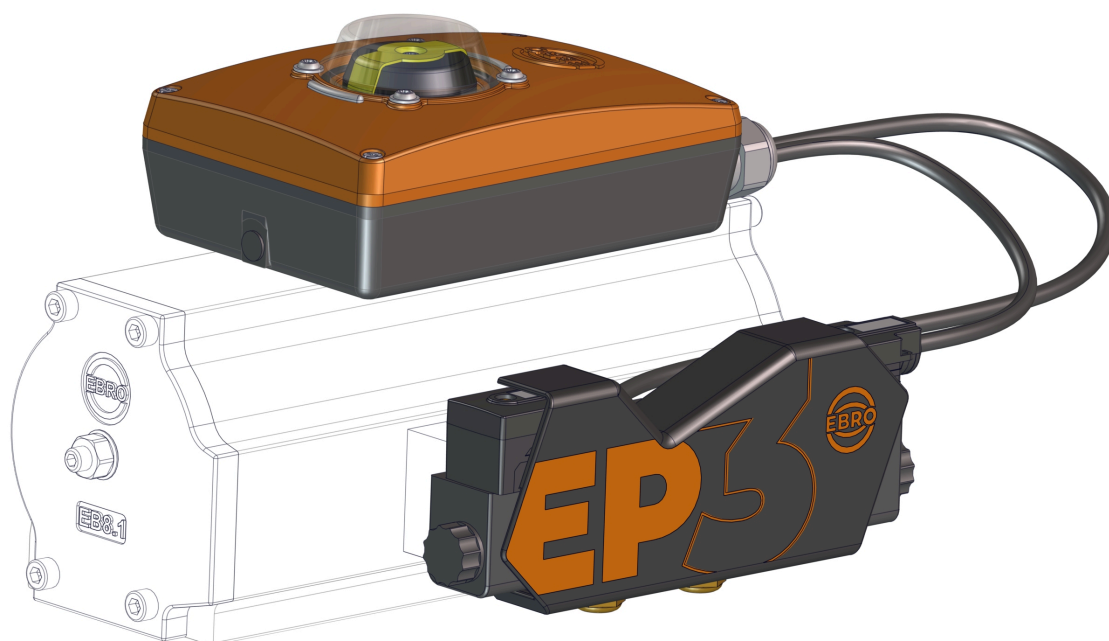
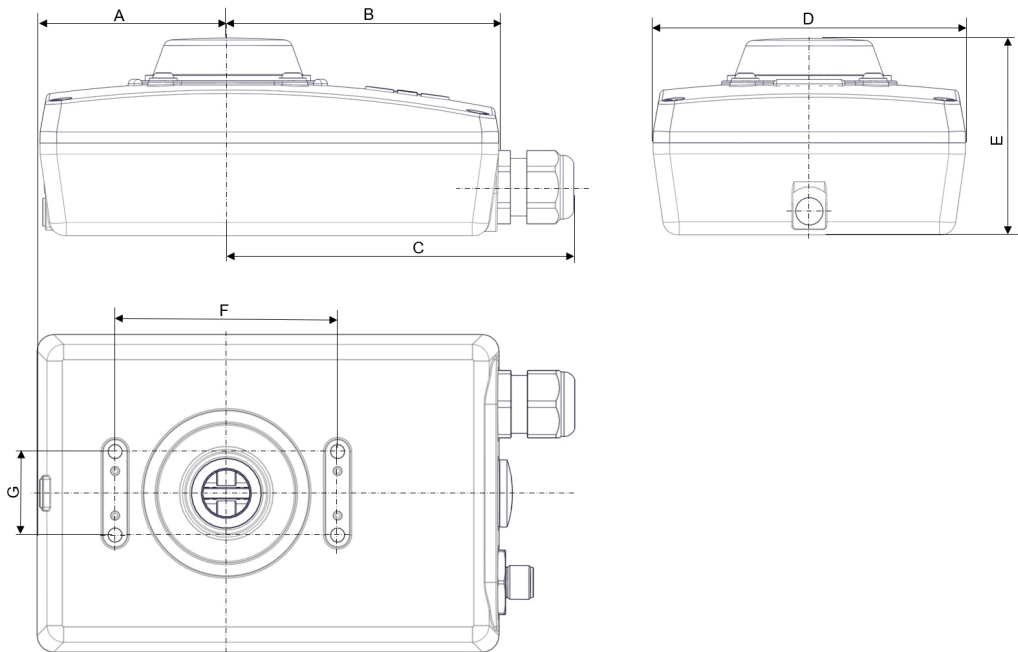


