Intelligent Pressure Transmitter - IO-Link

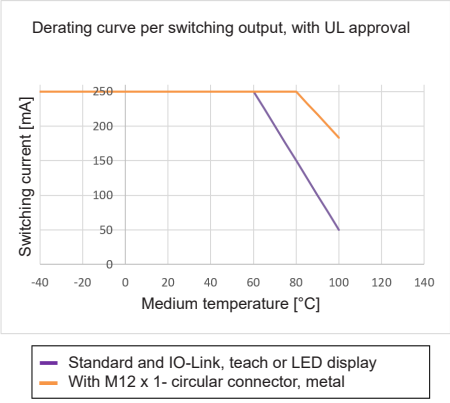
IO-Link C UL US LISTED NOSHOK

PTI10 SERIES

- Digital IO-Link can be used for pressure monitoring or as an electronic PNP switch for process control
- Integrated diagnostic functions with multicolor LED status display for easy maintenance
- Simplified machine integration with product specific drivers
- Fully welded electrical connection available for harsh and high vibration environments

APPLICATIONS

- Hydraulics & pneumatics
- Automation engineering
- Pumps & compressors
- Water & wastewater



SPECIFICATIONS

Pressure ranges	Compound and standard ranges from 1 bar through 1000 bar
Output parameters	
Number	2 outputs, individually adjustable via IO-Link (PNP)
Function	Normally open, normally closed, window and hysteresis (adjustable via IO-Link)
Switching Current	Max 250 mA
Response time	≤ 5 ms
Zero Point Offset	Max 3% of span (via IO-Link)
Damping	0 ms to 65 ms (via IO-Link)
Switch On Time	1 s
Switching Voltage	Power supply - 1 V
Accuracy parameters	
Accuracy, Switching output	≤ 1.0% of span (optional ≤ 0.5% of span)
Long term drift	≤ 0.1 %, ≤ 0.2 % for ranges below 0.69 bar (10 psi)
Termperature error	≤ 1.5 % of span
Temperature coeffiients	Mean TC zero point: ≤ 0.16 % of span/10K Mean TC span: ≤ 0.16 % of span/10K
Service life	100,000,000 cycles (MTTF > 100 years)
Temperature ranges	Compensated -4 °F to 176 °F (-20 °C to 80 °C) Media -22 °F to 212 °F (-30 °C to 100 °C) w/metal conn. -40 °F to 257 °F (-40 °C to 125 °C) Ambient -22 °F to 212 °F (-30 °C to 100 °C) w/metal conn. -40 °F to 185 °F (-40 °C to 85 °C) Storage -40 °F to 158 °F (-40°C to 70°C)
Humidity	45 - 75% r.h.
LED status	Green: Operation, Yellow: Warning, Red: Error
Power requirement*	10 - 32 Vdc
Current consumption	≤ 25 mA, ≤ 0.3 A including switching current (one switching output), ≤ 0.6 A including switching current (two switching outputs)
Proof pressure	≤ 600 bar (8000 psi) - 2 X, > 600 bar (8000 psi) - 1.5 X
Measuring element	<10 bar: 316L Stainless steel ≥10 bar: 316L, PH grade Stainless Steel
Housing material	316L Stainless Steel
Connection	PBT GF30, 316L Stainless Steel
Environmental rating	IP65 and IP67 per IEC 60529
Electromagnetic rating	RFI, EMI and ESD protection
Electrical protection	Protected against reverse polarity, over-voltage and short circuit
Shock	100 g, 6 ms per IEC 60068-2-27, mechanical (metal connector: 1,000 g, 1 ms per IEC 60068-2-27, mechanical)
Vibration	25 g, 10 to 2,000 Hz (according to IEC 60068-2-6, under resonance)
Weight	Approx. 2.8 oz.

