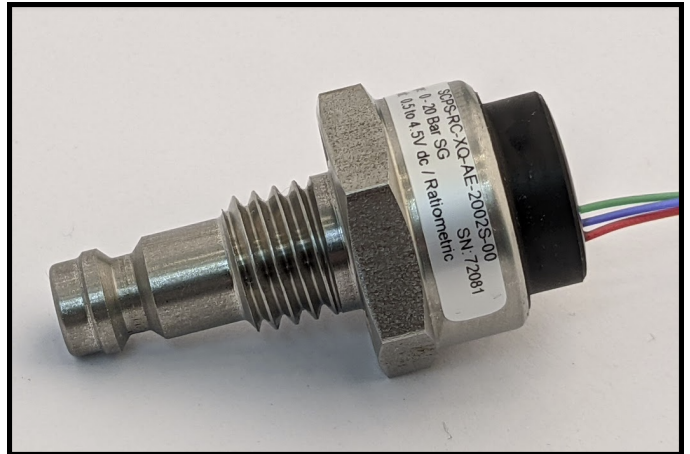


SCPS Series

Model: SCPS

Custom Pressure Sensor



Description:

The SCPS series of pressure transducers have been developed using a Ceramic (96% Aluminium Oxide Al_2O_3) piezo-resistive sensing element housed in a robust stainless steel housing with an integrated Series 21 quick release fitting as the pressure port. It has the option of integrated wires or JST connectors as standard but can be adapted to customer requirements.

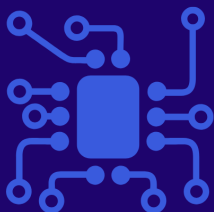
The standard internal PCB uses passive components to ensure the low power consumption is maintained, ideal for battery powered applications. Being passive also makes it suitable for applications that require a fast dynamic measurement of pressure with natural frequency response up to 75kHz. Additional options for output include analogue 0.5 to 4.5Volts, digital i2c or SPi.

Product Highlights:

- Pressure ranges from 0.5 up to 100 bar
- Accuracy $<\pm 0.35\%$ / $<\pm 0.25\%$ / $<\pm 0.10\%$
- Ceramic sensor, high corrosion resistance
- Passive millivolt output, analogue or digital
- High resistance, low power consumption
- Naturally high frequency response from 1kHz up to 75kHz
- Choice of mechanical connections
- Cost effective for OEM solutions

Applications include, but not limited to:

- OEM installations
- Pneumatic testing
- Pressure surge detection
- Data loggers
- Water supply monitoring
- Seal performance monitoring

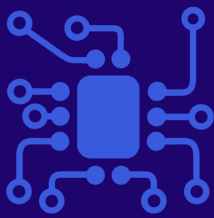


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Specification:

| Titan Pressure Transducer - SCPS | |
|----------------------------------|---|
| Sensor technology | Piezo-resistive |
| Output Versions | Analogue: mV/V, 0.5 to 4.5V dc ratiometric Digital: i2c or SPi |
| Supply voltage | Analogue: mV/V = 2 - 30V dc / 0.5 to 4.5V ratiometric = 2.7 to 5.5V dc Digital: i2c & SPi = 3.3 or 5V dc |
| Pressure reference | Gauge (standard), Sealed Gauge, Absolute |
| Pressure ranges | 0.5, 1, 2, 5, 10, 20, 50, 100 Bar |
| Safe over pressure | 1.5 times rated pressure |
| Burst Pressure | 3 times rated pressure |
| Accuracy (NL&H) | $\leq \pm 0.35\%$ / $\leq \pm 0.25\%$ / $\leq \pm 0.10\%$ FS (dependant on range and output) |
| Long Term Stability: | $\leq \pm 0.10\%$ FS |
| Response Time | Analogue: Various kHz, dependant on capsule range, 5ms for 0.5 to 4.5V ratiometric Digital: 2ms - 50ms, customer specified |
| Ambient temperature | -20 °C to +85 °C |
| Media temperature | -40 °C to +125 °C |
| Storage temperature | -20 °C to +80 °C |
| Temperature effects | Typical thermal zero and span coefficients, TZS: $\pm 0.02\%$ FS/°C, TSS: $< -0.015\%$ /°C |
| Media wetted parts | 303 Stainless Steel, Al ₂ O ₃ , Viton, EPDM, NBR |
| Permissible media | All fluids compatible with media wetted parts |
| Electrical connection | 50mm PTFE wires, 240mm PVC wires. JST / Molex Connector, Customer specified |
| Pressure connection | Series 21 quick release, G1/8" DIN3852 male |