Technical data sheet

Position controller EP3

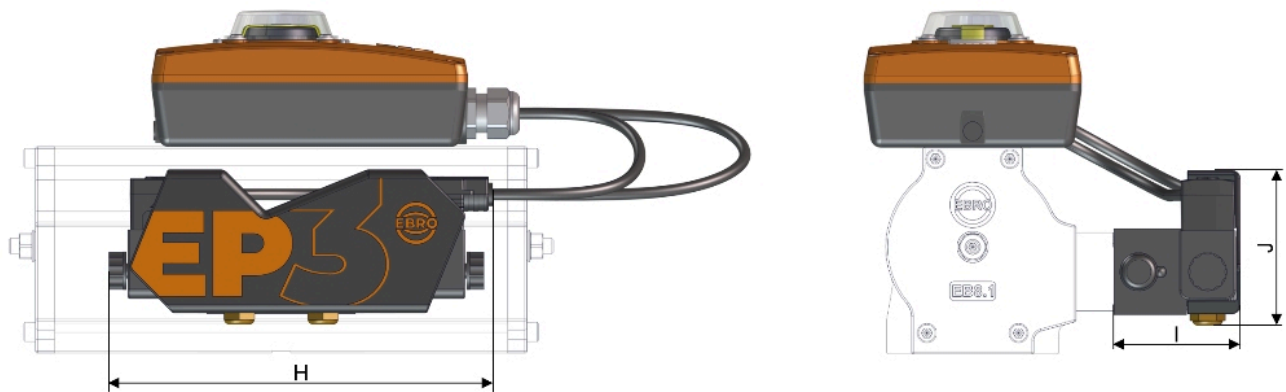


Dimension sheet



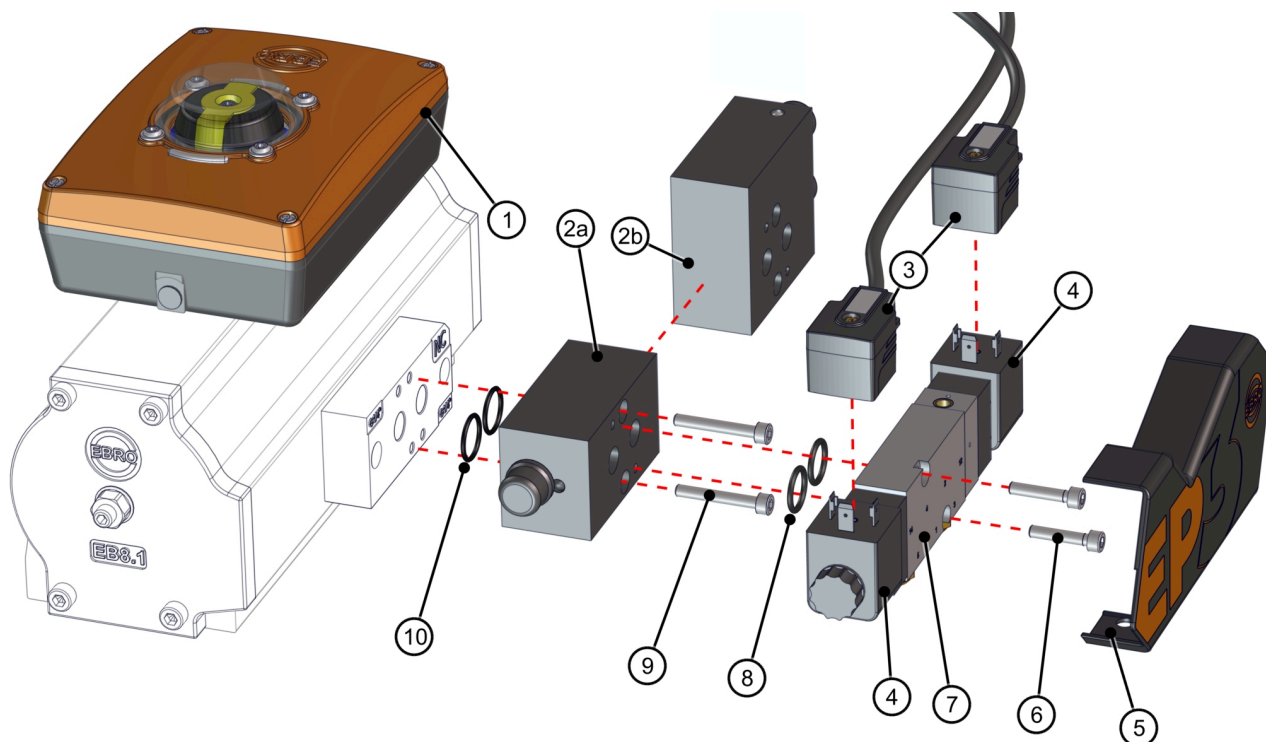
Type	Main dimensions [mm]							Weight [kg]
	A	B	C	D	E	F	G	
EP3	68	98	125	114	70	80	30	2.0

