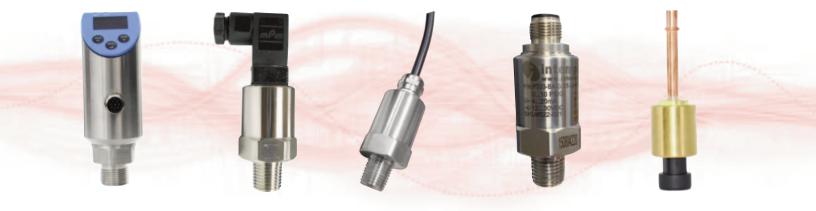
PRESSURE TRANSMITTERS

Manufacturer of Superior Quality Instrumentation

intempc₂





www.intempco.com

About Intempco





Intempco is one of the only manufacturer specializing in temperature, pressure, level, and humidity sensors in Canada. Customers around the globe rely on our high-quality instrumentation and technical expertise for over 30 years.

Precision Perfected: Explore Our Advanced Pressure Transmitters

Discover unparalleled accuracy and quality with our advanced pressure transmitters. Designed to excel in gas and liquid pressure measurement, liquid/oil media level monitoring, and PNP switching, these transmitters offer customizable switching options, OLED displays, and adjustable analog outputs. Their robust build, industrial touch buttons, and MODBUS communication support ensure seamless integration and control.



Custom Engineering

Custom solutions needed for specific applications can be provided rapidly thanks to Intempco's qualified technicians and engineers.

Assistance

Intempco provides customers with reliable after-sale support through its network of established distributors.

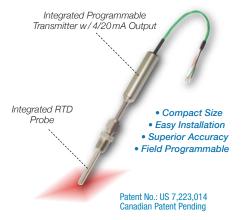
Calibration

Intempco's temperature, humidity and level sensors are calibrated to traceable standards such as NIST (National Institute of Standards and Technology) or CNRC (Canadian National Research Council). Customers are also encouraged to send in their full line of instruments for calibration.



Research & Development

Constant R&D efforts over the years have allowed Intempco to provide its customers with the most complete solutions for their specific needs. A team of electrical and mechanical engineers working with highly-skilled technicians constantly refine existing products and create new ones. One such example is the innovative line of MIST Temperature Sensors which combines a conventional RTD with a reprogrammable transmitter into one compact unit.



Warranty & Repairs

All products manufactured by Intempco are backed by a one-year limited warranty. Repairs of all instruments manufactured by Intempco are performed by our qualified technicians in house in our company headquarters.

Shipping

Intempco ships most of its products within two weeks. In Stock item are usually shipped within two business days. Rush shipping is also available upon request.

Pressure Transmitters

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Product Features

- Gas and liquid pressure measurement
- Liquid and oil media level measurement
- PNP switching, voltage and current outputs
- Switching points settable
- Switching can be set normally open / normally closed
- Supporting Switching delay
- Various analog output ways available
- Displaying pressure peak value and environment temperature
- Analog output span settable
- High light switch indicating
- OLED self-luminous display
- Display turnable 180°
- Housing with electrical connection against process connection rotatable 330°
- Industrial touch button
- Various display pressure units
- Media density settable
- Parameters setting up for Password protection
- Support MODBUS communication

Description

PPS60 pressure switch is designed for pressure monitoring and measurement in liquid and gaseous media. It is suited for general industrial applications such as in mechanical manufacturing, in machine tool systems, in hydraulic and pneumatic systems, for pressure monitoring and control and for pumps and compressors. It is pressure switch, transmitter and display in one device. In its standard configuration it has optional two switching outputs (PNP or NPN), an analog output signal (0...20 mA, 4...20 mA, 0...5V, 0...10 V) as well as with RS485 Link.

The pressure switch PPS60 utilizes the latest digital electronics. And by combining high-precision AD switch, highly stable pressure sensor and carefully adjustment, the PTS60 ensures fast-speed and precise pressure measurement and switch movement. The setup using the three big back-lighted buttons and the display on sensor make it very easy for on-site parameters setting.

