	Refer to table 8h.
Transmitter connection type	**-S**.....	for general use
--------	**N**.....	Always N
Capillary inside diameter	**2**	Capillary I.D. 2.03 mm
--------	**N**.....	Always N
Stay style	**S**	for general use
Process connection size	**-2**	ISO51
Process Connection Style	**C**.....	Clamp connection
--------	**2**	Always 2
Diaphragm material	**S**	316L SST
	H.....	Hastelloy C-276*2
Sealing face material*6	**S**.....	316L SST
Diaphragm diameter	**2**	Diaphragm O.D: 1.57-inch (40 mm)
--------	**N**.....	Always N
Sealing Face Option	**E**.....	Electro polishing*3
	B.....	Buffing*4
	C.....	Buffing and electro polishing*3*4
	N.....	None
Capillary connection	**B**.....	Always B
Accessories*5 Clamp and O-ring — Clamp size	**-2**	ISO51
	-N.....	None
Standards and Connection Style	**D**.....	ISO Clamp for Extended type (Clamp Maximum Working Pressure: 1 MPa (145 psi))
	N.....	None
--------	**N**.....	Always N
O-ring material	**E**.....	EPDM (Ethylene Propylene Rubber)
	N.....	None
--------	**N**.....	Always N
Extended Outside Diameter	**-2**	2.00 inch (51 mm)
Extended Length	**2**	Length (X2) = 2.05 inch (52 mm)
	4	Length (X2) = 4.02 inch (102 mm)
--------	**N**.....	Always N

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 8g. Diaphragm material and Sealing face material

Wetted parts material*1		[Diaphragm material]	[Sealing face material]*6
	SS.....	[S] 316L SST	[S] 316L SST
	HS	[H] Hastelloy C-276*2#	[S] 316L SST

*1: Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids.
Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high temperature steam (150°C [302°F] or above). Contact Yokogawa for detailed information of the wetted parts material.
*2: Hastelloy C-276 or N10276.
*3: Electro polishing for all wetted parts (Diaphragm and Block).
*4: Buffing for Block of wetted part except diaphragm. (JIS-standard: #400)
*5: Clamp and gasket are not required, all of the code are selected "N".
*6: Pipe material (non-wetted parts): 316 SST.
The '#'marks indicate the construction materials conform to NACE material recommendations per MR0175 (2003).
Please refer to latest standards for details.

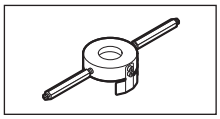
Table 8h. Process temperature and Ambient temperature

	Code	**Process temperature***7	**Ambient temperature***8	**Working pressure**	**Specific gravity***9
Silicone oil (general use)	B	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	2.7 kPa abs (0.38 psi abs) to 1MPaG	0.94
Propylene glycol	P	−10 to 120°C (14 to 248°F)	−10 to 60°C (14 to 140°F)	100 kPa abs (atmospheric pressure) to 1MPaG	1.04

*7: See figure 1i 'Working Pressure and Process Temperature.'
*8: This ambient temperature is the transmitter ambient temperature.
*9: Approximate values at a temperature of 25°C (77°F)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

9. Flushing Connection Ring



F68E.ai

Model	Suffix Codes	Description
C10FR	.....	Flushing connection ring
System location	**-H**	for high pressure side*3*4
	-L	for Low pressure side*4
	-P	for Primary side (High pressure side)*5
	-S	for Secondary side (Low pressure side)*5
Structure	**S**	for flush type
Usage	**-S**	for general use
	-H	for High temperature use*1 (Process temperature: 250 to 315°C)
	-1	for High temperature and High vacuum use (Process temperature : -10 to 250°C)
	-2	for High temperature and High vacuum use*2*10 (Process temperature : +10 to 315°C)
	-4	for High vacuum use (Process temperature : -10 to 100°C)
Process connection size*6	**3**	3-inch (80 mm)
	2	2-inch (50 mm)
	8	1 1/2-inch (40 mm)*9
Wetted parts material	**C**	316 SST
	S	316L SST
	H	Hastelloy C-276*11
Flange standard	**J**	JIS
	A	ANSI
	P	JPI
	D	DIN
Flange pressure rating	**1**	class150 **A**..... 10K **H**..... PN10/16
	2	class300 **B**..... 20K **K**..... PN25/40
	4	class600 **C**..... 30K **L**..... PN64
	5	class 900 **D**..... 40K
	6	class 1500 **E**..... 63K
Sealing face	**F**	Raised face (RF)
	J	Ring type joint (RJ)*6*8
Gasket contact surface	**1**	Serration (ANSI B16.5) (for ANSI flange with wetted parts material C and S)
	2	Flat (no serration)
Number of Vent Plug (s)	**2**	Two vent/drain Plugs
Vent Plug Screw Type	**1**	With R1/4 Vent Plug*13
	3	With 1/4NPT Vent Plug
Vent Plug Style	**L**	Long vent plug
--------	**N**	Always N
Accessories*7 Gasket	Gasket Usage **-S**	for general use
	Gasket Usage **-H**	for High temperature use*1*14 (Process temperature: 250 to 315°C)
	Gasket Usage **-N**	None
	Gasket Size*6 **3**	3-inch (80 mm)
	Gasket Size*6 **2**	2-inch (50 mm)
	Gasket Size*6 **8**	1 1/2-inch (40 mm)
	Gasket Size*6 **N**	None

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Accessories*7 Gasket	Gasket Material (Spiral Gasket)		[Hoop]	[Filler]*12
		C.....	316 SST	PTFE Teflon
		S.....	316L SST	PTFE Teflon
		H.....	Hastelloy C-276*11	PTFE Teflon
		N.....	None	
--------		**N**.....	Always N	

Table 9a. Combination for C10FR and C□0FW diaphragm material code

		C10FR Wetted parts material code		
		"C"	"S"	"H"
Diaphragm material code		316 SST	316L SST	Hastelloy C-276
S	316L SST	●	●	●
H	Hastelloy C-276*11#	●	●	●
T	Tantalum	-	-	-
U	Titanium	-	-	-
M	Monel	-	-	-
K	Nickel	-	-	-
V	316L SST (Thickness: 0.0055 inch (0.14 mm))	●	●	●
J	Hastelloy C-276*11# (Thickness: 0.006 inch (0.15 mm))	●	●	●

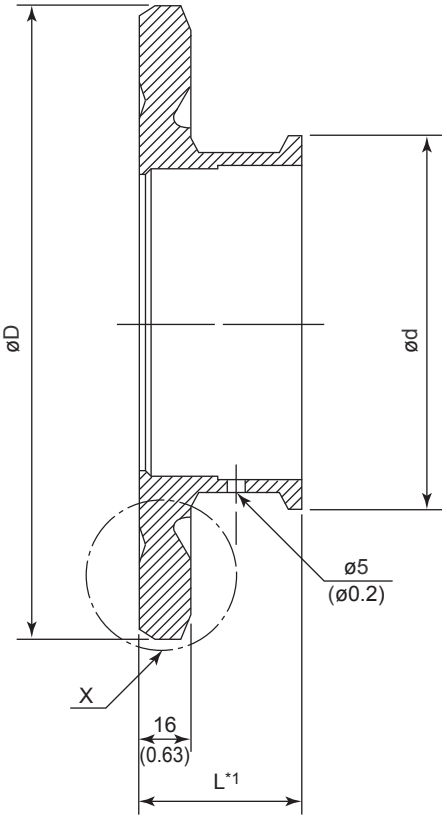
●: Applicable, -: Not applicable

*1: When selecting Gasket usage code H (for high temperature use), drain/vent are welded to the ring.
*2: When selecting Gasket usage code 2 (for high temperature and high vacuum use), drain/vent are welded to the ring.
*3: Applicable for EJXC81A, EJAC81E, EJXC50A and EJAC50E.
*4: Applicable for EJXC80A and EJAC80E.
*5: Applicable for EJXC40A.
*6: Not applicable to different process connection size between C10FR and C□0FW.
*7: Not attached Gasket. Gasket code is always "N"
*8: In case where sealing face code J (Ring type joint), the gasket contact surface code must be selected 2.
*9: Not applicable for sealing face code J (Ring type joint).
*10: Not applicable for Wetted parts material code H.
*11: Hastelloy C-276 or ASTM N10276
*12: When specified usage code H, filler material is Inorganic type.
*13: Not applicable for gasket contact surface code 1.
*14: Not applicable for optional code /K31 and /K35.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

10. Tank Spud

Model	Suffix Codes	Description	
TS	.....	Tank Spud	
Extended Length (L)	**-E**	2 inch (50 mm) for ISO 101.6 Clamp	
	-F	4 inch (100 mm) for ISO 101.6 Clamp	
	-J	2 inch (50 mm) for ISO76.1 Clamp	
	-K	4 inch (100 mm) for ISO76.1 Clamp	
	-G	2 inch (50 mm) for ISO51 Clamp	
	-H	4 inch (100 mm) for ISO51 Clamp	
Material	**U**	304 SST	
	V	316 SST	
	W	316L SST	
Plate thickness	**A**	0.63 inch (16 mm)	for ISO 101.6 Clamp or ISO 76.1 Clamp
	B	0.47 inch (12 mm)	
	C	0.32 inch (8 mm)	
	D	0.63 inch (16 mm)	for ISO51 Clamp
	E	0.47 inch (12 mm)	
	F	0.32 inch (8 mm)	



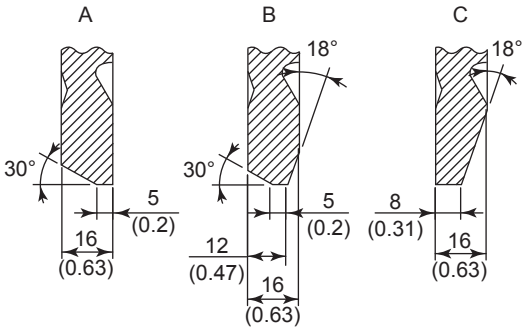
*1: L is 50 mm (2 inch) or 100 mm (4 inch).

Unit: mm (approx. inch)

Detail of X

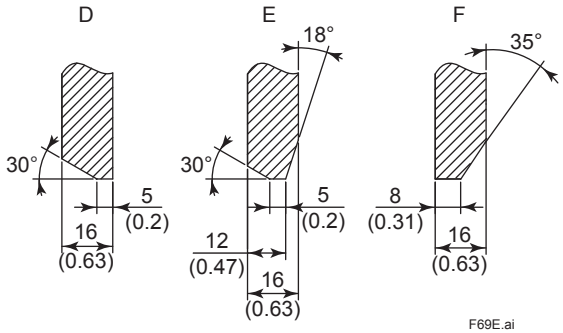
- With a groove to avoid welding distortion

  Welding Part Plate Thickness Code: A, B or C



- No groove to avoid welding distortion

  Welding Part Plate Thickness Code: D, E or F



F69E.ai

	øD	ød
ISO101.6 Clamp	7.87 inch (200 mm)	4.69 inch (119 mm)
ISO76.1 Clamp	5.91 inch (150 mm)	3.58 inch (91 mm)
ISO51 Clamp	4.33 inch (110 mm)	2.52 inch (64 mm)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

11. OPTIONAL SPECIFICATIONS

● EJXC80A, EJAC80E Diaphragm Seal System
EJXC81A, EJAC81E Absolute Pressure Diaphragm Seal System

Item	Description				Code
Operating temperature correction*6	Adjusting range: 80°C to Maximum temperature of specified fill fluid				**R**
Oil-prohibited use*8	Degrease cleansing treatment				**K21**
	Degrease cleansing treatment			With certificates	**K81**
Oil-prohibited use with dehydrating treatment*9	Degrease cleansing and dehydrating treatment				**K25**
	Degrease cleansing and dehydrating treatment			With certificates	**K85**
Material certificate	[Low pressure side] Process connector				**M1C**
	[High pressure side] Process connector				**M2C**
Pressure test/ Leak test certificate*1			[Flange rating]	[Test pressure]	
	For Differential pressure transmitter		JIS 10K	2 MPa (290 psi)	**T51**
			JIS 20K	5 MPa (720 psi)	**T54**
			JIS 30K	8 MPa (1160 psi)	**T56**
			JIS 40K	10 MPa (1450 psi)	**T57**
			JIS 63K	16 MPa (2300 psi)	**T58**
Nitrogen (N2) Gas*2 Retention time: one minute			JIS 30K, 40K	7 MPa (1000 psi)*4	**T55**
			ANSI/JPI class 150	3 MPa (430 psi)	**T52**
			ANSI/JPI class 300	8 MPa (1160 psi)	**T56**
			ANSI/JPI class 600, 900, 1500	16 MPa (2300 psi)	**T58**
			ANSI/JPI class 300, 600, 900, 1500	7 MPa (1000 psi)*4	**T55**
			DIN PN10/16	3 MPa (430 psi)	**T52**
			DIN PN25/40	7 MPa (1000 psi)	**T55**
			DIN PN64	10 MPa (1450 psi)	**T57**
	For Gauge/ absolute pressure transmitter	For A-Capsule	JIS 10K	2 MPa (290 psi)	**T51**
			JIS 20K, 30K, 40K, 63K	3.5 MPa (720 psi)	**T53**
			ANSI/JPI class 150	3 MPa (430 psi)	**T52**
			ANSI/JPI class 300, 600, 900, 1500	3.5 MPa (720 psi)	**T53**
			DIN PN10/16	3 MPa (430 psi)	**T52**
			DIN PN25/40, PN64	3.5 MPa (720 psi)	**T53**
		For B-Capsule	JIS 10K	2 MPa (290 psi)	**T51**
			JIS 20K	5 MPa (720 psi)	**T54**
			JIS 30K	8 MPa (1160 psi)	**T56**
			JIS 40K	10 MPa (1450 psi)	**T57**
			JIS 63K	16 MPa (2300 psi)	**T58**
			JIS 30K, 40K	7 MPa (1000 psi)*4	**T55**
			ANSI/JPI class 150	3 MPa (430 psi)	**T52**
			ANSI/JPI class 300	8 MPa (1160 psi)	**T56**
			ANSI/JPI class 600, 900, 1500	16 MPa (2300 psi)	**T58**
			ANSI/JPI class 300, 600, 900, 1500	7 MPa (1000 psi)*4	**T55**
			DIN PN10/16	3 MPa (430 psi)	**T52**
			DIN PN25/40	7 MPa (1000 psi)	**T55**
			DIN PN64	10 MPa (1450 psi)	**T57**
	Absolute pressure transmitter For M-Capsule			50 kPa (200 inH_2O)	**T04**
Calibration certificate	Text, Traceability				**L4**
	Text, Traceability, Primary standards list				**L5**
	Text, Traceability, Primary standards list, Calibration equipment list				**L6**
	Text, Traceability, Primary standards list, Calibration equipment list, Calibration equipment certificate				**L9**

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● EJXC40A Digital Remote Sensored Diaphragm Seal System

Item	Description			Code
DRS Cable	Cable length 15 m			**EC1**
	Cable length 30 m			**EC3**
	Cable length 45 m			**EC5**
Oil-prohibited use*8	Degrease cleansing treatment			**K21**
	Degrease cleansing treatment		With certificates	**K81**
Oil-prohibited use with dehydrating treatment*9	Degrease cleansing and dehydrating treatment			**K25**
	Degrease cleansing and dehydrating treatment		With certificates	**K85**
Pressure test/ Leak test certificate*1*7 Nitrogen (N2) Gas*2 Retention time: one minute		[Flange rating]	[Test pressure]	
	For A-Capsule	JIS 10K, 20K, 40K	200 kPa (29 psi)	**T72**
		ANSI/JPI Class 150, 300, 600		
		DIN PN10/16, PN25/40		
	For B-Capsule	JIS 10K, 20K, 40K	2 MPa (290 psi)	**T51**
		ANSI/JPI Class 150, 300, 600		
		DIN PN10/16, PN25/40		
	For C-Capsule	JIS 10K	2 MPa (290 psi)	**T51**
		JIS 20K	5 MPa (720 psi)	**T54**
		JIS 40K	10 MPa (1450 psi)	**T57**
		JIS 40K	7 MPa (1000 psi)*5	**T55**
		ANSI/JPI Class 150	3 MPa (430 psi)	**T52**
		ANSI/JPI Class 300	8 MPa (1160 psi)	**T56**
		ANSI/JPI Class 600	10 MPa (1450 psi)	**T57**
		ANSI/JPI Class 300, 600	7 MPa (1000 psi)*5	**T55**
		DIN PN10/16	3MPa(430 psi)	**T52**
		DIN PN25/40	7MPa(1000 psi)	**T55**
Calibration certificate	Text, Traceability			**L4**
	Text, Traceability, Primary standards list			**L5**
	Text, Traceability, Primary standards list, Calibration equipment list			**L6**
	Text, Traceability, Primary standards list, Calibration equipment list, Calibration equipment certificate			**L9**

● EJXC50A, EJAC50E Direct Mounted Diaphragm Seal System

Item	Description			Code
Oil-prohibited use*8	Degrease cleansing treatment			**K21**
	Degrease cleansing treatment		With certificates	**K81**
Oil-prohibited use with dehydrating treatment*9	Degrease cleansing and dehydrating treatment			**K25**
	Degrease cleansing and dehydrating treatment		With certificates	**K85**
Pressure test/ Leak test certificate*1 Nitrogen (N2) Gas*2 Retention time: one minute		[Flange rating]	[Test pressure]	
	For A-Capsule	JIS 10K, 20K, 40K	200 kPa (29 psi)	**T72**
		ANSI/JPI Class 150, 300, 600		
		DIN PN10/16, PN25/40		
	For B-Capsule	JIS 10K, 20K, 40K	2 MPa (290 psi)	**T51**
		ANSI/JPI Class 150, 300, 600		
		DIN PN10/16, PN25/40		
	For C-Capsule	JIS 10K	2 MPa (290 psi)	**T51**
		JIS 20K	5 MPa (720 psi)	**T54**
		JIS 40K	10 MPa (1450 psi)	**T57**
		JIS 40K	7 MPa (1000 psi)*3	**T55**
		ANSI/JPI Class 150	3 MPa (430 psi)	**T52**
		ANSI/JPI Class 300	8 MPa (1160 psi)	**T56**
		ANSI/JPI Class 600	10 MPa (1450 psi)	**T57**
		ANSI/JPI Class 300, 600	7 MPa (1000 psi)*3	**T55**
		DIN PN10/16	3MPa(430 psi)	**T52**
		DIN PN25/40	7MPa(1000 psi)	**T55**

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Calibration certificate	Text, Traceability	**L4**
	Text, Traceability, Primary standards list	**L5**
	Text, Traceability, Primary standards list, Calibration equipment list	**L6**
	Text, Traceability, Primary standards list, Calibration equipment list, Calibration equipment certificate	**L9**

*1: The unit on the certificate is always Pa regardless of selection of option code D1, D3, or D4.
*2: Dry nitrogen gas is used for oil-prohibited use (option code K21 and K25).
*3: Applicable for extended type (Model code C20FE).
*4: Applicable when C80FE or C20FE (extended type diaphragm seal) is specified with either/both high and low pressure side on transmitters.
*5: Applicable when C20FE (extended type diaphragm seal) is specified with either/both primary (high pressure side) and secondary (low pressure side) on transmitters.
*6: Specify the process operating temperature for zero correction. Example: Zero correction by process temperature 90°C.
*7: When combination type (Screw and Flange) is selected, apply flange side pressure value to test certificate.
*8: Applicable for combination with /K31 of Diaphragm seal.
*9: Applicable for combination with /K35 of Diaphragm seal.

● C80FW, C80FE Flanged Diaphragm Seal

Item	Description		Code
Oil-prohibited use	Degrease cleansing treatment		**K31**
Oil-prohibited use with dehydrating treatment	Degrease cleansing and dehydrating treatment		**K35**
Material certificate	For Flush type (C80FW)	Process flange, Block	**MCW**
		Process flange, Block, Diaphragm	**MDW**
		Flange, Block, Diaphragm, Seal ring*11, Capillary	**MHW**
	For Extended type (C80FE)	Process flange, Block, Pipe, Base	**MCE**
		Process flange, Block, Pipe, Base, Diaphragm	**MDE**
		Flange, Block, Pipe, Base, Diaphragm, Seal ring*11, Capillary	**MHE**
Teflon film*8*9*10 (Applicable for C80FW)	Diaphragm protection from sticky process fluid by FEP Teflon film attached with fluorinated oil. Operation range: 20 to 150°C, 0 to 2 MPa (Not applicable for vacuum service).		**TF1**

● C81FA, C81FD Inner Diaphragm type Flanged Diaphragm Seal (Bundled capillary type)

Item	Description		Code
Oil-prohibited use	Degrease cleansing treatment		**K31**
Material certificate	For C81FA Adapter connection type	Adapter (Flange), Block	**MCB**
		Adapter (Flange), Block, Diaphragm	**MDB**
		Adapter (Flange), Block, Bolt for Block, Stud bolt and nut	**MLB**
		Adapter (Flange), Block, Bolt for Block, Stud bolt and nut, Diaphragm	**MMB**
		Adaptor, Block, Bolt for block, Stud bolt and nut, Diaphragm, Capillary, Seal ring, Vent and Draing plug, Vent screw*12	**MSB**
	For C81FD Flange connection type	Flange, Base, Block, Pipe	**MCF**
		Flange, Base, Block, Pipe, Diaphragm	**MDF**
		Flange, Base, Block, Pipe, Bolt for block	**MLF**
		Flange, Base, Block, Pipe, Bolt for block, Diaphragm	**MMF**
		Flange, Base, Block, Pipe, Bolt for block, Diaphragm, Capillary, Seal ring, Vent and Drain plug, Vent screw*12	**MSF**

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● C82FA, C82FD Inner Diaphragm type Flanged Diaphragm Seal (Standard type)

Item	Description		Code
Oil-prohibited use	Degrease cleansing treatment		**K31**
Oil-prohibited use with dehydrating treatment	Degrease cleansing and dehydrating treatment		**K35**
Material certificate	For C82FA Adapter connection type	Adapter (Flange), Block	**MCA**
		Adapter (Flange), Block, Diaphragm	**MDA**
		Adapter (Flange), Block, Bolt for Block, Stud bolt and nut	**MLA**
		Adapter (Flange), Block, Bolt for Block, Stud bolt and nut, Diaphragm	**MMA**
		Adaptor, Block, Bolt for block, Stud bolt and nut, Diaphragm, Capillary, Seal ring, Vent and Draing plug, Vent screw*12	**MSA**
	For C82FD Flange connection type	Flange, Base, Block, Pipe	**MCD**
		Flange, Base, Block, Pipe, Diaphragm	**MDD**
		Flange, Base, Block, Pipe, Bolt for block	**MLD**
		Flange, Base, Block, Pipe, Bolt for block, Diaphragm	**MMD**
		Flange, Base, Block, Pipe, Bolt for block, Diaphragm, Capillary, Seal ring, Vent and Drain plug, Vent screw*12	**MSD**

● C20FW, C20FE Direct Mount Flanged Diaphragm Seal

Item	Description		Code
Oil-prohibited use	Degrease cleansing treatment		**K31**
Oil-prohibited use with dehydrating treatment	Degrease cleansing and dehydrating treatment		**K35**
Material certificate	For Flush type (C20FW)	Process flange, Block	**MCW**
		Process flange, Block, Diaphragm	**MDW**
		Flange, Block, Diaphragm, Seal ring*11, Capillary	**MHW**
	For Extended type (C20FE)	Process flange, Block, Pipe, Base	**MCE**
		Process flange, Block, Pipe, Base, Diaphragm	**MDE**
		Flange, Block, Pipe, Base, Diaphragm, Seal ring*11, Capillary	**MHE**
Teflon film*8 (Applicable for C20FW)	Diaphragm protection from sticky process fluid by FEP Teflon film attached with fluorinated oil. Operation range: 20 to 150°C, 0 to 2 MPa (Not applicable for vacuum service).		**TF1**

● C30SW, C30SE Direct Mount Hygienic Diaphragm Seal
C70SW, C70SE Remote Mount Hygienic Diaphragm Seal

Item	Description		Code
Oil-prohibited use	Degrease cleansing treatment		**K31**
Material certificate	For Flush type (C30SW)	Block	**MPW**
		Block, Diaphragm	**MQW**
	For Extended type (C30SE)	Block	**MPE**
		Block, Diaphragm	**MQE**
Certificate	Electro polishing		**Y1**
	Buffing		**Y2**
	Buffing and Electro polishing		**Y4**

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● C10FR Flushing connection ring

Item	Description	Code
Oil-prohibited use	Degrease cleansing treatment	**K31**
Oil-prohibited use with dehydrating treatment	Degrease cleansing and dehydrating treatment	**K35**
Material certificate	Ring	**M0R**
	Ring, Vent and drain plug, Vent screw	**M1R**

*8: Not applicable for combination with C10FR (Flushing connection ring).
*9: Not applicable for High vacuum use (fill fluid code: 1, 2, 4)
*10: Not applicable for Absolute pressure diaphragm seal system (Mode code: EJXC81A and EJAC81E)
*11: Not applicable for diaphragm material code T.
*12: Drain and vent plug is not applicable for vent plug style code N.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

12. PERFORMANCE SPECIFICATIONS

Specification Conformance

EJX and EJA-E series ensures specification conformance to at least ±3σ.

12.1 EJXC80A Diaphragm Seal System

Zero-based calibrated span, linear output, diaphragm material code S for diaphragm diameter code 9, fill fluid code B. and capillary length of 5 m.

For Fieldbus and PROFIBUS PA communication types, use calibrated range instead of span in the following specifications.

