Pressure switch
Model PS-601, 602

Applications

- Pumps and compressors for lubrication
- Industrial Hydraulics
- Special purpose machine
- Power generation

Special features

- Adjustable switch differential to realise flexible on/off control
- Robust aluminium enclosure
- Switch point repeatability ±1% of FSR for reliable switching
- Upto 2 possible positions for electrical connection
- High-quality micro switches with long service life

Fig.: Left: Fixed differential
Right: Adjustable differential

Description

The model PS-601, 602 pressure switch has been designed for control and monitoring applications. The measuring element is a fully welded diaphragm made of stainless steel 316L. This corrosion-resistant pressure switch is suitable for a broad range of media used in the process industry.

The enclosure made of a high-grade aluminium alloy with which the pressure switch can withstand the harsh operating conditions of the process industry.

High static pressure with diaphragm sealed sensor elements enable to meet a variety of applications in oil, gas, power, steel and petrochemical industries.

The model PS-601, 602 has a high switch point repeatability of ±1%, which enables reliable switching. The switch point can be specified on site with external adjustment option. Adjustable switch differential enable to realise flexible on/off controls, this wide setting range is often needed for the on/off control mode of cyclic applications.

Specifications

Basic information	
Case type	Weatherproof external switch point adjustment
Case material	Die cast aluminium epoxy powder coated enclosure with ABS plastic cover
Environment sealing	EPDM

Sensor element	
Type	Diaphragm element
Wetted parts	SS 316L Diaphragm with SS 316 Housing
Environment sealing	EPDM

Output signal	
Number of switch point	One
Setting ranges	→ See table "Setting range" External with lock
Switching differential	■ 601 - Fixed differential ■ 602 - Narrowband adjustable differential
Setpoint repeatability	■ ± 1% of FSR (standard) ■ ± 0.5% of FSR (optional) for range code B032 and B033
Scale accuracy	±5% of FSR
Switching function	■ 1 x SPDT (single pole double throw) ■ 2 x SPDT (single pole double throw), for DPDT action Synchronising error within 2% of FSR
Contact version	→ See table "Contact versions"

Electrical connection	
Number of Entries	■ 1 x left side ■ 1 x left side and 1 x top side
Conduit type	■ 1/2" NPT(F) per ASME B1.20.1 ■ 7 pin plug for 1 × left side entry ■ 3/4" NPT(F) per ASME B1.20.1 through mild steel adaptor ■ M20 × 1.5 (F) per ISO 724 through mild steel adaptor

Process connection	
Type	Lower mount
Size	■ 1/4" NPT(F) Per ASME B1.20.1 ■ 1/2" NPT(F) Per ASME B1.20.1 Other sizes through adaptor → see datasheet AC 10.82
Material	SS 316

Mounting	
Type	■ Direct ■ Panel ■ Pipe-2" ■ Wall
Material	■ SS 304 for panel mounting ■ SS 316 for pipe-2", wall mounting ■ Mild steel epoxy coated for pipe-2", wall mounting

Operating condition	
Ambient temperature range	-10°C ... +60°C [14 ... 140°F]
Medium temperature range	-20…+170°C [-4….338°F]
Storage temperature range	-10°C ... +60°C [14 ... 140°F]
Pressure safety with blow out disc	Yes – standard
Ingress protection	IP66 per IS/IEC 60529
Weight	Approx. 600 grams

Setting range

Code	Range (1), (3)	Maximum working pressure (4)	Switching differential for contact versions (2)			
			601 - Fixed within		602 - Narrowband adjustable	
			1 × SPDT	2 × SPDT	1 × SPDT	2 × SPDT
Unit: bar or Kg/Cm²						
B026/K107	0.2 ... 1.6	60	0.16	0.24	-	-
B030/K093	0.4 ... 4	60	0.4	0.6	-	-
B032/K102	0.7 ... 7	60	0.7	1.05	1.05…2.10	1.4…2.45
B033/K095	1 ... 10	60	1	1.5	1.5...3.0	2.0...3.5
B035/K096	1.6 ... 16	60	1.6	2.4	-	-

(1) In the absence of customer specification, the switch point will be preset on falling pressure to the mid point of the range [I.e. 50% of span + minimum range value]

(2) The values indicate the maximum achievable limits of switch differential. The above mentioned differentials are calculated at midpoint of range, the differentials will vary with range setting and operating conditions

(3) Set and reset point of the switch should not exceed the upper and lower range limits.