There is a large number of measurement ranges available from a smallest measurement range of -0.1...0.1 MPa to 60 MPa. In addition, the PPS60 offers absolute gage and negative ranges. The zero point can be adjusted by buttons. The PPS60 has a circularly welded stainless steel membrane without internal sealing elements, thus it is well suited for a large variety even of corrosive media. And there are various optional processing connectors.

Supporting standard MODBUS, the PPS60 makes it possible to remote data collection and parameters setting, helping customers free from buying extra communication adapters. For electrical connection the PPS60 has an M12x1 connector.



Application

- · Food and pharmaceuticals industry
- Mechanical manufacturing,
- Machine tool systems,
- Hydraulic and pneumatic systems,
- Pressure monitoring and control
- Pumps and compressors

• To view the custom builder and part numbers, refer to the product's Catalog Sheet, or view the online product listing.

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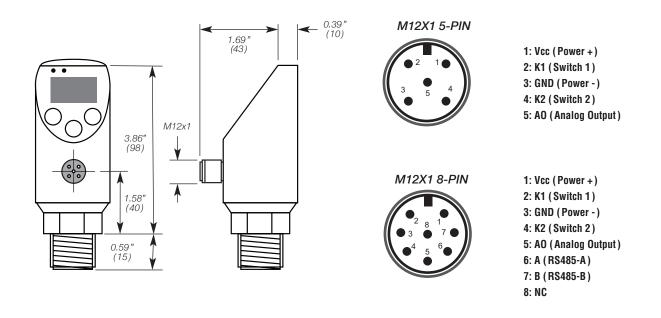
[•] Specifications subject to change without notice.

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Dimensions

Electrical Connection



The PPS60 is compactly designed, housing with electrical connection against processing connection rotatable 330°, display against housing turnable 180°, making it very easy for on-site installation and monitoring.



- Technical Specifications

Pressure range :	-0.1 0.1 MPa to 60 MPa
Accuracy :	<0.5% FS
Supply power range :	12 30 VDC
Temperature error within rated	
temperature range :	+/- 0.02 %FS / °C (Zero / full span)
Long-term stability :	+/- 0.3 % FS/year
Analog output accuracy :	+/- 0.2 % FS
Measurement media :	Gas and liquid
Output configurations temperature range	
switching + voltage + communication :	2xPNP+0Vto5VDC/10VDC+MODBUS
switching + current + communication :	2xPNP + 0mA/4mA to 20mADC + MODBUS
Switching current :	1.0A (Max.)
Switching type :	Normally open, normally closed
Switching respond time :	<10 ms
Switching delay :	0.00s to 1000.0s
Switching motion mode :	Delay or windows mode
Analog signal output and maximum ohmic lo	ad RL
Current output :	0/4 20 mA, 20 mA 4/0 mA RL<0.5 Kohm
Voltage output :	0 5/10 V, 5/10 0 V RL>10 Kohm
Screen display :	OLED
Menu language :	English, Chinese
Switching instruction :	2X red LED
Displaying pressure units :	psi, bar, mbar, Pa, kPa, MPa
Buttons :	3X blue back-lighted touch buttons
Displaying supplementary variables :	Environment temperature, analog output value, min. pressure peak value, min. pressure peak value
Supplementary variables displaying mode :	Fixed displaying or INFO button switching display
Working temperature :	-30 °C to 80 °C
Media temperature :	-30 °C to 80 °C
Storage temperature :	-40 °C to 80 °C
Electromagnetism compatible :	GB/T 17626.2/3/4-2006
	<10g/10Hz500Hz (IEC 60068-2-6-2007)
Shock resistance :	
	<50g/11ms (IEC 60068-2-6-2008)

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Product Features

- Low cost, OEM applications
- Standard ranges from 0 to 10,000 PSI
- Excellent shock and vibration resistance
- 2-wire loop powered 4-20 mA output
- Available with 1/4" NPT connection
- Stainless Steel 316 case and wetted components
- Mini DIN Hirschmann Connector

Description

Intempco PT01 pressure transmitters provide performance and economy for a wide range of OEM applications. They are especially suited to applications subjet 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 5/IP65. The PT01 features an industry standard 2-wire 4-20mA output, 1/4" NPT connection and a 4-pin Mini DIN (Hirschmann) connector.