Applicable Products (Transmitter): EJX110A (Differential pressure transmitter) with both side diaphragm seal
EJX110A (Differential pressure transmitter) with Compensating capillary type

Measurement span		M	H	V
Reference accuracy	X ≤ span	±0.15% of Span	±0.15% of Span	
	X > span	± (0.02 + 0.013 URL/span)% of Span	± (0.085 + 0.013 URL/span)% of Span	± (0.085+0.0065 URL/ span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.25% Span + 0.06% URL)		
Static Pressure Effects per 0.69 MPa (100 psi) Change		Span Effects: ±0.02% of span		
		Effect on Zero: ±0.014% of URL		

Applicable Products (Transmitter): EJX110A (Differential pressure transmitter) with one-side diaphragm seal
EJX110A (Differential pressure transmitter) with combination seal type
Direct mount with remote seal type

Measurement span		M	H	V
Reference accuracy	X ≤ span	±0.15% of Span	±0.15% of Span	
	X > span	± (0.02 + 0.013 URL/span)% of Span	± (0.085 + 0.013 URL/span)% of Span	± (0.085+0.0065 URL/ span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.5% Span + 0.12% URL)		
Static Pressure Effects per 0.69 MPa (100 psi) Change		Span Effects: ±0.04% of span		
		Effect on Zero: ±0.028% of URL		

Square Root Output Accuracy

The square root accuracy is a percent of flow span

Output	Accuracy
50% or Greater	Same as reference accuracy
50% to Dropout point	$\frac{\text{Reference accuracy} \times 50}{\text{Square root output (\%)}}$

Measurement span	M	H	V
X	10 kPa (40 inH_2O)	100 kPa (400 inH_2O)	1.4 MPa (200 psi)
URL (upper range limit)	100 kPa (400 inH_2O)	500 kPa (2000 inH_2O)	14 MPa (2000 psi)

Applicable Products (Transmitter): EJX430A (gauge pressure transmitter) with Remote diaphragm seal

Measurement span		A, B
Reference accuracy	X ≤ span	±0.15% of Span
	X > span	± (0.1 + 0.005 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.5% Span + 0.025% URL)

Measurement span	A	B
X	0.35 MPa (50 psi)	1.6 MPa (230 psi)
URL (upper range limit)	3.5 MPa (500 psi)	16 MPa (2300 psi)

Applicable Products (Transmitter): EJX310A (Absolute pressure transmitter) with C80F☐ Diaphragm seal

Measurement span		M	A, B
Reference accuracy	X ≤ span	±0.15% of Span	±0.15% of Span
	X > span	± (0.02+0.0214 URL/span)% of Span	± (0.1 + 0.005 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.5% Span + 0.025% URL)	± (0.5% Span + 0.025% URL)

Measurement span	M	A	B
X	21.4 kPa abs (6.3 inHg abs)	0.35 MPa abs (50 psia)	1.6 MPa abs (230 psia)
URL (upper range limit)	130 kPa abs (38.4 inHg abs)	3.5 MPa abs (500 psia)	16 MPa abs (2300 psia)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

12.2 EJXC80A Direct Mounted Diaphragm Seal System

Zero-based calibrated span, linear output, diaphragm material code S for diaphragm diameter code 9, fill fluid code B. and C20F☐ on High side Seal.

For Fieldbus and PROFIBUS PA communication types, use calibrated range instead of span in the following specifications.

Applicable Products (Transmitter): EJX110A (Differential pressure transmitter) with C20F☐ Direct mount seal

Measurement span		M	H	V
Reference accuracy	X ≤ span	±0.075% of Span	±0.075% of Span	
	X > span	± (0.025 + 0.005 URL/span)% of Span	± (0.025 + 0.01 URL/span)% of Span	± (0.025+0.005 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.224% Span + 0.056% URL)	± (0.14% Span + 0.028% URL)	
Static Pressure Effects per 0.69 MPa (100 psi) Change		Span Effects: ±0.028% of span Effect on Zero: ±0.007% of URL		

Square Root Output Accuracy

The square root accuracy is a percent of flow span.

Output	Accuracy
50% or Greater	Same as reference accuracy
50% to Dropout point	$\frac{\text{Reference accuracy} \times 50}{\text{Square root output (\%)}}$

Measurement span	M	H	V
X	10 kPa (40 inH_2O)	100 kPa (400 inH_2O)	1.4 MPa (200 psi)
URL (upper range limit)	100 kPa (400 inH_2O)	500 kPa (2000 inH_2O)	14 MPa (2000 psi)

12.3 EJXC50A Performance specifications

Zero-based calibrated span, linear output, diaphragm material code S for diaphragm diameter code 9, fill fluid code B.

For Fieldbus and PROFIBUS PA communication types, use calibrated range instead of span in the following specifications.

Measurement span		A, B, C
Reference accuracy	X ≤ span	±0.055% of Span
	X > span	± (0.01 + 0.0045 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.14% Span + 0.028% URL)

Measurement span	A	B	C
X	20 kPa (2.9 psi)	0.2 MPa (29 psi)	1 MPa (145 psi)
URL (upper range limit)	200 kPa (29 psi)	2 MPa (290 psi)	10 MPa (1450 psi)

12.4 EJXC40A Performance specifications

Zero-based calibrated span, linear output, diaphragm material code S for diaphragm diameter code 9, fill fluid code B.

Differential pressure accuracy of DRS system

Measurement span	A, B, C
Reference accuracy	$\pm\sqrt{\text{Accuracy of primary}^2 + \text{Accuracy of secondary}^2}$

Example: $\pm\sqrt{0.055^2 + 0.055^2} = \pm 0.078\%$ (In case of "X ≤ span")

*Primary and secondary accuracy: Refer to EJXC50A

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

12.5 EJAC80E Diaphragm Seal System Performance specifications

Zero-based calibrated span, linear output, diaphragm material code S for diaphragm diameter code 9, fill fluid code B. and capillary length of 5 m.

For Fieldbus and PROFIBUS PA communication types, use calibrated range instead of span in the following specifications.

Applicable Products (Transmitter): EJA110E (Differential pressure transmitter) with both side C80F☐ diaphragm seal

Measurement span		M, H	V
Reference accuracy	X ≤ span	±0.2% of Span	±0.2% of Span
	X > span	± (0.15 + 0.01 URL/span)% of Span	± (0.15 + 0.005 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.48% Span + 0.06% URL)	
Static Pressure Effects per 0.69 MPa (100 psi) Change		Span Effects: ±0.02% of span	
		Effect on Zero: ±0.014% of URL	

Applicable Products (Transmitter): EJA110E (Differential pressure transmitter) with both-side diaphragm seal
EJA110E (Differential pressure transmitter) with combination diaphragm seal
Direct mount with remote seal type

Measurement span		M, H	V
Reference accuracy	X ≤ span	±0.2% of Span	±0.2% of Span
	X > span	± (0.15 + 0.01 URL/span)% of Span	± (0.15 + 0.005 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.96% Span + 0.12% URL)	
Static Pressure Effects per 0.69 MPa (100 psi) Change		Span Effects: ±0.04% of span	
		Effect on Zero: ±0.028% of URL	

Square Root Output Accuracy

The square root accuracy is a percent of flow span.

Output	Accuracy
50% or Greater	Same as reference accuracy
50% to Dropout point	$\frac{\text{Reference accuracy} \times 50}{\text{Square root output (\%)}}$

Measurement span	M	H	V
X	20 kPa (80 inH_2O)	100 kPa (400 inH_2O)	1.4 MPa (200 psi)
URL (upper range limit)	100 kPa (400 inH_2O)	500 kPa (2000 inH_2O)	14 MPa (2000 psi)

Applicable Products (Transmitter): EJA430E (Gauge pressure transmitter) with Remote diaphragm seal

Measurement span		A, B
Reference accuracy	X ≤ span	±0.2% of Span
	X > span	± (0.16 + 0.004 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.53% Span + 0.025% URL)

Measurement span	A	B
X	0.35 MPa (50 psi)	1.6 MPa (230 psi)
URL (upper range limit)	3.5 MPa (500 psi)	16 MPa (2300 psi)

Applicable Products (Transmitter): EJA310E (Absolute pressure transmitter) with C80F☐ Diaphragm seal

Measurement span		M	A, B
Reference accuracy	X ≤ span	±0.2% of Span	±0.2% of Span
	X > span	± (0.15 + 0.0083 URL/span)% of Span	± (0.16 + 0.004 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.96% Span + 0.12% URL)	± (0.53% Span + 0.025% URL)

Measurement span	M	A	B
X	21.4 kPa abs (6.3 inHg abs)	0.35 MPa abs (50 psia)	1.6 MPa abs (230 psia)
URL (upper range limit)	130 kPa abs (38.4 inHg abs)	3.5 MPa abs (500 psia)	16 MPa abs (2300 psia)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

12.6 EJAC80E Direct Mounted Diaphragm Seal System Performance specifications

Zero-based calibrated span, linear output, diaphragm material code S for diaphragm diameter code 9, fill fluid code B. and C20F☐ on High side Seal.

For Fieldbus and PROFIBUS PA communication types, use calibrated range instead of span in the following specifications.

Applicable Products (Transmitter): EJA110E (Differential pressure transmitter) with C20F☐ Direct mount seal

Measurement span		M	H	V
Reference accuracy	X ≤ span	±0.075% of Span	±0.075% of Span	
	X > span	± (0.025 + 0.005 URL/span)% of Span	± (0.025 + 0.01 URL/span)% of Span	± (0.025+0.005 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.224% Span + 0.056% URL)	± (0.14% Span + 0.028% URL)	
Static Pressure Effects per 0.69 MPa (100 psi) Change		Span Effects: ±0.028% of span		
		Effect on Zero: ±0.007% of URL		

Square Root Output Accuracy

The square root accuracy is a percent of flow span.

Output	Accuracy
50% or Greater	Same as reference accuracy
50% to Dropout point	$\frac{\text{Reference accuracy} \times 50}{\text{Square root output (\%)}}$

Measurement span	M	H	V
X	10 kPa (40 inH_2O)	100 kPa (400 inH_2O)	1.4 MPa (200 psi)
URL (upper range limit)	100 kPa (400 inH_2O)	500 kPa (2000 inH_2O)	14 MPa (2000 psi)

12.7 EJAC50E Performance specifications

Zero-based calibrated span, linear output, diaphragm material code S for diaphragm diameter code 9, fill fluid code B.

For Fieldbus and PROFIBUS PA communication types, use calibrated range instead of span in the following specifications.

Measurement span		A, B, C
Reference accuracy	X ≤ span	±0.075% of Span
	X > span	± (0.0075 URL/span)% of Span
Ambient Temperature Effects per 28°C (50°F) Change		± (0.14% Span + 0.028% URL)

Measurement span	A	B	C
X	20 kPa (2.9 psi)	0.2 MPa (29 psi)	1 MPa (145 psi)
URL (upper range limit)	200 kPa (29 psi)	2 MPa (290 psi)	10 MPa (1450 psi)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

13. Capillary length limitation

	Diaphragm seal system			Diaphragm diameter Code	Diaphragm material Code	Capillary Length			
		High-side	Low-side			1 to 5 m	6 to 10 m	11 to 13 m	14 to 15 m
Differential Pressure Transmitter	Both side (High and Low) Diaphragm seal	C80F☐	C80F☐	9	S	●	●	●	●
				6		●	●	●	●
		C81F☐		6		●	●	●	●
		C82F☐	C82F☐			●	●	●	●
		C80F☐	C80F☐	9	H, T, U, M, K	●	●	●	●
		C81F☐		6		●	●	----	----
		C82F☐	C82F☐			●	●	----	----
		C80F☐	C80F☐	9	V	●	●	----	----
				6		●	----	----	----
		C80F☐	C80F☐	9	J	●	●	----	----
		C70S☐	C70S☐	9	S,H	●	●	----	----
				6		●	●	----	----
				4		●	----	----	----
	High side Direct mount seal Low side Diaphragm seal	C20F☐	C80F☐	9	S H, T, U, M, K	●	●	----	----
				6		●	●	----	----
		C30S☐	C70S☐	9	S,H	●	●	----	----
				6		●	●	----	----
	Compensating capillary type	C20F☐	C80F☐	9	S H, T, U, M, K	●	●	----	----
				6	S H, T, U, M, K	●	●	----	----
Gauge Pressure Transmitter	High side Diaphragm seal	C80F☐	----	9	S	●	●	----	----
				6		●	●	----	----
		C82F☐	----	6		●	●	----	----
		C80F☐	----	9	H, T, U, M, K	●	●	----	----
				6		●	●	----	----
		C82F☐	----	6		●	●	----	----
		C70S☐	----	9	S,H	●	●	----	----
				6		●	●	----	----
				4		●	----	----	----
	Low side Diaphragm seal	----	C80F☐	9	S	●	●	----	----
				6		●	●	----	----
		----	C82F☐	6		●	●	----	----
		----	C80F☐	9	H, T, U, M, K	●	●	----	----
				6		●	●	----	----
		----	C82F☐	6		●	●	----	----
		----	C70S☐	9	S,H	●	●	----	----
				6		●	●	----	----
				4		●	----	----	----
	High side Diaphragm seal (Low side Open to atmosphere)	C80F☐	----	9	S	●	●	●	●
				6		●	●	●	----
		C82F☐	----	6		●	●	●	----
		C80F☐	----	9	H, T, U, M, K	●	●	●	●
				6		●	●	----	----
		C82F☐	----	6		●	●	----	----
		C80F☐	----	9	V	●	●	----	----
				6		●	----	----	----
		C80F☐	----	9	J	●	●	----	----
		C70S☐	----	9	S,H	●	●	----	----
				6		●	●	----	----
				4		●	----	----	----
Absolute Pressure Transmitter	High side Diaphragm seal	C80F☐	----	9	S	●	●	●	●
				6		●	●	●	----
		C82F☐	----	6		●	●	●	----
		C80F☐	----	9	H,T	●	●	●	●
				6		●	●	----	----
		C82F☐	----	6		●	●	----	----

●: applicable ----: not applicable

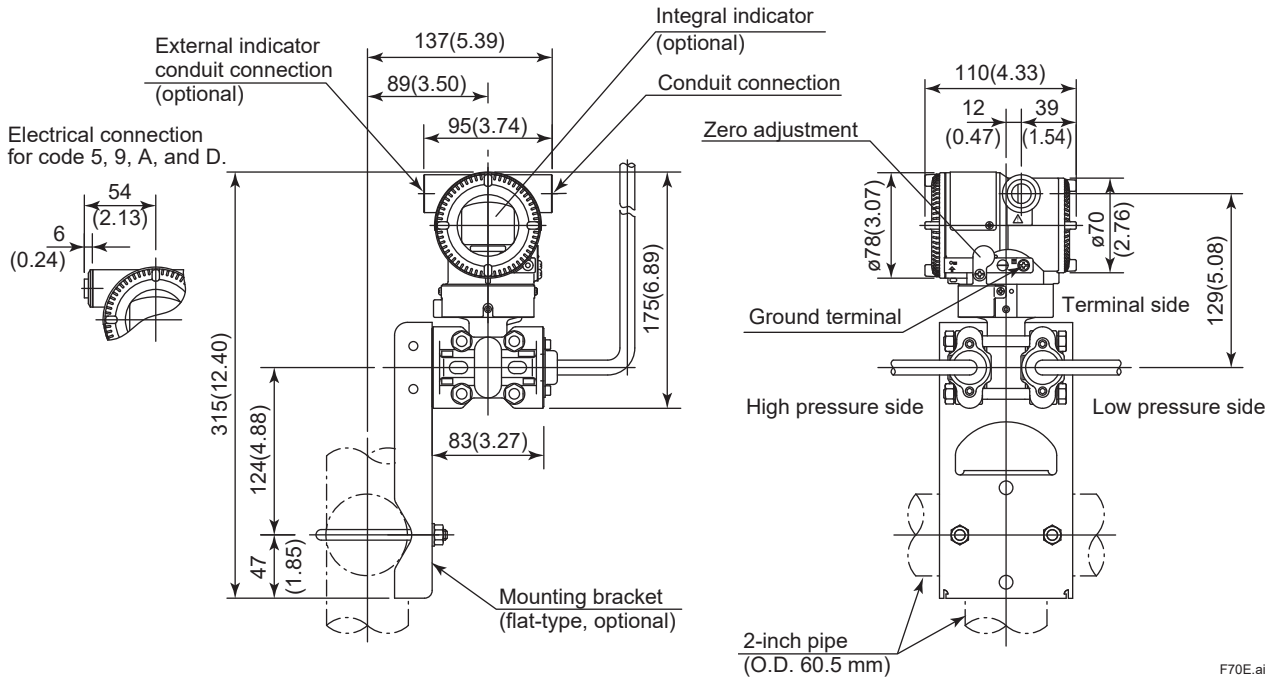
All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ DIMENSIONS (Differential Pressure, Transmitter Part)

● Remote Mounted Diaphragm Seal System, Remote Seal for High and Low Pressure Side

[Transmitter Part: EJX110A, EJA110E Differential Pressure Transmitter]

Unit: mm (approx. inch)



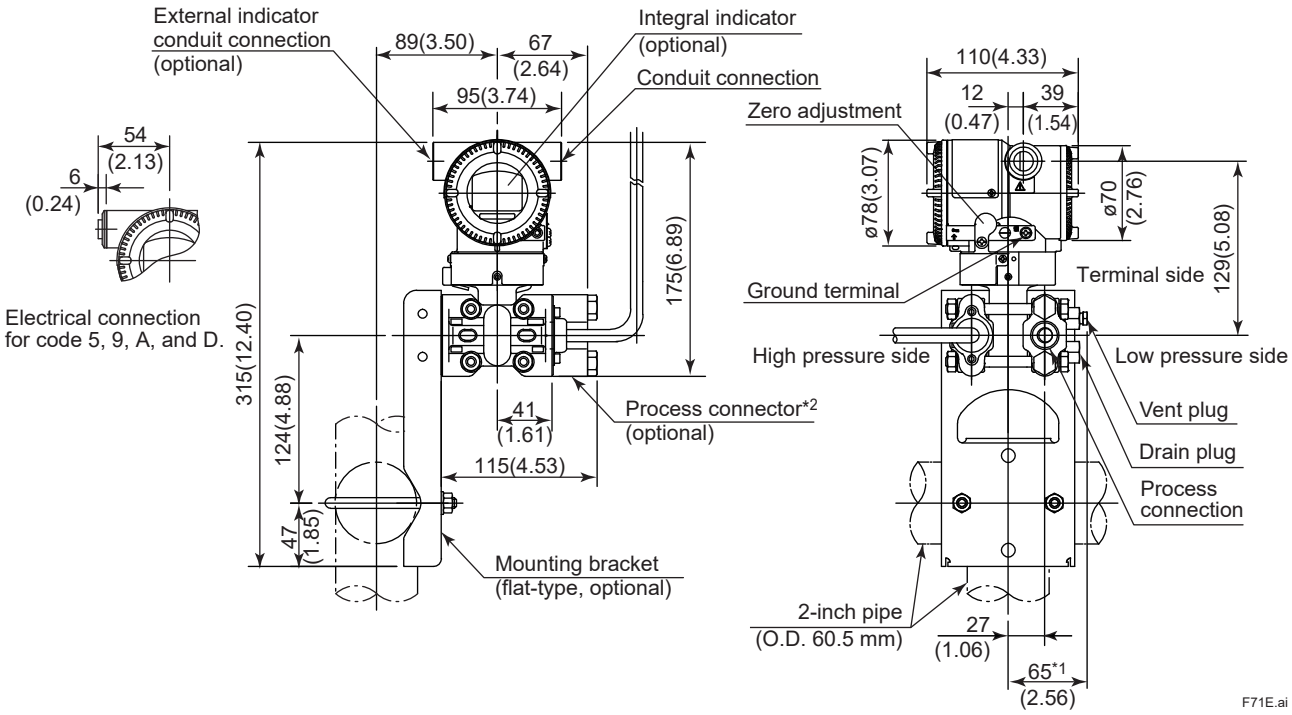
*1: When electrical connection code 7 or C is selected, a blind plug is protruded upto 8 mm (0.31 inch) from the conduit connection.

● Remote Mounted Diaphragm Seal System, Remote Seal for High or Low Pressure Side

(The figure below shows the EJ□C80□-D80. In case of the EJ□C80□-D08, process connection of high and low pressure sides are reversed.)

[Transmitter Part: EJX110A, EJA110E Differential Pressure Transmitter]

Unit: mm (approx. inch)

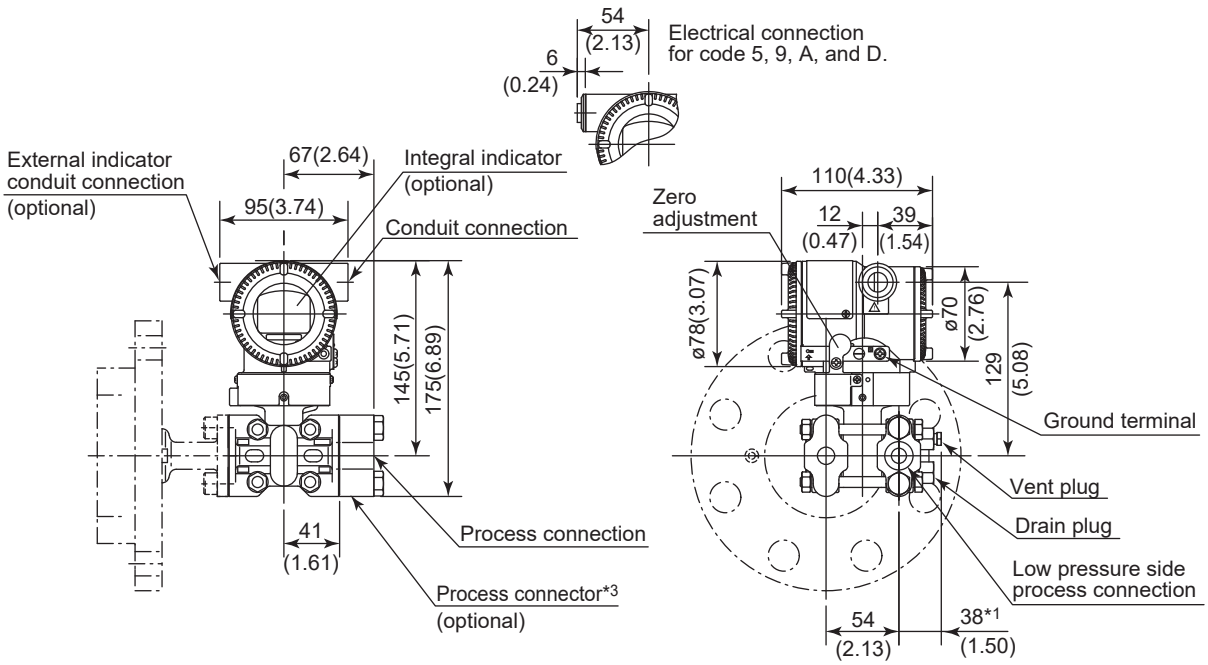


*1: When electrical connection code 7 or C is selected, a blind plug is protruded upto 8 mm (0.31 inch) from the conduit connection.
*2: When option code BS is selected, a bug screen is attached in the process connection port on the cover flange of low pressure side. In case of the EJ□C80□-D08, a bug screen is not attached on the cover flange of high pressure side.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● Direct Mounted Diaphragm Seal System

Unit: mm (approx. inch)



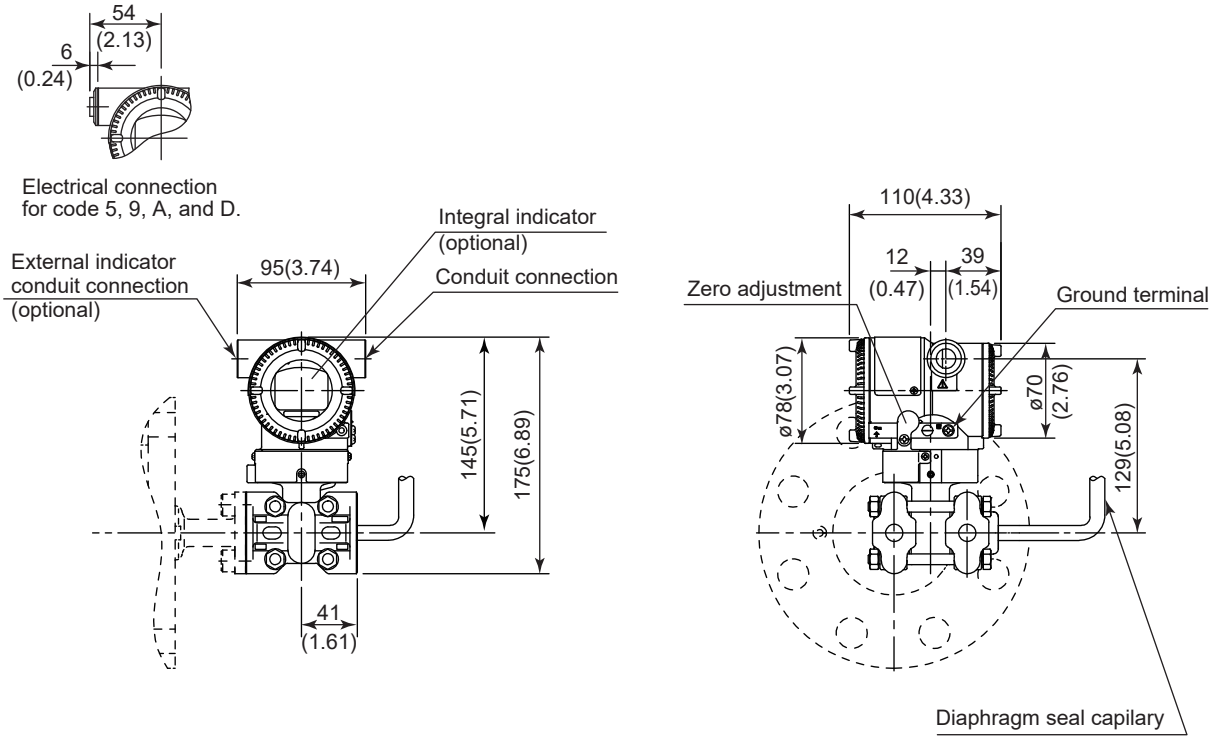
*1: When Option code K11, K12, K15, or K16 is selected, add 15 mm(0.59 inch) to the value in the flange.
*2: When electrical connection code 7 or C is selected, a blind plug is protruded upto 8 mm (0.31 inch) from the conduit connection.
*3: When option code BS is selected, a bug screen is attached in the process connection port on the cover flange of low pressure side. No process connector for low pressure side is attached in that case.

