



4400T Combined pressure and temperature sensor

Druck combined pressure/temperature transducers

The 4400T is a development of the very successful 4400 series pressure sensor, with the addition of an "in-media" temperature probe. This product has been designed and developed for harsh test applications where the sensor operates in high vibration and high temperature environments. The latest version has been "fine-tuned" in design for many different applications including motorsports, aerospace and industrial uses where pressure and temperature measurements are required.

Features

- High temperature capability to 185°C
- 14.5 mm diameter
- Amplified output
- Stainless steel construction
- Fully EMC protected
- PT1000 temperature probe

4400T specifications

Pressure measurement

Pressure ranges

1.6, 5, 10, 20, 50, 125, 250 bar absolute

Note: All ranges are 0 based.

Overpressure

- 2 × rated pressure for ranges to 50 bar
- 1.5 x rated pressure for ranges 125 bar and over

Pressure containment

- 4 × rated pressure for ranges to 375 bar

Media compatibility

Fluids compatible with stainless steel 316L and Inconel

Not suitable for media that has an oxygen concentration >21% or other strong oxidizing agents.

This product contains materials or fluids that may degrade or combust in the presence of strong oxidizing agents.

Pressure signal performance specifications

Excitation

12 Vdc $\pm$ 4 Vdc, unregulated

Supply Current: <5 mA

Output voltage

0.2 to 4.7 Vdc

Zero offset

$\pm$ 50 mV

Span setting

$\pm$ 50 mV

Accuracy

The combined effects of non-linearity and hysteresis

$\pm$ 0.25% FS BSL

Long term stability

<0.1% FS/year

Compensated temperature range

0° to 170°C

Thermal performance

- Thermal zero shift (ref 20°C) : < $\pm$ 1.7% FS
- Thermal span shift (ref 20°C) : < $\pm$ 1.7% FS

Temperature measurement

Probe type: PT1000 to DIN EN60751 class B

Output: 2 wire resistance

Physical specifications

Pressure connection

M8 x 1 Male

Electrical connection

1 m (4.92 ft) of 5 core 26 AWG Raychem 55M cable
RW-200-E jacket

Weight

<35 grams (not including cable)

Installation torque

10 Nm will produce negligible zero offset

Environmental specifications

Vibration

50 to 2500 Hz @ 40g, 8 hours per axis, logarithmic sweep at a rate of 0.32 octaves/minute with no effect on calibration

Shock

1000 g, 1 mS half sine pulse in all three axes with no effect on calibration

EMC

Tested to BS EN 61326-2

Operating temperature range

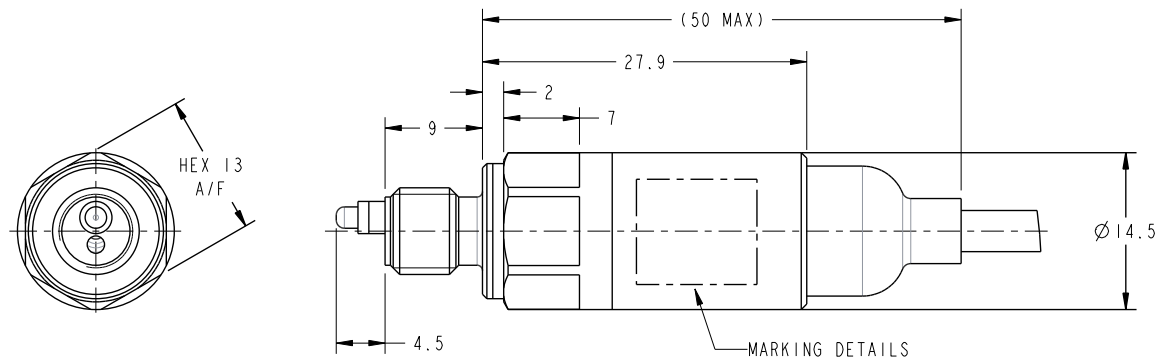
-20° to 185°C

Certification

CE marked.



Drawings and dimensions



Wiring Connection Details	
Color	Function
Red	+ve supply
Black	0V/common
White	+ve output
Yellow	+ve temp
Blue	-ve temp

Calibration standards

Transducers manufactured by Druck are calibrated against precision pressure calibration equipment, which is traceable to international standards

4400 series ordering information		
1) Specify the model number		
		PMP44 1 1 T - PT - TE - V2 - P14
Model	...	PMP44 Amplified
Electrical connection	...	1: Raychem cable
Material of construction	...	1: Inconel 625/SS 316L
Sensor type	...	T: Pressure/temperature
Probe type	...	PT: PT1000 temperature probe
Compensated temperature range	...	TE: 0 to 170°C
Output voltage	...	V2: 0.2 to 4.7 volts
Pressure connection	...	P14: M8 x 1 male
2) State the pressure range and units		

Example: PMP4411T-PT-TE-V2-P14 0 to 50 bar