Your Global Automation Partner

TURCK

PT2000
Pressure Transmitter

PT2000 Pressure Transmitters

Solution for demanding pressure measurements

Turck's PT2000 pressure transmitters offer an ideal solution for demanding applications by offering a welded stainless steel measuring cell for increased durability and chemical compatibility. The PT2000 offers a solution that has no elastomer seals and all wetted materials are 316L stainless steel. This makes the solution uniquely capable to meet the needs in water pumping, hydraulic, and refrigeration applications.

Transmitter Outputs:

The PT2000 offers multiple output signals to provide additional options for customers, allowing the offering to adapt to users' existing control circuitry:

- 4-20 mA
- 0-10 V
- Ratiometric (0.5 to 4.5 V)
- 1-6 V
- 0-5 V

Transmitter Housing:

- Gel filled to protect from condensation
- More compact than previous offerings
- Capable of handling pressures up to 1000 bar
- IP67 rated
- Able to process media up to 135 °C

Target Applications:

- Machine Building
- Water Pumping
- Hydraulics
- Refrigeration

Flexible Connector Options

- M12 wiring to adapt easily to existing applications
- Process connections 1/8 NPT, 7/16 SAE, BSPP
- Others available upon request

Compact design

The design is reduced to a minimum and enables installation even in very narrow spaces. The compact devices are therefore ideally suited for pressure monitoring in machine and plant construction.

Part Number Key

PT	30PSIG	-	20	01	-	I2	-	H1141

Pressure Transmitter

Pressure Range and Scale[1]

30 psig*	= 0 to 30 psi
60 psig	= 0 to 60 psi
100 psig*	= 0 to 100 psi
200 psig*	= 0 to 200 psi
300 psig*	= 0 to 300 psi
500 psig*	= 0 to 500 psi
750 psig*	= 0 to 750 psi
1000 psig*	= 0 to 1000 psi
2000 psig*	= 0 to 2000 psi
3000 psig*	= 0 to 3000 psi
5000 psig*	= 0 to 5000 psi
7500 psig*	= 0 to 7500 psi
2.5R	= 0 to 2.5 bar
10R	= 0 to 10 bar
16R	= 0 to 16 bar
25R	= 0 to 25 bar
40R	= 0 to 40 bar
60R	= 0 to 60 bar
100R	= 0 to 100 bar
160R	= 0 to 160 bar
250R	= 0 to 250 bar
400R	= 0 to 400 bar
600R	= 0 to 600 bar
1000R	= 0 to 1000 bar

Electrical Connection[2]

H1143*
H1144
H1141*

Electrical Output

I2	= 4-20 mA (2 wire)*
U1	= 0-10 VDC (3 wire)
U2	= 1-6 VDC (3 wire)
U3	= 0-5 VDC (3 wire)
U6	= Ratiometric (3 wire)

Process Connection[3]

01	= Female G1/4
03	= Male NPT 1/4*
04	= Male G1/4
05	= Male 7/16-20 UNF (SAE-4)
14	= Male NPT 1/8

Series

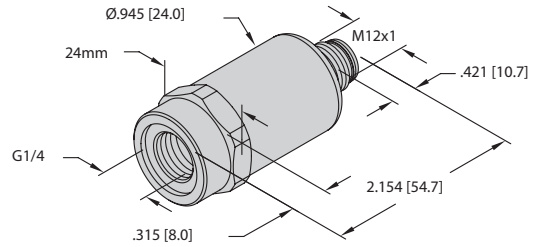
20	= Stainless Steel Measuring Cell

Notes: * Preferred Types
1. Other pressure ranges available upon request
2. See wiring diagram
3. Other process connections available upon request

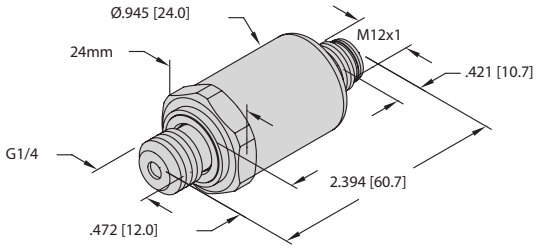
Analog signal output
A wide range of standard analog signals facilitates and guarantees smooth integration into the various automation systems.

Accurate, robust, maintenance-free
By using high-quality materials and state of the art processors, PT2000 pressure transmitters combine the highest accuracy with maximum load capability. This makes them robust and reliable resources for the detection of pressure.