F72E.ai

● Diaphragm Seal System, Combination of Direct Mount and Remote Mount Flanged Diaphragm Seal

[Transmitter Part: EJX110A, EJA110E Differential Pressure Transmitter]

Unit: mm (approx. inch)



*1: When electrical connection code 7 or C is selected, a blind plug is protruded up to 8 mm (0.31 inch) from the conduit connection.

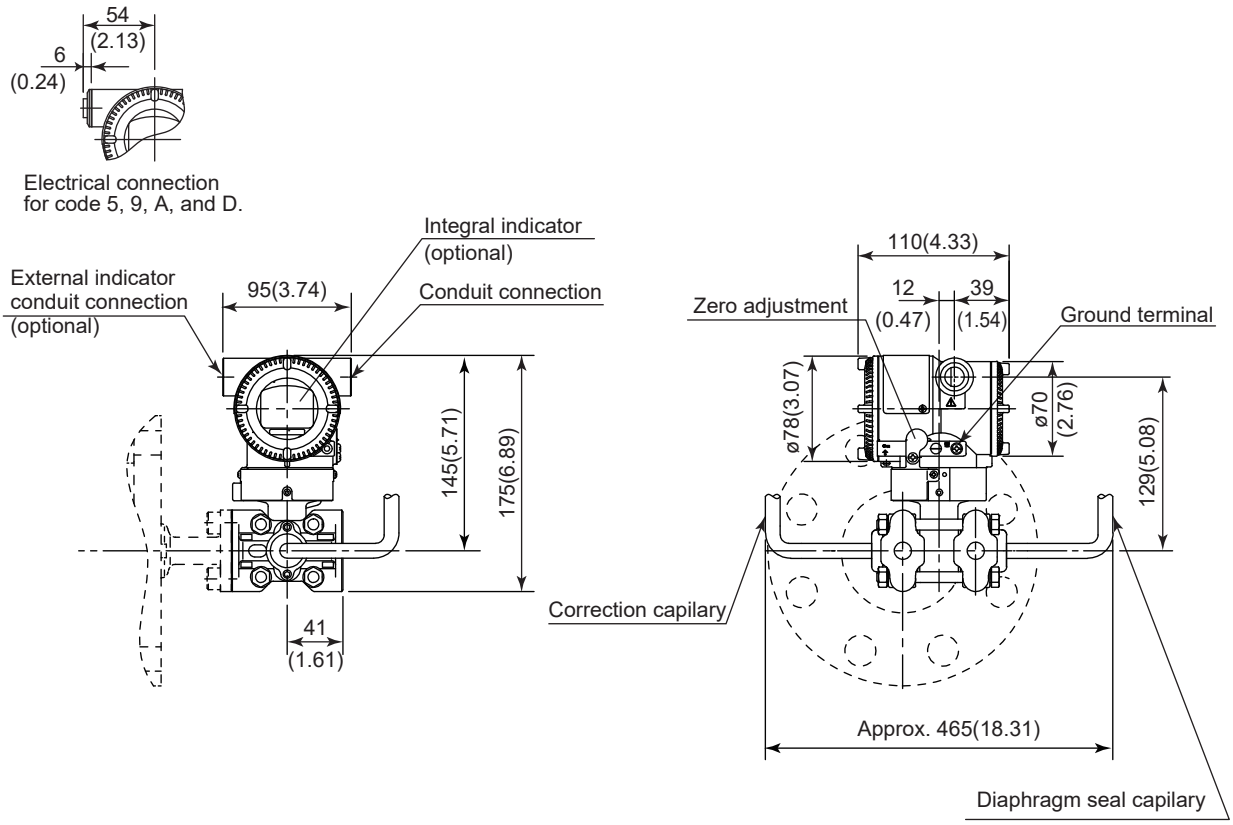
F73E.ai

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

- **Diaphragm Seal System, Combination of Direct Mount and Remote Mount Flanged Diaphragm Seal, with compensating capillary for High Pressure Side**

[Transmitter Part: EJX110A, EJA110E Differential Pressure Transmitter]

Unit: mm (approx. inch)



*1: When electrical connection code 7 or C is selected, a blind plug is protruded up to 8 mm (0.31 inch) from the conduit connection.

F74E.ai

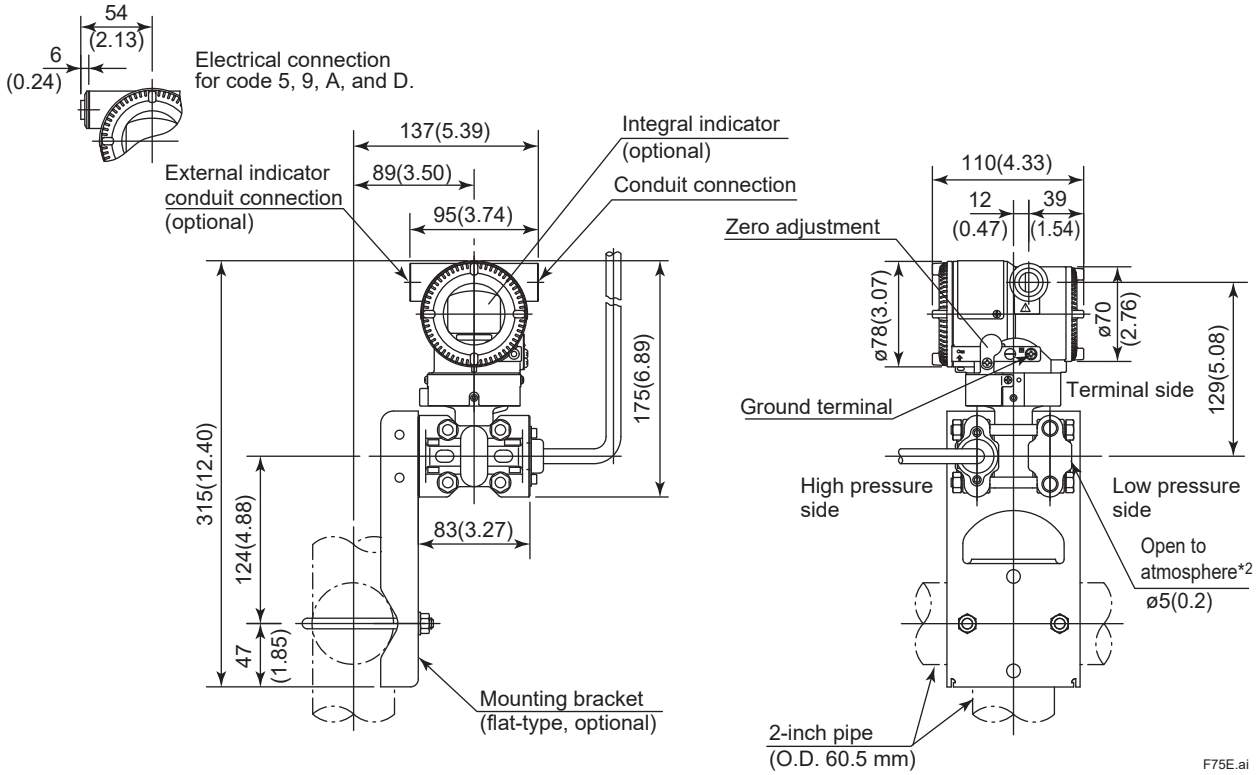
All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ DIMENSIONS (Gauge Pressure, Transmitter Part)

● Remote Mounted Diaphragm Seal System

[Transmitter Part: EJX430A, EJA430E Gauge Pressure Transmitter]

Unit: mm (approx. inch)



*1: When electrical connection code 7 or C is selected, a blind plug is protruded upto 8 mm (0.31 inch) from the conduit connection.
*2: When option code BS is selected, the hole open to atmosphere on the cover flange of low pressure side is threaded and a bug screen is attached in it.

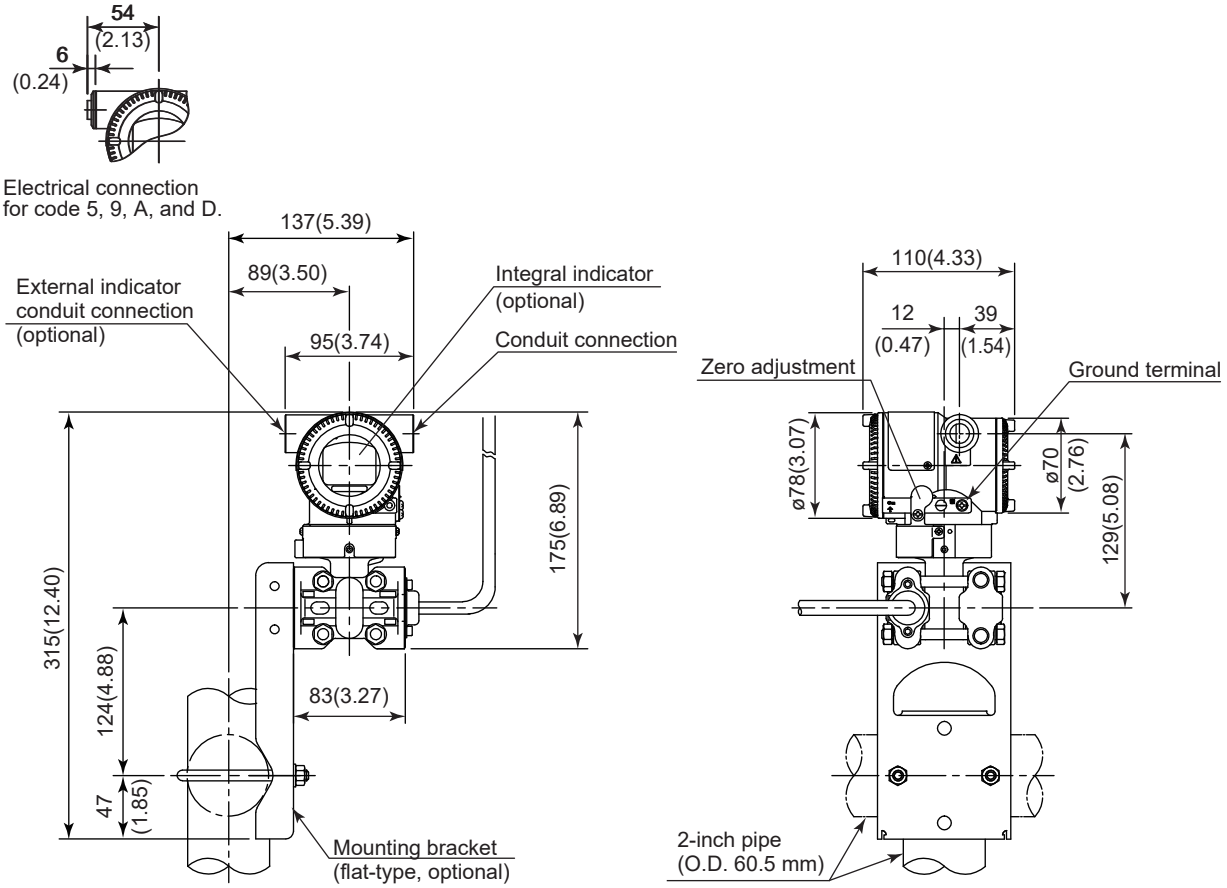
All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ DIMENSIONS (Absolute Pressure, Transmitter Part)

● Remote Mounted Absolute Pressure Diaphragm Seal System

[Transmitter Part: EJX310A, EJA310E Absolute Pressure Transmitter]

Unit: mm (approx. inch)



*1: When electrical connection code 7 or C is selected, a blind plug is protruded up to 8 mm (0.31 inch) from the conduit connection.

F76E.ai

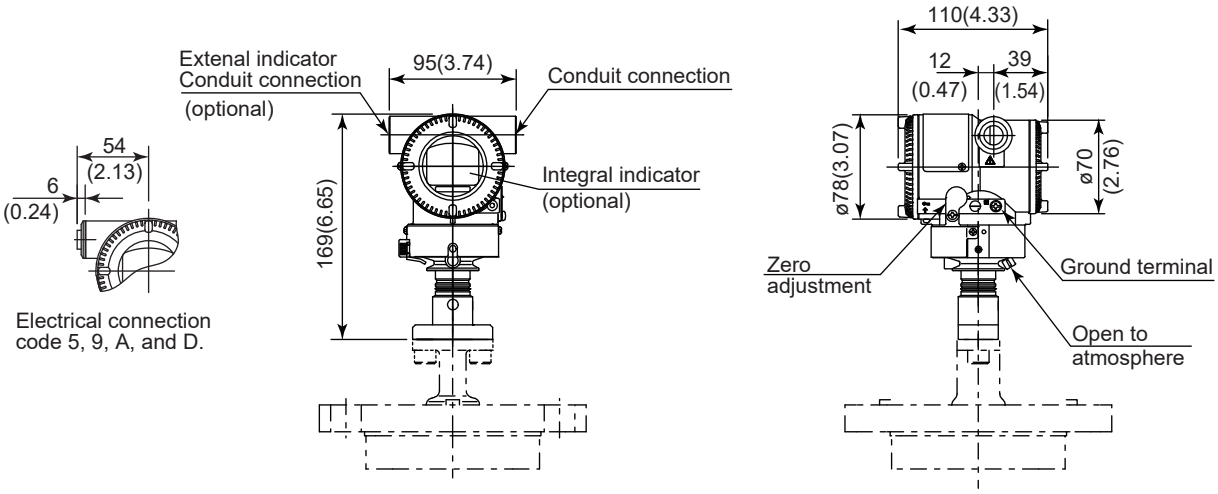
All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● Direct Mounted Diaphragm Seal System

[Transmitter Part: EJX530A, EJA530E Process Connection Code P]

For the transmitter part of digital remote sensored diaphragm seal system, refer to GS 01C25W05-01EN.

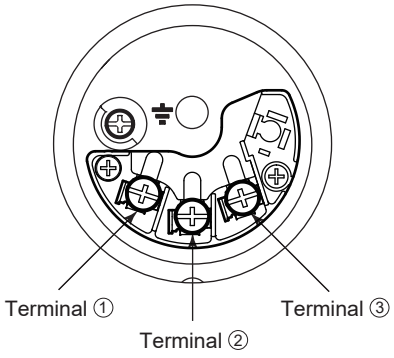
Unit: mm (approx. inch)



*1: When electrical connection code 7 or C is selected, a blind plug is protruded upto 8 mm (0.31 inch) from the conduit connection.

■ TERMINALS

● Terminal Configuration



● Terminal Wiring

SUPPLY	+ ① – ②	Power supply and output terminals
CHECK or ALARM	+ ③ – ②	External indicator (ammeter) terminals*1*2 or Status contact output terminals*2 (when /AL is specified)
⏚		Ground terminal

*1: When using an external indicator or check meter, the internal resistance must be 10 Ω or less. A check meter or indicator cannot be connected when /AL option is specified.

*2: Not available for FOUNDATION Fieldbus and PROFIBUS PA communication types.

F77E.ai

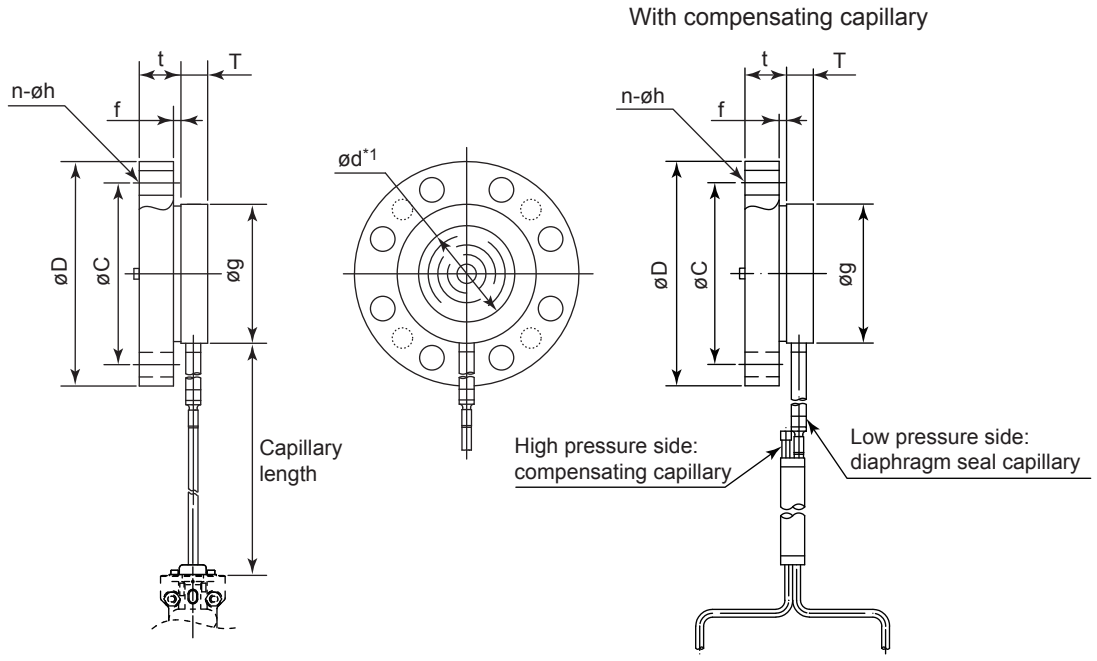
All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

■ DIMENSIONS (Diaphragm Seal Part and Accessories)

● C80FW Remote Mount Flanged Diaphragm Seal (Flash Type)

[Raised Face (RF), Capillary Connected to the Side of Diaphragm Seal Unit]

Unit: mm (approx. inch)



*1: Indicates inside diameter of gasket contact surface.

F78E.ai

Process flange size: 3-inch (80 mm)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	Bolt holes		t	f*2	T*4	øg	ød
					No.(n)	Dia.(øh)					
J	A	JIS 10K	185(7.28)	150(5.91)	8	19(0.75)	18(0.71)	0	25(0.98)	130(5.12)	90(3.54)
J	B	JIS 20K	200(7.87)	160(6.30)	8	23(0.91)	22(0.87)	0	25(0.98)	130(5.12)	90(3.54)
J	C	JIS 30K	210(8.27)	170(6.69)	8	23(0.91)	28(1.10)	0	25(0.98)	130(5.12)	90(3.54)
J	D	JIS 40K	210(8.27)	170(6.69)	8	23(0.91)	32(1.26)	0	25(0.98)	130(5.12)	90(3.54)
J	E	JIS 63K	230(9.06)	185(7.28)	8	25(0.98)	40(1.57)	0	25(0.98)	130(5.12)	90(3.54)
A	1	ANSI Class 150	190.5(7.50)	152.4(6.00)	4	19.1(0.75)	23.9(0.94)	1.6(0.06)	25(0.98)	130(5.12)	90(3.54)
A	2	ANSI Class 300	209.6(8.25)	168.1(6.62)	8	22.4(0.88)	28.5(1.12)	1.6(0.06)	25(0.98)	130(5.12)	90(3.54)
A	4	ANSI Class 600	209.6(8.25)	168.1(6.62)	8	22.4(0.88)	38.2(1.50)	6.4(0.25)	25(0.98)	130(5.12)	90(3.54)
A	5	ANSI Class 900	241.3(9.50)	190.5(7.50)	8	25.4(1.00)	38.1(1.50)	0	25(0.98)	130(5.12)	90(3.54)
A	6	ANSI Class 1500	266.7(10.50)	203.2(8.00)	8	31.8(1.25)	47.8(1.88)	0	25(0.98)	130(5.12)	90(3.54)
P	1	JPI Class 150	190(7.48)	152.4(6.00)	4	19(0.75)	24(0.94)	1.6(0.06)	25(0.98)	130(5.12)	90(3.54)
P	2	JPI Class 300	210(8.27)	168.1(6.62)	8	22(0.87)	28.5(1.12)	1.6(0.06)	25(0.98)	130(5.12)	90(3.54)
P	4	JPI Class 600	210(8.27)	168.1(6.62)	8	22(0.87)	38.4(1.51)	6.4(0.25)	25(0.98)	130(5.12)	90(3.54)
P	5	JPI Class 900	241(9.49)	190.5(7.50)	8	26(1.02)	38.5(1.52)	0	25(0.98)	130(5.12)	90(3.54)
P	6	JPI Class 1500	267(10.51)	203.2(8.00)	8	32(1.26)	48(1.89)	0	25(0.98)	130(5.12)	90(3.54)
D	H	DIN PN 10/16	200(7.87)	160(6.30)	8	18(0.71)	20(0.79)	0	25(0.98)	130(5.12)	90(3.54)
D	K	DIN PN 25/40	200(7.87)	160(6.30)	8	18(0.71)	24(0.94)	0	25(0.98)	130(5.12)	90(3.54)
D	L	DIN PN 64	215(8.46)	170(6.69)	8	22(0.87)	28(1.10)	0	25(0.98)	130(5.12)	90(3.54)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

Process flange size: 2-inch (50 mm)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	Bolt holes		t	f*2	T*4	øg	ød
					No.(n)	Dia.(øh)					
J	A	JIS 10K	155(6.10)	120(4.72)	4	19(0.75)	16(0.63)	0	25(0.98)	100(3.94)	61(2.40)
J	B	JIS 20K	155(6.10)	120(4.72)	8	19(0.75)	18(0.71)	0	25(0.98)	100(3.94)	61(2.40)
J	C	JIS 30K	165(6.50)	130(5.12)	8	19(0.75)	22(0.87)	0	25(0.98)	100(3.94)	61(2.40)
J	D	JIS 40K	165(6.50)	130(5.12)	8	19(0.75)	26(1.02)	0	25(0.98)	100(3.94)	61(2.40)
J	E	JIS 63K	185(7.28)	145(5.71)	8	23(0.91)	34(1.34)	0	25(0.98)	100(3.94)	61(2.40)
A	1	ANSI Class 150	152.4(6.00)	120.7(4.75)	4	19.1(0.75)	19.1(0.75)	1.6(0.06)	25(0.98)	100(3.94)	61(2.40)
A	2	ANSI Class 300	165.1(6.50)	127(5.00)	8	19.1(0.75)	22.4(0.88)	1.6(0.06)	25(0.98)	100(3.94)	61(2.40)
A	4	ANSI Class 600	165.1(6.50)	127(5.00)	8	19.1(0.75)	31.8(1.25)	6.4(0.25)	25(0.98)	100(3.94)	61(2.40)
P	1	JPI Class 150	152(5.98)	120.6(4.75)	4	19(0.75)	19.5(0.77)	1.6(0.06)	25(0.98)	100(3.94)	61(2.40)
P	2	JPI Class 300	165(6.50)	127(5.00)	8	19(0.75)	22.5(0.89)	1.6(0.06)	25(0.98)	100(3.94)	61(2.40)
P	4	JPI Class 600	165(6.50)	127(5.00)	8	19(0.75)	31.9(1.26)	6.4(0.25)	25(0.98)	100(3.94)	61(2.40)
D	H	DIN PN 10/16	165(6.50)	125(4.92)	4	18(0.71)	18(0.71)	0	25(0.98)	100(3.94)	61(2.40)
D	K	DIN PN 25/40	165(6.50)	125(4.92)	4	18(0.71)	20(0.79)	0	25(0.98)	100(3.94)	61(2.40)
D	L	DIN PN 64	180(7.09)	135(5.31)	4	22(0.87)	26(1.02)	0	25(0.98)	100(3.94)	61(2.40)

Process flange size: 1.5-inch (40 mm)

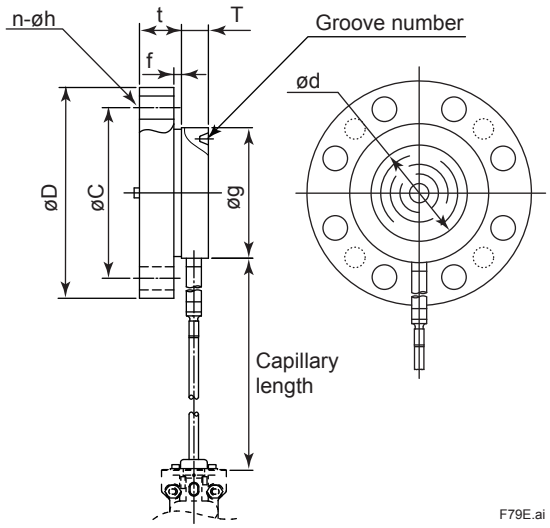
Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	Bolt holes		t	f*2	T	øg	ød
					No.(n)	Dia.(øh)					
J	A	JIS 10K	140(5.51)	105(4.13)	4	19(0.75)	16(0.63)	0	27(1.06)	86(3.39)	*3
J	B	JIS 20K	140(5.51)	105(4.13)	4	19(0.75)	18(0.71)	0	27(1.06)	86(3.39)	*3
J	C	JIS 30K	160(6.30)	120(4.72)	4	23(0.91)	22(0.87)	0	27(1.06)	86(3.39)	*3
J	D	JIS 40K	160(6.30)	120(4.72)	4	23(0.91)	24(0.94)	0	27(1.06)	86(3.39)	*3
J	E	JIS 63K	175(6.89)	130(5.12)	4	25(0.98)	32(1.26)	0	27(1.06)	86(3.39)	*3
A	1	ANSI Class 150	127(5.00)	98.6(3.88)	4	15.7(0.62)	17.5(0.69)	1.6(0.06)	27(1.06)	86(3.39)	*3
A	2	ANSI Class 300	155.4(6.12)	114.3(4.50)	4	22.4(0.88)	20.6(0.81)	1.6(0.06)	27(1.06)	86(3.39)	*3
A	4	ANSI Class 600	155.4(6.12)	114.3(4.50)	4	22.4(0.88)	28.8(1.13)	6.4(0.25)	27(1.06)	86(3.39)	*3
P	1	JPI Class 150	127(5.00)	98.6(3.88)	4	16(0.63)	18(0.71)	1.6(0.06)	27(1.06)	86(3.39)	*3
P	2	JPI Class 300	155(6.10)	114.3(4.50)	4	22(0.87)	21(0.83)	1.6(0.06)	27(1.06)	86(3.39)	*3
P	4	JPI Class 600	155(6.10)	114.3(4.50)	4	22(0.87)	28.9(1.14)	6.4(0.25)	27(1.06)	86(3.39)	*3

