



FEATURES

- 0...35 mbar to 0...16 bar and 0...0.5 to 0...250 psi gage or differential
- High impedance bridge
- Miniature package
- Different pinning configurations
- Usable for wet/wet applications⁸
- Sensortech PRO services

MEDIA COMPATIBILITY

All media compatible with

- port 1: - polyetherimide
- silver-filled silicone
- silicon nitride
- port 2⁹: - polyetherimide
- fluor-silicone
- silicon

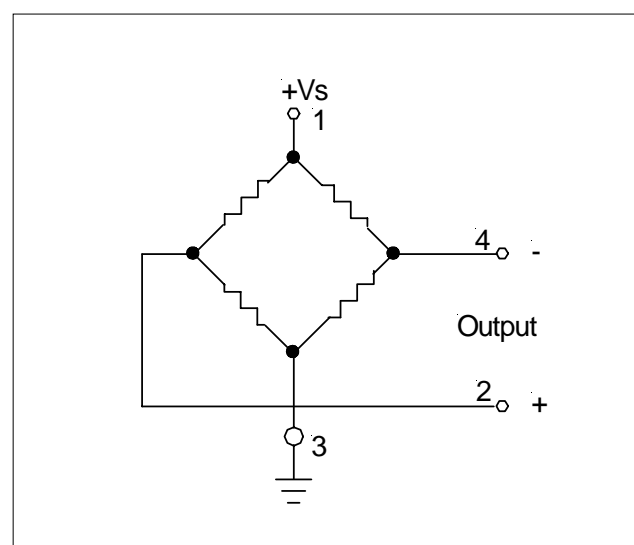


SPECIFICATIONS

Maximum ratings

Supply voltage	12 V
Temperature limits	
Storage	-55 to +100°C
Operating	-40 to +85°C
Lead temperature (10 sec. soldering)	300°C
Humidity limits	0...100 %RH
Vibration (0 to 2000 Hz) (qualification tested)	20 g sine
Mechanical shock (qualification tested)	150 g

ELECTRICAL CONNECTION





PRESSURE SENSOR CHARACTERISTICS

($V_s = 10.0 \pm 0.01$ V, $t_{amb} = 25$ °C)

Part number	Operating pressure	Proof pressure ¹	Full-scale span ²		
			Min.	Typ.	Max.
RPUM035...	0...35 mbar	1.4 bar	24 mV	35 mV	46 mV
RPUM050...	0...50 mbar	1.4 bar	21 mV	33 mV	44 mV
RPUM100...	0...100 mbar	1.4 bar	44 mV	66 mV	88 mV
RPUM250...	0...250 mbar	1.4 bar	61 mV	83 mV	105 mV
RPUB001...	0...1 bar	3 bar	159 mV	218 mV	276 mV
RPUB002...	0...2 bar	4 bar	232 mV	320 mV	410 mV
RPUB005...	0...5 bar	12 bar	113 mV	163 mV	215 mV
RPUB010...	0...10 bar	35 bar	84 mV	123 mV	163 mV
RPUB016...	0...16 bar	35 bar	134 mV	197 mV	260 mV
RPUP0x5...	0...0.5 psi	20 psi	24 mV	35 mV	46 mV
RPUP001...	0...1 psi	20 psi	30 mV	45 mV	60 mV
RPUP005...	0...5 psi	20 psi	85 mV	115 mV	145 mV
RPUP015...	0...15 psi	45 psi	165 mV	225 mV	285 mV
RPUP030...	0...30 psi	60 psi	240 mV	330 mV	420 mV
RPUP100...	0...100 psi	200 psi	156 mV	225 mV	294 mV
RPUP250...	0...250 psi	500 psi	145 mV	212 mV	280 mV

PERFORMANCE CHARACTERISTICS

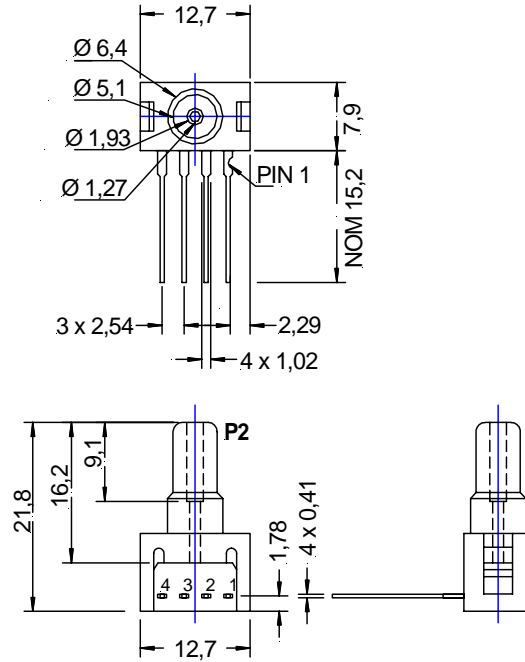
($V_s = 10.0 \pm 0.01$ V, $t_{amb} = 25$ °C)

