

FINE CONTROLS (UK) LTD



Fine Controls have been supplying process controls & instrumentation equipment since 1994, & now serves an ever expanding customer base, both in the UK & globally.

We offer a full range of valve & instrumentation products & services, with our product range representing leading technologies & brands:

Flow: Flow Meters & Transmitters, Flow Switches, Flow Control Valves & Batch Control Systems

Temperature: Temperature Probes & Thermowells, Temperature transmitters, Temperature Regulators & Temperature Displays

Level: Level Transmitters & Switches

Pressure: Pressure Gauges & Transmitters, Precision & High Pressure Regulators & I-P Converters, Volume boosters.

Precision Pneumatics: Pressure Regulators, I-P Converters, Volume Boosters, Vacuum Regulators

Valves: Solenoid & Pneumatic Valves, Control Valves & Positioners, Actuated Ball, Globe or Diaphragm Valves & Isolation Valves

Services: Repair, Calibration, Panel Build, System Design & Commissioning

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Pressure Switch

G $\frac{1}{4}$ " or $\frac{1}{4}$ " NPT

Rotork manufacture pressure sensing components to operate in high vibration areas with accurate repeatability giving reliable performance. For use in multiple applications.

- Ambient Temperature Range -40 to +85 °C
- Accurate, Repeatable, Durable
- Tested in accordance with EN 61373 (Category 1 Class B) shock and vibration testing
- Four Pressure ratings – compact and lightweight
- Corrosion Resistance, Salt Mist Test ISO 9227

Ambient Temperature Range

- -40 to +85 °C (-40 to +185 °F)

Maximum Inlet Pressure

- 24 bar

Adjustable Working Pressure Ranges

- 0.2 to 2 bar (2.9 - 29 psi)
- 0.5 to 8 bar (7.3 - 116 psi)
- 1.0 to 10 bar (14.5 - 145 psi)
- 1.6 to 16 bar (23.2 - 232 psi)

Life Expectancy

- $\geq 10^7$ switching cycles at 60 cycles/minute (mechanical life / no electrical load)
- $\geq 2 \times 10^5$ switching cycles at 20 cycles/minute (electrical life / 100 mA electrical load)

Degree of Protection

- IP65 in accordance with EN 60529 (including electrical connections)

Mounting Position

- All orientations
- 2 off \varnothing 5.3 mm dia through holes

Performance Data

Switching Pressure Hysteresis

Maximum hysteresis between rising and falling switch pressures across complete operating conditions:

- (0.2 to 2 bar) – 0.35 bar MAX.
(2.9 to 29.0 psi) – 5.1 psi MAX
- (0.5 to 8 bar) – 1.0 bar MAX.
(7.3 to 116.0 psi) – 14.5 psi MAX
- (1.0 to 10 bar) – 1.2 bar MAX.
(14.5 to 145.0 psi) – 17.4 psi MAX
- (1.6 to 16 bar) – 1.8 bar MAX.
(23.2 to 232.1 psi) – 26.1 psi MAX

Max Operating Cycle Rate

- 300 cycles/minute (no electrical load)

Repeatability

Repeatability at static operating conditions (units set to midpoint switching pressure):

- (0.2 to 2 bar) – ± 0.05 bar
(2.9 to 29.0 psi) – ± 0.73 psi
- (0.5 to 8 bar) – ± 0.08 bar
(7.3 to 116.0 psi) – ± 1.16 psi
- (1.0 to 10 bar) – ± 0.10 bar
(14.5 to 145.0 psi) – ± 1.45 psi
- (1.6 to 16 bar) – ± 0.10 bar
(23.2 to 232.1 psi) – ± 1.45 psi

Repeatability across complete operating conditions:

- (0.2 to 2 bar) – ± 0.10 bar
(2.9 to 29.0 psi) – ± 1.45 psi
- (0.5 to 8 bar) – ± 0.15 bar
(7.3 to 116.0 psi) – ± 2.18 psi
- (1.0 to 10 bar) – ± 0.25 bar
(14.5 to 145.0 psi) – ± 3.63 psi
- (1.6 to 16 bar) – ± 0.25 bar
(23.2 to 232.1 psi) – ± 3.63 psi

Electrical Ratings

- DC voltage range: 5-30 VDC
- AC voltage range: 5-250 VAC
- Applicable current range: 1 mA to 100 mA

Note: Contact protection is recommended when switches used in an inductive load circuit. Other electrical ranges available on request.

