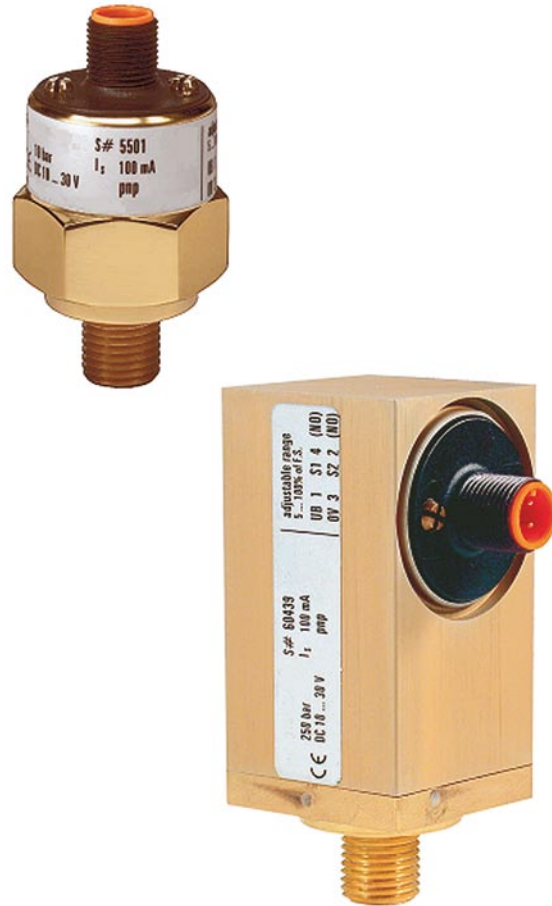


PS12

Miniature Electronic Pressure Switch

- 2 switched outputs, can be adjusted independently of one another
- adjustable hysteresis for on-off control
- field adjustable settings
- measuring ranges -0.4 to $-0.02 \dots 30$ to 600 bar
- exceptional degree of switching reliability with semiconductor switch
- with switch state LED
- can be directly linked to PLC



Description:

Model PS12 miniature electronic pressure switches are based on the Hall effect. The operation of the switching element is non-contacting: this guarantees long service life for the device. The device generates a switched output at a preset pressure with the help of an elastic pressure responsive element and using the Hall effect. The pressure switch can be supplied with one or two (standard) switched outputs, which are fitted with NC contact or NO contact (standard) switching functions.

The NC contact function with adjustable hysteresis is available for on-off control without external circuitry. The switching points can be adjusted on site.

Typical Applications:

Model PS12 miniature electronic pressure switches are suitable for use in all applications where the reliability of semiconductor switches is required. Due to the adjustable hysteresis, the pressure switch is a reasonably-priced solution for control functions – such as compressor control and pump control – where a preset pressure needs to be maintained. Numerous pressure ranges -0.4 to $-0.02 \dots 30$ to 600 bar allow use throughout industry. Typical applications are to be found in the process industries, in industrial machinery and systems, and in pneumatics and refrigeration technology.

Models:

PS12.1...	brass housing
setting ranges	-0.4 to -0.02 ... 2.5 to 25 bar
PS12.2...	anodized aluminum housing
setting ranges	3 to 60 ... 30 to 600 bar

Setting ranges

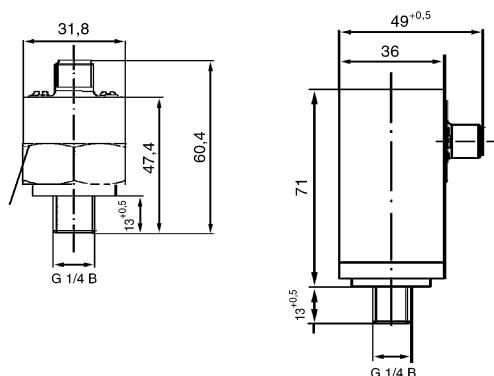
PS12.1...

Order code	Overpressure in bar rel.	Order code	Excess pressure in bar rel.
R14	-0.4 to -0.02	R69*	0.05 to 1
R15	-0.6 to -0.03	R72*	0.13 to 2.5
R16*	-0.9 to -0.05	R73	0.2 to 4
R63	0.005 to 0.1	R74*	0.3 to 6
R65	0.013 to 0.25	R75*	0.5 to 10
R67	0.03 to 0.6	R78*	2.5 to 25

PS12.1...

Order code	Overpressure in bar rel.	Order code	Excess pressure in bar rel.
R80*	3 to 60	R84*	13 to 250
R81*	5 to 100	R86	20 to 400
R82	8 to 160	R87*	30 to 600

* available quicker (not with model 2H with adjustable hysteresis)



Technical Specifications

Switch output	p-switching
Switch function (rising pressure)	2 NO contacts, 1 NO contact + 1 NC contact, (can be adjusted independently of one another)
Special-order version	1 NC contact with adjustable hysteresis, 1 NO contact, 1 NC contact
Adjustability	with setting screw
Switch rating	max. 100 mA (max. 30 VDC)
Switching hysteresis	≤ 5% of full scale (10% in 16 and 25 bar range) optional: adjustable
Repeatability	< 1 % of full scale

Model Coding:

Order Number	PS12.	1.	11.	R75.	1.	1.	0
Miniature electronic pressure switches							
Model							
1 = brass housing -0.4 to -0.02 ... 2.5 to 25 bar							
2 = aluminum housing 3 to 60 ... 30 to 600 bar							
Switching function							
11 = NO contact/NO contact							
12 = NO contact/NC contact (NC contact/NO contact)							
2H = NC contact with adjustable hysteresis							
99 = special-order version, please specify							
Setting ranges							
R14 to R87 see "Setting ranges" section							
Process connection							
1 = 1/4" male threaded fitting (standard)							
9 = special-order version, please specify							
Electrical connectors							
1 = M12x1 connector without cable box							
2 = M12x1 connector with cable box, angular and 2 m cable							
3 = M12x1 connector with cable box, straight and 2 m cable							
Special feature							
0 = none							
1 = switching point set at the factory							
9 = please specify in writing							

Technical Specifications

Process connection	1/4" male threaded fitting
Special-order version	1/4" NPT, M10x1, M12x1.5
Materials	
housing	
PS12.1...	brass, plastic
PS12.2...	anodized aluminum, plastic
pressure responsive element	
PS12.1...	
(capsule-type element)	Ni and Cu alloy
PS12.2... (Bourdon spring)	stainless steel 1.4571
process connection	brass
Overload limit	
≤ 10 bar	4-times
≥ 16 bar	2-times
Temperature ranges	
compensated	0 to 80 °C
storage	-30 to 80 °C
gas or liquid being monitored/ambient	-20 to 80 °C
Temperature effect	0.4 %/10K
Auxiliary power source	10 to 30 VDC
Electrical connector	round plug connector M12x1 (4 pin),
Protection type	
connector	IP65