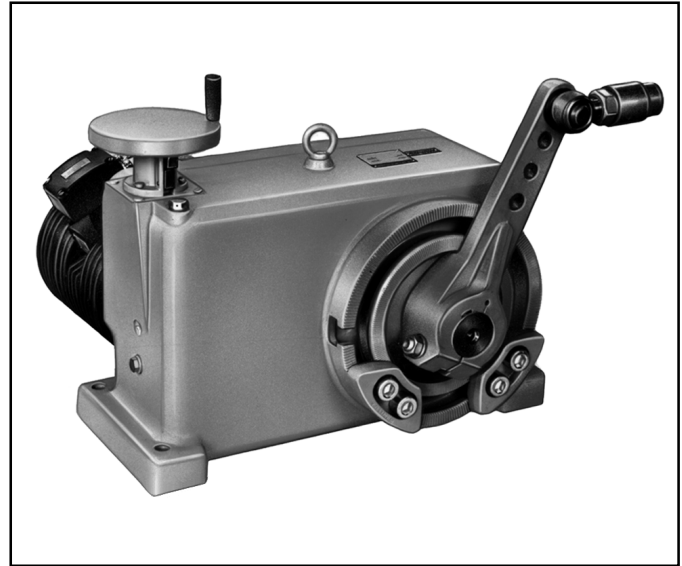


Intelligent Electric Modulating Actuator Contrac RHD 1250/2500 (1000 ft-lbs/1900 ft-lbs)

- Electric actuator for continuous duty modulating or pulse input control.
- Stall proof without the need for position or torque dependent switch-off.
- Sturdy, oil lubricated gearing with high mechanical efficiency.
- Adjustable mechanical limit stops for defined operating range.
- Local pushbuttons and hand wheel for emergency operation.
- Configurable microprocessor based power electronics.
- Extensive diagnostics and self monitoring. Includes test functions such as load torque measurement.



Intelligent Electric Modulating Actuator
Rated Torque 1250Nm/2500Nm
Contrac RHD1250/RHD2500

Application

Compact actuator for the operation of final control elements with typically 90-degree rotary movement such as dampers, butterfly valves, etc.

Torque is transferred via a lever/linkage bar assembly or the actuator is directly coupled to the driven shaft.

A special power electronics unit controls the actuator and acts as the interface between actuator and control system.

Positioning

During continuous positioning the power electronics unit varies the motor torque without stepping until the actuator force and the restoring process forces are balanced. High response sensitivity and high positioning accuracy with short positioning time ensure an excellent control quality and a long actuator life.

Technical Data

Actuator Data

RHD-1250-12

Rated torque	1250Nm (1000 ft-lbs) (adjustable to 0.5, 0.75 or 1 x rated torque)
Starting torque	1.2 x rated torque (break-away torque in end positions for a short time 2 x rated torque)
Rated time for 90°	12 sec to 900 sec
Rated speed; adjustable	7.5°/sec to 0.1°/sec
Operating angle	Typically 90° (35° to 120°, without lever: max. 300°)
Weight including lever Electronics	Approx 270 kg (595 lbs)
For field installation	Refer to EBN 853: 10/68-8.27
Motor	MCS 80 BA
Sensor	Position transmitter and temperature sensor included as standard

RHD-2500-10

Rated torque	2500Nm (1000 ft-lbs) (adjustable to 0.5, 0.75 or 1 x rated torque)
Starting torque	1.2 x rated torque (break-away torque in end positions for a short time 2 x rated torque)
Rated time for 90°	10 sec to 900 sec
Rated speed; adjustable	9°/sec to 0.1°/sec
Operating angle	Typically 90° (35° to 120°, without lever: max. 300°)
Weight including lever Electronics	Approx 250 kg (551 lbs)
For field installation	Refer to EBN 851: 10/68-8.22
Motor	MCS 90 BA
Sensor	Position transmitter and temperature sensor included as standard