Characteristics	Min.	Typ.	Max.	Unit
Zero pressure offset	-20		+20	mV
Temperature effects (0 to 50 °C) ⁴	Offset	±2.0		
	Span		-2000	ppm/°C
Temperature effects on bridge impedance ⁴		+2200		
Non-linearity (BSL) ³		±0.25	±1.0	% span
Repeatability and hysteresis ⁵		±0.15		
Long term stability ⁷		±0.5		
Input impedance	4.0	5.0	6.0	kΩ
Output impedance	4.0	5.0	6.0	
Response time ⁶			1.0	ms

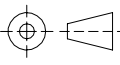


OUTLINE DRAWINGS¹⁰

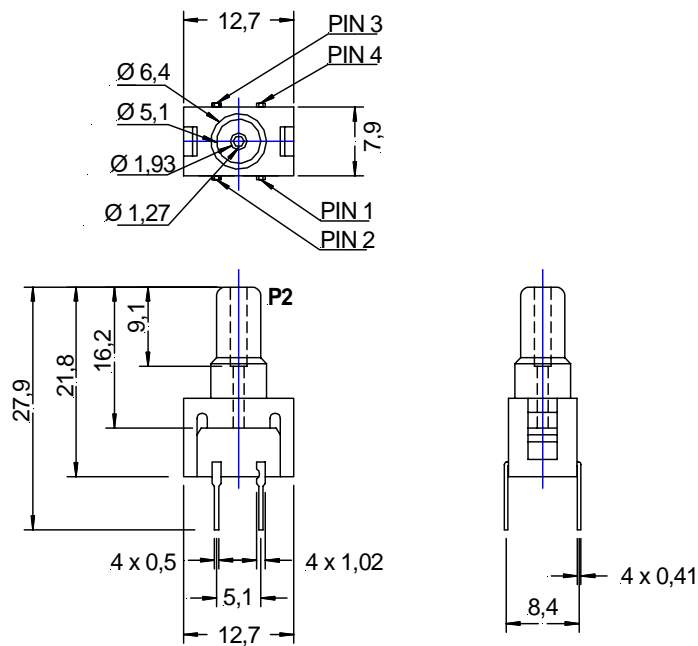
RPU...G6A (single inline pinning, 1 x 4), gage pressure devices