*2: For flange material code A(S25C), value of f is 0 mm.
*3: Always use in combination with C10FR. (ød=44 mm)
*4: For sealing face material code U(titanium), value of T is 34 mm.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

[Ring Joint (RJ), Capillary Connected to the Side of Diaphragm Seal Unit]

Unit: mm (approx. inch)



Process flange size: 3-inch (80 mm)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	Bolt holes		ød	t	f*1	T	øg	Groove No.
					No.(n)	Dia.(øh)						
A	2	ANSI Class 300	209.6(8.25)	168.1(6.62)	8	22.4(0.88)	90(3.54)	28.4(1.12)	1.6(0.06)	25(0.98)	147(5.79)	R31
A	4	ANSI Class 600	209.6(8.25)	168.1(6.62)	8	22.4(0.88)	90(3.54)	38.4(1.51)	6.4(0.25)	25(0.98)	147(5.79)	R31
A	5	ANSI Class 900	241.3(9.50)	190.5(7.50)	8	25.4(1.00)	90(3.54)	38.1(1.50)	0	25(0.98)	156(6.14)	R31
A	6	ANSI Class 1500	266.7(10.50)	203.5(8.01)	8	31.8(1.25)	90(3.54)	47.8(1.88)	0	25(0.98)	169(6.65)	R35
P	2	JPI Class 300	210(8.27)	168.1(6.62)	8	22(0.87)	90(3.54)	28.5(1.12)	1.6(0.06)	25(0.98)	147(5.79)	R31
P	4	JPI Class 600	210(8.27)	168.1(6.62)	8	22(0.87)	90(3.54)	38.4(1.51)	6.4(0.25)	25(0.98)	147(5.79)	R31
P	5	JPI Class 900	241(9.49)	190.5(7.50)	8	26(1.02)	90(3.54)	38.5(1.52)	0	25(0.98)	156(6.14)	R31
P	6	JPI Class 1500	267(10.51)	203.2(8.00)	8	32(1.26)	90(3.54)	48(1.89)	0	25(0.98)	169(6.65)	R35

Process flange size: 2-inch (50 mm)

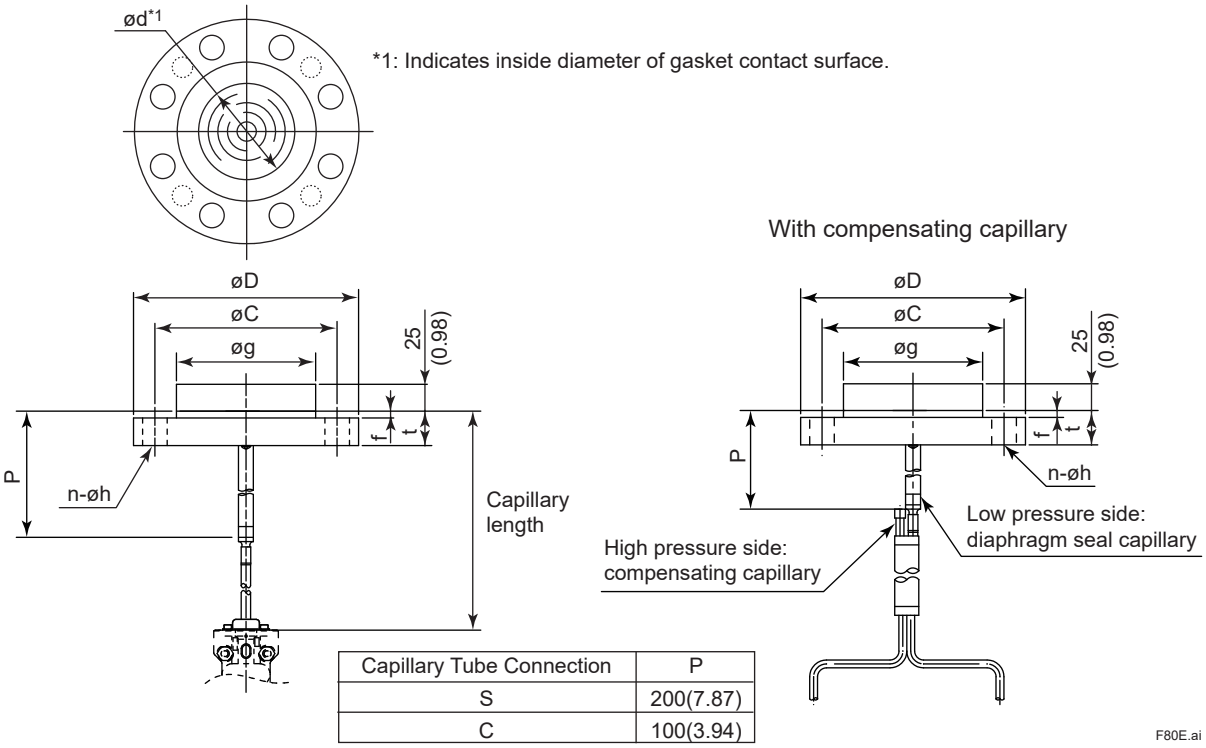
Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	Bolt holes		ød	t	f*1	T	øg	Groove No.
					No.(n)	Dia.(øh)						
A	2	ANSI Class 300	165.1(6.50)	127(5.00)	8	19.1(0.75)	61(2.40)	22.4(0.88)	1.6(0.06)	30(1.18)	110(4.33)	R23
A	4	ANSI Class 600	165.1(6.50)	127(5.00)	8	19.1(0.75)	61(2.40)	31.8(1.25)	6.4(0.25)	30(1.18)	110(4.33)	R23
A	5	ANSI Class 900	215.9(8.50)	165.1(6.50)	8	25.4(1.00)	61(2.40)	38.1(1.50)	0	25(0.98)	125(4.92)	R24
A	6	ANSI Class 1500	215.9(8.50)	165.1(6.50)	8	25.4(1.00)	61(2.40)	38.1(1.50)	0	25(0.98)	125(4.92)	R24
P	2	JPI Class 300	165(6.50)	127(5.00)	8	19(0.75)	61(2.40)	22.5(0.89)	1.6(0.06)	30(1.18)	110(4.33)	R23
P	4	JPI Class 600	165(6.50)	127(5.00)	8	19(0.75)	61(2.40)	31.9(1.26)	6.4(0.25)	30(1.18)	110(4.33)	R23
P	5	JPI Class 900	216(8.50)	165.1(6.50)	8	26(1.02)	61(2.40)	38.5(1.52)	0	25(0.98)	125(4.92)	R24
P	6	JPI Class 1500	216(8.50)	165.1(6.50)	8	26(1.02)	61(2.40)	38.5(1.52)	0	25(0.98)	125(4.92)	R24

*1: For flange material code A(S25C), value of f is 0 mm.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

[Raised Face (RF), Capillary Connected to the Back of Diaphragm Seal Unit]

Unit: mm (approx. inch)



Capillary Tube Connection	P
S	200(7.87)
C	100(3.94)

Process flange size: 3-inch (80 mm)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	Bolt holes		øg	t	f	ød
					No.(n)	Dia.(øh)				
J	A	JIS 10K	185(7.28)	150(5.91)	8	19(0.75)	130(5.12)	18(0.71)	0	90 (3.54)
J	B	JIS 20K	200(7.87)	160(6.30)	8	23(0.91)	130(5.12)	22(0.87)	0	
J	C	JIS 30K	210(8.27)	170(6.69)	8	23(0.91)	130(5.12)	28(1.10)	0	
J	D	JIS 40K	210(8.27)	170(6.69)	8	23(0.91)	130(5.12)	32(1.26)	0	
J	E	JIS 63K	230(9.06)	185(7.28)	8	25(0.98)	130(5.12)	40(1.57)	0	
A	1	ANSI Class 150	190.5(7.50)	152.4(6.00)	4	19.1(0.75)	130(5.12)	23.9(0.94)	1.6(0.06)	
A	2	ANSI Class 300	209.6(8.25)	168.1(6.62)	8	22.4(0.88)	130(5.12)	28.4(1.12)	1.6(0.06)	
A	4	ANSI Class 600	209.6(8.25)	168.1(6.62)	8	22.4(0.88)	130(5.12)	38.4(1.51)	6.4(0.25)	
P	1	JPI Class 150	190(7.48)	152.4(6.00)	4	19(0.75)	130(5.12)	24(0.94)	1.6(0.06)	
P	2	JPI Class 300	210(8.27)	168.1(6.62)	8	22(0.87)	130(5.12)	28.5(1.12)	1.6(0.06)	
P	4	JPI Class 600	210(8.27)	168.1(6.62)	8	22(0.87)	130(5.12)	38.4(1.51)	6.4(0.25)	

Process flange size: 2-inch (50 mm)

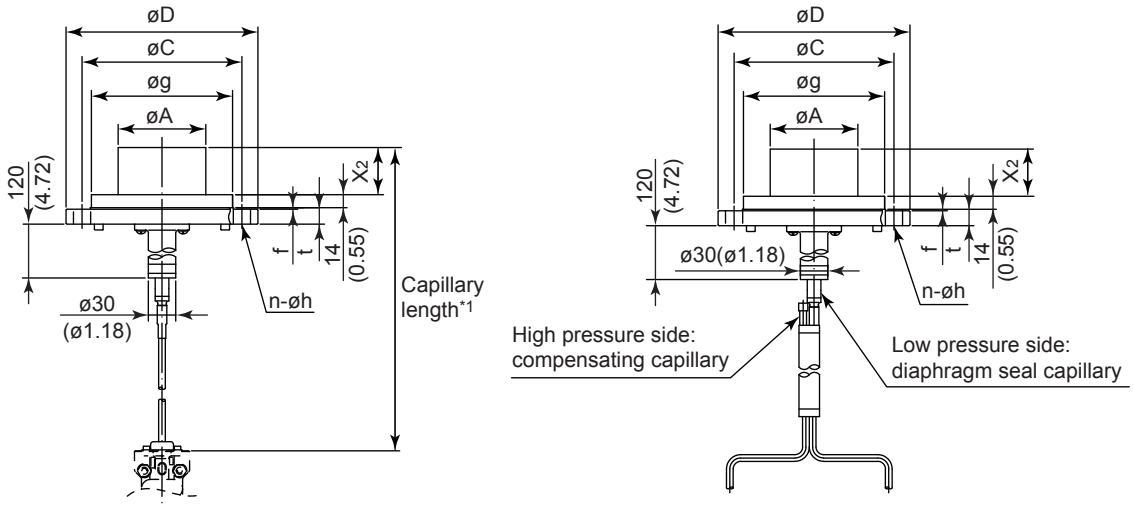
Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	Bolt holes		øg	t	f	ød
					No.(n)	Dia.(øh)				
J	A	JIS 10K	155(6.10)	120(4.72)	4	19(0.75)	100(3.94)	16(0.63)	0	61 (2.40)
J	B	JIS 20K	155(6.10)	120(4.72)	8	19(0.75)	100(3.94)	18(0.71)	0	
J	C	JIS 30K	165(6.50)	130(5.12)	8	19(0.75)	100(3.94)	22(0.87)	0	
J	D	JIS 40K	165(6.50)	130(5.12)	8	19(0.75)	100(3.94)	26(1.02)	0	
J	E	JIS 63K	185(7.28)	145(5.71)	8	23(0.91)	100(3.94)	34(1.34)	0	
A	1	ANSI Class 150	152.4(6.00)	120.7(4.75)	4	19.1(0.75)	100(3.94)	19.1(0.75)	1.6(0.06)	
A	2	ANSI Class 300	165.1(6.50)	127(5.00)	8	19.1(0.75)	100(3.94)	22.4(0.88)	1.6(0.06)	
A	4	ANSI Class 600	165.1(6.50)	127(5.00)	8	19.1(0.75)	100(3.94)	31.8(1.25)	6.4(0.25)	
P	1	JPI Class 150	152(5.98)	120.6(4.75)	4	19(0.75)	100(3.94)	19.5(0.77)	1.6(0.06)	
P	2	JPI Class 300	165(6.50)	127(5.00)	8	19(0.75)	100(3.94)	22.5(0.89)	1.6(0.06)	
P	4	JPI Class 600	165(6.50)	127(5.00)	8	19(0.75)	100(3.94)	31.9(1.26)	6.4(0.25)	

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● C80FE Remote Mount Flanged Diaphragm Seal (Extended Type)

Unit: mm (approx. inch)

With compensating capillary



*1: The specified capillary length includes the extension length (X_2) and the flange thickness (t).

F81E.ai

● Extended length (X_2)

Extended length	X_2
2	50±0.5(1.97±0.02)
4	100±0.5(3.94±0.02)
6	150±0.5(5.91±0.02)
8	200±0.8(7.87±0.03)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

Process flange size: 4-inch (100 mm)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	Bolt holes		øg	øA	t	f*2
					No.(n)	Dia.(øh)				
J	A	JIS 10K	210(8.27)	175(6.89)	8	19(0.75)	155(6.10)	96±0.5(3.78±0.02)	18(0.71)	0
J	B	JIS 20K	225(8.86)	185(7.28)	8	23(0.91)	155(6.10)	96±0.5(3.78±0.02)	24(0.94)	0
J	C	JIS 30K	240(9.45)	195(7.68)	8	25(0.98)	155(6.10)	96±0.5(3.78±0.02)	32(1.26)	0
J	D	JIS 40K	250(9.84)	205(8.07)	8	25(0.98)	155(6.10)	96±0.5(3.78±0.02)	36(1.42)	0
A	1	ANSI Class 150	228.6(9.00)	190.5(7.50)	8	19.1(0.75)	155(6.10)	96±0.5(3.78±0.02)	23.9(0.94)	1.6(0.06)
A	2	ANSI Class 300	254(10.00)	200.2(7.88)	8	22.4(0.88)	155(6.10)	96±0.5(3.78±0.02)	31.8(1.25)	1.6(0.06)
A	4	ANSI Class 600	273(10.75)	215.9(8.50)	8	26(1.02)	155(6.10)	96±0.5(3.78±0.02)	44.5(1.75)*3	6.4(0.25)
A	5	ANSI Class 900	292.1(11.50)	235(9.25)	8	31.8(1.25)	155(6.10)	96±0.5(3.78±0.02)	44.5(1.75)	0
A	6	ANSI Class 1500	311.2(12.25)	241.3(9.50)	8	35.1(1.38)	155(6.10)	96±0.5(3.78±0.02)	53.8(2.12)	0
P	1	JPI Class 150	229(9.02)	190.5(7.50)	8	19(0.75)	155(6.10)	96±0.5(3.78±0.02)	24(0.94)	1.6(0.06)
P	2	JPI Class 300	254(10.00)	200.2(7.88)	8	22(0.87)	155(6.10)	96±0.5(3.78±0.02)	32(1.26)	1.6(0.06)
P	4	JPI Class 600	273(10.75)	215.9(8.50)	8	26(1.02)	155(6.10)	96±0.5(3.78±0.02)	44.9(1.77)	6.4(0.25)
P	5	JPI Class 900	292(11.50)	235(9.25)	8	32(1.26)	155(6.10)	96±0.5(3.78±0.02)	44.5(1.75)	0
P	6	JPI Class 1500	311(12.24)	241.3(9.50)	8	35(1.38)	155(6.10)	96±0.5(3.78±0.02)	54(2.13)	0
D	H	DIN PN 10/16	220(8.66)	180(7.09)	8	18(0.71)	155(6.10)	96±0.5(3.78±0.02)	20(0.79)	0
D	K	DIN PN 25/40	235(9.25)	190(7.48)	8	22(0.87)	155(6.10)	96±0.5(3.78±0.02)	24(0.94)	0

Process flange size: 3-inch (80 mm)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	Bolt holes		øg	øA	t	f
					No.(n)	Dia.(øh)				
J	A	JIS 10K	185(7.28)	150(5.91)	8	19(0.75)	130(5.12)	71±0.5(2.80±0.02)	18(0.71)	0
J	B	JIS 20K	200(7.87)	160(6.30)	8	23(0.91)	130(5.12)	71±0.5(2.80±0.02)	22(0.87)	0
J	C	JIS 30K	210(8.27)	170(6.69)	8	23(0.91)	130(5.12)	71±0.5(2.80±0.02)	28(1.10)	0
J	D	JIS 40K	210(8.27)	170(6.69)	8	23(0.91)	130(5.12)	71±0.5(2.80±0.02)	32(1.26)	0
A	1	ANSI Class 150	190.5(7.50)	152.4(6.00)	4	19.1(0.75)	130(5.12)	71±0.5(2.80±0.02)	23.9(0.94)	1.6(0.06)*4
A	2	ANSI Class 300	209.6(8.25)	168.1(6.62)	8	22.4(0.88)	130(5.12)	71±0.5(2.80±0.02)	28.4(1.12)	1.6(0.06)*4
A	4	ANSI Class 600	209.6(8.25)	168.1(6.62)	8	22.4(0.88)	130(5.12)	71±0.5(2.80±0.02)	38.2(1.50)*8	6.4(0.25)*2
A	5	ANSI Class 900	241.3(9.50)	190.5(7.50)	8	25.4(1.00)	130(5.12)	71±0.5(2.80±0.02)	38.1(1.50)	0
A	6	ANSI Class 1500	266.7(10.50)	203.2(8.00)	8	31.8(1.25)	130(5.12)	71±0.5(2.80±0.02)	47.8(1.88)	0
P	1	JPI Class 150	190(7.48)	152.4(6.00)	4	19(0.75)	130(5.12)	71±0.5(2.80±0.02)	24(0.94)	1.6(0.06)
P	2	JPI Class 300	210(8.27)	168.1(6.62)	8	22(0.87)	130(5.12)	71±0.5(2.80±0.02)	28.5(1.12)	1.6(0.06)
P	4	JPI Class 600	210(8.27)	168.1(6.62)	8	22(0.87)	130(5.12)	71±0.5(2.80±0.02)	38.4(1.51)*5	6.4(0.25)*2
P	5	JPI Class 900	241(9.49)	190.5(7.50)	8	26(1.02)	130(5.12)	71±0.5(2.80±0.02)	38.5(1.52)*6	0*7
P	6	JPI Class 1500	267(10.51)	203.2(8.00)	8	32(1.26)	130(5.12)	71±0.5(2.80±0.02)	48(1.89)	0
D	H	DIN PN 10/16	200(7.87)	160(6.30)	8	18(0.71)	130(5.12)	71±0.5(2.80±0.02)	20(0.79)	0
D	K	DIN PN 25/40	200(7.87)	160(6.30)	8	18(0.71)	130(5.12)	71±0.5(2.80±0.02)	24(0.94)	0

*2: For flange material code A(S25C), value of f is 0 mm
*3: For flange material code A(S25C), value of t is 38.5 mm.
*4: For flange material code S(SUS316L), value of f is 0 mm.
*5: For flange material code A(S25C), value of t is 32 mm.
*6: For flange material code C(SUS316), value of t is 44.5 mm.
*7: For flange material code C(SUS316), value of t is 6.4 mm.
*8: For flange material code A(S25C), value of t is 31.8 mm.

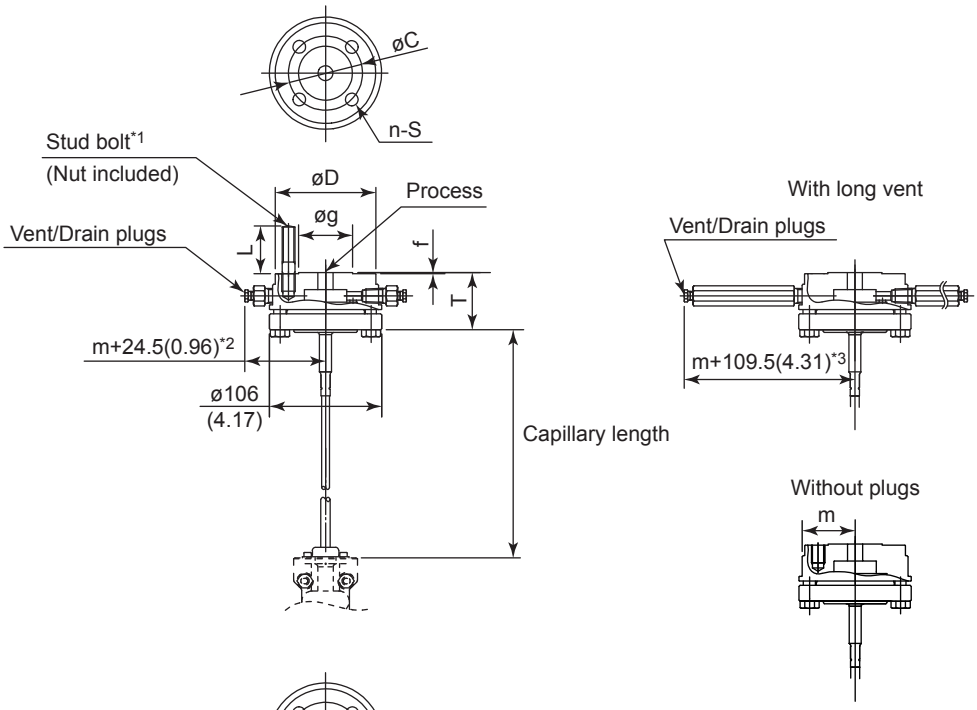
All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● C81FA, C82FA Remote Mount Inner Diaphragm Adapter Connection Seal

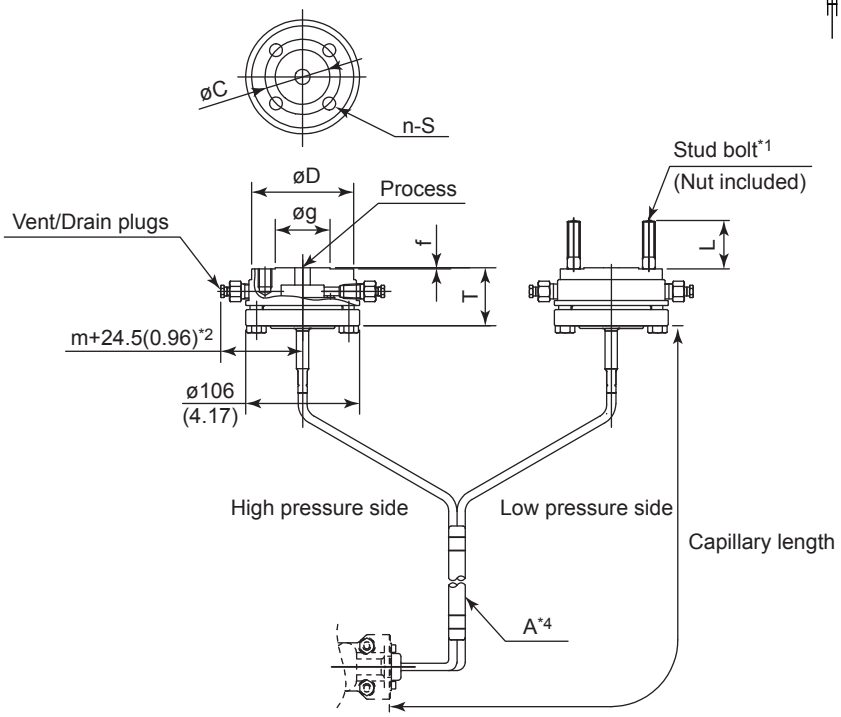
[Raised Face (RF)]

Unit: mm (approx. inch)

C82FA



C81FA



*1: Stud bolts and nuts are attached for n pcs. (2×n pcs for C81FA)
*2: In the case of oil-prohibited use or oil-prohibited use with dehydrating treatment, +15 mm(0.59 inch).
*3: In the case of oil-prohibited use or oil-prohibited use with dehydrating treatment, +11 mm(0.43 inch).
*4: In the case of C81FA, the capillaries are bundled at “A”, having 1 m(39.37 inch) left unbundled towards the remote seal part.