Weight including solenoid valve and throttle unit



Type	Main dimensions [mm]		
	H	I	J
EP3	202	66	81

Material specifications & bill of materials



Item	Naming	Piece	Material group	Material no.
1	Switch box	1		
2a	Double-acting throttle unit	1		
2b	Single-acting throttle unit			
3	Plug with cable	2		
4	Solenoid coil	2		
5	Cover	1		
6	Hexagon socket screw (solenoid valve)	2		
7	5/3-way solenoid valve or 3/3-way solenoid valve	1		
8	O-ring	2	NBR	
9	Hexagon socket screw (throttle unit)	2		
10	O-ring	2	NBR	

Technical features

Designation	Description
Valve body	Powder-coated aluminum
Operating elements / HMI	Pushbutton / IO-link / Bluetooth / RGB light element
Temperature range	-20 °C to +60 °C (-4 °F to +140 °F) ATEX: -10 °C to +40 °C (14 °F to +104 °F)
Connection type	Screw terminal connection 26-16 AWG / 0.129-1.31 mm ² (16 AWG), optional M12 panel connector
Recording range	100°
Dead zone	1-10% (factory setting 3%)
Safety position	Holding, closing or opening
Electrical data	
Power supply	24 V DC ±10%
Current consumption	Max. 380 mA
Sensor type position detection	Angle sensor, non-contact
Additional sensors	Acceleration sensor, temperature sensor
Analog input/setpoint specification	4-20 mA / 0-10 V
Additional analog inputs	4-20 mA / 0-10 V
Analog output	4-20 mA / 0-10 V
Digital input signals	3 (open/closed, intermediate position, external process sensor)
Digital output signals	3 (feedback: open, closed, fault/intermediate position)
Reverse polarity protection	Yes (power supply)
Pneumatic data	
Control medium	Neutral gases, air
Supply pressure	3-8 bar (43.5 – 116.0 psi)
Pilot air connection	G1/4"
Air output	1250 NI/min (44.125 ft ³ /min), adjustable

Standards

Designation	Description
Air quality	ISO 8573-1:2010-04, 7-4-4
Mechanical connection	VDI/VDE 3845 page 1:2010-09, direct setup

Certificates and approvals

Designation	Description
Explosion protection optional	Ex II 3G/D Switch box: Ex II 3 G Ex ec IIC T5 Gc X Ex II 3 D Ex tc IIIC T85°C X Dc Valve: Ex II 3 G Ex h IIC T6 Gb Ex II 3 D Ex h IIIC T80°C Coil: II 3G ec IIC Tx Gc II 3D tc IIIC Tx°C Dc Plug: II 2G eb IIC T5 Gb II 2D tb IIIC T100°C Db
Body protection	IP 65, optional IP67 (EN 60529:2014-09)
Corrosion protection	CS3 or optional CS5M
IO-Link communication type	COM3 (230.4 kBaud / 230.4 kbps)
IO-Link revision	1.1.3
IO-Link process cycle time	min. 10 ms
IO-link class	Class A
Conformity	CE, IO-Link
Notice: Further certificates and approvals available upon request.	