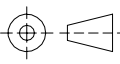
mass: 2 g


third angle projection
dimensions in mm

RPU...G2A (dual inline pinning, 2 x 2), gage pressure devices



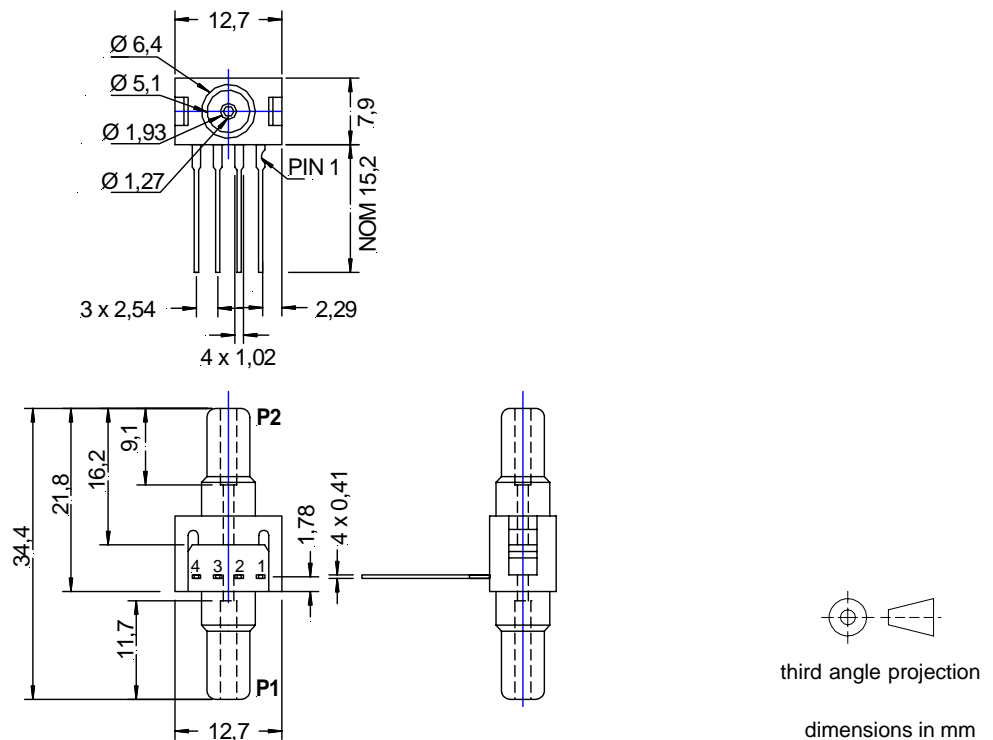
mass: 2 g


third angle projection
dimensions in mm



OUTLINE DRAWINGS¹⁰

RPU...D6A (single inline pinning, 1 x 4), differential pressure devices



mass: 2 g

Specification notes:

1. The maximum specified pressure which may be applied to the sensor without causing a permanent change in the output characteristics.
2. Span is the algebraic difference between the output voltage at full-scale pressure and the output at zero pressure. Span is ratiometric to the supply voltage.
3. Non-linearity refers to the **Best Straight Line** fit, measured for offset pressure, full scale pressure and 1/2 full scale pressure.
4. Error band of the offset voltage, span or bridge impedance in the specified temperature range, relative to the 25°C reading.
5. Repeatability, the deviation in output readings for successive application of any given input pressure (all other conditions remaining constant). Hysteresis, the error defined by the deviation in output signal obtained when a specific pressure point is approached first with increasing pressure, then with decreasing pressure or vice versa (all other conditions remaining constant).
6. Response time for 0 to full-scale pressure step change, readings taken at 10 % and 90 % of full-scale pressure.
7. Long term stability of offset and span over a period over one year.
8. The sensors might be used on both ports for media compatible with the components specified under "Media Compatibility".
9. **Other sealing materials are available on request.** Minimum order quantities might be required.
10. **Other pressure port styles, like barbed ones, luers, modular, M5, needle style or flow through connection, are available on request.** Minimum order quantities might be required.



ORDERING INFORMATION - AVAILABLE LISTINGS

Note: Preferred listings are highlighted in grey

Pressure range	Gage pressure		Differential pressure
	Single inline pinning	Dual inline pinning	Single inline pinning
35 mbar	RPUM035G6A	-	RPUM035D6A
50 mbar	RPUM050G6A	RPUM050G2A	RPUM050D6A
100 mbar	RPUM100G6A	RPUM100G2A	RPUM100D6A
250 mbar	RPUM250G6A	RPUM250G2A	RPUM250D6A
1 bar	RPUB001G6A	RPUB001G2A	RPUB001D6A
2 bar	RPUB002G6A	RPUB002G2A	RPUB002D6A
5 bar	RPUB005G6A	RPUB005G2A	RPUB005D6A
10 bar	RPUB010G6A	RPUB010G2A	RPUB010D6A
16 bar	RPUB016G6A	RPUB016G2A	RPUB016D6A
0.5 psi	RPUP0x5G6A	-	RPUP0x5D6A
1 psi	RPUP001G6A	RPUP001G2A	RPUP001D6A
5 psi	RPUP005G6A	RPUP005G2A	RPUP005D6A
15 psi	RPUP015G6A	RPUP015G2A	RPUP015D6A
30 psi	RPUP030G6A	RPUP030G2A	RPUP030D6A
60 psi	-	-	-
100 psi	RPUP100G6A	RPUP100G2A	RPUP100D6A
250 psi	RPUP250G6A	RPUP250G2A	RPUP250D6A

Sensortech PRO services:

- Extended guarantee period of 2 years
- Improved performance characteristics
- Custom product modifications and adaptations even for small quantities
- Advanced logistics models for supply inventory and short delivery times
- Technical support through application engineers on the phone or at your site
- Fastest possible technical response for design and QA engineers
- ... plus other services on request

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