

## Product Features

- *Pressure transmitter with M12 Connector*
- *Standard ranges from 30 to 10,000 PSI*
- *Excellent shock and vibration resistance*
- *2-wire loop powered 4-20mA output, others available*
- *Available with 1/4" or 1/2" NPT connections, others available*
- *Stainless Steel 316 case and wetted components available*

## Description

Intempco PT03 pressure transmitters feature M12 connector and provide performance and economy for a wide range of applications. They are especially suited to applications subject to severe mechanical shock, vibration, and electromagnetic interference. Typical applications include hydraulics and pneumatics, compressor controls, pump protection, refrigeration and air conditioning systems. The case is also made of stainless steel and is available with environmental protection ratings up to NEMA 4 / IP 67.

The PT03 transmitters are available with industry standard 1/4" or 1/2" NPT connections. They can be ordered with 4-pin MiniDIN (Hirschmann) connector, M12 receptacle or cable with free end connections with ratings up to NEMA 4 / IP 67. Outputs available are 4-20mA, 0-5 VDC and 0-10 VDC.

Two types of pressure diaphragms are available. The first is ceramic diaphragm with Viton O'ring. This construction is of lowest cost and easily available. The second is all welded stainless steel diaphragm with no O'rings. It is based on Microfused element principle and is excellent for difficult media and high vibration.

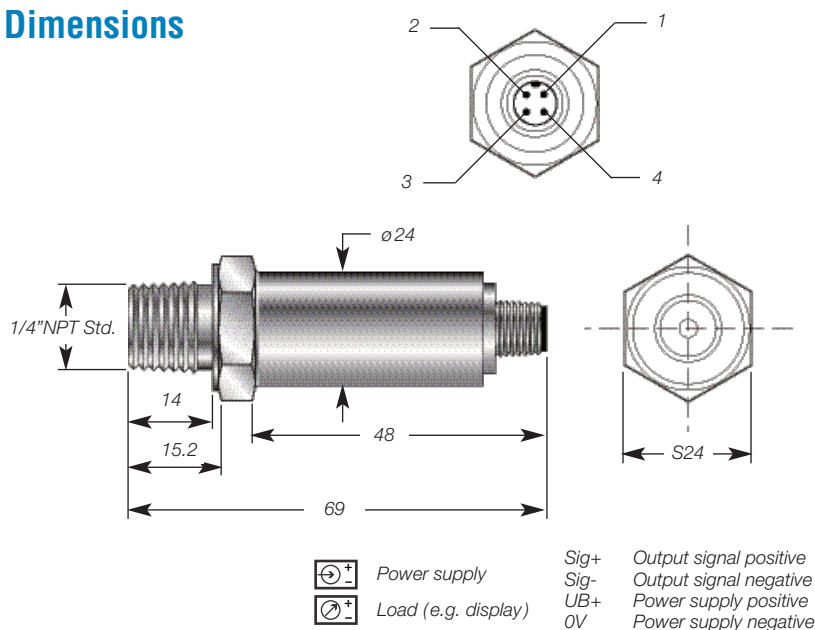
Each transmitter undergoes extensive quality control testing and calibration. The printed circuit boards use state-of-the-art surface mount technology and are potted in silicone gel for protection against mechanical shock, vibration, and moisture. Each transmitter is manufactured to assure accuracy and long term stability when exposed to severe ambient temperature variations.

## Applications

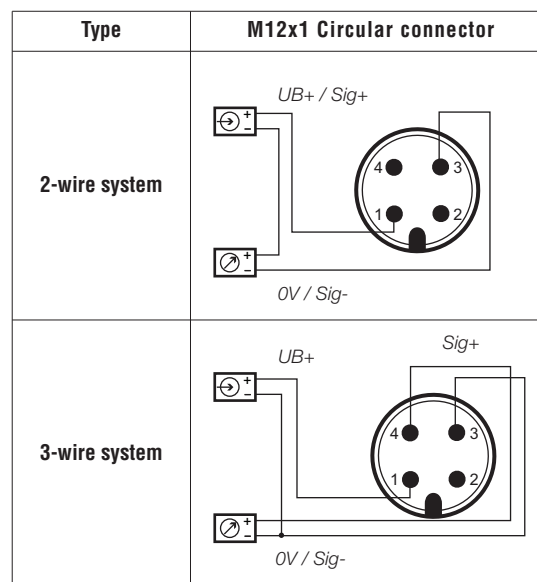
- *Compressors*
- *Test equipment*
- *Pump control*
- *Hydraulics and pneumatics*
- *General industrial applications*



## Dimensions



## Wiring



## Custom Builder

MODEL 1    2    3    4    5    6    7    8

**PT03C** -  -  -  -  -  -  - **MC** -

BOX 1 CODE	Model
PT03C	Ceramic diaphragm w/Viton O'ring
PT03S	Welded Stainless steel diaphragm

