

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

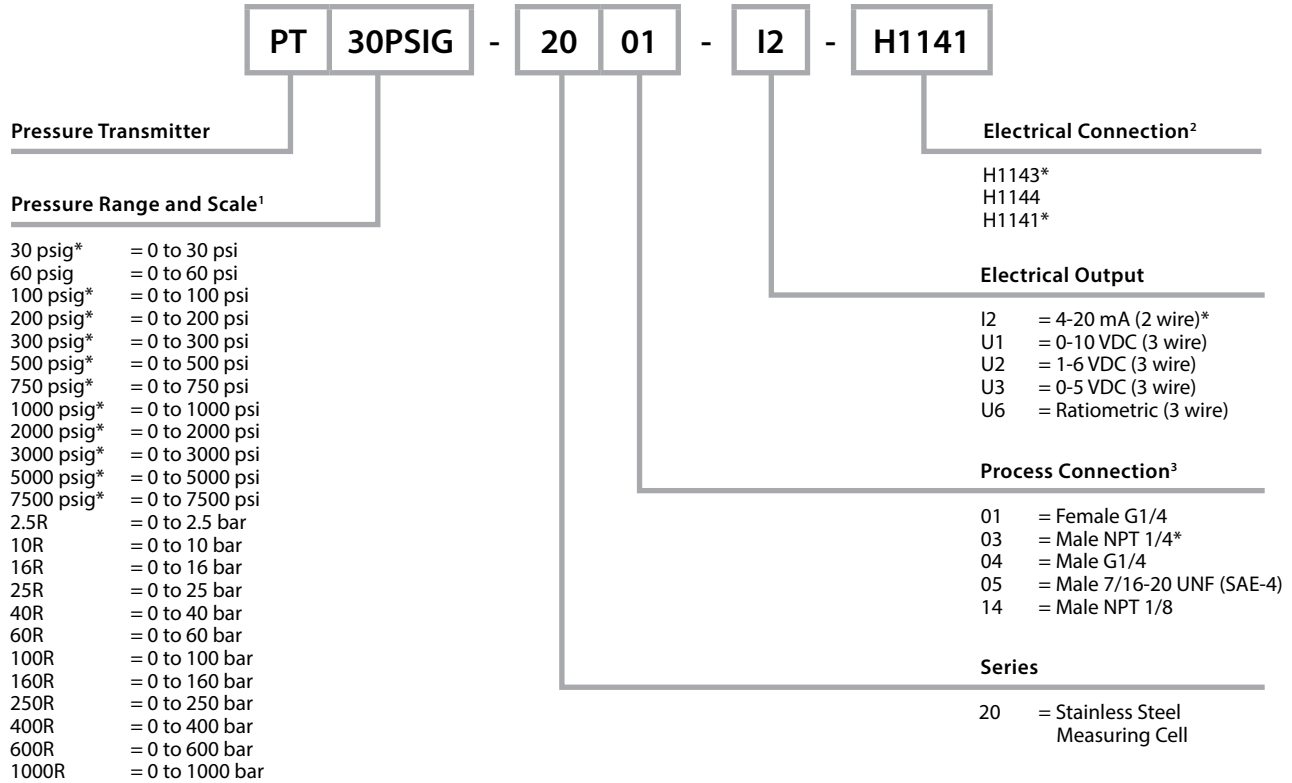
- M12 wiring to adapt easily to existing applications
- Process connections 1/8 NPT, 7/16 SAE, BSPP
- Others available upon request



### 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



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

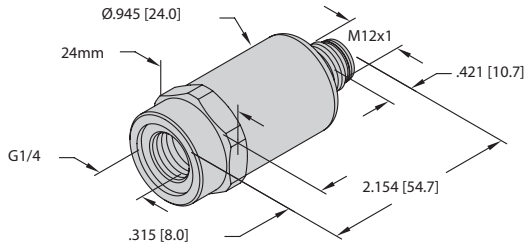


**Analog signal output**  
 A wide range of standard analog signals facilitates and guarantees smooth integration into the various automation systems.

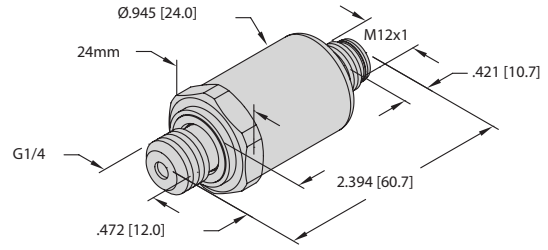


**Accurate, robust, maintenance-free**  
 By using high-quality materials and state of the art processors, PT2000 pressure transmitters combine the highest accuracy with maximum load capability. This makes them robust and reliable resources for the detection of pressure.

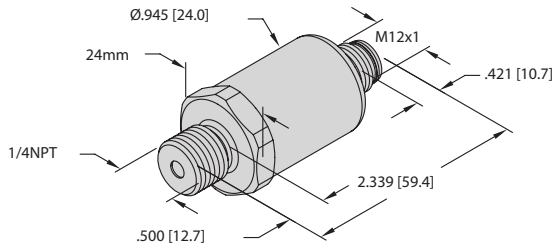
# Wiring Diagram



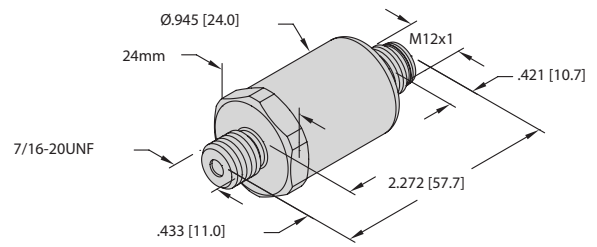
**PT...2001**



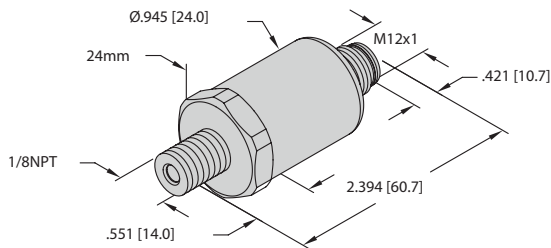
**PT...2004**



**PT...2003**

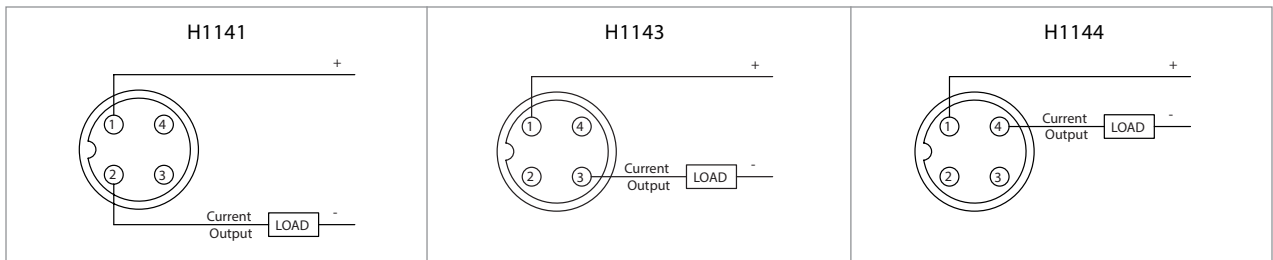


**PT...2005**

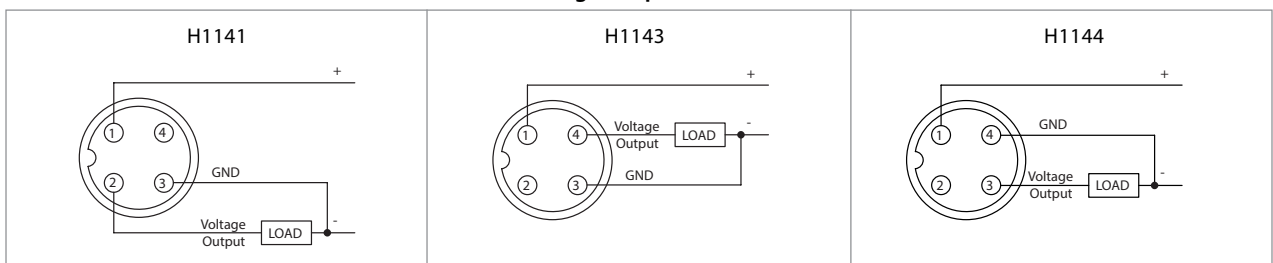


**PT...2014**

## 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	$\leq 6$ 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	$\leq 6$ 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	$< \frac{\text{Supply voltage} - 7\text{ V}}{0.02\text{ A}}$ [Ohm]	< 23 mA
3-wire	0 to 5 V	7 to 33 VDC	$> 10\text{ kOhm}/< 100\text{ nF}$	< 7 mA
	1 to 6 V	8 to 33 VDC	$> 10\text{ kOhm}/< 100\text{ nF}$	< 7 mA
	0 to 10 V	12 to 33 VDC	$> 10\text{ kOhm}/< 100\text{ nF}$	< 7 mA
	ratiometric 10 to 90%	5 VDC $\pm$ 10%	$> 10\text{ kOhm}/< 100\text{ nF}$	< 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 $\pm$ 15 mm, 1 octave/minute all 3 directions, 50 continuous loads			

# TURCK



28 subsidiaries and over  
60 representations worldwide!

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