BERMAD Waterworks



Accessories

Model BUS004J

Analog Valve Position Transmitter

This Analog Valve Position Transmitter assembly is an accessory which enables remote signaling upon the rate of opening of the BERMAD control valves. It is equipped with an ultrasonic, easy to set, sensor that measures, without contact, the movement of the valve position indicator.

This Analog Valve Position Transmitter is suitable for BERMAD 700, 800 and 400 Series (up to 16"; DN400 actuator)



Principal of Operation:

Ultrasound is a high-frequency oscillation emitted by the sensor, which is reflected on the measurement object and is received back in the form of an echo. From the travel time of the sound, the sensor calculates an analog output signal proportional to the distance between the sensor and the cam attached to the valve indicator.

Features and Benefits

- Simple setting
- Easy on-site assembly
- Corrosion resistant construction
- Vibration resistant technology
- Easy programming and calibration



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Technical & Electrical Data

Operating Voltage: 20-30V DC

Analog output: 4-20mA

Protection: IP67Accuracy: ≤ 2%

Control: Teach-in push-button

Temperature: -25 to +70°C; -13 to +158°F

Blind zone: 20mm

Operating range: 150mmReproducibility: 0.15 ±

Indicators: LED green (operation)

LED yellow (state of output)

Construction Material

- Metal parts: Stainless Steel 316 (other materials available on request)
- Ultrasonic transducer: polyurethane foam, epoxy resin with glass content
- Sensor housing: ABS

Operation Instructions

Via the push-button, the window limits of the analogue output and its characteristic can be adjusted (teaching).

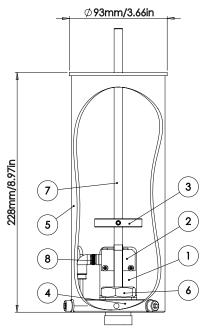
Two LED's indicate operation and the state of the analogue output.

Analog Output Setting

- 1. Set window margins
- 2. Close the valve
- 3. Press push-button for about 3 seconds until LED's flush simultaneously
- 4. Both LED's flush mutually
- 5. Open the valve
- 6. Press push-button for about 1 second

When setting upside down, replace line 2 with line 5.

Assembly Drawing



Parts List:

- 1. Sensor Bracket
- 2. Ultrasonic Sensor
- 3. Cam
- 4. Lower Disk
- 5. Cover
- 6. Flow Stem Nut
- 7. Position Indicator
- 8. Connector with PVC Cable Part List

Wiring Diagram

Connect a connection cable to the M8 device plug.

| 1 | +U | +24VDC | Brown |
|---|---------|---------------------|-------|
| 2 | Sync | | White |
| 3 | OV | - 24VDC/- Analog IN | Blue |
| 4 | Out I/O | + Analog IN | Black |

