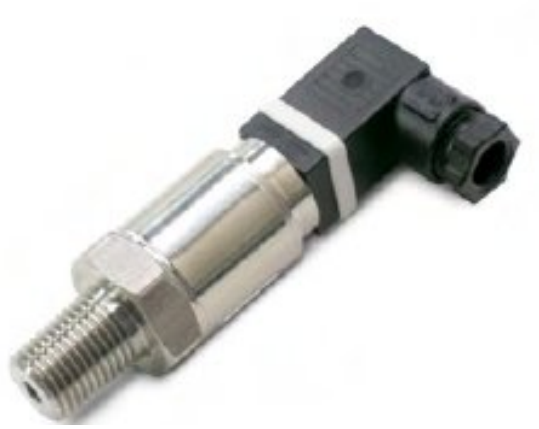
RST2001- PRESSURE TRANSDUCER

TYPICAL APPLICATIONS

- Refrigeration Process
- Fuel Cells Industry
- Pumps
- Hydraulics
- Process Control
- Spraying System
- Pneumatics
- Compressors
- Flow
- Robotics
- Agriculture
- Hydrogen Storage, etc.,



INDEX

INTRODUCTION:

RST2001 series pressure transducer uses all laser welded stainless steel for Media Isolation. The pressure transducer is compact in size and has excellent performance ratio. RST 2001Transducer has Integral "SMART" Signal Conditioning Electronics. For calibration and Temperature Compensation, signal conditioning is provided by Custom ASIC. For OEM quantities, Standard and Custom options are available.

PRINCIPLE OF OPERATION:

The pressure transducer converts the mechanical measured variable of pressure into an electrical measuring signal. The Piezo resistive pressure transducer is designed so that the pressure to be measured is applied to a thin membrane made of monosilicon. The membrane is deflected by the applied pressure. The semiconductor resistors on the membrane detect this mechanical deflection and generate an electrical output signal. The arrangement of the resistors simultaneously compensates for the temperature response. The signal of the pressure transducer is converted into the output signal by high-gain operation amplifiers. The electrical output signal changes within the specified error limits proportionally to the applied pressure.

TECHNICAL SPECIFICATION:

Pressure Range (Gauge or Absolute Pressure):

0-5 Bar, 0-10 Bar, 0-20 Bar, 0-100 Bar, 0-200 Bar (Special Case: Max 0-600 Bar)

Over Pressure: 2 times of F.S

Connection: 1/4''NPT, 1/8''NPT, G 1/4'', G 1/8''

Accuracy: ±1% (or) ±0.5% of F.S.

Stability: 0.25% of F.S/ Year

Total Error: 1.00%

Operating Temperature: -20 to +80^{o}C (-40 to +105^{o}C (Optional))

Output:

1-*wire:* 0.5 – 4.5V, 1 – 5V, 0 – 10V, 0.5 –10.5V,

2-wire: 4 – 20mA

Electrical Connection: IP68 Cable Gland, DIN43650A

Power Supply: 8 – 30V DC

Approvals: CE

Ordering Information:

RST2001 - □ □□□□□□□□□□□

Code	Features	
A	**Pressure**	
A	Absolute	
G	Gauge	
S	Sealed Gauge	
B	**Pressure Range**	
	Bar	**kPa**
	0-1	0-100 kPa
	0-1.6	0-160 kPa
	0-2.5	0-250 kPa
	0-4	0-400 kPa
	0-6	0-600 kPa
	0-10	0-1000 kPa
	0-16	0-1600 kPa
	0-25	0-2500 kPa
	0-40	0-4000 kPa
	0-60	0-6000 kPa
	0-100	0-10000 kPa
	0-160	0-16000 kPa
	0-250	0-25000 kPa
	0-400	0-40000 kPa
	0-600	0-60000 kPa
C	**Unit**	
m	mBar	
B	Bar	
k	Kilopascal	
M	Megapascal	
F	Kg/cm^2	
DE	**Connection**	
1U	1/8’’NPT	
2U	1/4’’NPT	
3U	1/2’’NPT	
1V	G 1/8’’	
2V	G 1/4’’	
1M	M20X1.5	
F	**Conduit**	
C	Cable Gland (std. 1M)	
D	DIN 43650A	
G	**Accuracy**	
1	±0.1%FS	
5	±05%FS	
G	**Output**	

1	0.5 to 4.5V
2	1 to 5V
3	0 to 10V
4	0.5 to 10.5V
5	4 to 20 mA

Head Office

RLT INSTRUMENTATION PVT.LTD.,

#2, Rangarajapuram 1st Street, Kodambakam, Chennai – 600024.

Ph : 044-24806500 (10 Lines); Fax : 044-24806555

E-mail : chennai@rltech.in ; Website : www.rltech.in