* See user manual for detailed specifications

⚠ **WARNING:** This product can expose you to chemicals including Lead and Nickel, which are known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

NOSHOK,Inc. 1010 W. Bagley Road | Berea, OH 44017 | Ph 440.243.0888 | Fax 440.243.3472

ORDERING INFORMATION

SERIES	**PTI10**							
PRESSURE RANGES	**1barv**	-1 barg to 0 barg (-14.5 psig to 0 psig)	**2.5barg**	0 barg to 2.5 barg (0 psig to 36.3 psig)	**600barg**	0 barg to 600 barg (0 psig to 8700 psig)		
	.6barc	-1 barg to 0.6 barg (-14.5 psig to 8.7 psig)	**4barg**	0 barg to 4 barg (0 psig to 58 psig)	**1000barg**	0 barg to 1000 barg (0 psig to 14500 psig)		
	1.5barc	-1 barg to 1.5 barg (-14.5 psig to 21.8 psig)	**6barg**	0 barg to 6 barg (0 psig to 87 psig)	**.4bara**	0 bara to 0.4 bara (0 psia to 5.8 psia)		
	3barc	-1 barg to 3 barg (-14.5 psig to 43.5 psig)	**10barg**	0 barg to 10 barg (0 psig to 145 psig)	**.6bara**	0 bara to 0.6 bara (0 psia to 8.7 psia)		
	5barc	-1 barg to 5 barg (-14.5 psig to 72.5 psig)	**16barg**	0 barg to 16 barg (0 psig to 232 psig)	**1bara**	0 bara to 1 bara (0 psia to 14.5 psia)		
	9barc	-1 barg to 9 barg (-14.5 psig to 130.5 psig)	**25barg**	0 barg to 25 barg (0 psig to 362.5 psig)	**1.6bara**	0 bara to 1.6 bara (0 psia to 23.2 psia)		
	15barc	-1 barg to 15 barg (-14.5 psig to 217.5 psig)	**40barg**	0 barg to 40 barg (0 psig to 580 psig)	**2.5bara**	0 bara to 2.5 bara (0 psia to 36.3 psia)		
	24barc	-1 barg to 24 barg (-14.5 psig to 348 psig)	**60barg**	0 barg to 60 barg (0 psig to 870 psig)	**4bara**	0 bara to 4 bara (0 psia to 58 psia)		
	.4barg	0 barg to 0.4 barg (0 psig to 5.8 psig)	**100barg**	0 barg to 100 barg (0 psig to 1450 psig)	**6bara**	0 bara to 6 bara (0 psia to 87 psia)		
	.6barg	0 barg to 0.6 barg (0 psig to 8.7 psig)	**160barg**	0 barg to 160 barg (0 psig to 2320 psig)	**10bara**	0 bara to 10 bara (0 psia to 145 psia)		
	1barg	0 barg to 1 barg (0 psig to 14.5 psig)	**250barg**	0 barg to 250 barg (0 psig to 3625 psig)	**16bara**	0 bara to 16 bara (0 psia to 232 psia)		
	1.6barg	0 barg to 1.6 barg (0 psig to 23.2 psig)	**400barg**	0 barg to 400 barg (0 psig to 5800 psig)	**25bara**	0 bara to 25 bara (0 psia to 362.5 psia)		
		barv = vacuum gauge pressure	barc = compound gauge pressure		barg = gauge pressure	bara = absolute pressure	Other ranges available on request	
ACCURACY	**1**	1.0% full scale	**2**	0.5% full scale				
OUTPUT SIGNAL	**54**	IO-Link v 1.1 (2 configurable outputs, PNP)	**56**	IO-Link v 1.1 (1 configurable output, PNP)				
PROCESS CONNECTIONS	**2**	1/4" NPT male	**10**	G 1/4 B male EN837	**46**	G 1/4 A male ISO 1179-2		
	8	1/2" NPT male	**45**	7/16-20 SAE J514 FIG 34B (Non-Adjustable)	**83**	G 1/2 B male EN837		
ELECTRICAL CONNECTIONS	**25**	M12 x 1 (4-pin)	**25M**	M12 x 1 (4-pin), heavy-duty				
OPTIONS	**ST8**	SS Threaded Orifice (0.8 mm)						

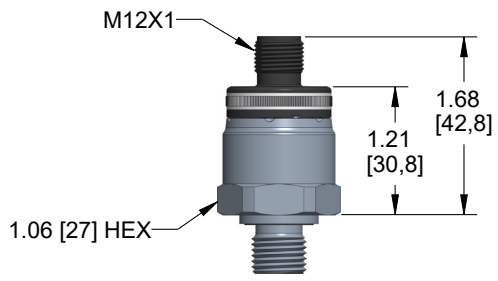
Please consult your local NOSHOK Distributor or NOSHOK, Inc. for availability and delivery information.