F82E.ai

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

[Flange for general use / flange for high temperature use without vent plugs]

Process flange size: 15A (1/2B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC*1	øg	T*2	f	m	n	S	L (Reference)
J	A	JIS 10K	95(3.74)	70(2.76)	51(2.01)	52(2.05)	1(0.04)	50(1.97)	4	M12×1.75	43(1.69)
J	B	JIS 20K	95(3.74)	70(2.76)	51(2.01)	52(2.05)	1(0.04)	50(1.97)	4	M12×1.75	43(1.69)
J	C	JIS 30K	115(4.53)	80(3.15)	55(2.17)	52(2.05)	1(0.04)	57.5(2.26)	4	M16×2.0	57(2.24)
J	D	JIS 40K	115(4.53)	80(3.15)	55(2.17)	52(2.05)	1(0.04)	57.5(2.26)	4	M16×2.0	57(2.24)
A	1	ANSI class 150	88.9(3.50)	60.5(2.38)	35.1(1.38)	52(2.05)	1.6(0.06)	50(1.97)	4	1/2-13UNC	44(1.73)
A	2	ANSI class 300	95.3(3.75)	66.5(2.62)	35.1(1.38)	52(2.05)	1.6(0.06)	50(1.97)	4	1/2-13UNC	44(1.73)
A	4	ANSI class 600	95.3(3.75)	66.5(2.62)	35.1(1.38)	62(2.44)	6.4(0.25)	53(2.09)	4	1/2-13UNC	59(2.32)
P	1	JPI class 150	89(3.50)	60.5(2.38)	35.1(1.38)	52(2.05)	1.6(0.06)	50(1.97)	4	1/2-13UNC	44(1.73)
P	2	JPI class 300	95(3.74)	66.5(2.62)	35.1(1.38)	52(2.05)	1.6(0.06)	50(1.97)	4	1/2-13UNC	44(1.73)
P	4	JPI class 600	95(3.74)	66.5(2.62)	35.1(1.38)	62(2.44)	6.4(0.25)	53(2.09)	4	1/2-13UNC	59(2.32)

Process flange size: 20A (3/4B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC*1	øg	T*2	f	m	n	S	L (Reference)
J	A	JIS 10K	100(3.94)	75(2.95)	56(2.20)	52(2.05)	1(0.04)	50(1.97)	4	M12×1.75	43(1.69)
J	B	JIS 20K	100(3.94)	75(2.95)	56(2.20)	52(2.05)	1(0.04)	50(1.97)	4	M12×1.75	43(1.69)
J	C	JIS 30K	120(4.72)	85(3.35)	60(2.36)	52(2.05)	1(0.04)	60(2.36)	4	M16×2.0	57(2.24)
J	D	JIS 40K	120(4.72)	85(3.35)	60(2.36)	52(2.05)	1(0.04)	60(2.36)	4	M16×2.0	57(2.24)
A	1	ANSI class 150	98.6(3.75)	69.9(2.75)	42.9(1.69)	52(2.05)	1.6(0.06)	50(1.97)	4	1/2-13UNC	44(1.73)
A	2	ANSI class 300	117.3(4.62)	82.6(3.25)	42.9(1.69)	52(2.05)	1.6(0.06)	58.7(2.31)	4	5/8-11UNC	51(2.01)
A	4	ANSI class 600	117.3(4.62)	82.6(3.25)	42.9(1.69)	62(2.44)	6.4(0.25)	58.7(2.31)	4	5/8-11UNC	67(2.64)
P	1	JPI class 150	99(3.90)	69.8(2.75)	42.9(1.69)	52(2.05)	1.6(0.06)	50(1.97)	4	1/2-13UNC	44(1.73)
P	2	JPI class 300	117(4.61)	82.6(3.25)	42.9(1.69)	52(2.05)	1.6(0.06)	58.7(2.31)	4	5/8-11UNC	51(2.01)
P	4	JPI class 600	117(4.61)	82.6(3.25)	42.9(1.69)	62(2.44)	6.4(0.25)	58.7(2.31)	4	5/8-11UNC	67(2.64)

Process flange size: 25A (1B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC*1	øg	T*2	f	m	n	S	L (Reference)
J	A	JIS 10K	125(4.92)	90(3.54)	67(2.64)	52(2.05)	1(0.04)	62.5(2.46)	4	M16×2.0	57(2.24)
J	B	JIS 20K	125(4.92)	90(3.54)	67(2.64)	52(2.05)	1(0.04)	62.5(2.46)	4	M16×2.0	57(2.24)
J	C	JIS 30K	130(5.12)	95(3.74)	70(2.76)	52(2.05)	1(0.04)	65(2.56)	4	M16×2.0	57(2.24)
J	D	JIS 40K	130(5.12)	95(3.74)	70(2.76)	52(2.05)	1(0.04)	65(2.56)	4	M16×2.0	57(2.24)
A	1	ANSI class 150	108(4.25)	79.2(3.12)	50.8(2.00)	52(2.05)	1.6(0.06)	54(2.13)	4	1/2-13UNC	44(1.73)
A	2	ANSI class 300	124(4.88)	88.9(3.50)	50.8(2.00)	52(2.05)	1.6(0.06)	62(2.44)	4	5/8-11UNC	51(2.01)
A	4	ANSI class 600	124(4.88)	88.9(3.50)	50.8(2.00)	62(2.44)	6.4(0.25)	62(2.44)	4	5/8-11UNC	67(2.64)
P	1	JPI class 150	108(4.25)	79.2(3.12)	50.8(2.00)	52(2.05)	1.6(0.06)	54(2.13)	4	1/2-13UNC	44(1.73)
P	2	JPI class 300	124(4.88)	88.9(3.50)	50.8(2.00)	52(2.05)	1.6(0.06)	62(2.44)	4	5/8-11UNC	51(2.01)
P	4	JPI class 600	124(4.88)	88.9(3.50)	50.8(2.00)	62(2.44)	6.4(0.25)	62(2.44)	4	5/8-11UNC	67(2.64)

*1: This value is the same as flange standards. Actual value might be added 1 mm(0.04 inch) because the commercial gaskets can be used.

*2: Use the following value for size T when tantalum (code: T) is specified for diaphragm material;
58 mm(2.28 inch) for JIS flange
59 mm(2.32 inch) for ANSI and JPI flange.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

[Flange for high temperature use with vent plugs]

Process flange size: 15A (1/2B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC*1	øg	T	f	m	n	S	L (Reference)
J	A	JIS 10K	120(4.72)	70(2.76)	51(2.01)	54.5(2.15)	1(0.04)	60(2.36)	4	M12×1.75	43(1.69)
J	B	JIS 20K	120(4.72)	70(2.76)	51(2.01)	54.5(2.15)	1(0.04)	60(2.36)	4	M12×1.75	43(1.69)
J	C	JIS 30K	120(4.72)	80(3.15)	55(2.17)	54.5(2.15)	1(0.04)	60(2.36)	4	M16×2.0	57(2.24)
J	D	JIS 40K	120(4.72)	80(3.15)	55(2.17)	54.5(2.15)	1(0.04)	60(2.36)	4	M16×2.0	57(2.24)
A	1	ANSI class 150	120(4.72)	60.5(2.38)	35.1(1.38)	54.5(2.15)	1.6(0.06)	60(2.36)	4	1/2-13UNC	44(1.73)
A	2	ANSI class 300	120(4.72)	66.5(2.62)	35.1(1.38)	54.5(2.15)	1.6(0.06)	60(2.36)	4	1/2-13UNC	44(1.73)
A	4	ANSI class 600	120(4.72)	66.5(2.62)	35.1(1.38)	65.1(2.56)	6.4(0.25)	60(2.36)	4	1/2-13UNC	59(2.32)
P	1	JPI class 150	120(4.72)	60.5(2.38)	35.1(1.38)	54.5(2.15)	1.6(0.06)	60(2.36)	4	1/2-13UNC	44(1.73)
P	2	JPI class 300	120(4.72)	66.5(2.62)	35.1(1.38)	54.5(2.15)	1.6(0.06)	60(2.36)	4	1/2-13UNC	44(1.73)
P	4	JPI class 600	120(4.72)	66.5(2.62)	35.1(1.38)	65.1(2.56)	6.4(0.25)	60(2.36)	4	1/2-13UNC	59(2.32)

Process flange size: 20A (3/4B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC*1	øg	T	f	m	n	S	L (Reference)
J	A	JIS 10K	120(4.72)	75(2.95)	56(2.20)	54.5(2.15)	1(0.04)	60(2.36)	4	M12×1.75	43(1.69)
J	B	JIS 20K	120(4.72)	75(2.95)	56(2.20)	54.5(2.15)	1(0.04)	60(2.36)	4	M12×1.75	43(1.69)
J	C	JIS 30K	120(4.72)	85(3.35)	60(2.36)	54.5(2.15)	1(0.04)	60(2.36)	4	M16×2.0	57(2.24)
J	D	JIS 40K	120(4.72)	85(3.35)	60(2.36)	54.5(2.15)	1(0.04)	60(2.36)	4	M16×2.0	57(2.24)
A	1	ANSI class 150	120(4.72)	69.9(2.75)	42.9(1.69)	54.5(2.15)	1.6(0.06)	60(2.36)	4	1/2-13UNC	44(1.73)
A	2	ANSI class 300	120(4.72)	82.6(3.25)	42.9(1.69)	54.5(2.15)	1.6(0.06)	60(2.36)	4	5/8-11UNC	51(2.01)
A	4	ANSI class 600	120(4.72)	82.6(3.25)	42.9(1.69)	65.1(2.56)	6.4(0.25)	60(2.36)	4	5/8-11UNC	67(2.64)
P	1	JPI class 150	120(4.72)	69.8(2.75)	42.9(1.69)	54.5(2.15)	1.6(0.06)	60(2.36)	4	1/2-13UNC	44(1.73)
P	2	JPI class 300	120(4.72)	82.6(3.25)	42.9(1.69)	54.5(2.15)	1.6(0.06)	60(2.36)	4	5/8-11UNC	51(2.01)
P	4	JPI class 600	120(4.72)	82.6(3.25)	42.9(1.69)	65.1(2.56)	6.4(0.25)	60(2.36)	4	5/8-11UNC	67(2.64)

Process flange size: 25A (1B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC*1	øg	T	f	m	n	S	L (Reference)
J	A	JIS 10K	125(4.92)	90(3.54)	67(2.64)	54.5(2.15)	1(0.04)	62.5(2.46)	4	M16×2.0	57(2.24)
J	B	JIS 20K	125(4.92)	90(3.54)	67(2.64)	54.5(2.15)	1(0.04)	62.5(2.46)	4	M16×2.0	57(2.24)
J	C	JIS 30K	130(5.12)	95(3.74)	70(2.76)	54.5(2.15)	1(0.04)	65(2.56)	4	M16×2.0	57(2.24)
J	D	JIS 40K	130(5.12)	95(3.74)	70(2.76)	54.5(2.15)	1(0.04)	65(2.56)	4	M16×2.0	57(2.24)
A	1	ANSI class 150	120(4.72)	79.2(3.12)	50.8(2.00)	54.5(2.15)	1.6(0.06)	60(2.36)	4	1/2-13UNC	44(1.73)
A	2	ANSI class 300	124(4.88)	88.9(3.50)	50.8(2.00)	54.5(2.15)	1.6(0.06)	62(2.44)	4	5/8-11UNC	51(2.01)
A	4	ANSI class 600	124(4.88)	88.9(3.50)	50.8(2.00)	65.1(2.56)	6.4(0.25)	62(2.44)	4	5/8-11UNC	67(2.64)
P	1	JPI class 150	120(4.72)	79.2(3.12)	50.8(2.00)	54.5(2.15)	1.6(0.06)	60(2.36)	4	1/2-13UNC	44(1.73)
P	2	JPI class 300	124(4.88)	88.9(3.50)	50.8(2.00)	54.5(2.15)	1.6(0.06)	62(2.44)	4	5/8-11UNC	51(2.01)
P	4	JPI class 600	124(4.88)	88.9(3.50)	50.8(2.00)	65.1(2.56)	6.4(0.25)	62(2.44)	4	5/8-11UNC	67(2.64)

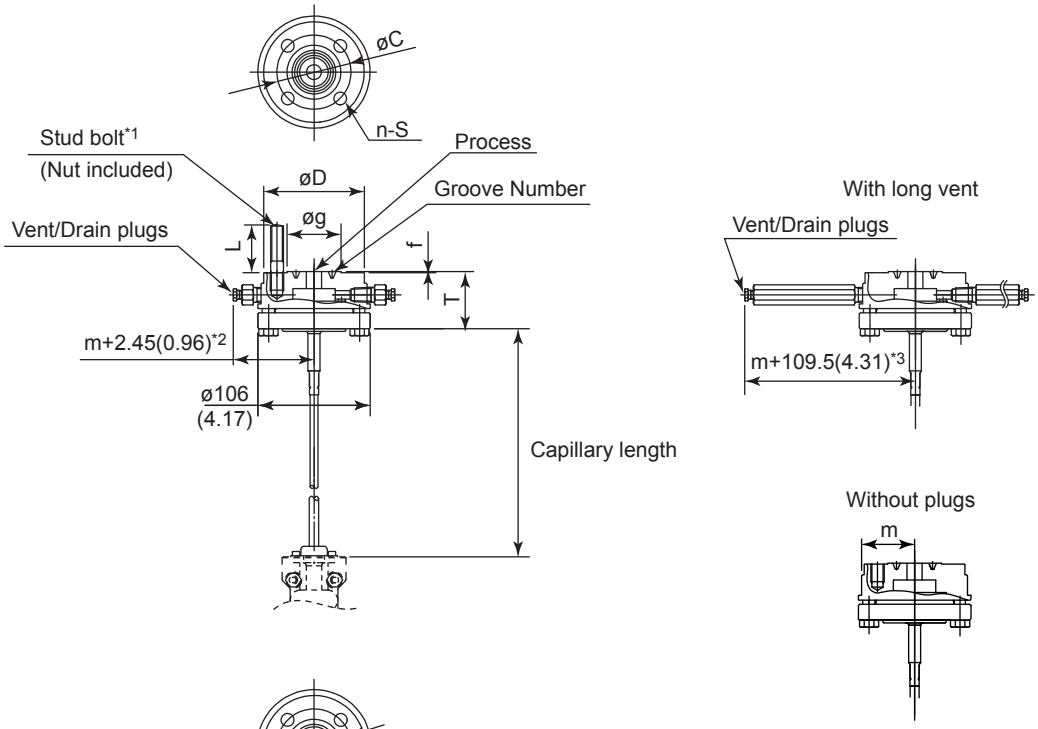
*1: This value is the same as flange standards. Actual value might be added 1 mm(0.04 inch) because the commercial gaskets can be used.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

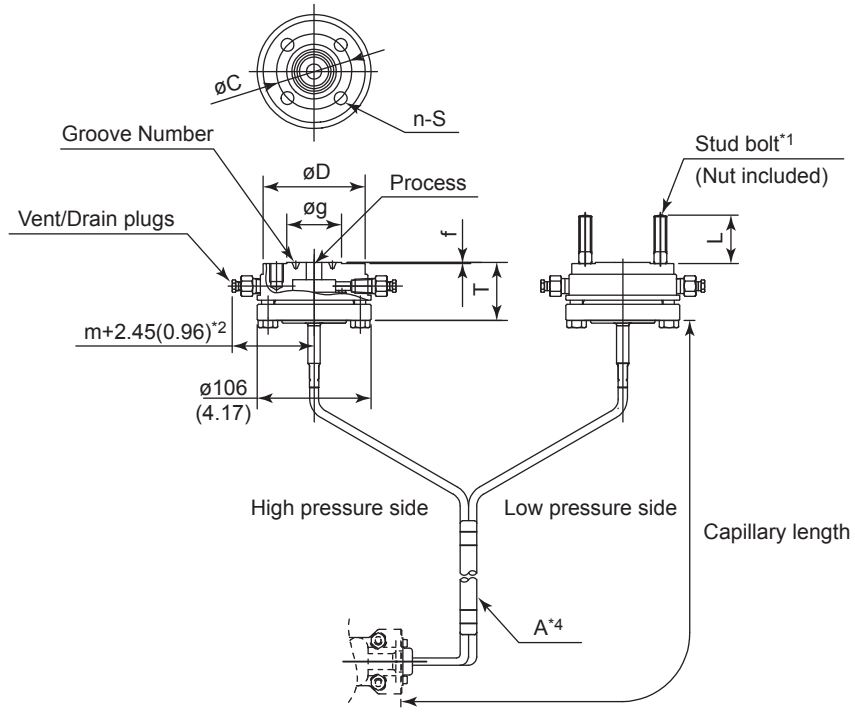
[Ring Joint (RJ)]

Unit: mm (approx. inch)

C82FA



C81FA



*1: Stud bolts and nuts are attached for n pcs. (2×n pcs for C81FA)
*2: In the case of oil-prohibited use or oil-prohibited use with dehydrating treatment, +15 mm(0.59 inch).
*3: In the case of oil-prohibited use or oil-prohibited use with dehydrating treatment, +11 mm(0.43 inch).
*4: In the case of C81FA, the capillaries are bundled at “A”, having 1 m(39.37 inch) left unbundled towards the remote seal part.

F83E.ai

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

[Flange for general use / flange for high temperature use without vent plugs]

Process flange size: 15A (1/2B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	T*1	f	m	n	S	L (Reference)	Groove number
A	2	ANSI class 300	95.3(3.75)	66.5(2.62)	50.8(2.00)	56.4(2.22)	5.56(0.22)	50(1.97)	4	1/2-13UNC	44(1.73)	R11
A	4	ANSI class 600	95.3(3.75)	66.5(2.62)	50.8(2.00)	61.5(2.42)	5.56(0.22)	53(2.09)	4	1/2-13UNC	59(2.32)	R11
P	2	JPI class 300	95(3.74)	66.5(2.62)	51(2.01)	56.4(2.22)	5.56(0.22)	50(1.97)	4	1/2-13UNC	44(1.73)	R11
P	4	JPI class 600	95(3.74)	66.5(2.62)	51(2.01)	61.5(2.42)	5.56(0.22)	53(2.09)	4	1/2-13UNC	59(2.32)	R11

Process flange size: 20A (3/4B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	T*2	f	m	n	S	L (Reference)	Groove number
A	2	ANSI class 300	117.3(4.62)	82.6(3.25)	63.5(2.50)	56.9(2.24)	6.35(0.25)	58.7(2.31)	4	5/8-11UNC	51(2.01)	R13
A	4	ANSI class 600	117.3(4.62)	82.6(3.25)	63.5(2.50)	62(2.44)	6.35(0.25)	58.7(2.31)	4	5/8-11UNC	67(2.64)	R13
P	2	JPI class 300	117(4.61)	82.6(3.25)	63.5(2.50)	56.9(2.24)	6.35(0.25)	58.5(2.30)	4	5/8-11UNC	51(2.01)	R13
P	4	JPI class 600	117(4.61)	82.6(3.25)	63.5(2.50)	62(2.44)	6.35(0.25)	58.5(2.30)	4	5/8-11UNC	67(2.64)	R13

Process flange size: 25A (1B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	T*2	f	m	n	S	L (Reference)	Groove number
A	2	ANSI class 300	124(4.88)	88.9(3.50)	69.9(2.75)	56.9(2.24)	6.35(0.25)	62(2.44)	4	5/8-11UNC	51(2.01)	R16
A	4	ANSI class 600	124(4.88)	88.9(3.50)	69.9(2.75)	62(2.44)	6.35(0.25)	62(2.44)	4	5/8-11UNC	67(2.64)	R16
P	2	JPI class 300	124(4.88)	88.9(3.50)	70(2.76)	56.9(2.24)	6.35(0.25)	62(2.44)	4	5/8-11UNC	51(2.01)	R16
P	4	JPI class 600	124(4.88)	88.9(3.50)	70(2.76)	62(2.44)	6.35(0.25)	62(2.44)	4	5/8-11UNC	67(2.64)	R16

*1: Size T is 63 mm(2.48 inch) when tantalum (code: T) is specified for diaphragm material.
*2: Size T is 64 mm(2.52 inch) when tantalum (code: T) is specified for diaphragm material.

[Flange for high temperature use with vent plugs]

Process flange size: 15A (1/2B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	T	f	m	n	S	L (Reference)	Groove number
A	2	ANSI class 300	120(4.72)	66.5(2.62)	50.8(2.00)	60(2.36)	5.56(0.22)	60(2.36)	4	1/2-13UNC	44(1.73)	R11
A	4	ANSI class 600	120(4.72)	66.5(2.62)	50.8(2.00)	65.1(2.56)	5.56(0.22)	60(2.36)	4	1/2-13UNC	59(2.32)	R11
P	2	JPI class 300	120(4.72)	66.5(2.62)	51(2.01)	60(2.36)	5.56(0.22)	60(2.36)	4	1/2-13UNC	44(1.73)	R11
P	4	JPI class 600	120(4.72)	66.5(2.62)	51(2.01)	65.1(2.56)	5.56(0.22)	60(2.36)	4	1/2-13UNC	59(2.32)	R11

Process flange size: 20A (3/4B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	T	f	m	n	S	L (Reference)	Groove number
A	2	ANSI class 300	120(4.72)	82.6(3.25)	63.5(2.50)	60(2.36)	6.35(0.25)	60(2.36)	4	5/8-11UNC	51(2.01)	R13
A	4	ANSI class 600	120(4.72)	82.6(3.25)	63.5(2.50)	65.1(2.56)	6.35(0.25)	60(2.36)	4	5/8-11UNC	67(2.64)	R13
P	2	JPI class 300	120(4.72)	82.6(3.25)	63.5(2.50)	60(2.36)	6.35(0.25)	60(2.36)	4	5/8-11UNC	51(2.01)	R13
P	4	JPI class 600	120(4.72)	82.6(3.25)	63.5(2.50)	65.1(2.56)	6.35(0.25)	60(2.36)	4	5/8-11UNC	67(2.64)	R13

Process flange size: 25A (1B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	T	f	m	n	S	L (Reference)	Groove number
A	2	ANSI class 300	124(4.88)	88.9(3.50)	69.9(2.75)	60(2.36)	6.35(0.25)	62(2.44)	4	5/8-11UNC	51(2.01)	R16
A	4	ANSI class 600	124(4.88)	88.9(3.50)	69.9(2.75)	65.1(2.56)	6.35(0.25)	62(2.44)	4	5/8-11UNC	67(2.64)	R16
P	2	JPI class 300	124(4.88)	88.9(3.50)	70(2.76)	60(2.36)	6.35(0.25)	62(2.44)	4	5/8-11UNC	51(2.01)	R16
P	4	JPI class 600	124(4.88)	88.9(3.50)	70(2.76)	65.1(2.56)	6.35(0.25)	62(2.44)	4	5/8-11UNC	67(2.64)	R16

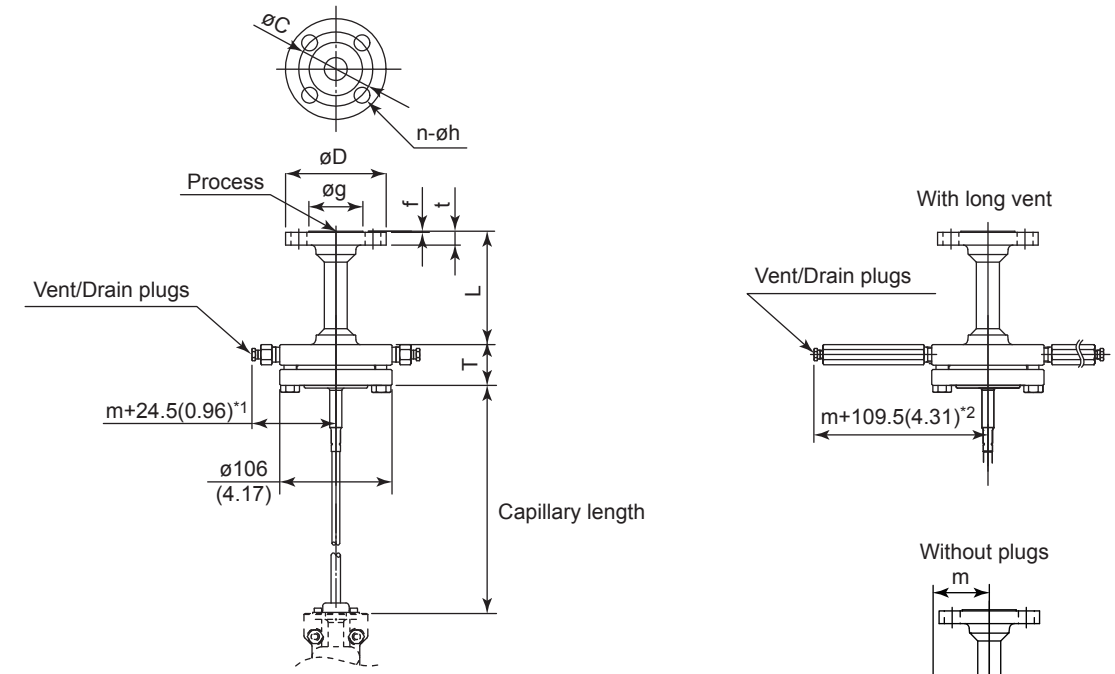
All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● C81FD, C82FD Remote Mount Inner Diaphragm Flanged Seal

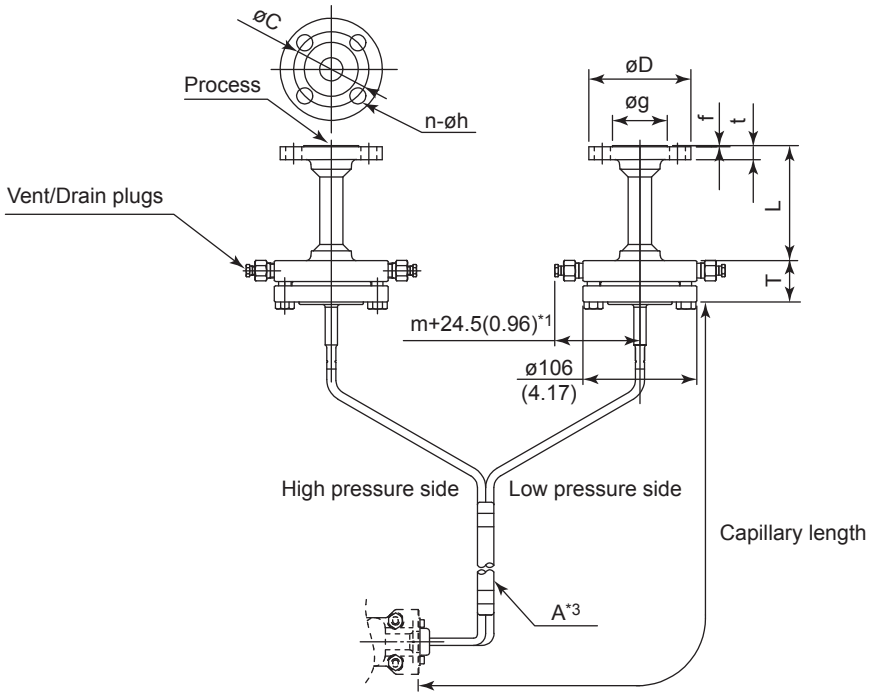
[Raised Face (RF)]

Unit: mm (approx. inch)

C82FD



C81FD



*1: In the case of oil-prohibited use or oil-prohibited use with dehydrating treatment, +15 mm(0.59 inch).
*2: In the case of oil-prohibited use or oil-prohibited use with dehydrating treatment, +11 mm(0.43 inch).
*3: In the case of C81FD, the capillaries are bundled at “A”, having 1 m(39.37 inch) left unbundled towards the remote seal part.