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.



Technical Specifications -

Sensing Principle :	Ceramic
Pressure Ranges :	Standard ranges as listed (custom ranges available)
Process Connection :	1/4 " NPT
Material :	
Wetted Parts : Case : Supply voltage :	Stainless steel and ceramic Stainless steel 10 - 30 VDC
Output signal and maximum load :	4-20 mA 2-wire system, RA[Ohm] < (Vsupply -10 V) / 0.02 A
Response time (1090%) :	< 10 milliseconds
Accuracy : (linearity, including hysteresisand repeatability)	<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)
Repeatability :	< 0.05 % of span
Hysteresis :	< 0.1 % of span
1 Year Stability :	< 0.2 % of span (under reference conditions)
Permissible Temperature of :	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)
Compensated Temperature :	-10°C to +80°C (-14°F to +176°F)
Temperature Error :	On Zero Point < 0.5 % of span per 10℃ (18℃) change On Span < 0.5 % of span per 10℃ (18℃) change
Electrical Connection :	4-pin MiniDIN 43 650C (Mini Hirschmann)
Weight :	Approximately 3.2 oz (90 gr)
Dimensions :	See drawing
Electrical Protection :	Protected against reverse polarity, short circuit, and overvoltage
Environmental Protection :	IP65 (NEMA 5) with 4-pin Mini DIN

1.28"

(32)

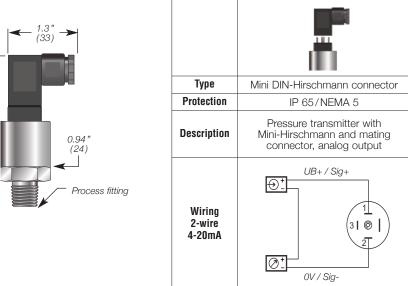
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1.25 (32)



Dimensions

Electrical Connection



	-	
	Legen	ıd :
	⊕ <u>+</u> ⊘ <u>+</u>	Power supply Load (e.g. display)
connector	Sig+ Sig-	Output signal positive Output signal negative
5	UB+ OV	Power supply positive Power supply negative
er with d mating output	07	Fower supply negative
	-	

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Product Features

- Low cost, OEM applications
- Standard ranges from 0 to 10,000 PSI
- Excellent shock and vibration resistance
- 2-wire loop powered 4-20 mA output
- Available with 1/4" NPT connection
- Stainless Steel 316 case and wetted components
- PVC Extension Cable, 6 ft (2 m) long standard, IP67 Rating

Description

Intempco PT02 pressure transmitters provide performance and economy for a wide range of OEM applications. They are especially suited to applications subjet 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 7/IP67. The PT02 features an industry standard 2-wire 4-20mA output, 1/4" NPT connection and PVC extension cable 6 ft long as standard.

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.