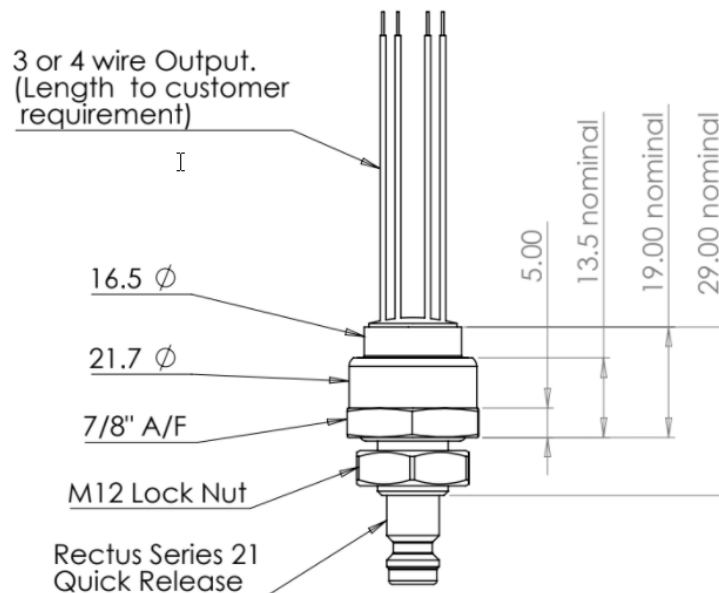
| Millivolt Sensitivity Table | | | | | | | | | | | | |
|-----------------------------|------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Range | Bar | 0.5 | 1 | 2 | 5 | 10 | 20 | 50 | 100 | 200 | 400 | 600 |
| Sensitivity | mV/V | 1.4-2.4 | 2.0-3.6 | 2.0-3.5 | 2.3-4.0 | 3.4-6.0 | 2.4-4.0 | 4.0-6.0 | 3.0-4.8 | 2.5-3.9 | 3.1-4.8 | 3.1-4.8 |



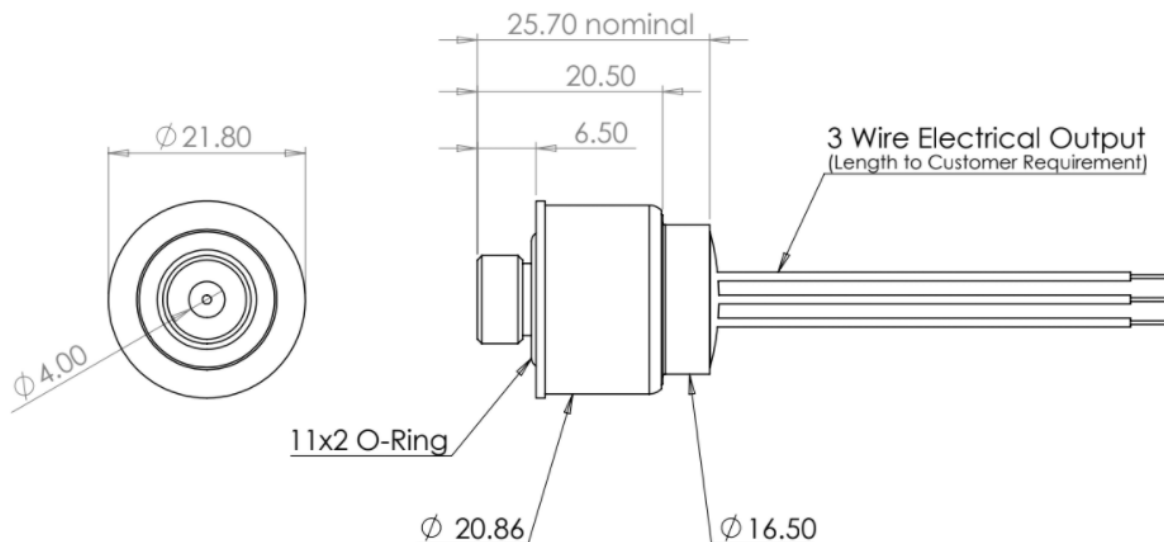
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Dimensional Drawings:

Series 21 Quick Release



G1/8" DIN3862 male



The SCPS product range is completely configurable for OEM applications, if you have specific requirements of mechanical format, electrical connection, pressure range, output type or anything to ensure 100% compatibility to your application we can assist with this. Please contact sales with your requirements.