F84E.ai

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

[Flange for general use / flange for high temperature use without vent plugs]

Process flange size: 15A (1/2B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T*1	t	f	m	n	øh
J	A	JIS 10K	95(3.74)	70(2.76)	51(2.01)	108(4.25)	42(1.65)	12(0.47)	1(0.04)	53(2.09)	4	15(0.59)
J	B	JIS 20K	95(3.74)	70(2.76)	51(2.01)	108(4.25)	42(1.65)	14(0.55)	1(0.04)	53(2.09)	4	15(0.59)
J	C	JIS 30K	115(4.53)	80(3.15)	55(2.17)	108(4.25)	42(1.65)	18(0.71)	1(0.04)	53(2.09)	4	19(0.75)
J	D	JIS 40K	115(4.53)	80(3.15)	55(2.17)	108(4.25)	42(1.65)	20(0.79)	1(0.04)	53(2.09)	4	19(0.75)
A	1	ANSI class 150	88.9(3.50)	60.5(2.38)	35.1(1.38)	108(4.25)	42(1.65)	11.2(0.44)	1.6(0.06)	53(2.09)	4	15.7(0.62)
A	2	ANSI class 300	95.3(3.75)	66.5(2.62)	35.1(1.38)	108(4.25)	42(1.65)	14.3(0.56)	1.6(0.06)	53(2.09)	4	15.7(0.62)
A	4	ANSI class 600	95.3(3.75)	66.5(2.62)	35.1(1.38)	108(4.25)	57(2.24)	20.7(0.81)	6.4(0.25)	53(2.09)	4	15.7(0.62)
P	1	JPI class 150	89(3.50)	60.5(2.38)	35.1(1.38)	108(4.25)	42(1.65)	11.2(0.44)	1.6(0.06)	53(2.09)	4	16(0.63)
P	2	JPI class 300	95(3.74)	66.5(2.62)	35.1(1.38)	108(4.25)	42(1.65)	14.3(0.56)	1.6(0.06)	53(2.09)	4	16(0.63)
P	4	JPI class 600	95(3.74)	66.5(2.62)	35.1(1.38)	108(4.25)	57(2.24)	20.7(0.81)	6.4(0.25)	53(2.09)	4	16(0.63)

Process flange size: 20A (3/4B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T*1	t	f	m	n	øh
J	A	JIS 10K	100(3.94)	75(2.95)	56(2.20)	108(4.25)	42(1.65)	14(0.55)	1(0.04)	53(2.09)	4	15(0.59)
J	B	JIS 20K	100(3.94)	75(2.95)	56(2.20)	108(4.25)	42(1.65)	16(0.63)	1(0.04)	53(2.09)	4	15(0.59)
J	C	JIS 30K	120(4.53)	85(3.35)	60(2.36)	108(4.25)	42(1.65)	18(0.71)	1(0.04)	53(2.09)	4	19(0.75)
J	D	JIS 40K	120(4.53)	85(3.35)	60(2.36)	108(4.25)	42(1.65)	20(0.79)	1(0.04)	53(2.09)	4	19(0.75)
A	1	ANSI class 150	98.6(3.88)	69.9(2.75)	42.9(1.69)	108(4.25)	42(1.65)	12.7(0.50)	1.6(0.06)	53(2.09)	4	15.7(0.62)
A	2	ANSI class 300	117.3(4.62)	82.6(3.25)	42.9(1.69)	108(4.25)	42(1.65)	15.8(0.62)	1.6(0.06)	53(2.09)	4	19.1(0.75)
A	4	ANSI class 600	117.3(4.62)	82.6(3.25)	42.9(1.69)	108(4.25)	57(2.24)	22.2(0.87)	6.4(0.25)	53(2.09)	4	19.1(0.75)
P	1	JPI class 150	99(3.90)	69.8(2.75)	42.9(1.69)	108(4.25)	42(1.65)	12.7(0.50)	1.6(0.06)	53(2.09)	4	16(0.63)
P	2	JPI class 300	117(4.61)	82.6(3.25)	42.9(1.69)	108(4.25)	42(1.65)	15.8(0.62)	1.6(0.06)	53(2.09)	4	19(0.75)
P	4	JPI class 600	117(4.61)	82.6(3.25)	42.9(1.69)	108(4.25)	57(2.24)	22.2(0.87)	6.4(0.25)	53(2.09)	4	19(0.75)

Process flange size: 25A (1B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T*1	t	f	m	n	øh
J	A	JIS 10K	125(4.92)	90(3.54)	67(2.64)	108(4.25)	42(1.65)	14(0.55)	1(0.04)	53(2.09)	4	19(0.75)
J	B	JIS 20K	125(4.92)	90(3.54)	67(2.64)	108(4.25)	42(1.65)	16(0.63)	1(0.04)	53(2.09)	4	19(0.75)
J	C	JIS 30K	130(5.12)	95(3.74)	70(2.76)	108(4.25)	42(1.65)	20(0.79)	1(0.04)	53(2.09)	4	19(0.75)
J	D	JIS 40K	130(5.12)	95(3.74)	70(2.76)	108(4.25)	42(1.65)	22(0.87)	1(0.04)	53(2.09)	4	19(0.75)
A	1	ANSI class 150	108(4.25)	79.2(3.12)	50.8(2.00)	108(4.25)	42(1.65)	14.3(0.56)	1.6(0.06)	53(2.09)	4	15.7(0.62)
A	2	ANSI class 300	124(4.88)	88.9(3.50)	50.8(2.00)	108(4.25)	42(1.65)	17.6(0.69)	1.6(0.06)	53(2.09)	4	19.1(0.75)
A	4	ANSI class 600	124(4.88)	88.9(3.50)	50.8(2.00)	108(4.25)	57(2.24)	24(0.95)	6.4(0.25)	53(2.09)	4	19.1(0.75)
P	1	JPI class 150	108(4.25)	79.2(3.12)	50.8(2.00)	108(4.25)	42(1.65)	14.3(0.56)	1.6(0.06)	53(2.09)	4	16(0.63)
P	2	JPI class 300	124(4.88)	88.9(3.50)	50.8(2.00)	108(4.25)	42(1.65)	17.6(0.69)	1.6(0.06)	53(2.09)	4	19(0.75)
P	4	JPI class 600	124(4.88)	88.9(3.50)	50.8(2.00)	108(4.25)	57(2.24)	24(0.95)	6.4(0.25)	53(2.09)	4	19(0.75)

*1: Size T is 47 mm(1.85 inch) when tantalum (code: T) is specified for diaphragm material.

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

[Flange for high temperature use with vent plugs]

Process flange size: 15A (1/2B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T	t	f	m	n	øh
J	A	JIS 10K	95(3.74)	70(2.76)	51(2.01)	108(4.25)	51(2.01)	12(0.47)	1(0.04)	60(2.36)	4	15(0.59)
J	B	JIS 20K	95(3.74)	70(2.76)	51(2.01)	108(4.25)	51(2.01)	14(0.55)	1(0.04)	60(2.36)	4	15(0.59)
J	C	JIS 30K	115(4.53)	80(3.15)	55(2.17)	108(4.25)	51(2.01)	18(0.71)	1(0.04)	60(2.36)	4	19(0.75)
J	D	JIS 40K	115(4.53)	80(3.15)	55(2.17)	108(4.25)	51(2.01)	20(0.79)	1(0.04)	60(2.36)	4	19(0.75)
A	1	ANSI class 150	88.9(3.50)	60.5(2.38)	35.1(1.38)	108(4.25)	51(2.01)	11.2(0.44)	1.6(0.06)	60(2.36)	4	15.7(0.62)
A	2	ANSI class 300	95.3(3.75)	66.5(2.62)	35.1(1.38)	108(4.25)	51(2.01)	14.3(0.56)	1.6(0.06)	60(2.36)	4	15.7(0.62)
A	4	ANSI class 600	95.3(3.75)	66.5(2.62)	35.1(1.38)	108(4.25)	57(2.24)	20.7(0.81)	6.4(0.25)	60(2.36)	4	15.7(0.62)
P	1	JPI class 150	89(3.50)	60.5(2.38)	35.1(1.38)	108(4.25)	51(2.01)	11.2(0.44)	1.6(0.06)	60(2.36)	4	16(0.63)
P	2	JPI class 300	95(3.74)	66.5(2.62)	35.1(1.38)	108(4.25)	51(2.01)	14.3(0.56)	1.6(0.06)	60(2.36)	4	16(0.63)
P	4	JPI class 600	95(3.74)	66.5(2.62)	35.1(1.38)	108(4.25)	57(2.24)	20.7(0.81)	6.4(0.25)	60(2.36)	4	16(0.63)

Process flange size: 20A (3/4B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T	t	f	m	n	øh
J	A	JIS 10K	100(3.94)	75(2.95)	56(2.20)	108(4.25)	51(2.01)	14(0.55)	1(0.04)	60(2.36)	4	15(0.59)
J	B	JIS 20K	100(3.94)	75(2.95)	56(2.20)	108(4.25)	51(2.01)	16(0.63)	1(0.04)	60(2.36)	4	15(0.59)
J	C	JIS 30K	120(4.53)	85(3.35)	60(2.36)	108(4.25)	51(2.01)	18(0.71)	1(0.04)	60(2.36)	4	19(0.75)
J	D	JIS 40K	120(4.53)	85(3.35)	60(2.36)	108(4.25)	51(2.01)	20(0.79)	1(0.04)	60(2.36)	4	19(0.75)
A	1	ANSI class 150	98.6(3.88)	69.9(2.75)	42.9(1.69)	108(4.25)	51(2.01)	12.7(0.50)	1.6(0.06)	60(2.36)	4	15.7(0.62)
A	2	ANSI class 300	117.3(4.62)	82.6(3.25)	42.9(1.69)	108(4.25)	51(2.01)	15.8(0.62)	1.6(0.06)	60(2.36)	4	19.1(0.75)
A	4	ANSI class 600	117.3(4.62)	82.6(3.25)	42.9(1.69)	108(4.25)	57(2.24)	22.2(0.87)	6.4(0.25)	60(2.36)	4	19.1(0.75)
P	1	JPI class 150	99(3.90)	69.8(2.75)	42.9(1.69)	108(4.25)	51(2.01)	12.7(0.50)	1.6(0.06)	60(2.36)	4	16(0.63)
P	2	JPI class 300	117(4.61)	82.6(3.25)	42.9(1.69)	108(4.25)	51(2.01)	15.8(0.62)	1.6(0.06)	60(2.36)	4	19(0.75)
P	4	JPI class 600	117(4.61)	82.6(3.25)	42.9(1.69)	108(4.25)	57(2.24)	22.2(0.87)	6.4(0.25)	60(2.36)	4	19(0.75)

Process flange size: 25A (1B)

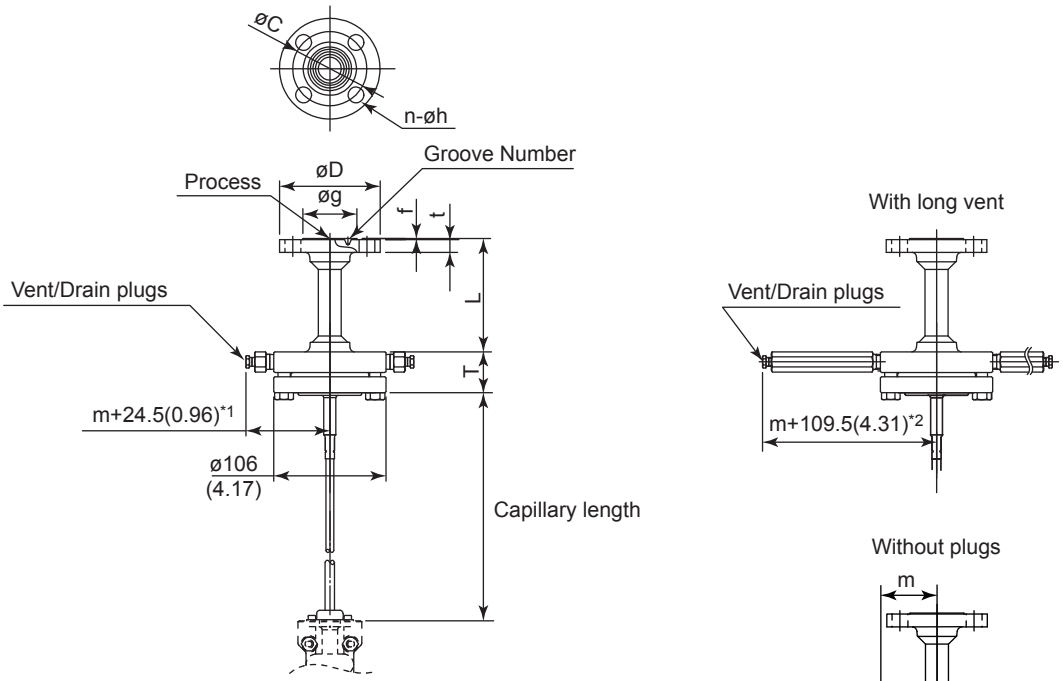
Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T	t	f	m	n	øh
J	A	JIS 10K	125(4.92)	90(3.54)	67(2.64)	108(4.25)	51(2.01)	14(0.55)	1(0.04)	60(2.36)	4	19(0.75)
J	B	JIS 20K	125(4.92)	90(3.54)	67(2.64)	108(4.25)	51(2.01)	16(0.63)	1(0.04)	60(2.36)	4	19(0.75)
J	C	JIS 30K	130(5.12)	95(3.74)	70(2.76)	108(4.25)	51(2.01)	20(0.79)	1(0.04)	60(2.36)	4	19(0.75)
J	D	JIS 40K	130(5.12)	95(3.74)	70(2.76)	108(4.25)	51(2.01)	22(0.87)	1(0.04)	60(2.36)	4	19(0.75)
A	1	ANSI class 150	108(4.25)	79.2(3.12)	50.8(2.00)	108(4.25)	51(2.01)	14.3(0.56)	1.6(0.06)	60(2.36)	4	15.7(0.62)
A	2	ANSI class 300	124(4.88)	88.9(3.50)	50.8(2.00)	108(4.25)	51(2.01)	17.6(0.69)	1.6(0.06)	60(2.36)	4	19.1(0.75)
A	4	ANSI class 600	124(4.88)	88.9(3.50)	50.8(2.00)	108(4.25)	57(2.24)	24(0.95)	6.4(0.25)	60(2.36)	4	19.1(0.75)
P	1	JPI class 150	108(4.25)	79.2(3.12)	50.8(2.00)	108(4.25)	51(2.01)	14.3(0.56)	1.6(0.06)	60(2.36)	4	16(0.63)
P	2	JPI class 300	124(4.88)	88.9(3.50)	50.8(2.00)	108(4.25)	51(2.01)	17.6(0.69)	1.6(0.06)	60(2.36)	4	19(0.75)
P	4	JPI class 600	124(4.88)	88.9(3.50)	50.8(2.00)	108(4.25)	57(2.24)	24(0.95)	6.4(0.25)	60(2.36)	4	19(0.75)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

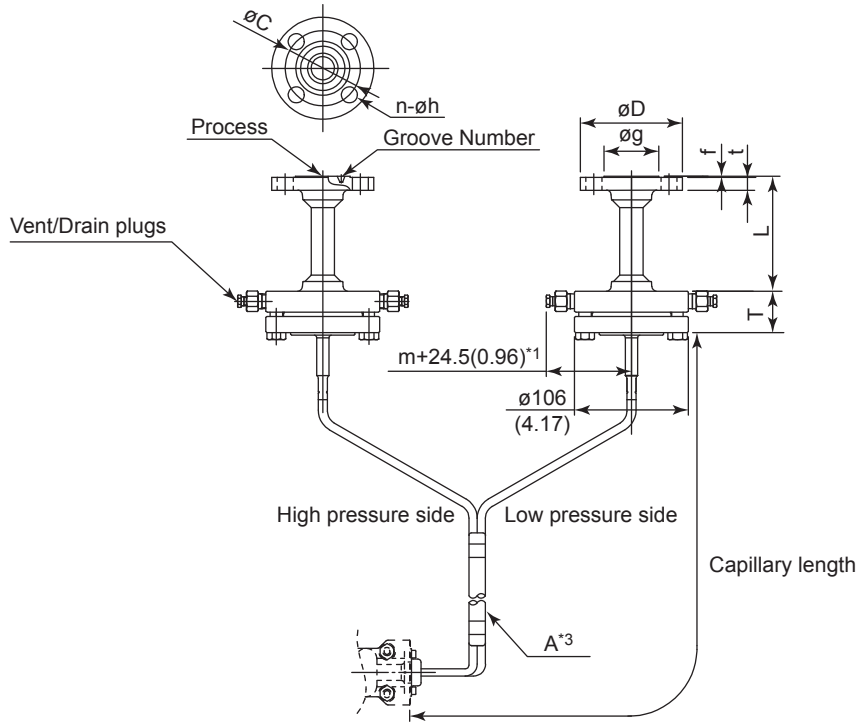
[Ring Joint (RJ)]

Unit: mm (approx. inch)

C82FD



C81FD



*1: In the case of oil-prohibited use or oil-prohibited use with dehydrating treatment, +15 mm(0.59 inch).
*2: In the case of oil-prohibited use or oil-prohibited use with dehydrating treatment, +11 mm(0.43 inch).
*3: In the case of C81FD, the capillaries are bundled at “A”, having 1 m(39.37 inch) left unbundled towards the remote seal part.

F85E.ai

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

[Flange for general use / flange for high temperature use without vent plugs]

Process flange size: 15A (1/2B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T*1	t	f	m	n	øh	Groove number
A	2	ANSI class 300	95.3(3.75)	66.5(2.62)	50.8(2.00)	124(4.88)	42(1.65)	14.3(0.56)	5.56(0.22)	53(2.09)	4	16(0.63)	R11
A	4	ANSI class 600	95.3(3.75)	66.5(2.62)	50.8(2.00)	124(4.88)	57(2.24)	14.3(0.56)	5.56(0.22)	53(2.09)	4	16(0.63)	R11
P	2	JPI class 300	95(3.74)	66.5(2.62)	51(2.01)	124(4.88)	42(1.65)	14.3(0.56)	5.56(0.22)	53(2.09)	4	16(0.63)	R11
P	4	JPI class 600	95(3.74)	66.5(2.62)	51(2.01)	124(4.88)	57(2.24)	14.3(0.56)	5.56(0.22)	53(2.09)	4	16(0.63)	R11

Process flange size: 20A (3/4B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T*1	t	f	m	n	øh	Groove number
A	2	ANSI class 300	117.3(4.62)	82.6(3.25)	63.5(2.50)	128(5.04)	42(1.65)	15.8(0.62)	6.35(0.25)	53(2.09)	4	19(0.75)	R13
A	4	ANSI class 600	117.3(4.62)	82.6(3.25)	63.5(2.50)	128(5.04)	57(2.24)	15.8(0.62)	6.35(0.25)	53(2.09)	4	19(0.75)	R13
P	2	JPI class 300	117(4.61)	82.6(3.25)	63.5(2.50)	127(5.00)	42(1.65)	15.8(0.62)	6.35(0.25)	53(2.09)	4	19(0.75)	R13
P	4	JPI class 600	117(4.61)	82.6(3.25)	63.5(2.50)	127(5.00)	57(2.24)	15.8(0.62)	6.35(0.25)	53(2.09)	4	19(0.75)	R13

Process flange size: 25A (1B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T*1	t	f	m	n	øh	Groove number
A	2	ANSI class 300	124(4.88)	88.9(3.50)	69.9(2.75)	129(5.08)	42(1.65)	17.6(0.69)	6.35(0.25)	53(2.09)	4	19(0.75)	R16
A	4	ANSI class 600	124(4.88)	88.9(3.50)	69.9(2.75)	129(5.08)	57(2.24)	17.6(0.69)	6.35(0.25)	53(2.09)	4	19(0.75)	R16
P	2	JPI class 300	124(4.88)	88.9(3.50)	70(2.76)	129(5.08)	42(1.65)	17.6(0.69)	6.35(0.25)	53(2.09)	4	19(0.75)	R16
P	4	JPI class 600	124(4.88)	88.9(3.50)	70(2.76)	129(5.08)	57(2.24)	17.6(0.69)	6.35(0.25)	53(2.09)	4	19(0.75)	R16

*1: Size T is 47 mm(1.85 inch) when tantalum (code: T) is specified for diaphragm material.

[Flange for high temperature use with vent plugs]

Process flange size: 15A (1/2B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T	t	f	m	n	øh	Groove number
A	2	ANSI class 300	95.3(3.75)	66.5(2.62)	50.8(2.00)	124(4.88)	51(2.01)	14.3(0.56)	5.56(0.22)	60(2.36)	4	16(0.63)	R11
A	4	ANSI class 600	95.3(3.75)	66.5(2.62)	50.8(2.00)	124(4.88)	57(2.24)	14.3(0.56)	5.56(0.22)	60(2.36)	4	16(0.63)	R11
P	2	JPI class 300	95(3.74)	66.5(2.62)	51(2.01)	124(4.88)	51(2.01)	14.3(0.56)	5.56(0.22)	60(2.36)	4	16(0.63)	R11
P	4	JPI class 600	95(3.74)	66.5(2.62)	51(2.01)	124(4.88)	57(2.24)	14.3(0.56)	5.56(0.22)	60(2.36)	4	16(0.63)	R11

Process flange size: 20A (3/4B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T	t	f	m	n	øh	Groove number
A	2	ANSI class 300	117.3(4.62)	82.6(3.25)	63.5(2.50)	128(5.04)	51(2.01)	15.8(0.62)	6.35(0.25)	60(2.36)	4	19(0.75)	R13
A	4	ANSI class 600	117.3(4.62)	82.6(3.25)	63.5(2.50)	128(5.04)	57(2.24)	15.8(0.62)	6.35(0.25)	60(2.36)	4	19(0.75)	R13
P	2	JPI class 300	117(4.61)	82.6(3.25)	63.5(2.50)	127(5.00)	51(2.01)	15.8(0.62)	6.35(0.25)	60(2.36)	4	19(0.75)	R13
P	4	JPI class 600	117(4.61)	82.6(3.25)	63.5(2.50)	127(5.00)	57(2.24)	15.8(0.62)	6.35(0.25)	60(2.36)	4	19(0.75)	R13

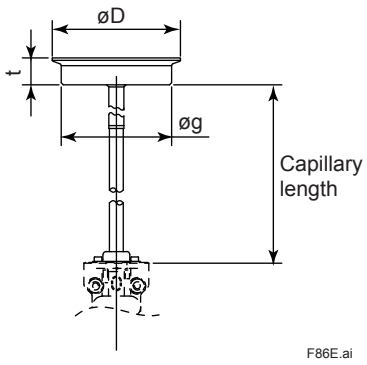
Process flange size: 25A (1B)

Flange Standard Code	Flange Rating Code	Flange Rating	øD	øC	øg	L	T	t	f	m	n	øh	Groove number
A	2	ANSI class 300	124(4.88)	88.9(3.50)	69.9(2.75)	129(5.08)	51(2.01)	17.6(0.69)	6.35(0.25)	60(2.36)	4	19(0.75)	R16
A	4	ANSI class 600	124(4.88)	88.9(3.50)	69.9(2.75)	129(5.08)	57(2.24)	17.6(0.69)	6.35(0.25)	60(2.36)	4	19(0.75)	R16
P	2	JPI class 300	124(4.88)	88.9(3.50)	70(2.76)	129(5.08)	51(2.01)	17.6(0.69)	6.35(0.25)	60(2.36)	4	19(0.75)	R16
P	4	JPI class 600	124(4.88)	88.9(3.50)	70(2.76)	129(5.08)	57(2.24)	17.6(0.69)	6.35(0.25)	60(2.36)	4	19(0.75)	R16

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

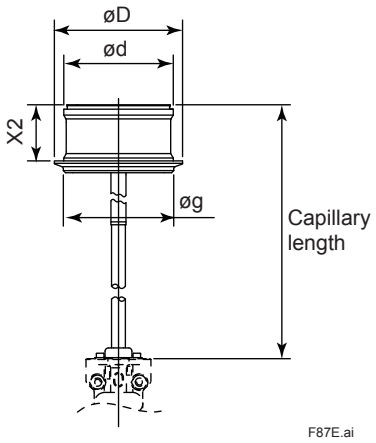
- **C70SW Remote Mount Hygienic Diaphragm Seal (Flush type)**

