

Pressure Transmitter PT5N

PT5N Pressure Transmitters convert a pressure into a linear electrical 4 .. 20 mA output signal suitable for controlling simple compressor and fan switching to the more sophisticated application of superheat modulation of Electronic Control Valves.

With competitive performance to price characteristics and an easy to install pre-fabricated M12 cable assembly, PT5 transmitters are the designers choice for all heat pump, refrigeration and air conditioning applications.

Features

- Piezo-resistive sensor with output signal 4...20 mA and 2-wire connection for the precise operation of superheat, compressor or fan control systems
- Specially calibrated pressure ranges with $\pm 1\%$ accuracy performance to fulfill demands of today's refrigeration and HVAC applications
- Fully hermetic
- PT5-xxM with 7/16"-20UNF pressure connection and Schrader valve opener
- PT5-xxT with 40 mm stainless steel tube and integrated brazing neck for easy mounting in applications requiring a fully hermetic system solution
- PT5-150D for subcritical and transcritical CO₂ systems
- Vibration, shock and pulsation resistant
- Protection class IP65 / IP67 (type-specific)
- UL (File No. E258370)



PT5N-30M



PT5N-30T

Selection Table

Type	Part No.		Pressure Range For Signal Output (Bar)*	Output Signal	Medium Temp. Range at Pressure Connection (°C)	Ps: Max. Working Pressure (Bar)*	Pt: Test Pressure (Bar)*	Burst Pressure (Bar)*	Pressure Connection		
	Single Pack	Multi-Pack**									
PT5N-07M	802 350	802 350M	-0.8 .. 7	4 .. 20 mA	-40 .. +135	27	30	150	7/16" – 20 UNF (with Schrader Valve Opener)		
PT5N-18M	802 351	802 351M	0 .. 18			48	63	250			
PT5N-30M	802 352	802 352M	0 .. 30			60	100	400			
PT5N-50M	802 353	802 353M	0 .. 50			75	150	400			
PT5N-07T	802 380	802 380M	-0.8 .. 7			27	30	150	6 mm ODM		
PT5N-18T	802 381	802 381M	0 .. 18			48	63	250			
PT5N-30T	802 382	802 382M	0 .. 30			60	100	400			
PT5N-50T	802 383	802 383M	0 .. 50			75	150	400			
PT5N-150D	802 379	-	0 .. 150					150	320	1000	1/4" NPT (male)

*) Sealed Gauge Pressure

**) PT5xxM: 20 Pcs, PT5-xxT: 10 Pcs

Selection Table Plug/Cable Assemblies: Assembly Fits All Models

Type	Part No.		Cable Length	Weight (g/Piece)	Temperature Range
	Single Pack	Multi Pack*			
PT4-M15	804 803	804 803M	1.5 m	50	-50 ... +80°C Static Application -25 ... +80°C Mobile Application
PT4-M30	804 804	804 804M	3.0 m	80	
PT4-M60	804 805	804 805M	6.0 m	140	

Note: *) 20 pieces

Technical Data Pressure Transmitter

Supply Voltage (Polarity Protected)	Nominal: 24VDC Range: 7.. 33VDC
Medium compatibility	A1 group refrigerants
Operating Current	Maximum \leq 23 mA 4...20 mA Output
Load Resistance	$R_L \leq \frac{U_b - 7.0V}{0.02A}$
Response Time	\leq 2 ms
Temperatures Transport and Storage Operating Ambient Housing Medium:	-50 .. +100 °C -30 .. +85°C -40 .. +135 °C (UL listed -40...+100°C)

Sensor Lifetime	30 Million Load Cycles with 1.3 Times of Nominal Pressure
Electrical Connection PT4-Mxx Cable Assembly	M12 Connection according to EN61076-2-101 Part 2 Prefabricated, various cable lengths
Approvals/Marking	CE acc. EMC Directive (EN 61326-2-3, EN 50121-3-2) UL, cRUus (UL File Nr. 325110) pending
Protection Class (EN 60529)	IP67 with mounted plug and cable assembly
Vibration at 15...2000Hz	20 g according to IEC60068-2-6
Materials Housing	Stainless steel 1.4404 / AISI316L
Pressure Connection PT5N-xxT	Stainless steel 1.4301 / AISI 304

Accuracy Performance

Type	Total Error *	Temperature Range
PT5N-07 / 18	\pm 1% FS	-40 ... +20 °C
PT5N-30 / -50/	\pm 1% FS \pm 2% FS	+10 ... +50 °C -10 ... +80 °C
PT5N-150D	\pm 1% FS \pm 2% FS	+10 ... +50 °C -10 ... +90 °C

*) Total Error Includes Non-Linearity, Hysteresis, Repeatability As Well As Offset And Span Drift Due To The Temperature Changes.
Note: % FS is Related to Percentage of Full sensor Scale.