PTS 420 Series (Position Transmitter)

The PTS 420 linear position transmitter consists of a one-piece linear position sensor and transmitter electronics. Configured for use in two-wire, current loops, the PTS 420 is compatible with most process controllers. Units are available in measurement ranges from 0.25" to 10". Rugged packaging and a large barrier type terminal strip facilitates installation and screwdriver adjustments provide for ease of calibration. Designed with a rain-tight, splash-proof housing, the PTS 420 is suitable for position measurements requiring stem-type valves such as the ones frequently used in process control, power generation, and other related applications. The PTS 420 can also be used for valve position indication, roll gap control in rolling mills, and applications where long cables are required.

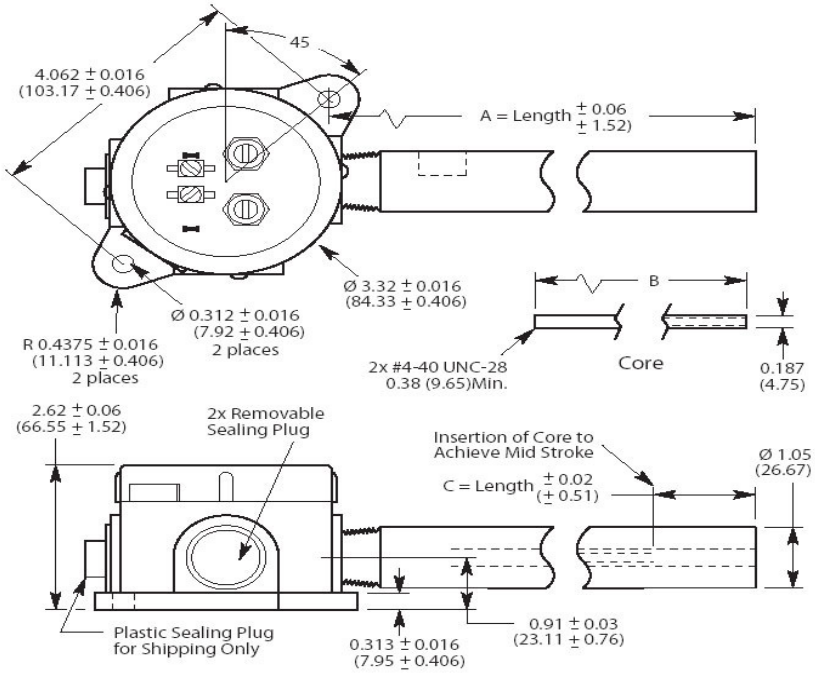
FEATURES

- 4-20 mA Two-Wire Operation
- Measurement Ranges from 0.25” to 10.0”
- Low Cost
- Zero and Span Adjustments
- Self-Contained Electronics
- Rugged Splashproof Housing
- Compatible with Process Controllers
- Ideal for Noisy Environments
- Calibration Certificate Supplied with All Models

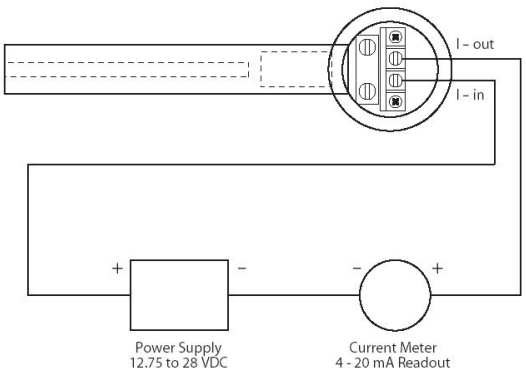
APPLICATIONS

- Process Control
- Air-Handling Systems
- Power Generation
- Filtration/Water Treatment
- Steel, Aluminum, Paper, Rubber, and Plastic Rolling Mills

dimensions



wiring



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Valve Position Sensing

A PTS 420 is a two-wire current-loop position transmitter especially suited to valve position indication and other position indication in process industries.

Roll Gap Measurement

A typical application of the PTS 420 position transmitter is the measurement of the roll gap in rolling mills for steel, aluminum, and other primary metals. The same transmitter is adaptable to measuring the position of calendering rolls in paper mills, rubber plants, and plastic sheet and film manufacturing facilities.

Sluice Gate Control

The PTS 420 position transmitter can be used to measure the open height of sluice gates in sewage and waste water treatment plants. Other applications include power plant water supplies, potable water filtration plants, flood control dams, and industrial processes.

Specifications

Linear Range (in)	0.25, 0.50, 1.0, 2.0, 5.0, 10.0
Nonlinearity	<1.25% for 10” and 0.75% for others
Output	4-20 mA, two-wire loop
Loop Supply	10.5 to 28.0 VDC
Max Loop Resistance	600 @ 28 VDC
Output Noise and Ripple	25 µA Pk-Pk (max)
Operating Temperature Range	-13F to 185F (-25C to 85C)
Temperature Coefficient of Sensitivity	0.08%/C (max)
Stability	0.10% after 30 minute warm up
Frequency Response	50 Hz min (-3dB)
Controls	10-turn potentiometers for zero and span
Termination	Terminal strip with two 8-32 screws

Mechanical Specifications

PTS Series	Weight & Dimensions									
Model Number	Weight		Core Weight		A (Body)		B (Core)		C	
	lb	gm	lb	Gm	In	Mm	In	mm	In	mm
PTS 420-250	1.62	735	0.11	3	3.53	89.7	1.10	27.9	0.44	11.2
PTS 420-500	1.78	808	0.14	4	4.66	118.4	1.80	45.7	0.65	16.5
PTS 420-1000	2.00	908	0.25	7	6.07	154.2	3.00	76.2	0.75	19.1
PTS 420-2000	2.32	1053	0.35	10	8.34	211.8	3.80	96.5	1.48	37.6
PTS 420-5000	2.50	1135	0.46	13	11.46	291.1	3.80	96.5	3.05	77.5
PTS 420-10000	2.84	1290	0.49	14	20.77	527.6	6.20	157.5	5.48	164.6

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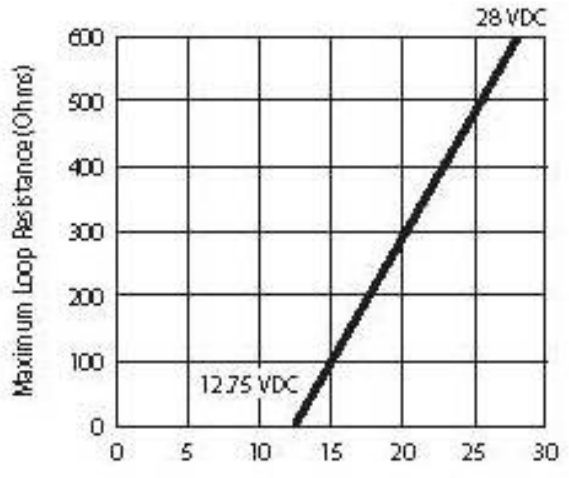
maximum loop resistance



ordering info

Specify the PTS model with the appropriate range.

Ordering Example:
Model Number PTS 420-250 is a PTS 420 Series LVDT transmitter with a 0 to 0.250 range.

model number

PTS 420 Model	Linear Range	
	inches	mm
PTS 420-250	0 to 0.250	0 to 6.35
PTS 420-500	0 to 0.500	0 to 12.7
PTS 420-1000	0 to 1.0	0 to 25.4
PTS 420-2000	0 to 2.0	0 to 50.8
PTS 420-5000	0 to 5.0	0 to 127.0
PTS 420-10000	0 to 10.0	0 to 254.0

options

Number	Description
006	Metric Thread Core

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