Unit: mm (approx. inch)



- **C70SE Remote Mount Hygienic Diaphragm Seal (Extended Type)**

Unit: mm (approx. inch)

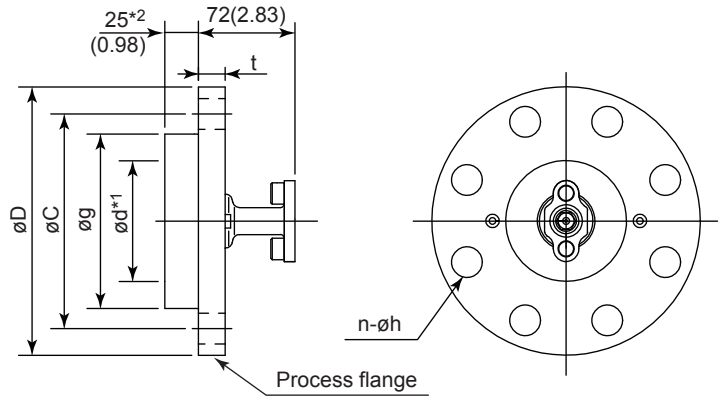


All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

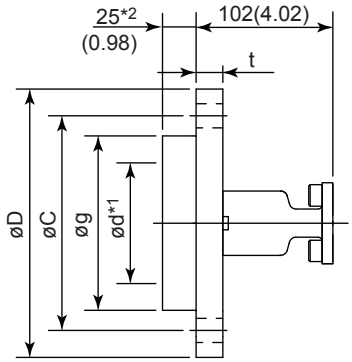
● C20FW Direct Mount Flanged Diaphragm Seal (Flush type)

Unit: mm (approx. inch)

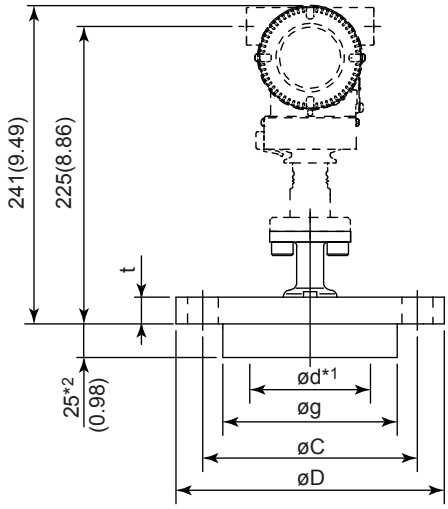
[For general use (Stay style code: S)]



[For high temperature use (Stay style code: L)]



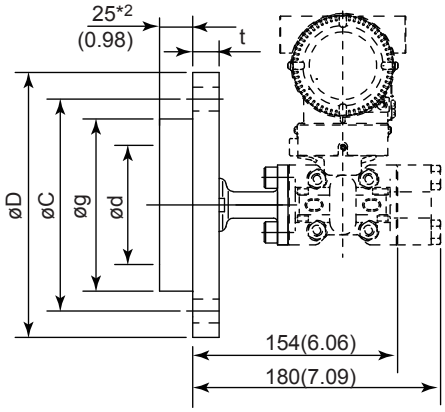
[For EJXC50A, EJAC50E, and EJXC40A]



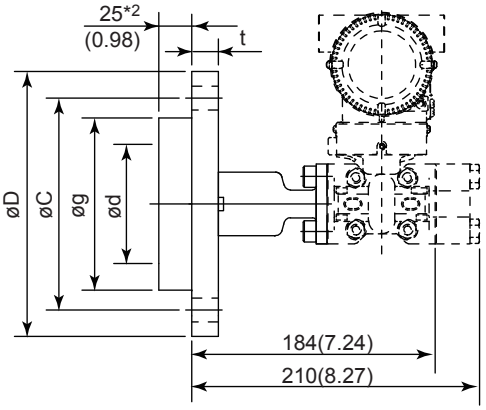
*1: Indicates inside diameter of gasket surface.
*2: 33 mm(1.3 inch) for Diaphragm material code and Sealing face material code U.

[For EJXC80A or EJAC80E]

[For general use]



[For high temperature use]



F88E.ai

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

Process flange size: 80A(3B)

Flange standards code	Flange rating code	Flange rating	øD	øC	øg	ød	t	Bolt holes	
								No.(n)	Dia.(øh)
J	A	JIS 10K	185(7.28)	150(5.91)	130(5.12)	90(3.54)	18(0.71)	8	19(0.75)
J	B	JIS 20K	200(7.87)	160(6.30)	130(5.12)	90(3.54)	22(0.87)	8	23(0.91)
J	D	JIS 40K	210 (8.27)	170(6.69)	130(5.12)	90(3.54)	32(1.26)	8	23(0.91)
A	1	ANSI class 150	190.5(7.50)	152.4(6.00)	130(5.12)	90(3.54)	23.9(0.94)	4	19.1(0.75)
A	2	ANSI class 300	209.6(8.25)	168.1(6.62)	130(5.12)	90(3.54)	28.5(1.12)	8	22.4(0.88)
A	4	ANSI class 600	209.6(8.25)	168.1(6.62)	130(5.12)	90(3.54)	31.8(1.25)	8	22.4(0.88)
P	1	JPI class 150	190(7.48)	152.4(6.00)	130(5.12)	90(3.54)	24(0.94)	4	19(0.75)
P	2	JPI class 300	210(8.27)	168.1(6.62)	130(5.12)	90(3.54)	28.5(1.12)	8	22(0.87)
P	4	JPI class 600	210(8.27)	168.1(6.62)	130(5.12)	90(3.54)	32.0(1.26)	8	22(0.87)
D	H	DIN PN 10/16	200(7.87)	160(6.30)	130(5.12)	90(3.54)	20(0.79)	8	18(0.71)
D	K	DIN PN 25/40	200(7.87)	160(6.30)	130(5.12)	90(3.54)	24(0.94)	8	18(0.71)

Process flange size: 50A(2B)

Flange standards code	Flange rating code	Flange rating	øD	øC	øg	ød	t	Bolt holes	
								No.(n)	Dia.(øh)
J	A	JIS 10K	155(6.10)	120(4.72)	100(3.94)	61(2.40)	16(0.63)	4	19(0.75)
J	B	JIS 20K	155(6.10)	120(4.72)	100(3.94)	61(2.40)	18(0.71)	8	19(0.75)
J	D	JIS 40K	165(6.50)	130(5.12)	100(3.94)	61(2.40)	26(1.02)	8	19(0.75)
A	1	ANSI class 150	152.4(6.00)	120.7(4.75)	100(3.94)	61(2.40)	19.1(0.75)	4	19.1(0.75)
A	2	ANSI class 300	165.1(6.50)	127.0(5.00)	100(3.94)	61(2.40)	22.4(0.88)	8	19.1(0.75)
A	4	ANSI class 600	165.1(6.50)	127.0(5.00)	100(3.94)	61(2.40)	25.4(1.00)	8	19.1(0.75)
P	1	JPI class 150	152(5.98)	120.6(4.75)	100(3.94)	61(2.40)	19.5(0.77)	4	19(0.75)
P	2	JPI class 300	165(6.50)	127.0(5.00)	100(3.94)	61(2.40)	22.5(0.89)	8	19(0.75)
P	4	JPI class 600	165(6.50)	127.0(5.00)	100(3.94)	61(2.40)	25.4(1.00)	8	19(0.75)
D	H	DIN PN 10/16	165(6.50)	125(4.92)	100(3.94)	61(2.40)	18(0.71)	4	18(0.71)
D	K	DIN PN 25/40	165(6.50)	125(4.92)	100(3.94)	61(2.40)	20(0.79)	4	18(0.71)

Process flange size : 40A(1.5B)

Flange standards code	Flange rating code	Flange rating	øD	øC	øg	ød	t	Bolt holes	
								No.(n)	Dia.(øh)
J	A	JIS 10K	140(5.51)	105(4.13)	86(3.39)	*1	16(0.63)	4	19(0.75)
J	B	JIS 20K	140(5.51)	105(4.13)	86(3.39)	*1	18(0.71)	4	19(0.75)
J	D	JIS 40K	160(6.30)	120(4.72)	86(3.39)	*1	24(0.94)	4	23(0.91)
A	1	ANSI class 150	127(5.00)	98.4(3.87)	86(3.39)	*1	17.5(0.69)	4	15.9(0.63)
A	2	ANSI class 300	155.4(6.12)	114.3(4.50)	86(3.39)	*1	20.6(0.81)	4	22.4(0.88)
A	4	ANSI class 600	155.4(6.12)	114.3(4.50)	86(3.39)	*1	22.4(0.88)	4	22.4(0.88)
P	1	JPI class 150	127(5.00)	98.6(3.88)	86(3.39)	*1	17.6(0.69)	4	16(0.63)
P	2	JPI class 300	155(6.10)	114.3(4.50)	86(3.39)	*1	20.6(0.81)	4	22(0.87)
P	4	JPI class 600	155(6.10)	114.3(4.50)	86(3.39)	*1	22.5(0.89)	4	22(0.87)

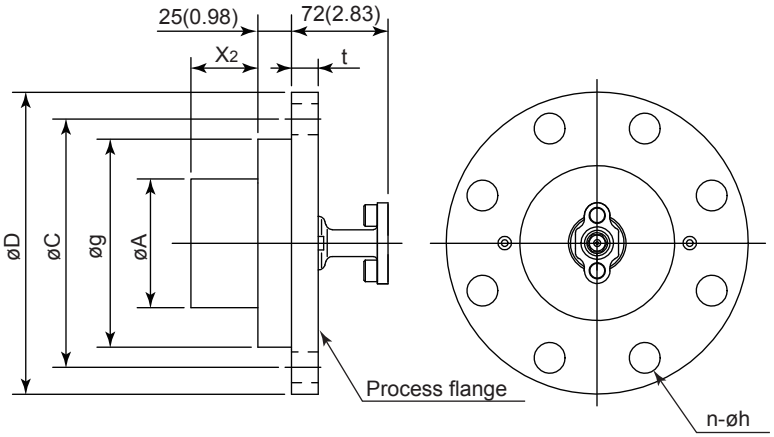
*1: Always use in combination with C10FR (ød = 44 mm)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

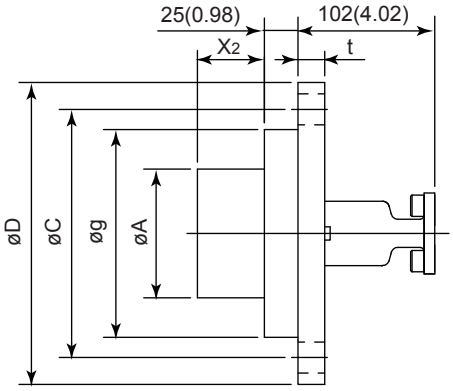
● C20FE Direct Mount Flanged Diaphragm Seal (Extended type)

Unit: mm (approx. inch)

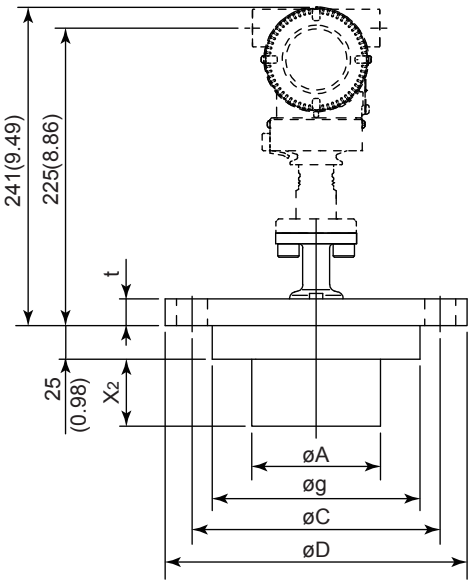
[For general use (Stay style code: S)]



[For high temperature use (Stay style code: L)]

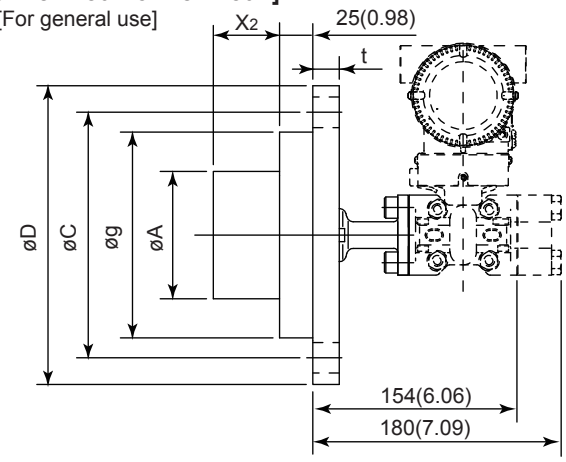


[For EJXC50A, EJAC50E, or EJXC40A]

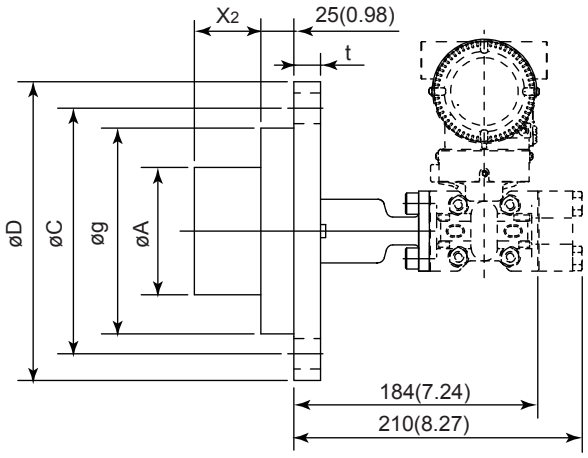


[For EJXC80A or EJAC80E]

[For general use]



[For high temperature use]



F89E.ai

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Unit: mm (approx. inch)

Process flange size: 100A(4B)

Flange standards code	Flange rating code	Flange rating	øD	øC	øg	t	Bolt holes		øA
							No.(n)	Dia.(øh)	
J	A	JIS 10K	210(8.27)	175(6.89)	155(6.10)	18(0.71)	8	19(0.75)	96±0.5(3.78±0.02)
J	B	JIS 20K	225(8.86)	185(7.28)	155(6.10)	24(0.94)	8	23(0.91)	96±0.5(3.78±0.02)
J	D	JIS 40K	250(9.84)	205(8.07)	155(6.10)	36(1.42)	8	25(0.98)	96±0.5(3.78±0.02)
A	1	ANSI class 150	228.6(9.00)	190.5(7.50)	155(6.10)	23.9(0.94)	8	19.1(0.75)	96±0.5(3.78±0.02)
A	2	ANSI class 300	254.0(10.00)	200.2(7.88)	155(6.10)	31.8(1.25)	8	22.4(0.88)	96±0.5(3.78±0.02)
A	4	ANSI class 600	273(10.75)	215.9(8.50)	155(6.10)	38.1(1.50)	8	25.4(1.00)	96±0.5(3.78±0.02)
P	1	JPI class 150	229(9.02)	190.5(7.50)	155(6.10)	24(0.94)	8	19(0.75)	96±0.5(3.78±0.02)
P	2	JPI class 300	254(10.0)	200.2(7.88)	155(6.10)	32(1.26)	8	22(0.87)	96±0.5(3.78±0.02)
P	4	JPI class 600	273(10.75)	215.9(8.50)	155(6.10)	38.5(1.52)	8	26(1.02)	96±0.5(3.78±0.02)
D	H	DIN PN 10/16	220(8.66)	180(7.09)	155(6.10)	20(0.79)	8	18(0.71)	96±0.5(3.78±0.02)
D	K	DIN PN 25/40	235(9.23)	190(7.48)	155(6.10)	24(0.94)	8	22(0.87)	96±0.5(3.78±0.02)

Process flange size: 80A(3B)

Flange standards code	Flange rating code	Flange rating	øD	øC	øg	t	Bolt holes		øA
							No.(n)	Dia.(øh)	
J	A	JIS 10K	185(7.28)	150(5.91)	130(5.12)	18(0.71)	8	19(0.75)	71±0.5(2.8±0.02)
J	B	JIS 20K	200(7.87)	160(6.30)	130(5.12)	22(0.87)	8	23(0.91)	71±0.5(2.8±0.02)
J	D	JIS 40K	210(8.27)	170(6.69)	130(5.12)	32(1.26)	8	23(0.91)	71±0.5(2.8±0.02)
A	1	ANSI class 150	190.5(7.50)	152.4(6.00)	130(5.12)	23.9(0.94)	4	19.1(0.75)	71±0.5(2.8±0.02)
A	2	ANSI class 300	209.6(8.25)	168.1(6.62)	130(5.12)	28.5(1.12)	8	22.4(0.88)	71±0.5(2.8±0.02)
A	4	ANSI class 600	209.6(8.25)	168.1(6.62)	130(5.12)	31.8(1.25)	8	22.4(0.88)	71±0.5(2.8±0.02)
P	1	JPI class 150	190(7.48)	152.4(6.00)	130(5.12)	24(0.94)	4	19(0.75)	71±0.5(2.8±0.02)
P	2	JPI class 300	210(8.27)	168.1(6.62)	130(5.12)	28.5(1.12)	8	22(0.87)	71±0.5(2.8±0.02)
P	4	JPI class 600	210(8.27)	168.1(6.62)	130(5.12)	32.0(1.26)	8	22(0.87)	71±0.5(2.8±0.02)
D	H	DIN PN 10/16	200(7.87)	160(6.30)	130(6.30)	20(0.79)	8	18(0.71)	71±0.5(2.8±0.02)
D	K	DIN PN 25/40	200(7.87)	160(6.30)	130(6.30)	24(0.94)	8	18(0.71)	71±0.5(2.8±0.02)

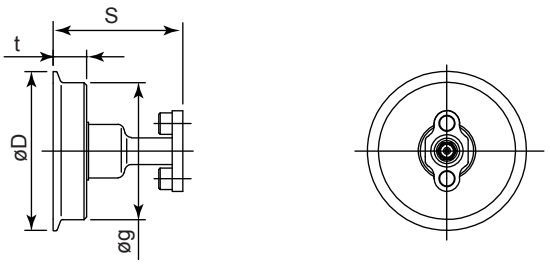
● Extended length (X_2)

Extended length code	X_2
2	50±0.5(1.97±0.02)
4	100±0.5(3.94±0.02)
6	150±0.5(5.91±0.02)
8	200±0.8(7.87±0.03)

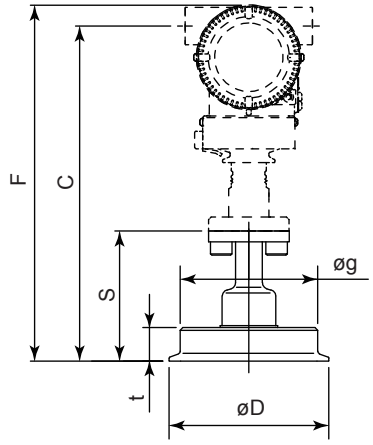
All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● C30SW Direct Mount Hygienic Diaphragm Seal (Flush Type)

Unit: mm (approx. inch)



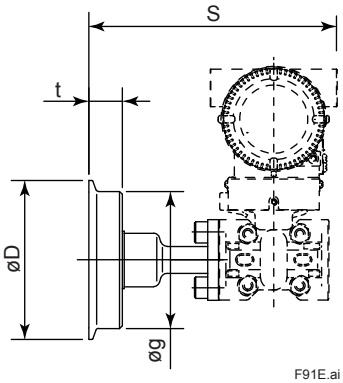
[For EJXC50A, EJAC50E, and EJXC40A]



F90E.ai

Process connection standards code	Industry standard/size	øD	øg	S	t	C	F
3	ISO76.1	91(3.58)	76.7(3.02)	97(3.82)	25(0.98)	250(9.84)	266(10.5)
4	ISO101.6	119(4.69)	102.5(4.04)	97(3.82)	25(0.98)	250(9.84)	266(10.5)

[For EJXC80A and EJAC80E]



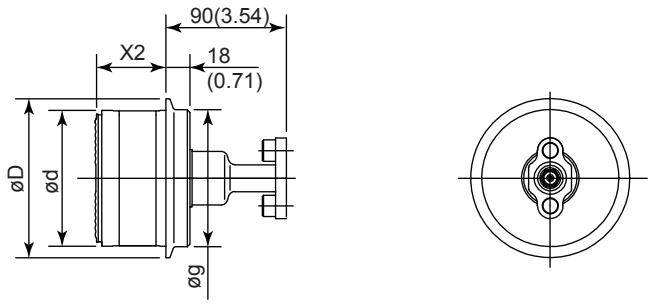
F91E.ai

Process Connection Standards Code	Industry Standard/Size	øD	øg	S	t
2	ISO51	64(2.52)	51.6(2.03)	174(6.85)	20(0.79)
3	ISO76.1	91(3.58)	76.7(3.02)	179(7.05)	25(0.98)
4	ISO101.6	119(4.69)	102.5(4.04)	179(7.05)	25(0.98)

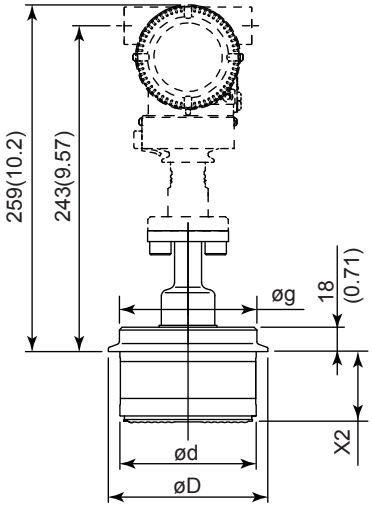
All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

● C30SE Direct Mount Hygienic Diaphragm Seal (Extended Type)

Unit: mm (approx. inch)



[For EJXC50A, EJAC50E, and EJXC40A]

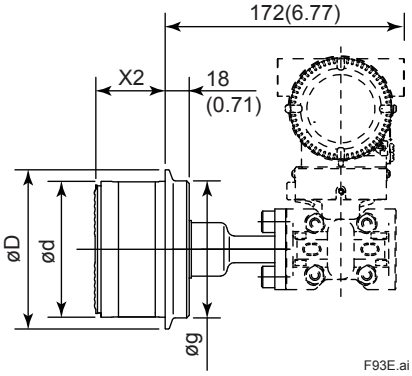


Process connection standards code	Industry standard/size	øD	ød	øg
3	ISO76.1	91(3.58)	72(2.83)	77.4(3.05)
4	ISO101.6	119(4.69)	101.6(4.00)	102.5(4.04)

Extended length code	X_2
2	52 (2.05)
4	102 (4.02)

F92E.ai

[For EJXC80A and EJAC80E]



F93E.ai

Process Connection Standards Code	Industry Standard/Size	øD	ød	øg
2	ISO51	64(2.52)	50.8(2.00)	51.6(2.03)
3	ISO76.1	91(3.58)	72(2.83)	77.4(3.05)
4	ISO101.6	119(4.69)	101.6(4.00)	102.5(4.04)

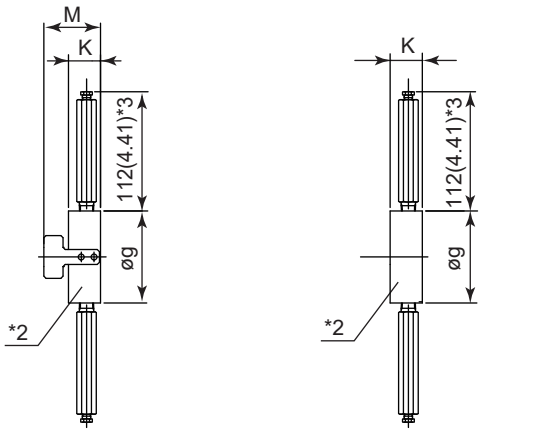
● **Extended Length (X2)**

Extended Length Code	X2
2	52(2.05)
4	102(4.02)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

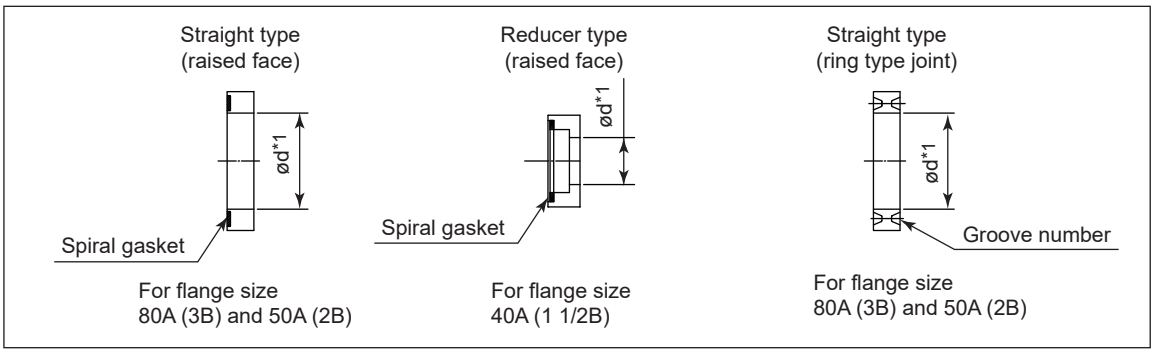
● C10FR Flushing Connection Ring

Unit: mm (approx. inch)



Straight type (raised face)
Reducer type (raised face)

Straight type (ring type joint)



*1: Indicates inside diameter of gasket contact surface.
*2: Flushing connection ring.
*3: When option code K31 or K35 is selected, add 11 mm(0.43 inch).

