

Electronic Pressure Switch

UDS1V2

Features

- ▶ Ease of setting: Teach & Go
- ▶ Ultra compact construction
- ▶ Rotatable 320° housing
- ▶ 1 or 2 switchpoints
- ▶ Programmable adjustable hysteresis¹
- ▶ Excellent for high cycling DC applications

Applications

- ▶ OEM applications in hydraulic and pneumatic systems
- ▶ Press machines
- ▶ Lubricant monitoring systems
- ▶ Machine tool industry
- ▶ Automotive test equipment
- ▶ Injection molding machines



General Specifications*

Sensor element:	Piezoresistive silicon (only for 9000 psi range) or ceramic measuring cell
Materials: Wetted parts: Electronics housing: Seals:	Stainless steel, pass., Al2O3 PA 6.6 Viton® (FKM)
Operating elements:	2 easy response push buttons
Enclosure rating:	IP65 (indoor only)
Process connection (male):	1/4" NPT, G1/4, 7/16-20 (37° JIC), 7/16-20 UNF (SAE)
Dimensions:	Approx. Ø 1.0" x 3.9" (without mating connector)
Measuring ranges:	0 to 9000 PSI (0 to 600 bar)
Proof Pressure:	1.5 times rated pressure
Electrical connection:	M12x1, 4-pin

Temperature influence:	± 0.2 % f.s./10K
Compensation range:	14°F to 158°F (-10 °C to +70 °C)
Repeatability:	+/- 1 % f.s.
Temperature range: Media: Electronics: Storage:	-13°F to 212°F (-25 °C to +100 °C) -13°F to 176°F (-25 °C to +80 °C) -22°F to 176°F (-30 °C to +80 °C)
Power supply:	15 to 32 V DC, reversed polarity protected (SELV, PELV)
Transistor switching outputs PNP: Adjustment range for switching point & hysteresis ¹ : Frequency response: Current rating:	0 % to 100 % f.s. Max. 100 Hz Max. 200 mA
Vibration:	10 g/20 to 2000 Hz
Shock:	100 g/11 ms

* See Product Configurator for additional options.

Note 1: For 1SP version, adjustable hysteresis (2SP version has built-in 15% hysteresis)

Technical Drawing

Dimensions:
 M12 X 1
 .43 [11]
 3.89 [99]
 1.65 [42]
 .47 [12]
 B
 A
 Ø,94 [24]
 A/F 0.94 [24]
 Ø,75 [19]
 G CONNECTION SHOWN

PROCESS CONNECTION FITTING "A"

Electrical Connections:
 1 → +Ub
 4 → SP1
 2 → SP2
 3 → 0 V

Plug, 4-pin

Process Connections		
	"A"	"B"
G	G 1/4"	0.55 [14 MM]
N	1/4" NPT	0.67 [17MM]
P	7/16" 37° JIC	0.55 [14 MM]
E	7/16-20 UNF (SAEL)	0.55 [14 MM]

Dimensions in Inches [MM]

Product Configurator

Example **U 05 N 2**

Series

U UDS1V2 Series

Pressure Ranges

05	0-150 psi (0-10.34 BAR) (recommend N or G process connection)
11	0-1500 psi (0-103.45 BAR) (recommend N or G process connection)
16	0-6000 psi (0-413.79 BAR) (recommend P or E process connection)
32	0-9000 psi (0-620 BAR) (recommend P or E process connection)

Process Connection

N	1/4" NPT male
G	G1/4 male (gasket seal)
P	7/16-20 37° JIC male with o-ring seal
E	7/16-20 UNF SAE 4 male with o-ring seal

Accessories

/A	4 Pin M12 Female Right Angle Plug Molded Cable, 3.28 Feet (1 Meter)
/C	4 Pin M12 Female Right Angle Plug Molded Cable, 9.84 Feet (3 Meter)
/E	4 Pin M12 Female Right Angle Plug Molded Cable, 16.40 feet (5 meters)
/G	4 Pin M12 Female Straight Plug Molded Cable, 3.28 Feet (1 Meter)
/I	4 Pin M12 Female Straight Plug Molded Cable, 9.84 Feet (3 Meter)
/K	4 Pin M12 Female Straight Plug Molded Cable, 16.40 feet (5 meters)
/M	4 Pin M12 Female Straight Connector
/P	4 Pin M12 Female Right Angle Connector

Output

1	Single switch w/ adjustable hysteresis
2	Dual switch w/ ~15% hysteresis
1xxxxRyyyyF	Single switch w/ field adjustable hysteresis and factory preset
2xxxxRyyyyR	Dual switch w/-15% hysteresis and factory preset

* Example: **13000R2000F** is one (1) switch point with 3000 psi rising (increase) and 2000 psi falling (decrease)
23000R1000R is two (2) switch points with first switch set at 3000 psi rising and second switch set at 1000 psi rising.

Single and dual switch can be set at 1xxxxR(or F)yyyyF(or R) and 2xxxxR(or F)yyyyR(or F), where F denotes falling and R denotes rising. (indent this note as it relates to the example above.)