

Miniature Differential Pressure Transmitter

RP202-DPT



Accuracy : 0.5%FSO



Operating Temperature upto 150°C



Range Limit : upto 35bar



IP65 Protection

ROCKSENSOR AT A GLANCE (ABOUT US)

Rocksensor is one of the global leaders specializing in process Instrumentation, Research and Development and Designing of Industrial Automation Equipment. We provide highly precise pressure sensors and transmitters, flow metres, level transmitters & temperature transmitters with a prime focus to help our clients efficiently, safely and economically run complex industrial processes.

Rocksensor headquartered in Germany (originated in Switzerland), has its footprint in various geographical regions such as the US, Russia, South Korea, Italy, Germany, Singapore, Malaysia, China, Taiwan, Australia, UAE, Brazil, and India. Our clients come from some of the major industries such as Oil and Gas, Petrochemicals, Pharmaceuticals, FMCG, Automobiles, Water, Cement, Metal & Mining and mainly from the Power Industry like Nuclear, Thermal, Hydro and Solar.

Rocksensor deals in a wide range of highly accurate industrial automation instruments ensuring that even the complex industrial processes happen efficiently.

To fulfill the needs of our clients we make sure that our instruments work in even the harsh environmental conditions offering accurate recordings and communication.

We, at Rocksensor, believe in creating bonds that last a lifetime and create a success story for each and every client. Rocksensor aims to achieve a perfect fit in global market landscape and establish our footprints across the globe.



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KEY APPLICATION INDUSTRIES

- Oil and Gas sector
 - Cement
 - Metal
 - Pulp and Paper
 - Agriculture
 - Textiles
- Chemicals
 - Power
 - Water
 - Pharmaceutical
 - Fertilizer
 - Plastics and HVAC

1. Introduction

Low cost differential pressure transducer adopts diffusion silicon differential pressure sensor and stainless steel case, the two pressure interfaces can be connected on the measured pipeline or impulse line, suitable for measuring differential pressure of gas and liquid.

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



Miniature Differential Pressure Transmitter

2. Key Features

- Measuring ranges from 0.1bar~35bar
- Maximum static pressure: 10Mpa
- Accuracy: $\pm 0.25\%$ FSO or $\pm 0.5\%$ FSO
- Calibrated and temperature compensated
- Piezoresistive pressure sensor design
- Variety of Pressure & Electrical connections
- Output 4...20mA, 0...10V, 0...5V & RS485

3. Key Applications

- Process control systems
- Refrigeration and HVAC controls
- Hydraulic systems and valve
- Machine building
- Pumps and compressors

4. Standard Pressure Ranges

Nominal Pressure	Gauge
0~1bar	●
0~1.6bar	●
0~2.5bar	●
0~4bar	●
0~6bar	●
0~10bar	●
0~16bar	●
0~25bar	●
0~30bar	●
0~35bar	

Note:
Other pressure ranges available. Please consult the factory.

5. Technical Specifications

Parameter	Values			Units	Notes
General					
Pressure Range	0-1~10			bar	1bar=14.5ps
Overpressure	1.5xFS				
Environmental					
Operating Temperature Range	-20 ~ +85(standard), -20 to +150			°C	-4 °F ~ 185 °F
Compensated Temperature Range	-10 ~ +70			°C	14 °F ~ 158 °F
Storage Temperature Range	-40 ~ +125			°C	-40 °F ~ 257 °F
Vibration	10			g	20 ~ 2000Hz
Shock	100			g	10ms
Cycles	10x10 ⁵			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	SS304(Std.)/ SS316 (optional)				
Diaphragm	SS316L				
Seal Ring	Viton or NBR				
Oil Filling	Silicone oil				
Protection	IP65 (Standard)				
Net Weight	Approx.400g				
Parameter	Minimum	Typical	Maximum	Units	Notes

Performance

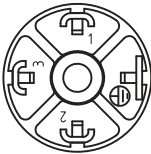
Accuracy		0.25	0.5	%FSO	1,2
Temp Coeff - Zero		±1.5	±2	%FSO	3
Temp Coeff - Span		±1.5	±2	±%FSO	3
Long-Term Stability		±0.2	±0.3	%FSO/year	1

Notes:

1. All values measured at 25°C (77°F)
2. Including non-linearity, hysteresis and repeatability
3. -10°C ~ 70°C (14°F ~ 158°F) with reference to 25°C (77°F)
- The listed specifications and dimensions are subject to change without prior notice.