RHD-2500-25

Rated torque	2500Nm (1000 ft-lbs) (adjustable to 0.5, 0.75 or 1 x rated torque)
Starting torque	1.2 x rated torque (break-away torque in end positions for a short time 2 x rated torque)
Rated time for 90°	25 sec to 900 sec
Rated speed; adjustable	3.6°/sec to 0.1°/sec
Operating angle	Typically 90° (35° to 120°, without lever: max. 300°)
Weight including lever Electronics	Approx 270 kg (595 lbs)
For field installation	Refer to EBN 853: 10/68-8.27
Motor	MCS 80 BA
Sensor	Position transmitter and temperature sensor included as standard

General Data

RHD4000 (-10/-40)

Operation mode	S9 - stall proof according to DIN IEC 2/915/CDV
Protection class	IP66
Humidity	≤ 95% average; (noncondensing)
Ambient temperature	-26°C to 66°C (-15°F to 150°F) or -29°C to 54°C (-20°F to 130°F) optionally
Mounting position	Any position; preferably IMB 3 according to DIN IEC 34
Coating	2 component epoxy-resin paint (RAL 7012, stone grey)
Weight	45 kg (99 lbs)

PME 120 AN (separate electronics)

Operation mode	S9 - stall proof according to DIN IEC 2/915/CDV
Protection class	IP66
Humidity	≤ 95% average; (noncondensing)
Ambient temperature	-9°C to +55°C (15°F to ____°F), -1°C to 85°C (30°F to 185°F) (optional)
Mounting position	Any position; preferably IMB3 according to DIN IEC 34
Coating	2 component epoxy-resin paint (RAL 7012, stone grey)
Anticondensation heater	Motor: from electronics Signal hood: Optional separate heating resistor; ext. 115/230VAC; 6 Watt
Electrical Connection	Terminal blocks at electronics unit for power and control interface wiring. Pre-assembled cable with connector at motor end and terminal connections at electronics end (included).

Electrical Connections*

The electrical connection is made via a plug at the actuator and via terminals at the electronics.

