

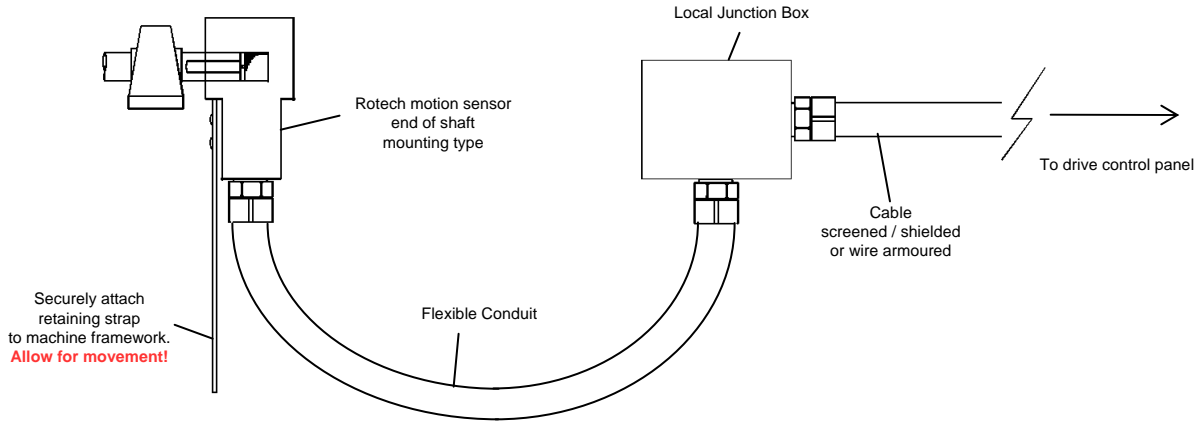


Commissioning & Testing

ROTECH FOR RELIABILITY!

Why Accept Anything Less?

End of Shaft Mounted Encoders



Installation

1. Drill & tap end of shaft to be monitored (refer to "Mag-con" data sheet for magnetic connector usage)
2. Remove rear cover plate from Rotech
3. Install Rotech to end of shaft using socket cap bolt provided. Ensure bolt does not 'bottom' in tapped hole, slippage may occur if shaft faces are not firmly in contact.

RECOMMENDED:

APPLY A SUITABLE THREAD LOCKING ADHESIVE TO THE THREADS PRIOR TO INSTALLATION (LOCTITE OR SIMILAR)

4. Refit rear cover plate to Rotech
5. If fitted - secure flexible restraining strap to convenient point on machine
6. Cable as per drawing above
7. Refer to appropriate Rotech data sheet for output type connections

Commissioning & testing

Important

All wiring must be in accordance with local and national electrical codes and should only be undertaken by an experienced and professional Qualified electrician.

All disconnections and connections must be made with the power supply switched off.

To test the Rotech unit it must be connected to it's power source and associated control circuit I.E. "Rotech" speed relay, plc, Computer, etc. And for power to be switched on.

Rotech sensor output type E, E2, E3

Connect a 0 to 30vdc voltmeter between brown and blue connections
 Voltmeter should indicate D.C. Supply voltage of between 10 and 30vdc
 Now Connect the voltmeter between the black and blue connections.
 Rotate Rotech unit very slowly, voltmeter should indicate on/off pulses between 0vdc and the nominal
 Supply Voltage (Supply Voltage Minus 1 To 2 Vdc)

Rotech sensor type N

Connect a 0 to 10ma Multimeter in series with the blue wire connecting the Rotech unit to it's control circuit
 rotate the Rotech unit very slowly, Multimeter should indicate on / off pulses of less than 1ma to greater than 3ma.
 See note * 1 below

Rotech sensor type W

Connect a 0 to 240vac voltmeter between the brown connection and 0 vac, verify the supply voltage is present.
 Now connect the voltmeter between the blue connection and 0 vac.
 Rotate the Rotech unit very slowly, the voltmeter should indicate on / off pulses of between 0v and the supply voltage.
 See note * 1 below

Note * 1

- * At higher speeds the meter will not respond quickly enough to the on / off pulses. It will display an average value between The max and min levels.
- * The number of on / off pulses for one complete revolution should be the same as detailed in the Rotech Product data sheets I.E. 1,10,120,360,500 etc.



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Codes Explanation Motion Sensors/Encoders

(1) (2) (3) (4) (5)

Typical Example: **PAE – 60 – E2 – HD – HS**

(1) Housing Type

- PAE** = Aluminium Housing (1000,2000 Series) – End of shaft mounting
- PPE** = Polypropylene Housing (4000 Series) – End of shaft mounting
- PSSE** = Stainless Steel Housing (2000, 3000 Series) – End of shaft mounting
- PWE** = Steel Housing - Wheel Driven Trailing Arm (Utilising AE 2000)
- PPWE** = Steel Housing – Wheel Driven Trailing Arm (Utilising PE 4000)
- PAV** = Aluminium Housing (4000 Series) – Vibration Sensor

(2) PPR Number of Pulses Per Revolution

Available pulse rates (dependant upon output type)

1, 2, 4, 6, 8, 10, 12, 13, 16, 20, 30, 32, 40, 50, 60, 100, 120, 180, 240, 250, 260, 300, 360, 500, 1000

(3) Electrical Signal Output Configuration (Incremental)

- N** = 2 wire – Intrinsically Safe-Hazardous Areas 8.2V DC 3 to 5ma
- E** = 3 wire 10 to 30 VDC – NPN transistor/current sink
- E2** = 3 wire 10 to 30 VDC – PNP transistor/current source
- E3** = 3 wire 10 to 30 VDC – NPN/PNP transistor (Sink/Source)
- E4** = 2 wire 10 to 36 VDC – NPN/PNP transistor (Sink/Source) bipolar (Can be used in place of E3 Type)
- E3Q** = 4 wire 10 to 30VDC - 2x NPN/PNP Transistor (Sink/Source - Quadrature Configuration)
- NQ** = 2x 2 wire - N Type (as shown above) - Quadrature Configuration
- EQ** = 2x 3 wire - E Type (as shown above) - Quadrature Configuration
- E2Q** = 2x 3 wire = E2 Type (as shown above) - Quadrature Configuration
- W** = 2 wire 20 to 240 VAC/DC (Max Switching Frequency 25Hz AC, 100 Hz DC).

(4) Application Duty

- No Code (blank)** = Aluminium Standard Duty 1000 Series
- HD** = Aluminium Heavy Duty 2000 Series or Polypropylene Housings – PE4000 Series
- XHD** = Aluminium/ Stainless Steel Extra Heavy Duty 3000 Series

(5) Variations on Standard Units

HS =High Speed Operation = Excess of 1000 RPM

- No Code (blank)** = -25°C to +70°C
- 100** = -25°C to +100°C
- 125** = -25°C to +125°C
- 150** = -40°C to +150°C
- 40** = - 40°C to +70°C

- No Code (blank)** = 12mm Thread Fixing Bolt (2000/3000 Series) 10mm Fixing Bolt (1000 Series).
- M10** = 10mm Thread Fixing bolt (2000 Series)
- M16** = 16mm Thread Fixing bolt (2000/3000 Series)

- RS30** = 3 pin Brad @ Connectivity Electrical Connector
- RS40** = 4 pin Brad @ Connectivity Electrical Connector

S = Special Bespoke Customer Requirements (refer to Rotech systems).