Electrical Connection

- DIN EN 175301-803 (DIN 43650) form A connection

Construction Materials

- Housing Body: Aluminium (anodised)
- Diaphragm: Silicone rubber
- Shaft: Stainless Steel
- Pressure Seals: EPDM, NBR
- External Seals: Silicone, EPDM
- Locking Mechanism: Stainless Steel
- Electrical Connector: PA (Polyamide Nylon)
- Microswitch contacts: Triple layer gold plated (UL & CSA approved)

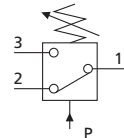


Operating Media

- Neutral, gaseous and liquid fluids, non-combustible.
Air supply must be dry enough to avoid ice formation at temperatures below +2 °C (+35 °F)

Switching Function

- Terminal 1 to 3: on rising pressure contacts close
- Terminal 1 to 2: on rising pressure contacts open



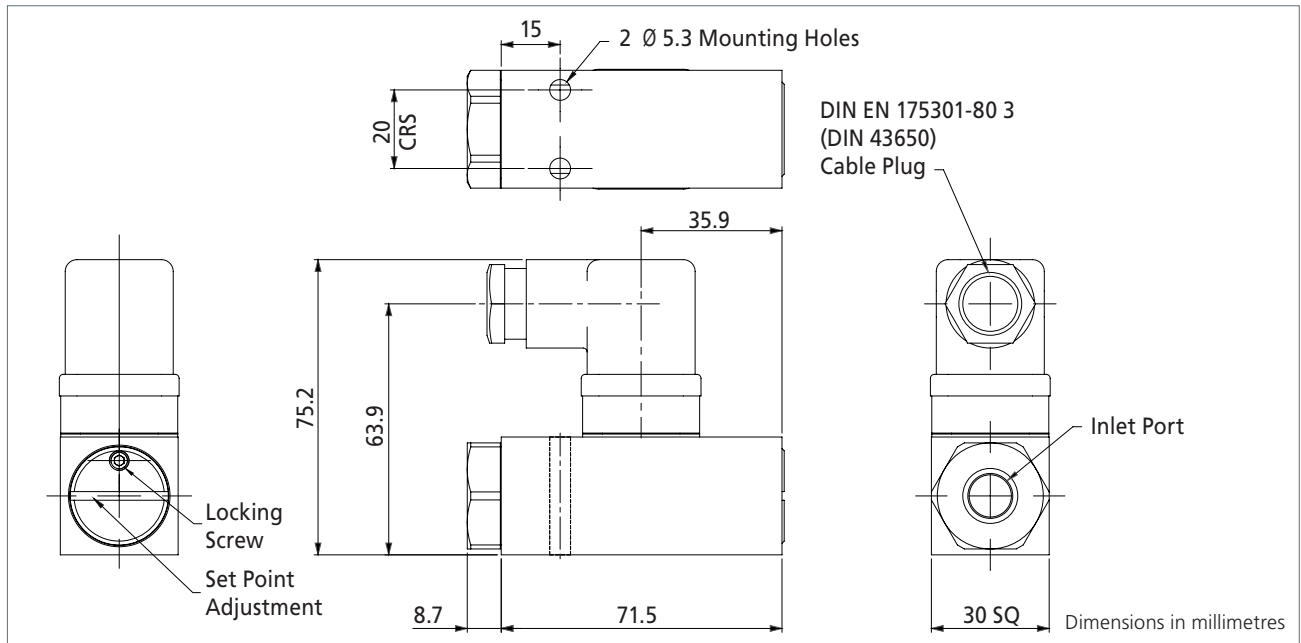
Switch Rating

- 1 mA to 100 mA

Weight

- 203 g (0.45 lbs)

Dimensional Data



Ordering Information

Standard switch assembly

Size		Type		Material		Diaphragm /Pressure Seals		Pressure		Port Style	
2	¼"	PSE	Pressure Switch	A	Alum	F	Silicone / EPDM / NBR	02	0.2 - 2	1	BSP
								08	0.5 - 8	2	NPT
								10	1 - 10		
								16	1.6 - 16		
2		PSE		A		F		••		•	

Example part number: 2PSEAF021.

Optional extra

Set Pressure			
XXX	Customer Specified*	R	Rising
		F	Falling
•••		•	

* Specify Set Pressure within the range of 0.5 to 16 bar in 0.1 increments (± 0.2 bar). Use three digits to specify Set Pressure e.g. 12.5 bar = 125 and suffix standard part number (Example: 2PSEAF161 125R)

Note:
Standard switch assemblies are un-set ex-works.

Pre-set option available, minimum order quantity applies. Please contact sales for further information

rotork®

Keeping the World Flowing

Pressure Switch

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MIDLAND-ACS
A rotork® Brand

A full listing of the Rotork sales and service network is available on our website.

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