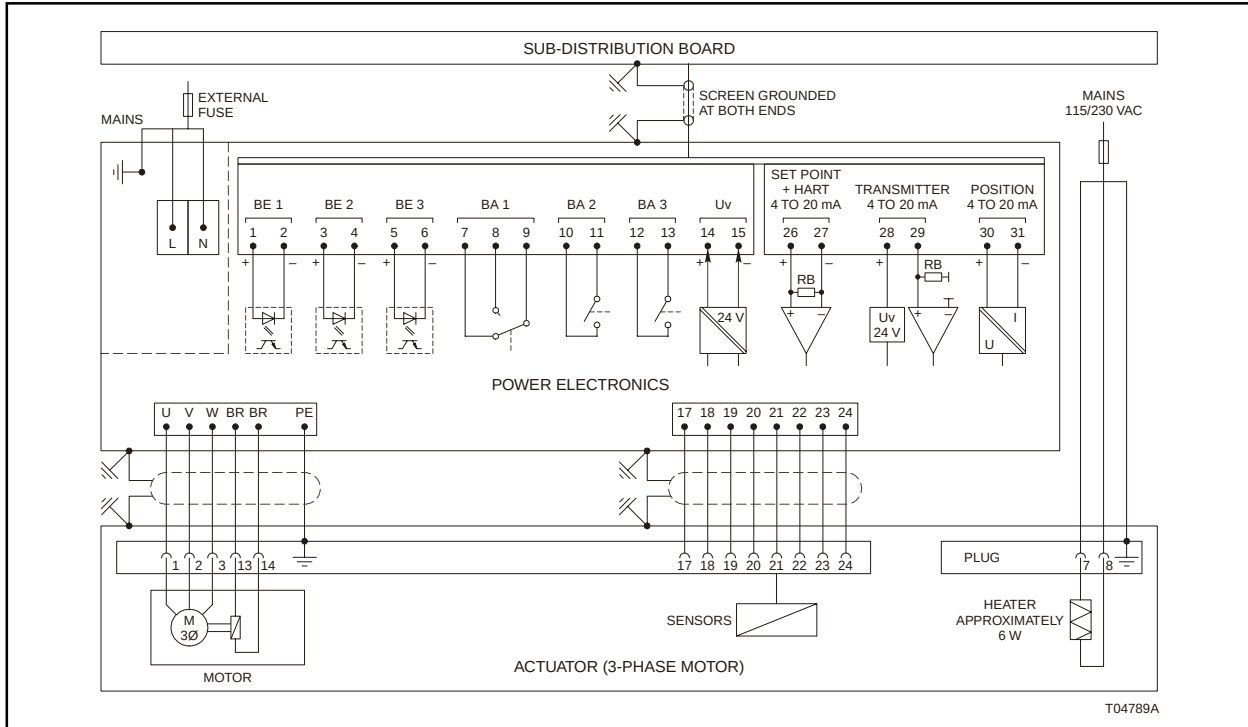


Figure 1. Standard Electrical Connections (Transmitter Input 28 & 29 Optional)

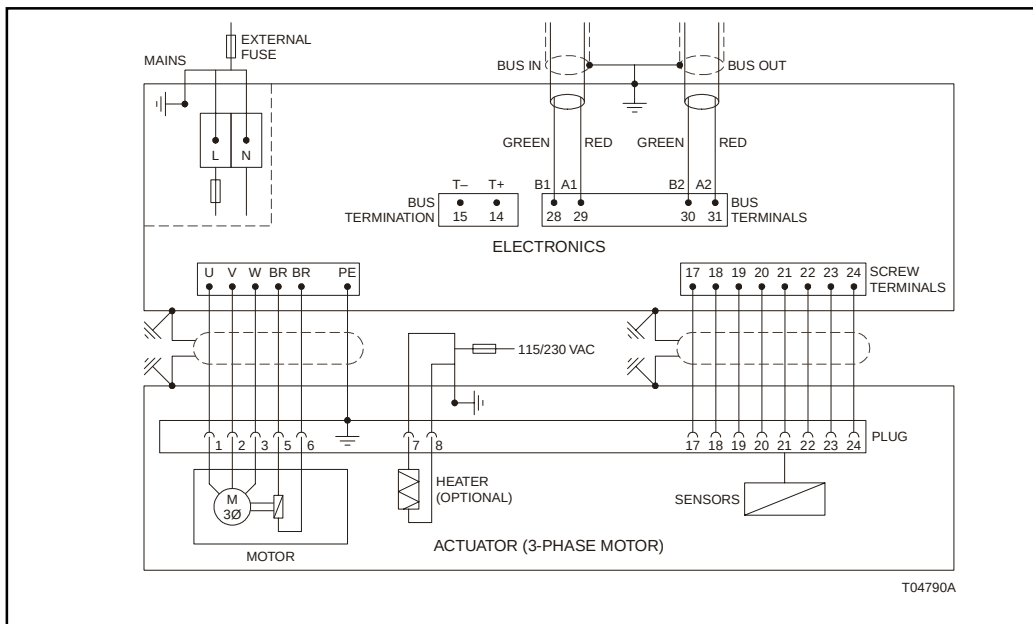


Figure 2. Profibus DP Electrical Connection (not for Electronics EBS 853/ EBS 863)

* Note: Refer to Instruction Manual 42-68-165EN, Rev. 1 for details as applicable to 2003 product deliveries.
• The optional anti-condensation heater wiring has changed.

Ordering Information for Type RHD 125-; Rated Torque 1250 Nm (1000 ft-lbs) and Type RHD 2500; Rated Torque 2500 Nm (1900 ft-lbs)

- Intelligent electric actuator for continuous modulating control.
- Stroke speed 12, 10 and 25 seconds respectively for 90°.
- 4 to 20 mA input, 4 to 20 mA FB, 3 digital inputs, 3 digital outputs.
- 9600 baud digital communications.
- Includes drive lever and linkage ends for 2-inch schedule 80 pipe.

