

## 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, PT5N transmitters are the designer choice for all heat pump, refrigeration and air conditioning applications.



PT5N-30M

### Features

- Thick film technology, with stainless steel pressure sensing element fully laser welded to the pressure connection, enabling full hermetic feature.
- With output signal 4-20 mA / 2-wire connection suitable for supply voltage range 7...33VDC
- Calibrated for specific temperature and pressure ranges
- Easy install M12 electrical connection with pre-assembled cable assemblies available in various lengths and enable protection class IP67 against moisture and water ingress
- Vibration, shock and pulsation resistant

### Options

- PT5N-xxM versions with 7/16"-20UNF pressure connection and Schrader valve opener
- PT5N-xxT with 6x40 mm stainless steel tube and integrated brazing neck for easy mounting in applications requiring a fully hermetic system solution
- PT5N-150D with pressure connection 1/4"-18 NPT male suitable for subcritical and transcritical CO2 systems
- Available in single or 25 pieces multipack
- Fully exchangeable with PT5 series

### Selection Table

Type	Part code number		Pressure sensing range, bar *	Max. working pressure PS, bar *	Pressure connection
	Single pack	MultiPack			
PT5N-07M	805350	805350M	-0.8...7	27	7/16" – 20 UNF (with Schrader valve opener)
PT5N-18M	805351	805351M	0...18	48	
PT5N-30M	805352	805352M	0...30	60	
PT5N-50M	805353	805353M	0...50	75	
PT5N-07T	805380	805380M	-0.8...7	27	6 mm tube x 40 mm long
PT5N-18T	805381	805381M	0...18	48	
PT5N-30T	805382	805382M	0...30	60	
PT5N-50T	805383	805383M	0...50	75	
PT5N-150D	805379	805379M	0...150	150	1/4"-18 NPT (male)

Note: \*) Sealed gauge pressure

### Selection table cables assemblies: assembly fits all models

Type	Part no.		Cable length **	Temperature range
	Single pack	Multipack 20 pcs		
PT4-M15	804803	804803M	1.5m	-50...+80 °C static application -25...+80 °C mobile application
PT4-M30	804804	804804M	3.0m	
PT4-M60	804805	804805M	6.0m	

Note: \*\*) Longer length of the electrical connection cable beyond 6.0 m must be verified by user in term of output signal as well as EMC within installed system.

## Technical Data Pressure Transmitter

<b>Supply Voltage</b> (Polarity Protected)	Nominal: 24VDC Range: 7.. 33VDC
<b>Load Resistance</b>	$R_L \leq \frac{U_b - 7.0V}{0.02A}$
<b>Response Time</b>	≤ 2 ms
<b>Weight (without plug and cable assembly)</b>	PT5N-xxM: ~87g PT5N-150D: 73g PT5N-xxT: ~103g
<b>Mounting Position</b>	Non position sensitive; details see operating instructions
<b>Temperatures</b> Transport and Storage Operating Ambient Housing Medium	-50 .. +100 °C -30 .. +85 °C -40 .. +135 °C

<b>Electrical Connection</b> PT4-Mxx Cable Assembly	M12 connection according to EN61076-2-101 Part 2 Prefabricated, various cable lengths
<b>Medium compatibility</b>	A1 group refrigerants
<b>Marking</b>	CE acc. EMC Directive (EN 61326-2-3, EN 50121-3-2) UL (E325110) pending
<b>Protection Class (EN 60529)</b>	IP67 with mounted plug and cable assembly
<b>Vibration at 15...2000Hz</b>	20g according to IEC 60068-2-6
<b>Materials</b> Housing Pressure Connection PT5N-xxT	Stainless steel 1.4404/AISI316L Stainless steel 1.4301/AISI 304

## Accuracy Performance

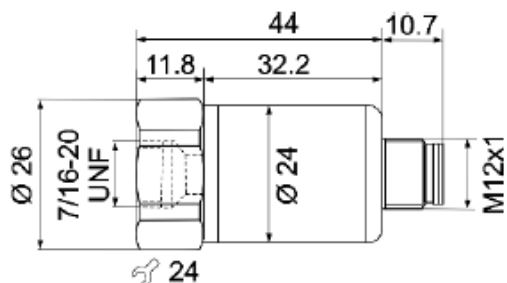
Type	Total Error <sup>1</sup>	Temperature Range
PT5N-07 / -18	≤ ±1% FS	-40 ... +20 °C
PT5N-30 / -50	≤ ±1% FS ≤ ±2% FS	+10 ... +50 °C -10 ... +80 °C
PT5N-150D	≤ ±1% FS ≤ ±2% FS	+10 ... +50 °C -10 ... +90 °C

Note: <sup>1</sup>) Total error includes non-linearity, hysteresis, repeatability as well as offset and span drift due to the temperature changes.

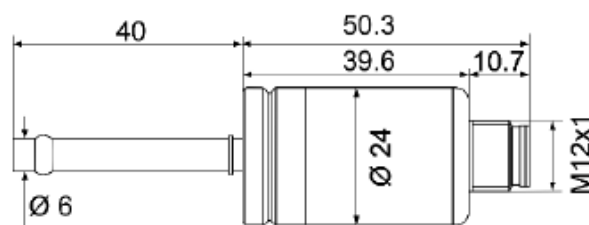
%FS is related to Percentage of Full sensor Scale.

## Dimensions (mm)

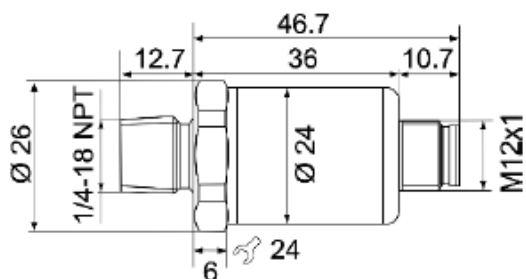
PT5N-xxM



PT5N-xxT



PT5N-150D



PT4-Mxx - M12 Plug