Type code

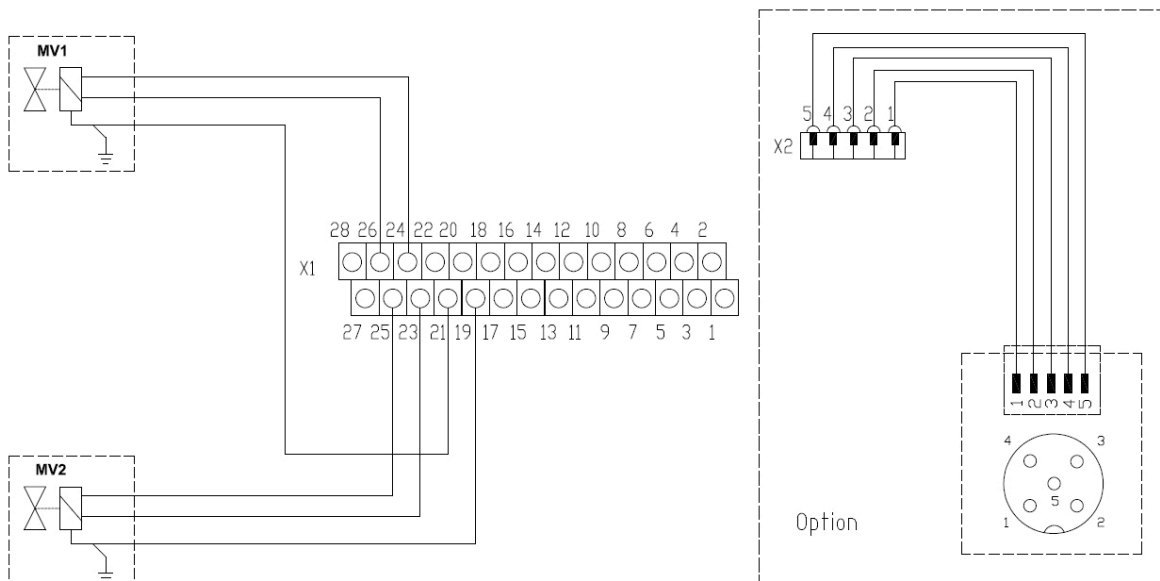
EP3-P-DC-A-K202-0000-D-0



Example	Position	Feature	Characteristic	Abbreviation
P	1	Mode	Positioner	P
			3rd position actuating mode	3
			Open/close Eco mode	D
			Position controller linear	PL
			Open/close Eco mode linear	DL
D	2	Actuator type	double-acting	D
			single-acting	S
C	3	Safety position	Fixed last position (only double-acting)	H
			Closing	C
			Opening	O
A	4	Control	4-20 mA	A
			0-10 V	A
			IO-link	I
			24 V	D
K	5	Connection 1-3 material	Plastic	K
			Metal	M
2	6	Connection 1	M12 plug	S
			M20x1.5 6-12 mm	2
0	7	Connection 2	Blind screw connection	0
			M20x1.5 6-12 mm	2
			Diaphragm	B
00	8	Material exhaust air screw connection	open (G¼")	00
			Sintered bronze	S1
			Plastic	K1
00	9	Supply air configuration	open (G¼")	00
			L-push-in fitting, G¼" to 6 mm	E1
			L-push-in fitting, G¼" to 8 mm	E2
			L-push-in fitting, G¼" to 10 mm	E3
D	10	Actuator size	EB5-12	D
			EB14-18	A
			EB20-26	AA
			SC	

Example	Position	Feature	Characteristic	Abbreviation
0	11	Explosion protection	without	0
			ATEX 3GD	E

Wiring diagram



X1		X1		X2	
Termi- nal	Assignment	Termi- nal	Assignment	Termi- nal	Assignment
1	PE	15	GND	1	+24 V (conventional / IO-link master)
2	+24 V (for external sensors)	16	Digital input 3	2	
3	0 V (conventional / IO-link master)	17	Analog input 2 GND (-)	3	0 V (conventional / IO-link master)
4	+24 V (for external sensors)	18	Digital input 2	4	Feedback position CLOSED / IO-link
5	+24 V (conventional / IO-link master)	19	PE	5	
6	Analog input 2 (+)	20	Digital input 1		
7	Feedback 3. Position / collective fault	21	PE		
8	Analog input 1 (setpoint (+))	22	Analog input 1 GND (-)		
9	Feedback Position OPEN	23	2U+ control via IO-link		
10	Analog feedback GND (-)	24	U-		
11	Feedback position CLOSED / IO-link	25	U-		
12	Analog feedback 0-10 V (+)	26	1U+ control via IO-link		
13	0 V (for external sensors)	27	2M IO-link master ¹		
14	Analog feedback 4-20mA	28	2+24 V IO-link master ¹		

¹ Optional auxiliary voltage for MV control