RHD 1250-12

Rated torque 1250 Nm (1000 ft-lbs)

Rated speed 7.5°/sec

RHD 2500-10

Rated torque 1250 Nm (1900 ft-lbs)

Rated speed 9.0°/sec

RHD 2500-25

Rated torque 2500 Nm (1900 ft-lbs)

Rated speed 3.6°/sec

Gear Temp. Range: -20F to +130°F
15 ... 150°F (Standard)

Anti Condensation Heater: None (standard)
Include

Supply Voltage: 115 volts (standard)
230 volts

Communication: RS-232-C (standard)
RS 232 + HART

Cable: 15 ft. (std.)
50 ft.
Special (specify)

Accessories

SMART VISION 4 CD-ROM

HART Modem (isolated)
RS232 Cable – DB9 male to
DB9 female - null Modem (purchase locally)

Spare Parts:

EAN 853 Electronics Hood
EAN 853 Remote Electronics Assembly 115V
EAN 853 Remote Electronics Assembly 230V
Position Sensor Assembly (Cable)
Ball joint for drive arm
Ball joint for drive arm

Instruction Manual (One copy supplied with order at no charge)

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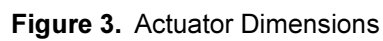
Part Number

63111 9820026

0343705

HEB120000DD
EB220000DD
EB220000DD
S764975 (764981)
RHB1250/2500 LH
RHB1250/2500 RH

42-68-151EN



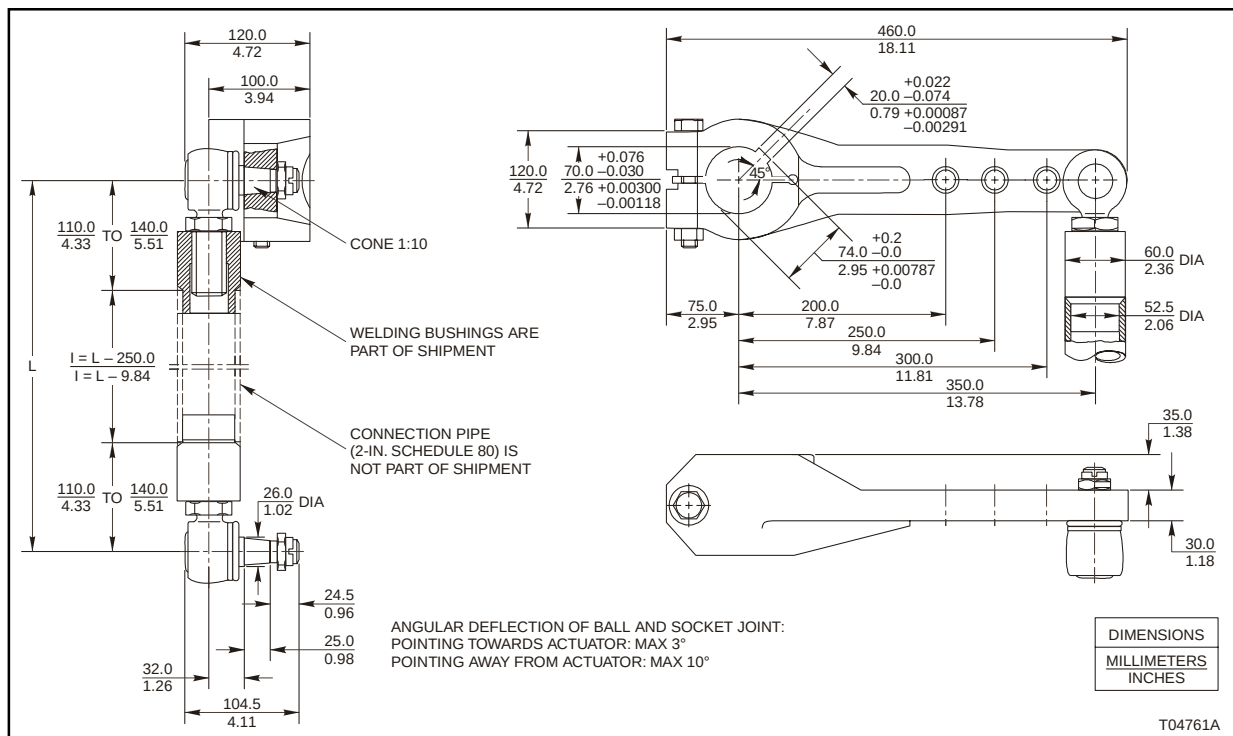


Figure 4. Lever Dimensions

Notes

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Printed in USA (6.2.03)

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