BOX 3 CODE	Pressure Type
G	Gauge
A	Absolute

BOX 6 CODE	Process Fitting Type / Size
B	1/8" NPT male
D	1/4" NPT male
H	1/2" NPT male
M	7/16-20 SAE #4 J514 male
N	9/16-18 SAE #6 J514 male

BOX 2 CODE	Calibrated Pressure Range
BD	0-30 psi
DA	0-50 psi
BE	0-60 psi
BF	0-100 psi
DC	0-150 psi
BH	0-200 psi
DG	0-250 psi
BI	0-300 psi
BK	0-400 psi
DI	0-500 psi
BL	0-600 psi
DJ	0-750 psi
BN	0-1000 psi
BO	0-1500 psi
BP	0-2000 psi
BQ	0-3000 psi
BS	0-5000 psi
DS	0-8000 psi
P	Custom, Specify min/max in psi
K	Custom, Specify min/max in KPa
M	Custom, Specify min/max in MPa

BOX 4 CODE	Accuracy F.S.
C2*	0.25% of span (0.25% BFSL), std.
C5	0.50% of span (0.25% BFSL), std.
D1	1.0% of span (0.50% BFSL)

\* Not available in all pressure ranges. May require minimum order and longer delivery.

BOX 5 CODE	Output
LA	4-20mA loop, 2-wire
VA	0-5 Vdc, 3-wire
VB	1-5 Vdc, 3-wire
VD	0-10 Vdc, 3-wire

Other outputs available. Consult factory.

Other fitting type/sizes available. Consult factory.

BOX 8 CODE	Extension Cable Length "E" (MC option)
N	None
A2	Straight, 6ft (2 meters)
A5	Straight, 15ft (5 meters)
B2	Right angle, 6ft (2 meters)
B5	Right angle, 15ft (5 meters)

## TECHNICAL SPECIFICATIONS

<b>Sensing Element Mat'l :</b>	Welded stainless steel 316 ( <b>PT03S</b> ) or Ceramic w/Viton O'ring ( <b>PT03C</b> )	
<b>Pressure Ranges :</b>	Standard ranges as listed (custom ranges available)	
<b>Overload Pressure :</b>	200% F.S.	
<b>Burst Pressure :</b>	400% F.S.	
<b>Pressure Connection :</b>	1/8", 1/4" & 1/2" NPT male, SAE 4 (7/16-20) & SAE 6 (9/16-18) male as standard (others available)	
<b>Material :</b>		
Wetted Parts :	Stainless steel or ceramic & stainless steel w/Viton O'ring	
Case :	Stainless steel	
<b>Supply voltage :</b>	10 - 30 Vdc (16 - 30Vdc for 0 - 10 Vdc output signal)	
<b>Output signal and maximum load :</b>	4-20mA 2-wire system	RA [Ohm] < (Vsupply -10V) / 0.02 A (Minimum 250 Ohm load @ 24Vdc)
	(0-5 Vdc 3-wire system)	RA > 5 kOhm (min)
	(0-10Vdc 3-wire system)	RA > 10 kOhm (min)
<b>Insulation Resistance :</b>	100MOhm @ 100 Vdc	
<b>Response time (10...90%) :</b>	< 10 milliseconds	
<b>Accuracy :</b> <i>(linearity, including hysteresis and repeatability)</i>	< 0.25% (0.12% B.F.S.L.) < 0.5% (0.25% B.F.S.L.) std., < 1.0% (0.50% B.F.S.L.) (Calibrated in vertical mounting position with process connection down)	
<b>Repeatability :</b>	< 0.05% of span	
<b>Hysteresis :</b>	< 0.1% of span	
<b>1 Year Stability :</b>	< 0.2% of span (under reference conditions)	
<b>Permissible Temperature of :</b>		
Medium :	-30°C to +100°C (-22°F to +212°F)	
Ambient Temp. Range :	-40°C to +85°C (-40°F to +185°F)	
Storage Temp. Range :	-40°C to +100°C (-40°F to +212°F)	
<b>Compensated Temperature :</b>	-10°C to +80°C (-14°F to +176°F)	
<b>Temperature Error :</b>		
On Zero Point	< 0.5% of span per 10°C (18°F) change	
On Span	< 0.5% of span per 10°C (18°F) change	
<b>Electrical Connection</b>	4-pin MiniDIN, MiniDIN with molded cable 4-pin M12, Deutsch DTR-4P type plug 3-cond. Polyurethane jacketed	
<b>Weight :</b>	Approximately 1.2 lb. (0.6 Kg)	
<b>Dimensions</b>	See drawing	
<b>Electrical Protection</b>	Protected against reverse polarity, short circuit, and overvoltage	
<b>Environmental Protection</b>	IP 65 (NEMA 5) with 4 pin MiniDIN IP 67 (NEMA 4) with M12 connector IP 67 (NEMA 4) with cable	