Technical Specifications

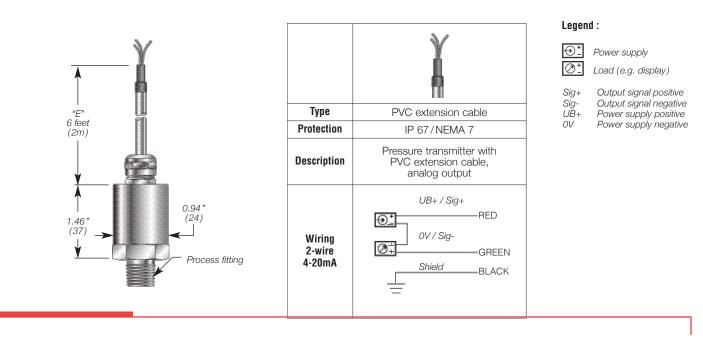
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Sensing Principle :	Ceramic sensing element
Pressure Ranges :	Standard ranges as listed (custom ranges available)
Process Connection :	1/4 " NPT
Material :	
Wetted Parts : Case : Supply voltage :	Stainless steel and ceramic Stainless steel 10 - 30 VDC
Output signal and maximum load :	4-20 mA 2-wire system, RA[Ohm] < (Vsupply -10 V) / 0.02 A
Response time (1090%) :	< 10 milliseconds
Accuracy : (linearity, including hysteresisand repeatability)	<0.25 % (0.125 % B.F.S.L.) std., <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)
Repeatability :	< 0.05 % of span
Hysteresis :	< 0.1 % of span
1 Year Stability :	< 0.2 % of span (under reference conditions)
Permissible Temperature of :	Medium :-30℃ to +100℃ (-22℉ to +212℉) Ambient Temp. Range :-40℃ to +85℃ (-40℉ to +185℉) Storage Temp. Range :-40℃ to +100℃ (-40℉ to +212℉)
Compensated Temperature :	-10°C to +80°C (-14°F to +176°F)
Temperature Error :	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
Electrical Connection :	PVC extension cable, 6 ft (2 m) std.
Weight :	Approximately 6.0 oz (168 gr)w/6 ft (2 m) of cable
Dimensions :	See drawing
Electrical Protection :	Protected against reverse polarity, short circuit, and overvoltage
Environmental Protection :	IP67 (NEMA 7) with PVC extension cable



Dimensions

Electrical Connection



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Product Features

- Pressure transmitter with M12 Connector
- Standard ranges from 30 to 10,000 PSI
- Excellent shock and vibration resistance
- 2-wire loop powered 4-20 mA output, others available
- Available with 1/4"or 1/2" NPT connections, other sizes 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 subjet 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.

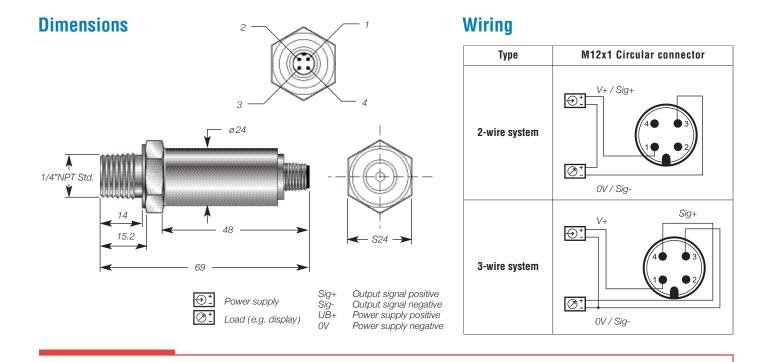
Each transmitter undergoes extensive quality control testing and calibration. The printed circuit boards use state-of- the-art surface mount technology and are potted in silicone gel for protection against mechanical shock, vibration, and moisture. Each transmitter is manufactured to assure accuracy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

