

VALVE POSITION TRANSMITTER



- Position indication from valves
- Replaces position potentiometers
- Standard 0/4...20 mA output
- Automatic calibration
- No adjustment required
- 24 VDC supply



Applications:

Angle measurement on rotating units, e.g. position indication from valves. ● The limit switches on the valve carry out the automatic calibration. ● Each time the valve reaches one of the limit switches, the 0% and 100% input on the transmitter is activated and the output is calibrated. ● The valve position transmitter replaces potentiometers in general where access or operational conditions impede adjustment of measurement range.

Technical characteristics:

Input:

Input shaft (\varnothing 6.342 mm) is connected to the unit being measured. The resolution of the transmitter is max. 250 revolutions with 256 pulses per revolution. 2 galvanically isolated inputs for calibration of zero point and span:

Low-input voltage 12...48 VAC/DC with input resistance 15 k Ω .

High-input voltage 110...230 VAC/DC with input resistance 200 k Ω .

The transmitter detects whether a shift on the 0% and 100% calibration input is a make or a break function.

The valve position transmitter is available with an external encoder for external mounting. However, special mounting is required for fulfilling the EMC standards.

By supply drop-out the transmitter remembers the valve position. As the encoder has a ball bearing, a gear can be mounted.

Output:

0/4...20 mA with max. load 600 Ω (12 VDC).

By means of an internal jumper it is possible to adjust the analogue output.

Installation and programming:

Please see the reverse.

Electrical specifications:

Specifications range:

(@ -20°C to +60°C)

Common specifications:

Supply voltage.....	24 VDC \pm 20%
Internal consumption	1.5 W
Isolation, test / operation	2.3 kVAC / 250 VAC
Response time (0...90%,100...10%) ..	< 120 ms
Signal dynamics, output.....	11 bit
Calibration temperature.....	20...28°C
Temperature coefficient.....	< \pm 0.01% of span/°C
Linearity error	< 0.2% of span
EMC immunity influence	< \pm 0.5%
Humidity	< 95% RH (non-cond.)
Dimensions (HxWxD)	
(excl. encoder shaft)	70 x 61 x 33 mm
Tightness.....	IP50
Weight	150 g

Electrical specifications INPUT:

Angle input:

Max. resolution	250 revolutions
Resolution / rotation	256 pulses
Max. velocity	2.5 rev. per s (640 Hz)
Min. life time	200 mill. revolutions

Calibration inputs:

Low input voltage	12...48 VAC/DC
Input resistance	15 k Ω
High input voltage	110...230 VAC/DC
Input resistance	200 k Ω

Electrical specifications OUTPUT:

Signal range	0...20 mA
Min. signal range	16 mA
Max. offset.....	20% of selected max. value
Load (max.)	20 mA / 600 Ω / 12 VDC
Current limit.....	26 mA \pm 2 mA
Load stability	< \pm 0.01% of span / 100 Ω

Observed authority requirements: Standard:

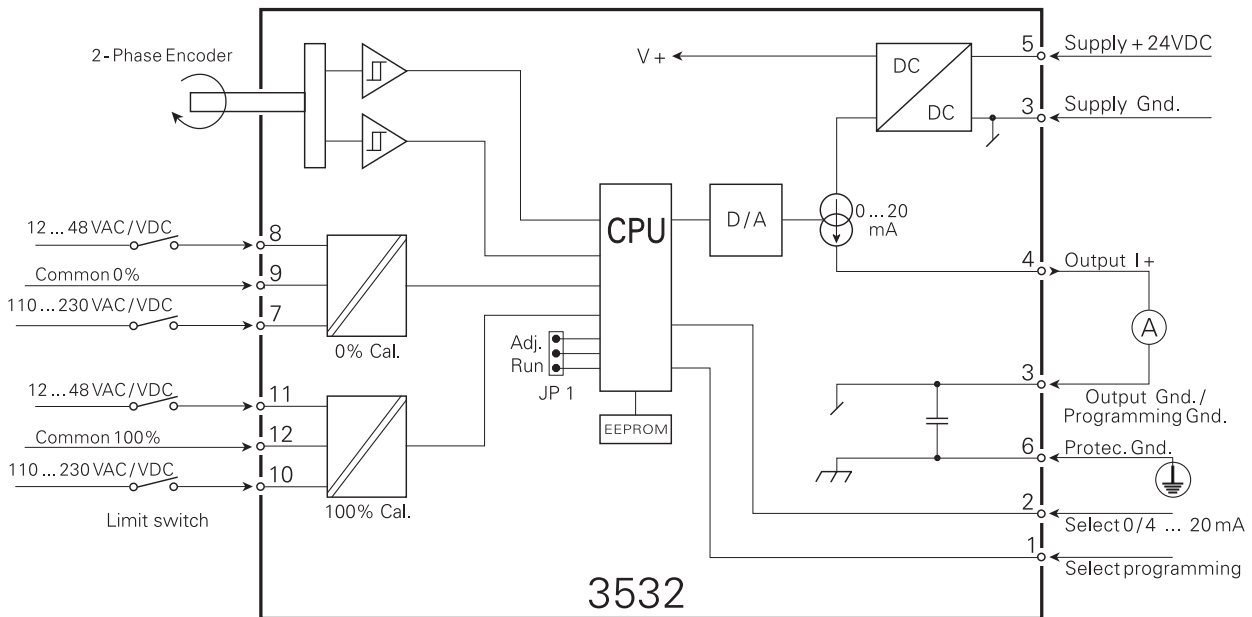
EMC 89/336/EEC, Emission	EN 50 081-1, EN 50 081-2
Immunity	EN 50 082-2, EN 50 082-1
Emission and immunity.....	EN 61 326
LVD 73/23/EEC	EN 61 010-1

Of span = Of the presently selected range

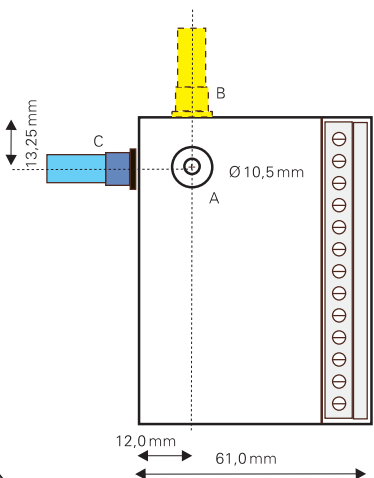
Order : 3532

Type	Input	Encoder placement	Limit switch
3532	Internal encoder : 0	On the front of the box : A	12...48/110...230 VAC/DC : 2
	External encoder : 1	On top of the box : B	
	(Specify cable length)	On the left side of the box : C	
		On the rear of the box : D	
		(See mechanical specs. below) : -	

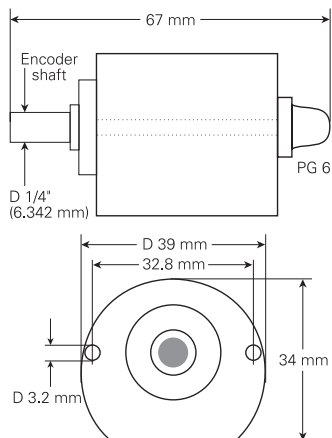
Block diagram:



Mechanical specifications:



External encoder:



Application:

