



Model TFP-40T

For High Temperature Applications

Features

- Measuring ranges from 100mbar to 600bar
- Absolute, gauge and sealed gauge
- Accuracy: $\pm 0.5\%$ FSO, $\pm 0.2\%$ FSO (optional)
- Calibrated and temperature compensated
- Stainless steel construction
- Wider operation temperature range
- Variety of Pressure & Electrical connections
- Output 4...20mA, 0...10V, 0...5V and ModBus RS485

Product Overview

TFP-40T is made from high temperature silicon piezoresistive sensor chip. The piezoresistive sensor chip is packaged in a fluid-filled cylindrical cavity and isolated from measured media by a stainless steel diaphragm and housing. The measured media is transferred onto sensor through heating cooling parts, and high accuracy amplified circuit board is in stainless steel housing, transmitting sensor signal into standard output signal.

A wide range of process connection and electrical connection options are available to meet almost requirement.

Applications

- Process Control System
- Steam and heat exchange
- Hydraulic systems and valve
- Machine building
- Pharmaceutical Industries
- Dairy Processing Industries
- Paper & Pulp Industries

Standard Pressure Ranges

Nominal pressure	gauge	sealed gauge	absolute
-1...0bar	•		
0...0.1bar	•		
0...0.2bar	•		
0...0.35bar	•		•
0...0.7bar	•		•
0...1bar	•		•
0...1.6bar	•		
0...2.5bar	•		•
0...4bar	•		•
0...6bar	•		•
0...10bar	•	•	•
0...16bar	•	•	•
0...25bar	•	•	
0...60bar		•	
0...100bar		•	
0...250bar		•	
0...400bar		•	
0...600bar		•	

Other pressure ranges available. Please consult the factory.

TFP-40T: Piezoresistive Pressure Transmitter

Performance Specifications

Parameter	Value	Units	Notes
General			
Pressure Range	-1-0,....,0-0.35,....,600	bar	1bar=14.5psi
Overpressure	1.5xFS	bar	

Environmental			
Medium Temperature Range	0 to +150(standard), 0 to +220(optional)	°C	32 °F to 302 °F
Compensated Temperature Range	-10 to +70	°C	14 °F to 158 °F
Environment Temperature Range	-20 to +85	°C	-4 °F to 185 °F
Vibration	10	g	20 to 2000Hz
Shock	100	g	10ms
Cycles	10 ⁶	cycles	

Electrical @ 25°C(77°F)					
Output Signal	4...20mA	0...5Vdc	1...5Vdc	0...10Vdc	0.5...4.5Vdc(ratiometric)
Power Supply(Vs)	12....36Vdc	12....36Vdc	12....36Vdc	15....36Vdc	5Vdc
Load Resistance	<(Vs-12)/0.02A (For current output), >10kΩ (For voltage output)				
Insulation Resistance	100MΩ @50Vdc				

Physical Specifications	
Media Compatibility	All media compatible with 316L stainless steel
Housing	316 stainless steel, Die cast aluminium flameproof Exd as per IS/IEC 60079-1:2014
Diaphragm (Wetted Part)	316L stainless steel
Seal Ring	Viton or NBR
Oil Filling	Silicone oil
Protection	IP65(Standard), IP67 (Only for flameproof enclosure)
Net Weight	Approx.355g


Parameter	Minimum	Typical	Maximum	Units	Notes
Performance					
Accuracy	0.1	0.2	0.5	%FSO	1,2
Temp Coeff - Zero		±1	±1.5	%FSO	3
Temp Coeff - Span		±1	±1.5	%FSO	3
Long-Term Stability		±0.2	±0.3	%FSO/year	1

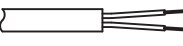
Notes


1. All values measured at 25°C(77°F)
2. Including non-linearity, hysteresis and repeatability.
3. -10°C to 70°C(14°F to 158°F) with reference to 25°C(77°F).

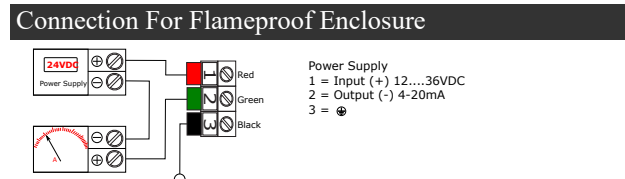
The listed specifications and dimensions are subject to change without prior notice.