Applications

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









TECHNICAL SPECIFICATIONS

Sensing Element Mat'l :	•	S) or Ceramic w/Viton O'ring (PT03C)
Pressure Ranges :	Standard ranges as listed (custom ranges available)	
Overload Pressure :	200% F.S.	
Burst Pressure :	400% F.S.	
Pressure Connection :	1/8", 1/4" & 1/2" NPT male, SAI	E 4 (7/16-20) & SAE 6 (9/16-18) male as standard
	(others available)	
Material :		
Wetted Parts : Case : Supply voltage :	Stainless steel or ceramic & stain Stainless steel 10 - 30 Vdc (16 - 30 Vdc for 0 - 1	0
Output signal and maximum load :	4-20 mA 2-wire system	RA[Ohm] < (Vsupply -10V) / 0.02A
Insulation Resistance :	(0-5 Vdc 3-wire system) (0-10 Vdc 3-wire system) 100 MOhm @ 100 Vdc	(Minimum 250 Ohm load @ 24 Vdc) RA > 5 kOhm (min) RA > 10 kOhm (min)
Response time (1090%) :	< 10 milliseconds	
Accuracy : (linearity, including hysteresisand repeatability)	<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)	
Repeatability :	< 0.05 % of span	
Hysteresis :	< 0.1 % of span	
1 Year Stability :	< 0.2 % of span (under reference	e conditions)
Permissible Temperature of :		
Medium : Ambient Temp. Range : Storage Temp. Range :	-30°C to +100°C (-22°F to +21 -40°C to +85°C (-40°F to +18 -40°C to +100°C (-40°F to +21	5°F)́
Compensated Temperature :	-10°C to +80°C (-14°F to +17	6°F)
Temperature Error : On Zero Point On Span	< 0.5 % of span per 10℃ (18℉ < 0.5 % of span per 10℃ (18℉	
Electrical Connection	4-pin MiniDIN, MiniDIN with mole 4-pin M12, Deutsch DTR-4P type 3-cond. Polyurethane jacketed	
Weight :	Approximately 1.2 lb. (0.6 Kg)	
Dimensions	See drawing	
Electrical Protection	Protected against reverse polarity	y, short circuit, and overvoltage
Environmental Protection	IP 65 (NEMA 5) with 4 pin MiniD	IN
	IP 67 (NEMA 4) with M12 conne IP 67 (NEMA 4) with cable	ctor

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Product Features

- Ceramic piezo-resistive sensing element
- Standard ranges from 0 to 2000 PSI
- Excellent shock and vibration resistance
- 2-wire loop powered 4-20 mA output
- Electrical connection: Packard 3-pin
- Packard extension cable available, 6 ft (2 m) long, IP65 Rating
- Pressure connection: φ6 x 60mm long copper tube
- Brass case standard, stainless steel case available

Description

Intempco PT14 pressure transmitters provide performance and economy for a wide range of refrigeration, HVAC and OEM applications. They are especially suited to applications subject to severe mechanical shock, vibration, and electromagnetic interference. The unique feature of the PT14 is a pressure copper tube which can be soldered or brazed to the process copper pipe thus offering leak tight performance. The environmental protection rating is up to NEMA4/IP65. The PT14 features an industry standard 2-wire 4-20mA output, pressure copper tube and Packard connector with optional extension cable, 6 ft long, as standard.

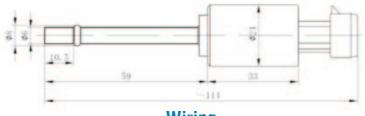
Each transmitter undergoes extensive quality control testing and calibration. The printed circuit boards use state-of-the-art surface mount technology and are potted in silicone gel for protection against mechanical shock, vibration, and moisture. Each transmitter is manufactured to assure accuracy and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

Aplications

- For CO2 refrigerants and other types
- For media compatible with copper, ceramic and nitrile rubber
- Air conditioning refrigeration
- Machinery manufacturing
- Measurement and control technology
- Hydraulic and pneumatic technology
- Pumps and compressors







Wiring

AB	Base pin	Two-wire Definition
	8	Shield (A)
(Color	В	Power supply (V+)
S.	c	Output (Io)

Stocked Items Ordering Information (Order stock items using Intempco inventory number)

Model Number	Description	Intempco SKU#
PT14-BP-G-D1-6A-LA-PC-N		522-114-(0/2000Psi)
PT14-(0/150Bar)-G-D1-6A-LA-PC-N	Model PT14, 0 to 150 Bar, 1% accuracy, 4-20mA out	522-114-(0/150Bar)