EXAMPLE

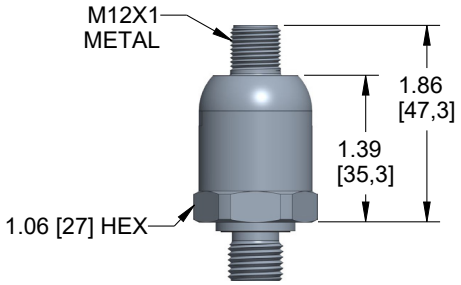
PTI10 – 1barv – 1 – 54 – 8 – 25 – ST8

Series ..... PTI10 Series
Pressure range ..... -1 barg to 0 barg (-14.5 psig to 0 psig)
Accuracy ..... 1.0% full scale
Output signal ..... IO-Link v 1.1.4 (2 configurable outputs, PNP)
Process connection ..... 1/2" NPT male
Electrical connection ..... M12 x 1 (4-pin)
Option ..... SS Threaded orifice (0.8 mm)

PTI10-25 (M12 x 1 4-pin)

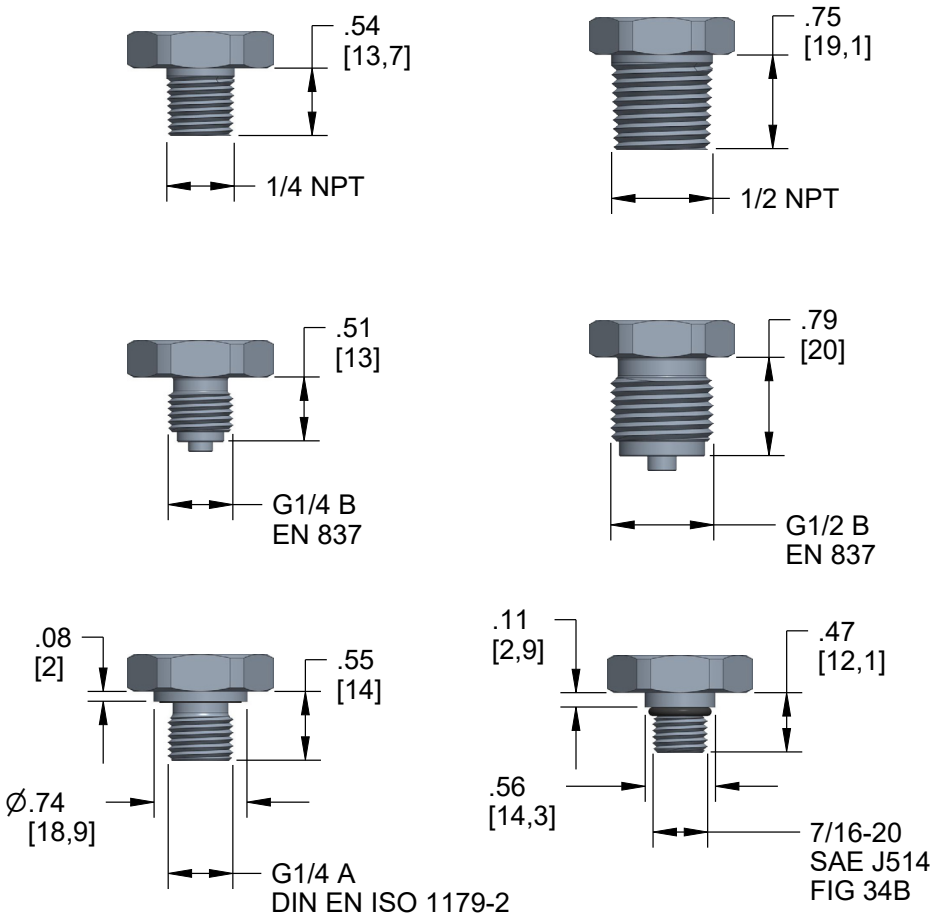


PTI10-25M (M12 x 1 4-pin), heavy-duty



Dimensions

PTI10 Process Connections



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