F94E.ai

Spiral gasket size

80A (3B)	ø100 × ø120 × t4.5 (ø3.94 × ø4.72 × t0.18)
50A (2B)	ø70 × ø90 × t4.5 (ø2.75 × ø3.54 × t0.18)
40A (1 1/2B)	ø60 × ø75 × t4.5 (ø2.36 × ø2.95 × t0.18)

Code			Size				Groove number
Sealing face	Process Connection size	Flange pressure rating	øg	ød	K	M	
F	3	—	130 (5.12)	90 (3.54)	27 (1.06)	53 (2.09)	—
	2	—	100 (3.94)	61 (2.40)	27 (1.06)	53 (2.09)	—
	8	—	86 (3.39)	44 (1.73)	30 (1.18)	47 (1.85)	—
J	3	2,4	156 (6.14)	90 (3.54)	40 (1.57)	—	R31
		5	147 (5.79)	90 (3.54)	40 (1.57)	—	R31
		6	169 (6.65)	90 (3.54)	40 (1.57)	—	R35
	2	2,4	110 (4.33)	61 (2.40)	40 (1.57)	—	R23
		5,6	125 (4.92)	61 (2.40)	40 (1.57)	—	R24

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Applicable Products

Table 13-1. List of Applicable Product, Both side Diaphragm Seal Type (Differential Pressure Transmitter EJXC80A, EJAC80E)

Upper case shows Product model, and lower case shows flange size or clamp size.

	Diaphragm Seal System			Transmitter	Diaphragm seal *1		Flushing connection ring*1*4	
					High-side	Low-side	High-side	Low-side
Differential Pressure Transmitter	Both side (High and Low) Diaphragm seal*2	Flanged Seal	Flush Type	EJX110A EJA110E Measurement span (capsule) M, H, V	C80FW	C80FW	C10FR	C10FR
					3-inch (80 mm)	3-inch (80 mm)	3-inch (80 mm)	3-inch (80 mm)
					C80FW	C80FW	C10FR	C10FR
					2-inch (50 mm)	2-inch (50 mm)	2-inch (50 mm)	2-inch (50 mm)
					C80FW	C80FW	C10FR*3	C10FR*3
					1 1/2-inch (40 mm)	1 1/2-inch (40 mm)	1 1/2-inch (40 mm)	1 1/2-inch (40 mm)
			Inner Diaphragm Type (Bundled capillary type)		C81FA		----	----
					1/2-inch (15 mm)			
					C81FA		----	----
					3/4-inch (20 mm)			
					C81FA		----	----
					1-inch (25 mm)			
					C81FD		----	----
					1/2-inch (15 mm)			
					C81FD		----	----
					3/4-inch (20 mm)			
					C81FD		----	----
					1-inch (25 mm)			
			Inner Diaphragm Type (Standard type)		C82FA	C82FA	----	----
					1/2-inch (15 mm)	1/2-inch (15 mm)		
					C82FA	C82FA	----	----
					3/4-inch (20 mm)	3/4-inch (20 mm)		
					C82FA	C82FA	----	----
					1-inch (25 mm)	1-inch (25 mm)		
					C82FD	C82FD	----	----
					1/2-inch (15 mm)	1/2-inch (15 mm)		
					C82FD	C82FD	----	----
					3/4-inch (20 mm)	3/4-inch (20 mm)		
					C82FD	C82FD	----	----
					1-inch (25 mm)	1-inch (25 mm)		
			Extended Type		C80FE	C80FE	----	----
					4-inch (100 mm)	4-inch (100 mm)		
					C80FE	C80FE	----	----
					3-inch (80 mm)	3-inch (80 mm)		
			Combination Type		C80FE	C80FW	----	C10FR
					4-inch (100 mm)	3-inch (80 mm)		3-inch (80 mm)
					C80FE	C80FW	----	C10FR
					3-inch (80 mm)	2-inch (50 mm)		2-inch (50 mm)
		Hygienic Seal	Flush Type	EJX110A EJA110E Measurement span (capsule) M, H, V	C70SW	C70SW	----	----
					ISO101.6	ISO101.6		
					C70SW	C70SW	----	----
					ISO76.1	ISO76.1		
					C70SW	C70SW	----	----
					ISO51	ISO51		
			Extended Type		C70SW	C70SW	----	----
					ISO101.6	ISO101.6		
					C70SW	C70SW	----	----
					ISO76.1	ISO76.1		
			Combination Type		C70SW	C70SW	----	----
					ISO101.6	ISO101.6		
					C70SW	C70SW	----	----
					ISO76.1	ISO76.1		

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 13-2. List of Applicable Product, Combination (High-side:Direct mounted and Low-side:Remote seal) Diaphragm Seal Type (Differential Pressure Transmitter EJXC80A, EJAC80E)

Upper case shows Product model, and lower case shows flange size or clamp size

	Diaphragm Seal System			Transmitter	Diaphragm seal *1		Flushing connection ring*1*4	
					High-side	Low-side	High-side	Low-side
Differential Pressure Transmitter	High-side Direct mounted Diaphragm seal Low-side Remote Diaphragm seal*2	Flanged Seal	Flush Type	EJX110A EJA110E Measurement span (capsule) M, H, V	C20FW	C80FW	C10FR	C10FR
					3-inch (80 mm)	3-inch (80 mm)	3-inch (80 mm)	3-inch (80 mm)
					C20FW	C80FW	C10FR	C10FR
					2-inch (50 mm)	2-inch (50 mm)	2-inch (50 mm)	2-inch (50 mm)
					C20FW	C80FW	C10FR*3	C10FR*3
					1 1/2-inch (40 mm)	1 1/2-inch (40 mm)	1 1/2-inch (40 mm)	1 1/2-inch (40 mm)
			Extended Type		C20FE	C80FE	----	----
					4-inch (100 mm)	4-inch (100 mm)		
					C20FE	C80FE	----	----
					3-inch (80 mm)	3-inch (80 mm)		
			Combination Type		C20FE	C80FW	----	C10FR
					4-inch (100 mm)	3-inch (80 mm)		3-inch (80 mm)
					C20FE	C80FW	----	C10FR
					3-inch (80 mm)	2-inch (50 mm)		2-inch (50 mm)
		Hygienic Seal	Flush Type	EJX110A EJA110E Measurement span (capsule) M, H, V	C30SW	C70SW	----	----
					ISO101.6	ISO101.6		
					C30SW	C70SW	----	----
					ISO76.1	ISO76.1		
			Extended Type		C30SE	C70SE	----	----
					ISO101.6	ISO101.6		
					C30SE	C70SE	----	----
					ISO76.1	ISO76.1		
			Combination Type		C30SE	C70SW	----	----
					ISO101.6	ISO101.6		
					C30SE	C70SW	----	----
					ISO76.1	ISO76.1		

Table 13-3. List of Applicable Product, Compensation capillary type Diaphragm Seal Type (Differential Pressure Transmitter EJXC80A, EJAC80E)

Upper case shows Product model, and lower case shows flange size

	Diaphragm Seal System			Transmitter	Diaphragm seal *1		Flushing connection ring*1*4	
					High-side	Low-side	High-side	Low-side
Differential Pressure Transmitter	High-side Direct mounted Diaphragm seal Low-side Remote Diaphragm seal*2	Flanged Seal	Flush Type	EJX110A EJA110E Measurement span (capsule) M, H, V	C20FW	C80FW	C10FR	C10FR
					3-inch (80 mm)	3-inch (80 mm)	3-inch (80 mm)	3-inch (80 mm)
					C20FW	C80FW	C10FR	C10FR
					2-inch (50 mm)	2-inch (50 mm)	2-inch (50 mm)	2-inch (50 mm)
					C20FW	C80FW	C10FR*3	C10FR*3
					1 1/2-inch (40 mm)	1 1/2-inch (40 mm)	1 1/2-inch (40 mm)	1 1/2-inch (40 mm)
			Extended Type		C20FE	C80FE	----	----
					4-inch (100 mm)	4-inch (100 mm)		
					C20FE	C80FE	----	----
					3-inch (80 mm)	3-inch (80 mm)		
			Combination Type		C20FE	C80FW	----	C10FR
					4-inch (100 mm)	3-inch (80 mm)		3-inch (80 mm)
					C20FE	C80FW	----	C10FR
					3-inch (80 mm)	2-inch (50 mm)		2-inch (50 mm)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 13-4a. List of Applicable Product, Single (High-side or Low-side) Diaphragm Seal Type (Differential Pressure Transmitter EJXC80A, EJAC80E)

Upper case shows Product model, and lower case shows flange size

	Diaphragm Seal System			Transmitter	Diaphragm seal *1		Flushing connection ring*1*4	
					High-side	Low-side	High-side	Low-side
Differential Pressure Transmitter	High-side Diaphragm seal	Flanged Seal	Flush Type	EJX110A EJA110E Measurement span (capsule) M, H, V	C80FW 3-inch (80 mm)	●	C10FR 3-inch (80 mm)	----
					C80FW 2-inch (50 mm)	●	C10FR 2-inch (50 mm)	----
					C80FW 1.5-inch (40 mm)	●	C10FR*3 1.5-inch (40 mm)	----
			Inner Diaphragm Type (Standard Type)		C82FA 1/2-inch (15 mm)	●	----	----
					C82FA 3/4-inch (20 mm)	●	----	----
					C82FA 1-inch (25 mm)	●	----	----
					C82FD 1/2-inch (15 mm)	●	----	----
					C82FD 3/4-inch (20 mm)	●	----	----
					C82FD 1-inch (25 mm)	●	----	----
			Extended Type		C80FE 4-inch (100 mm)	●	----	----
					C80FE 3-inch (80 mm)	●	----	----
	Low-side Diaphragm seal	Flanged Seal	Flush Type		●	C80FW 3-inch (80 mm)	----	C10FR 3-inch (80 mm)
					●	C80FW 2-inch (50 mm)	----	C10FR 2-inch (50 mm)
					●	C80FW 1.5-inch (40 mm)	----	C10FR*3 1.5-inch (40 mm)
			Inner Diaphragm Type (Standard Type)		●	C82FA 1/2-inch (15 mm)	----	----
					●	C82FA 3/4-inch (20 mm)	----	----
					●	C82FA 1-inch (25 mm)	----	----
					●	C82FD 1/2-inch (15 mm)	----	----
					●	C82FD 3/4-inch (20 mm)	----	----
					●	C82FD 1-inch (25 mm)	----	----
			Extended Type		●	C80FE 4-inch (100 mm)	----	----
					●	C80FE 3-inch (80 mm)	----	----

●: with process connector (Refer to Diaphragm Seal System Model Code)

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 13-4b. List of Applicable Product, Single (High-side or Low-side) Diaphragm Seal Type (Differential Pressure Transmitter EJXC80A, EJAC80E)

Upper case shows Product model, and lower case shows flange size or clamp size

	Diaphragm Seal System			Transmitter	Diaphragm seal *1		Flushing connection ring*1*4	
					High-side	Low-side	High-side	Low-side
Differential Pressure Transmitter	High-side Diaphragm seal	Hygienic Seal	Flush Type	EJX110A EJA110E Measurement span (capsule) M, H, V	C70SW ISO101.6	●	----	----
					C70SW ISO76.1	●	----	----
					C70SW ISO51	●	----	----
			Extended Type		C70SE ISO101.6	●	----	----
					C70SE ISO76.1	●	----	----
	Low-side Diaphragm seal	Hygienic Seal	Flush Type		●	C70SW ISO101.6	----	----
					●	C70SW ISO76.1	----	----
					●	C70SW ISO51	----	----
			Extended Type		●	C70SE ISO101.6	----	----
					●	C70SE ISO76.1	----	----

●: with process connector (Refer to Diaphragm Seal System Model Code)

Table 13-5. List of Applicable Product, Direct monted Diaphragm Seal Type (Differential Pressure Transmitter EJXC80A, EJAC80E)

Upper case shows Product model, and lower case shows flange size or clamp size

	Diaphragm Seal System			Transmitter	Diaphragm seal *1		Flushing connection ring*1*4	
					High-side	Low-side	High-side	Low-side
Differential Pressure Transmitter	High-side Direct mounted Diaphragm seal	Hygienic Seal	Flush Type	EJX110A EJA110E Measurement span (capsule) M, H, V	C20FW 3-inch (80 mm)	●	C10FR 3-inch (80 mm)	----
					C20FW 2-inch (50 mm)	●	C10FR 2-inch (50 mm)	----
					C20FW 1 1/2-inch (40 mm)	●	C10FR*3 1 1/2-inch (40 mm)	----
			Extended Type		C20FE 4-inch (100 mm)	●	----	----
					C20FE 3-inch (80 mm)	●	----	----
		Hygienic Seal	Flush Type		C30SW ISO101.6	●	----	----
					C30SW ISO76.1	●	----	----
					C30SW ISO51	●	----	----
			Extended Type		C30SE ISO101.6	●	----	----
					C30SE ISO76.1	●	----	----
					C30SE ISO51	●	----	----

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 13-6. List of Applicable Product, Diaphragm Seal Type (Gauge Pressure Transmitter EJXC80A, EJAC80E)
Upper case shows Product model, and lower case shows flange size

	Diaphragm Seal System			Transmitter	Diaphragm seal *1		Flushing connection ring*1*4	
					High-side	Low-side	High-side	Low-side
Gauge Pressure Transmitter	High-side Diaphragm seal (Low-side Open to atmosphere)	Flanged Seal	Flush Type	EJX430A EJA430E Measurement span (capsule) A, B	C80FW	----	C10FR	----
					3-inch (80 mm)		3-inch (80 mm)	
					C80FW	----	C10FR	----
					2-inch (50 mm)		2-inch (50 mm)	
					C80FW	----	C10FR*3	----
					1.5-inch (40 mm)		1.5-inch (40 mm)	
			Inner Diaphragm Type (Standard Type)		C82FA	----	----	----
					1/2-inch (15 mm)			
					C82FA	----	----	----
					3/4-inch (20 mm)			
					C82FA	----	----	----
					1-inch (25 mm)			
					C82FD	----	----	----
					1/2-inch (15 mm)			
					C82FD	----	----	----
					3/4-inch (20 mm)			
					C82FD	----	----	----
					1-inch (25 mm)			
			Extended Type		C80FE	----	----	----
					4-inch (100 mm)			
					C80FE	----	----	----
					3-inch (80 mm)			
		Hygienic Seal	Flush Type	EJX430A EJA430E Measurement span (capsule) A	C70SW	----	----	----
					ISO101.6			
					C70SW	----	----	----
					ISO76.1			
					C70SW	----	----	----
					ISO51			
			Extended Type		C70SE	----	----	----
					ISO101.6			
					C70SE	----	----	----
					ISO76.1			

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 13-7. List of Applicable Product, Diaphragm Seal Type (Gauge Pressure Transmitter EJXC81A, EJAC81E)
Upper case shows Product model, and lower case shows flange size

Diaphragm Seal System				Transmitter	Diaphragm seal *1		Flushing connection ring*1*4	
					High-side	Low-side	High-side	Low-side
Absolute Pressure Transmitter	High-side Diaphragm seal (Low-side Open to atmosphere)	Flanged Seal	Flush Type	EJX310A EJA310E Measurement span (capsule) M, A, B	C80FW	----	C10FR	----
					3-inch (80 mm)		3-inch (80 mm)	
					C80FW	----	C10FR	----
					2-inch (50 mm)		2-inch (50 mm)	
					C80FW	----	C10FR*3	----
					1.5-inch (40 mm)		1.5-inch (40 mm)	
			Inner Diaphragm Type (Standard Type)		C82FA	----	----	----
					1/2-inch (15 mm)			
					C82FA	----	----	----
					3/4-inch (20 mm)			
					C82FA	----	----	----
					1-inch (25 mm)			
					C82FD	----	----	----
					1/2-inch (15 mm)			
					C82FD	----	----	----
					3/4-inch (20 mm)			
					C82FD	----	----	----
					1-inch (25 mm)			
			Extended Type		C80FE	----	----	----
					4-inch (100 mm)			
					C80FE	----	----	----
					3-inch (80 mm)			

Table 13-8. List of Applicable Product, Direct Mount Diaphragm Seal Type (Gauge Pressure Transmitter EJXC50A, EJAC50E)
Upper case shows Product model, and lower case shows flange size.

Diaphragm Seal System			Transmitter	Diaphragm seal *1		Flushing connection ring *1*4	
				High-side	Low-side	High-side	Low-side
Direct mounted Diaphragm seal	Flanged Seal	Flush Type	EJX530A EJA530E Measurement span (capsule) A, B, C	C20FW	----	C10FR	----
				3-inch (80 mm)		3-inch (80 mm)	
				C20FW	----	C10FR	----
				2-inch (50 mm)		2-inch (50 mm)	
				C20FW	----	C10FR*3	----
				1 1/2-inch (40 mm)		1 1/2-inch (40 mm)	
		Extended Type		C20FE	----	----	----
				4-inch (100 mm)			
				C20FE	----	----	----
				3-inch (80 mm)			
	Hygienic Seal	Flush Type	EJX530A EJA530E Measurement span (capsule) A, B	C30SW	----	----	----
				ISO101.6			
				C30SW	----	----	----
				ISO76.1			
		Extended Type		C30SE	----	----	----
				ISO101.6			
				C30SE	----	----	----
				ISO76.1			

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Table 13-9. List of Applicable Product, Direct Mount Diaphragm Seal Type (Digital Remote Sensor EJXC40A)
Upper case shows Product model, and lower case shows flange size. For other combinations, ask us for availability.

Diaphragm Seal System			Transmitter	Diaphragm seal *1		Flushing connection ring *1*4	
				High-side	Low-side	High-side	Low-side
Both side (Primary and Secondary) Direct mount seal *2	Flanged Seal	Flush Type	EJXC40A	C20FW	C20FW	C10FR	C10FR
				80A (3B)	80A (3B)	80A (3B)	80A (3B)
				C20FW	C20FW	C10FR	C10FR
				50A (2B)	50A (2B)	50A (2B)	50A (2B)
				C20FW	C20FW	C10FR*3	C10FR*3
				40A (1.5B)	40A (1.5B)	40A (1.5B)	40A (1.5B)
		Extended Type		C20FE	C20FE	----	----
				100A (4B)	100A (4B)		
				C20FE	C20FE	----	----
				80A (3B)	80A (3B)		
		Combination Type		C20FE	C20FW	----	C10FR
				100A (4B)	80A (3B)		80A (3B)
				C20FE	C20FW	----	C10FR
				80A (3B)	50A (2B)		50A (2B)
				C20FW	Screw Mount	C10FR	----
				80A (3B)		80A (3B)	
				C20FW	Screw Mount	C10FR	----
				50A (2B)		50A (2B)	
				C20FW	Screw Mount	C10FR*3	----
				40A (1.5B)		40A (1.5B)	
				C20FE	Screw Mount	----	----
				100A (4B)			
				C20FE	Screw Mount	----	----
				80A (3B)			
				Screw Mount	C20FW	----	C10FR
					80A (3B)		80A (3B)
				Screw Mount	C20FW	----	C10FR
					50A (2B)		50A (2B)
				Screw Mount	C20FW	----	C10FR*3
					40A (1.5B)		40A (1.5B)
				Screw Mount	C20FE	----	----
					100A (4B)		
				Screw Mount	C20FE	----	----
					80A (3B)		
	Hygienic Seal	Flush Type		C30SW	C30SW	----	----
				ISO101.6	ISO101.6		
				C30SW	C30SW	----	----
				ISO76.1	ISO76.1		
		Extended Type		C30SE	C30SE	----	----
				ISO101.6	ISO101.6		
				C30SE	C30SE	----	----
				ISO76.1	ISO76.1		
		Combination Type		C30SE	C30SE	----	----
				ISO101.6	ISO101.6		
				C30SE	C30SE	----	----
				ISO76.1	ISO76.1		
				C30SW	Screw Mount	----	----
				ISO101.6			
				C30SW	Screw Mount	----	----
				ISO76.1			
				C30SE	Screw Mount	----	----
				ISO101.6			
				C30SE	Screw Mount	----	----
				ISO76.1			
				Screw Mount	C30SW	----	----
					ISO101.6		
				Screw Mount	C30SW	----	----
					ISO76.1		
				Screw Mount	C30SE	----	----
					ISO101.6		
				Screw Mount	C30SE	----	----
					ISO76.1		

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

Notes for Combination

*1 The suffix codes which is listed in table 13-10 should be identical between Flush Type (C80FW, C20FW) and Flushing Connection Ring (C10FR).

Table 13-10. Notes for Combination of C80FW, C20FW and C10FR

Items which should be identical between C80FW, C20FW and C10FR	Process connection size
	Flange standards
	Flange pressure rating
	Sealing face
	Gasket contact surface

*2 The suffix and optional codes which is listed in table 13-11 through 13-17 should be identical between primary and secondary transmitter.

Table 13-11. Remote mount flanged diaphragm seal

Flush type (C80FW) Innner Diaphragm Type (C82FA, C82FD) Extended type (C80FE) Combination type (C80FE+C80FW)	Seal fill fluid
	Transmitter connection type
	Capillary length
	Capillary inside diameter
	Diaphragm material
	Diaphragm diameter
	Flange standards
	Flange pressure rating

Table 13-12. Direct mount flanged diaphragm seal

Flush type (C20FW) Extended type (C20FE) Combination type (C20FE+C20FW)	Seal fill fluid
	Transmitter connection type
	Capillary inside diameter
	Diaphragm material
	Diaphragm diameter
	Flange standards
	Flange pressure rating

Table 13-13. Direct mount Hygienic diaphragm seal

Flush type (C30SW) Extended type (C30SE) Combination type (C30SE+C30SW)	Seal fill fluid
	Transmitter connection type
	Capillary inside diameter
	Diaphragm material
	Diaphragm diameter
	Process connection size
	Sealing Face Option

Table 13-14. Direct mount (high side) and remote mount (low side) combination, or with compensation capillary

Flange mounted type (C80FW, C80FE, C20FW, C20FE)	Seal fill fluid
	Process Connection size
	Sealing Face
	Gasket Contact Surface
	Diaphragm Material
	Diaphragm Option
	Flange standards
	Flange pressure rating
	Flange Material

Table 13-15. Direct mount (high side) and remote mount (low side) combination, hygienic type

Hygienic type (C70SW, C70SE, C30SW, C30SE)	Seal fill fluid
	Process Connection Standards
	Diaphragm Material
	Sealing Face Option

Table 13-16. Optional code

Flange mounted type (C80FW, C80FE, C20FW, C20FE) Inner Diaphragm Type (C81FA, C81FD, C82FA, C82FD)	Oil-prohibited use
	Oil-prohibited use with dehydrating treatment
	Material certificate
	Teflon film (C80FW, C20FW)
Hygienic type (C30SW, C30SE)	Oil-prohibited use
	Material certificate
	Certificate: Electro polishing
	Certificate: Buffung
	Certificate: Buffung and Electro polishing

Table 13-17. Flushing connection ring

C10FR	Usage
	Process connection size
	Wetted material
	Gasket usage
	Gasket size
	Gasket material

*3: When specifying flange size 40A (1.5B), also specify the flushing connection ring size 40A (1.5B). Structure is reducer type.

*4: Specify only when a flushing connection ring is specified

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation

< Ordering Information >

1. Model, suffix codes, and option codes
2. Calibration range and units:
   1) Calibration range can be specified with range value specifications up to 5 digits (excluding any decimal point) for low or high range limits within the range of -32000 to 32000. When reverse range is designated, specify LRV as greater than URV. When square root output mode is specified, LRV must be“0 (zero)”.
   2) Specify only one unit from the table, ‘Factory setting.’
3. Select linear or square root for output mode and display mode.
   Note: If not specified, the instrument is shipped set for linear mode.
4. Display scale and units (for transmitters equipped with the integral indicator only)
   Specify either 0 to 100 % or ‘Range and Unit’ for engineering units scale:
   Scale range can be specified with range limit specifications up to 5 digits (excluding any decimal point) for low or high range limits within the range of -32000 to 32000. Unit display consists of 6-digit, therefore, if the specified scaling unit excluding ‘/’ is longer than 6-characters, the first 6 characters will be displayed on the unit display.
5. Tag Number (if required)
   Specified characters (up to 22 characters) are engraved on the stainless steel tag plate fixed on the housing.
6. SOFTWARE TAG
   Specified characters (up to 32 characters) are set as “Tag” (the first 8 characters) and “Long tag” (32 characters) in the amplifier memory. Use alphanumeric capital letters.
   When the “SOFTWARE TAG” is not specified, specified “TAG NO” is set as “Tag” (the first 8 characters) and “Long tag” *1 (22 characters) in the amplifier memory.
7. Other factory configurations (if required)
   Specifying option code CA will allow further configuration at factory. Following are configurable items and setting range.
   [/CA]
   1) Descriptor (up to 16 characters)
   2) Message (up to 30 characters)
   3) Software damping (0.00 to 100.00 sec)

< Factory Setting >

Tag number	As specified in order
Software damping *1	‘2.00 s’ or as specified in order
Calibration range lower range value	As specified in order
Calibration range upper range value	As specified in order
Calibration range units	Selected from mmH_2O, mmH_2O (68°F), mmAq*2, mmWG*2, mmHg, Pa, hPa*2, kPa, MPa, mbar, bar, gf/cm^2, kgf/cm^2, inH_2O, inH_2O (68°F), inHg, ftH_2O, ftH_2O (68°F) or psi. (Only one unit can be specified.)
Display setting	Designated differential pressure value specified in order. (% or user scaled value.)

*1: To specify these items at factory, option code /CA is required.
*2: Not available for HART protocol type.

< Material Cross Reference >

ASTM	JIS
grade 316	SUS316
grade 316L	SUS316L
grade 304	SUS304

All Rights Reserved. Copyright © 2016, Yokogawa Electric Corporation
Subject to change without notice.