(4) Maximum working pressure that the sensor element can withstand without suffering any permanent damage. The instrument might have to be calibrated afterwards.

Contact version

Switching differential	Type	Electrical rating AC				Electrical rating DC								
		Resistive load		Inductive load		Resistive load						Inductive load		
		125V	250V	125V	250V	24V	30V	110V	125V	220V	250V	30V	125V	250V
601	General purpose silver contact	15A	15A	4A	4A	8A	-	0.5A	-	0.25A	-	-	-	-
602		15A	15A	10A	10A	-	10A	-	0.6A	-	0.3A	10A	0.6A	0.3A

Certificates (option)

- 2.2 test report per EN 10204
- 3.1 calibration certificate per EN 10204
- 3.1 material restamping certificate per EN 10204

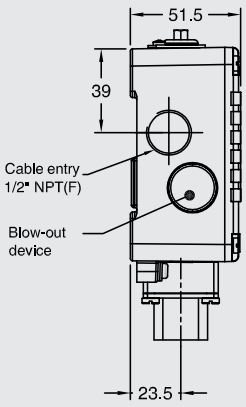
Accessories

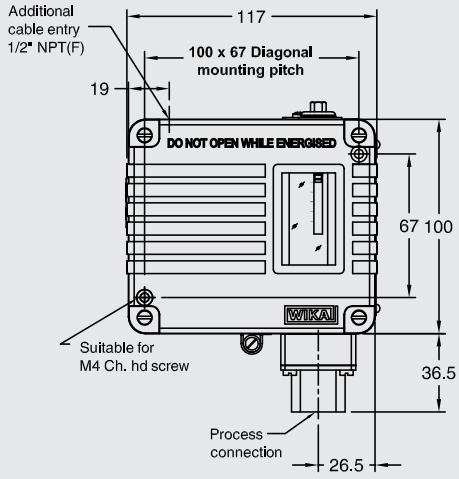
See data sheet AC 10.82

Dimensions in mm