- Technical Specifications -

Sensing Principle :	Ceramic piezo-resistive sensing element
Pressure Ranges :	Standard ranges as listed (custom ranges available), 0 \sim 150 Bar Gauge (0 \sim 2000 Psi)
Process Connection :	Pressure connection: \$\$ \$60mm long copper tube
Materials :	
Wetted Parts : Assembly : Supply voltage :	Copper, ceramic and NBR (nitrile rubber) Housing is brass or stainless steel; Pressure tubing is copper 8 - 30 VDC
Output signal and maximum load :	4-20 mA 2-wire system, RA[Ohm] < (Vsupply -8V) / 0.02 A Ω (MAX:600 Ω)
Response time (1090%) :	< 10 milliseconds
Accuracy : (linearity, including hysteresisand repeatability)	<1.0% (0.50 % B.F.S.L.) (Calibrated in vertical mounting position with process connection down)
Repeatability :	< 0.05 % of span
Hysteresis :	< 0.1 % of span
1 Year Stability :	< 0.2 % of span (under reference conditions)
Permissible Temperature of :	Medium :-30 ℃ to +100 ℃ (-22 ℉ to +212 ℉) Ambient Temp. Range :-40 ℃ to +85 ℃ (-40 ℉ to +185 ℉) Storage Temp. Range :-40 ℃ to +100 ℃ (-40 ℉ to +212 ℉)
Compensated Temperature :	-10°C to +80°C (-14°F to +176°F)
Temperature Error :	On Zero Point < 0.5 % of span per 10℃ (18℃) change On Span < 0.5 % of span per 10℃ (18℃) change
Electrical Connection :	Packard Metri-Pack, 3-pin, extension cable, 6 ft (2 m) std. available
Weight :	Approximately 6.0 oz (168 gr)w/6 ft (2 m) of cable
Dimensions :	See drawing
Electrical Protection :	Protected against reverse polarity, short circuit, and overvoltage
Environmental Protection :	IP65 (NEMA 4) with Packard PUR extension cable

Performance Parameters

Temperature: 25±5°C, power: 24VDC, RH: 45%~75%, Atmospheric pressure: 86KPa~106KPa

Notes:

- a. When welding, solderong or brazing the pressure-leading copper tube, cooling measures must be taken at the sensor end to ensure that the temperature of the sensor body does not exceed 115°C.
- b. The pressure transmitter must be used in the medium that is non-corrosive to the seal material and the housing material.
- c. In case the hole of the pressure copper tube is blocked, do not use sharp tools to clear it. Instead, one should remove the trans mitter from the system, immerse the pressure copper tube in the liquid, which can dissolve the blockage material, but NOT damage the seal and body material.
- d. The pressure transmitter has no serviceable parts. Do not open it for calibration or repair.
- e. Please contact factory if you're not sure whether the pressure transmitter is suitable for the medium to be measured.
- f. The transmitter should be installed in a location where it is not easily damaged, bumped into or stepped on.
- g. Exceeding the transmitter overload pressure may cause permanent damage.
- h. Where lightning may occur, customers should consider lightning protection measures.
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Pressure Transmitters



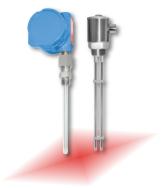
A	otes	
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DTG03

- Large 4-digit red LED display
- 4-20 mA programmable linearized signal output
- Field re-programmable with PC interface module and software
- Easy installation with various mounting configurations
- All stainless steel 316 construction

The DTG03 Digital Temperature Gauges are a complete solution for most industrial temperature monitoring and temperature indicating applications. Of high quality construction, these gauges feature a bright and large 4-digit red LED display with an analog 4-20 mA output. Based on Intempco's patented MIST™ technology, they are designed for optimum accuracy and performance. The DTG03 is an ideal replacement for bi-metal, liquid bulb and gas thermometers.



LTX series

- Micro-processor based
- Continuous loop powered 4-20 mA operation
- Heavy duty industrial design
- Non-interactive zero and span calibration
- Built-in temperature compensation

Intempco LTX series capacitance level transmitters are highly reliable micro-processor based sensors designed to measure levels of liquids and certain dry bulk media in metal tanks.

PHP01

- Low cost OEM and HVAC relative humidity probe
- 4-20 mA output standard
- Factory calibrated 5 % to 95 % RH
- Digital re-calibration, no potentiometers needed

The PHP01 is a Programmable Relative Humidity Probe which provides an accurate analog output directly proportional to 0...100 % RH.



Intempco USA, Inc.

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