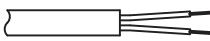
6. Connection Diagrams

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+	yellow	blue
Gnd	-	yellow

9. Model Selection Table

RP202-DPT		Miniature Differential Pressure Transmitter							
Code		1	2	3	4	5	6	7	8

Pressure Type	
Differential Pressure	D

Pressure Ranges	
0~1bar	010
0~1.6bar	016
0~2.5bar	025
0~4bar	040
0~6bar	060
0~10bar	100
0~16bar	160
0~25bar	250
0~30bar	300
0~35bar	350
Customised	XX

Diaphragm MOC	
SS316L	M

Sensor Housing	
SS304	A
SS316	B

Accuracy	
D	0.25%FSO
E	0.5%FSO

Electrical Connection	
H	Hirschman
C	Cable outlet with PVC-cable, length=1.5m
M	M12x1, 4-pin

Process Connection	
M2	M20x1.5 (male)
G4	G1/4 (male)
G2	G1/2 (male)
N4	1/4NPT (male)
F4	G1/4 (female)
XX	Customised

Output Signal	
A	4~20mA
B	0~5VDC
C	1~5VDC
D	0~10VDC
E	Customised

Example: RP202-DPT-D010MAAM2HD

RP202-DPT - Miniature Differential Pressure Transmitter

D - Pressure Type : Differential Pressure

010 - Pressure Ranges : 0~1bar

M - Diaphragm MOC : SS316L

A - Sensor Housing : SS304

A - Output Signal : 4~20mA

M2 - Process Connection : M20x1.5 (male)

H - Electrical Connection : Hirschman

D - Accuracy : 0.25%FSO

Field Instrumentation Range



Pressure Measurement

- Smart Differential Pressure Transmitter
- Smart Gauge Pressure Transmitter
- Smart Absolute Pressure Transmitter
- Miniature Pressure Transducer without display
- Sanitary Gauge/ Absolute Pressure Transmitter

- Submersible Pressure Transmitter
- Remote Seal Differential P.T. with capillary
- Remote Seal Differential P.T. Direct Mount
- Remote Seal Gauge/Absolute P.T. with capillary
- Remote Seal Gauge/Absolute P.T. Direct Mount



Flow Measurement

- Coriolis Mass Flowmeter
- Thermal Gas Mass Flowmeter
- Positive Displacement Flowmeter
- Electromagnetic Flowmeter
- Vortex Flowmeter

- Turbine Flowmeter
- Variable Area Flowmeter
- Clamp On Ultrasonic Flowmeter
- Inline Ultrasonic Flowmeter
- Portable Ultrasonic Flowmeter



Level Measurement

- RADAR Level Transmitter Horn Antenna
- Compact RADAR Level Transmitter
- RADAR Level Transmitter Sanitary
- RADAR Level Transmitter
- Guided Wave RADAR Level Transmitter
- Guided Wave RADAR Level Transmitter
- RADAR Level Transmitter Lens Antenna

- RADAR Level Transmitter Rod Antenna
- Ultrasonic Level Transmitter
- Microwave Barrier Level Switch
- Admittance Level Switch Series
- Vibrating Rod Level Switch Series
- Tuning Fork Level Switch Series



Temperature Measurement

- Head Mount Temperature Transmitter
- Temperature Transmitter for Sanitary Applications

- DIN Rail Temperature Transmitter
- Field Mount Temperature Transmitter

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