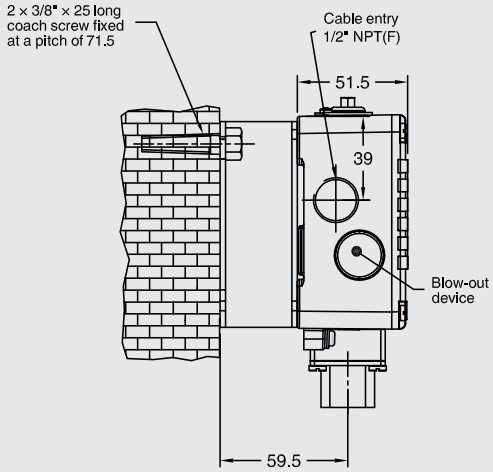
Model PS-601

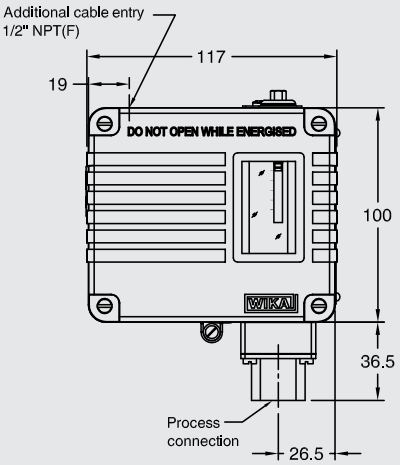
Panel Mounting



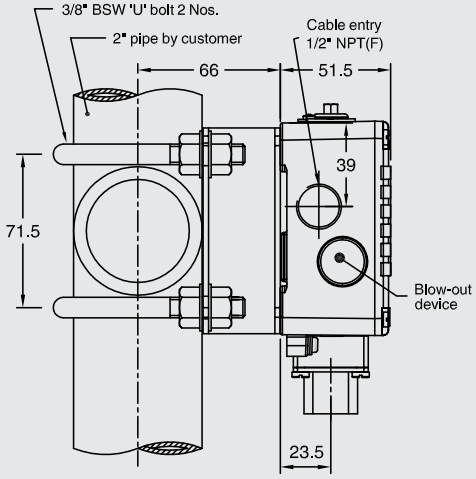


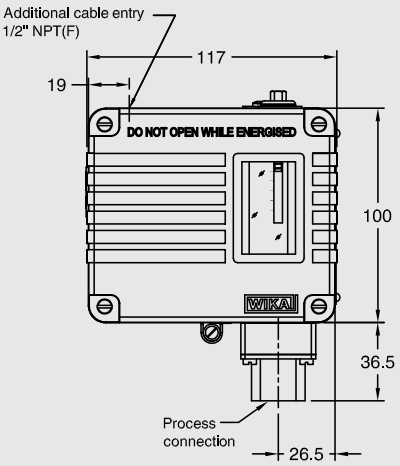
Wall Mounting





2" Pipe Mounting

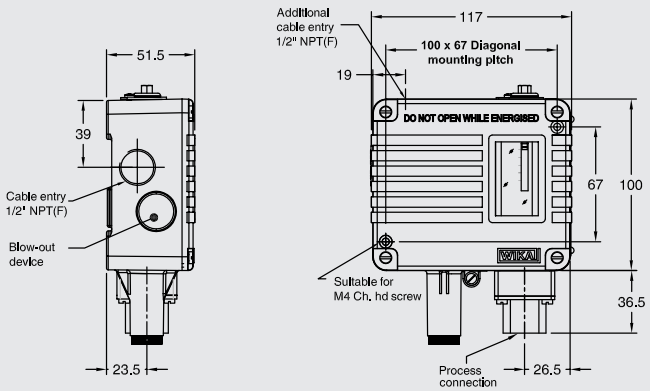




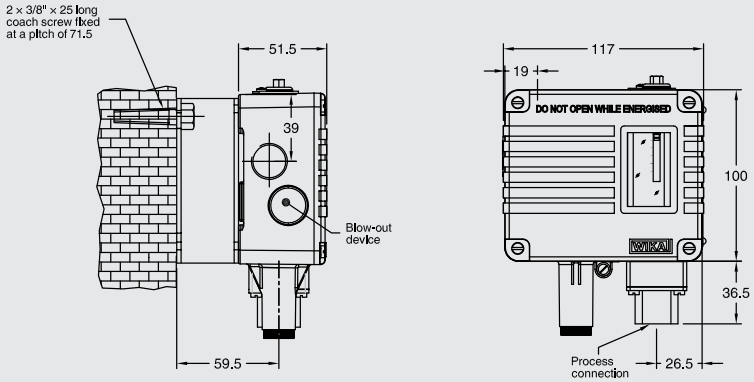
Dimensions in mm

Model PS-602

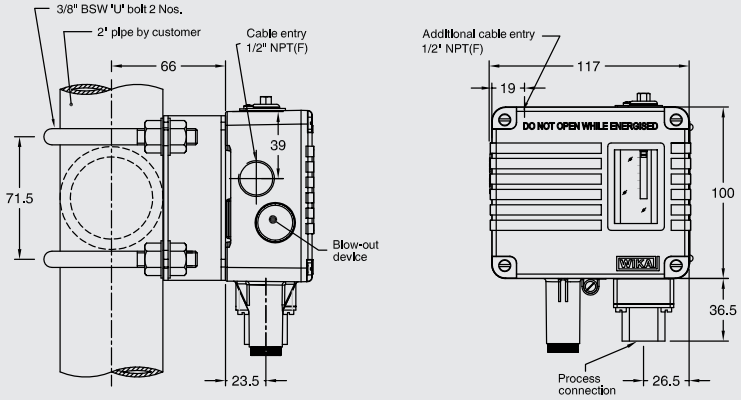
Panel Mounting



Wall Mounting



2" Pipe Mounting



Ordering information

Model / Switching differential / Setting Range / Switching direction / Switch point / Switching function / Electrical connection / Process connection / Mounting

Switzer Process Instruments Pvt. Ltd.
128 SIDCO North Phase
Ambattur Industrial Estate, Chennai 600 098
Tel. +91 44 2625 2017 / 2018 / 9840919318
switch.sales@wika.com
www.wika.co.in