



Model TFP-40S

For General Industrial 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
- Piezoresistive pressure sensor design
- Variety of Pressure & Electrical connections
- Output 4...20mA, 0...10V, 0...5V and ModBus RS485

Product Overview

TFP-40S is made from high-quality silicon piezoresistive sensor. The piezoresistive sensor is packaged in stainless steel housing. The TFP-40S is precision engineered to fit most industrial pressure measurement. The compact and rugged design makes these pressure transmitter suitable for applications including process control systems, hydraulic systems and valves, refrigeration and HVAC controls, level measurement and test equipment. A wide range of process connection and electrical connection options are available to meet almost requirement.

Applications

- Process Control System
- Refrigeration and HVAC controls
- Hydraulic systems and valve
- Machine building
- Pumps and compressor
- 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-40S: Piezoresistive Pressure Transmitter

Performance Specifications

Parameter	Value	Units	Notes
General			
Pressure Range	-1-0, ..., 0-0.1, ..., 600	bar	1 bar = 14.5 psi
Overpressure	1.5xFS		

Environmental			
Operating Temperature Range	-20 to +85	°C	-4 °F to 185 °F
Compensated Temperature Range	-10 to +70	°C	14 °F to 158 °F
Storage Temperature Range	-40 to +125	°C	-40 °F to 257 °F
Vibration	10	g	20 to 2000Hz
Shock	100	g	10ms
Cycles	10x10 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. 185g

Parameter	Minimum	Typical	Maximum	Units	Notes
Performance					
Accuracy	0.1	0.2	0.5	%FSO	1,2
Temp Coeff - Zero		±0.75	±1.5	%FSO	3
Temp Coeff - Span		±0.75	±1.5	%FSO	3
Long-Term Stability		±0.2	±0.3	%FSO/year	1

Notes

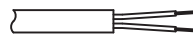
- All values measured at 25°C(77°F)
- Including non-linearity, hysteresis and repeatability.
- 10°C to 70°C(14°F to 158°F) with reference to 25°C(77°F).

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

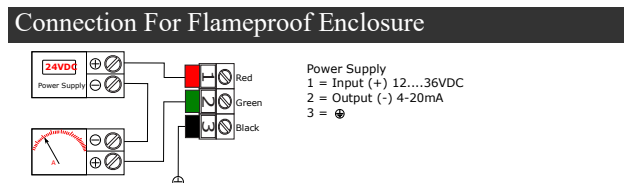
Connector DIN43650		
	2-wire(current)	3-wire(voltage)
Supply+	1	1
Signal+	2	3
Gnd	-	2



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-40S: Piezoresistive Pressure Transmitter

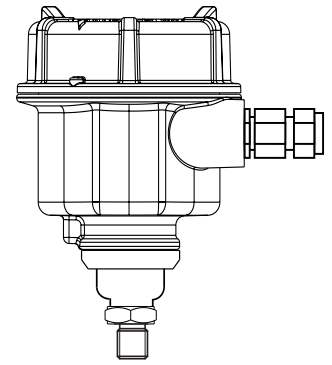
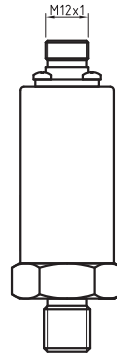
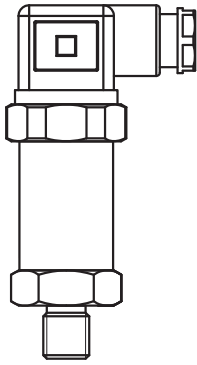
Electrical Connection

Connector DIN43650

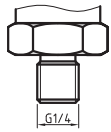
Cable outlet with PVC-cable

M12x1, 4-pin

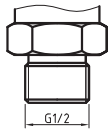
With Flameproof Enclosure



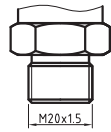
Mechanical Connection



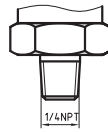
G1/4



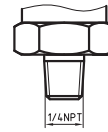
G1/2



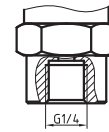
M20X1.5



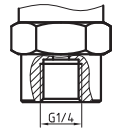
1/4NPT



1/2NPT



G1/4(F)



N1/4(F)

Ordering Information

Option1: Model	
TFP-40S	Piezoresistive Pressure Transmitter
Option2: Pressure Ranges	
N001	-1...0bar 0040 0...4bar 1000 0...100bar
0001	0...0.1bar 0060 0...6bar 2500 0...250bar
0003	0...0.35bar 0100 0...10bar 4000 0...400bar
0007	0...0.7bar 0160 0...16bar 6000 0...600bar
0010	0...1bar 0250 0...25bar PRS Customized Range
0016	0...1.6bar 0350 0...35bar
0025	0...2.5bar 0600 0...60bar
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-40S	0010 G 42 01 D Ix G2 Example of Ordering Code: TFP-40S-0010-G-42-01-D-Ix-G2

Specifications are subject to change without prior notice

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