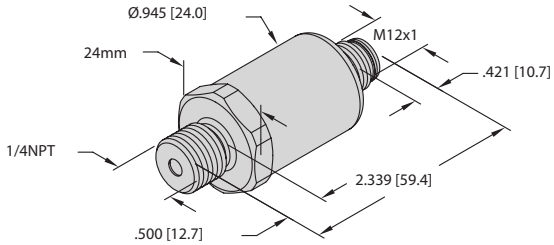
Wiring Diagram



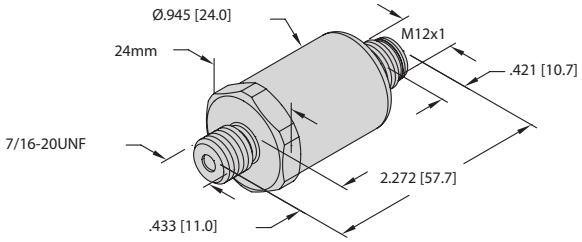
PT...2001



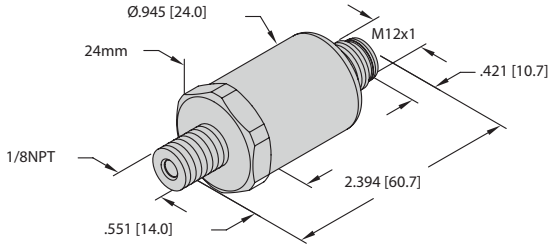
PT...2004



PT...2003

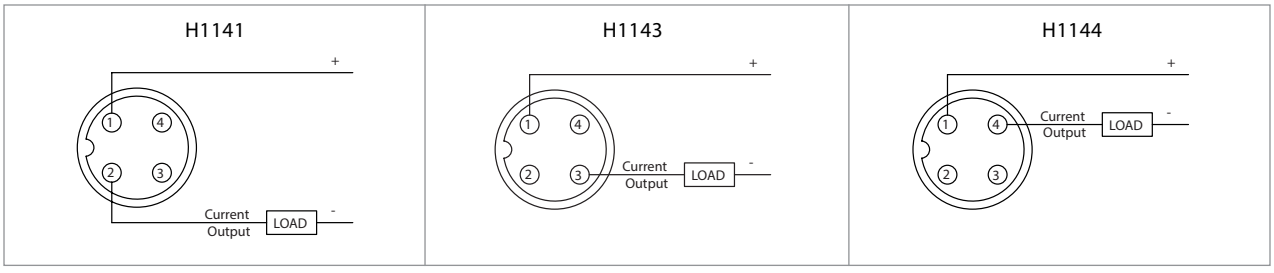


PT...2005

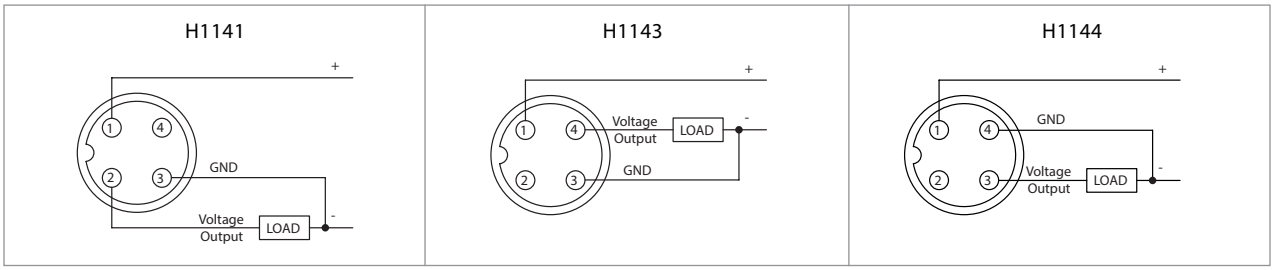


PT...2014

Current Output (2-wire)



Voltage Output (3-wire)



PT2000 – Types and Data

Pressure Range				
Relative	-1 to 1000 bar (-14.5 to 14,500 psi)			
Permissible overload	≤ 6 bar (87 psi) = 5x Full scale max 1500 bar (21,750 psi) > 6 bar (87 psi) = 3x Full scale max 1500 bar (21,750 psi)			
Burst pressure	≤ 6 bar (87 psi) = 10x Full scale max 2500 bar (36,250 psi) > 6 bar (87 psi) = 6x Full scale max 2500 bar (36,250 psi)			
Temperature				
Media	-40 to 135 °C			
Environment	-30 to 85 °C			
Storage	-50 to 100 °C			
Materials				
Housing	Stainless steel 1.4404/AISI 316L			
Connector	Polyarylamide 50% GF UL 94 V-0			
Media contact:	Stainless steel 1.4404/AISI 316L			
Electrical Specifications				
	Output	**Supply**	**Load**	**Current consumption**
2-wire	4 to 20 mA	7 to 33 VDC	$< \frac{\text{Supply voltage -7 V}}{0.02\ \text{A}}$ [Ohm]	< 23 mA
3-wire	0 to 5 V	7 to 33 VDC	> 10 kOhm/< 100 nF	< 7 mA
	1 to 6 V	8 to 33 VDC	> 10 kOhm/< 100 nF	< 7 mA
	0 to 10 V	12 to 33 VDC	> 10 kOhm/< 100 nF	< 7 mA
	ratiometric 10 to 90%	5 VDC ± 10%	> 10 kOhm/< 100 nF	< 7 mA
Reverse polarity protection	Short-circuit proof and reverse-polarity protection, with max. supply voltage.			
Dielectric strength	500 VDC			
Protection type and class	IP67/III			
Dynamic Behavior				
Response time	< 2 ms, typ. 1 ms			
Accuracy				
Characteristic	+/- 0.3 [% FS]			
Temperature behavior	max. +/- 0.2 [% FS/10K]			
Long-term stability acc. to IEC 60770-1	max. +/- 0.25 [% FS/10K]			
Tests/Approvals				
Electromagnetic compatibility	CE conform acc. to EN 61326-3-2			
Increased interference immunity	EN 50121-2-3			
Shock Resistance IEC 68-2-27	100 g,11 ms, half sine curve, 6 directions, free fall from 1 m on concrete (6x)			
Continuous shock IEC 68-2-29	40 g for 6 ms, 1000 x all 3 directions			
Vibration acc. to IEC 68-2-6	20 g, 15…2000 Hz, 15…25 Hz with amplitude ± 15 mm, 1 octave/minute all 3 directions, 50 continuous loads			

TURCK

28 subsidiaries and over
60 representations worldwide!

Printed in USA

B1054 A 02/17

www.turck.com