Connection Diagrams

Connector DIN43650		2-wire(current)	3-wire(voltage)
	Supply+	1	1
	Signal+	2	3
	Gnd	-	2

Cable outlet		2-wire(current)	3-wire(voltage)
	Supply+	red	red
	Signal+	black	green
	Gnd	-	black

Connector M12x1(4-pin)		2-wire(current)	3-wire(voltage)
	Supply+	1	1
	Signal+	2	3
	Gnd	-	2



Trumen Process Indicator (Model-ILP)

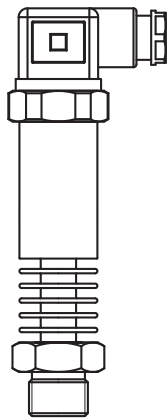
- Dimension: 65 x 45 x 45 mm
- Display: 4 Digit 7 Segment
- Display resolution: 1999 to 9999
- Input: 4-20mA
- Accuracy: mA : 0.5% of span
- Enclosure: ABS



TFP-40T: Piezoresistive Pressure Transmitter

Electrical Connection

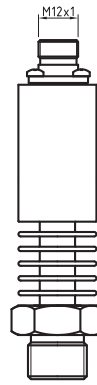
Connector DIN43650



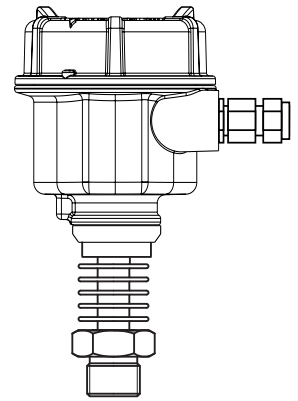
Cable outlet with PVC cable



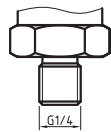
M12x1, 4-pin



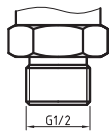
With Flameproof Enclosure



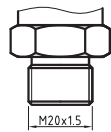
Mechanical Connection



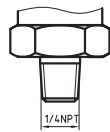
G1/4



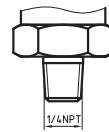
G1/2



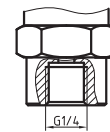
M20X1.5



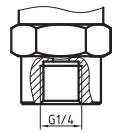
1/4NPT



1/2NPT



G1/4(F)



N1/4(F)

Ordering Information

Option1: Model								
TFP-40T	Piezoresistive Pressure Transmitter							
Option2: Pressure Ranges								
N001	-1...0bar							
0001	0...0.1bar							
0003	0...0.35bar							
0007	0...0.7bar							
0010	0...1bar							
0016	0...1.6bar							
0025	0...2.5bar							
0040	0...4bar							
0060	0...6bar							
0100	0...10bar							
0160	0...16bar							
0250	0...25bar							
0350	0...35bar							
0600	0...60bar							
1000	0...100bar							
2500	0...250bar							
4000	0...400bar							
6000	0...600bar							
PRS	Customized Range							
Option3: Pressure Type								
G	gauge							
A	absolute							
S	sealed gauge							
Option4: Output Signal								
42	4...20mA							
05	0...5Vdc							
15	1...5Vdc							
10	0...10Vdc							
45	0.5...4.5							
485	RS-485							
Option5: Accuracy								
01	0.5%FSO							
02	0.2%FSO (Optional)							
Option6: Electrical Connection								
D	Connector DIN43650							
C	Cable outlet with PVC-cable, length=1.5m							
M	M12x1, 4-pin DIN Connector With Indicator							
HAX	With Flameproof Enclosure as per IS/IEC 60079-1:2014; suitable for gas group IIC, T6							
Option7: Indicator								
Ix	Without Indicator							
I	With Indicator							
Option8: Mechanical Connection								
M2	M20x1.5(male)	F4	G1/4(female)	F5	1/4NPT(female)			
G4	G1/4(male)	N1	1/4NPT(male)	Nx	Customized			
G2	G1/2(male)	N2	1/2NPT					
TFP-40T	0010	G	42	01	D	Ix	G2	Example of Ordering Code: TFP-40T-0010-G-42-01-D-Ix-G2

Specifications are subject to change without prior notice

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