Pressure switch
For process applications
Model GH-901, 902, 903 with 0.5% repeatability

Applications

- Pumps for process applications (e.g. water treatment, water supply and distribution)
- Industrial hydraulics (e.g. pressure control, oil pressure monitoring and overpressure protection in process lines)
- Discharge control for automatic sprinkler systems
- Compressor controls in pneumatic applications

Special features

- Switch differential adjustable within a wide range of up to 60% of the setting range to realise flexible on/off controls
- Switch point repeatability of ≤ 0.5 % for reliable switching
- Compact dimensions enables panel mounting

Pressure switch, model GH-901, 902, 903

Description

The model GH-901, 902, 903 mechanical pressure switch has been designed for control and monitoring applications. The sensing element is a hydraulically formed seamless Phosphor Bronze or Stainless Steel Bellows mounted external to the weather proof switch housing suitable for broad range of media in process industry.

The model GH-901, 902, 903 has a high switch point repeatability of ≤ 0.5 %, which enables reliable switching.

Adjustable switch differential to a wide range of up to 60 % of the setting range to realise flexible on/off controls. This wide setting range is often needed for the on/off control mode of cyclic applications. The switch point can be specified on site.

Specifications

Version in accordance with standard / basic information					
Standard	BS 6134				
Case	Die cast aluminium base (Epoxy powder coated) with Glass filled nylon cover				
Ingress protection	IP66 IS/IEC 60529				
Switching differential	■ GH-901: Fixed ■ GH-902: Narrowband adjustable ■ GH-903: Wideband adjustable				
Measuring element	■ Phosphor bronze bellows with brass connector ■ 316L SS bellows with 316 SS connector				
Switching function	■ 1 × SPDT (single pole double throw) ■ 1 × DPDT (double pole double throw) 1 or 2 micro switches. The DPDT function is realised with simultaneously triggering SPDT mirco switches within 2% of the setting range.				
Switch point repeatability	± 0.5% of span				
Scale accuracy	± 5% of FSR				
Process connection	■ 1/4" NPTF ■ Other size through adaptors				
Electrical connection	■ 1/2" NPTF with Nylon cable gland suitable for 8 mm OD cable ■ 1/2" NPTF with Mettallic cable gland suitable for 8 mm OD cable ■ 7 PIN connector				
Permissible temperature range	■ Ambient: –10°C ... +60°C [14 ... 140°F] ■ Medium: 110°C [230°F] for phosphor bronze bellows 170°C [338°F] for SS bellows ■ Storage: –10°C ... +60°C [14 ... 140°F]				
Mounting type and material	**Type**	Direct	Wall	Panel	2" Pipe
	Material	–	Nylon	Nylon	■ Mild steel epoxy powder coated ■ 316 SS
Environment sealing	■ Buna-N ■ EPDM				
Weight	■ 600 Gms. approx.				
Option	■ Single line tag plate of size 0.5 mm thick; 15 mm × 70 mm				

Electrical rating

AC rating				DC rating					
Resistive load		Inductive load		Resistive load			Inductive load		
125V	250V	125V	250V	30V	125V	250V	30V	125V	250V
15A	15A	10A	10A	10A	0.6A	0.3A	10A	0.6A	0.3A

Setting range

Setting range	Maximum Working pressure	Fixed switch differential		Narrowband adjustable differential		Wideband adjustable differential	
		SPDT	DPDT	SPDT	DPDT	SPDT	DPDT
Unit: bar / Kg/Cm^2							
Measuring element – Phosphor bronze bellows							
–1 ... 0	4	≤ 0.13	≤ 0.16	0.07 ... 0.32	0.16 ... 0.32	–	–
0.2 ... 1.6	9	≤ 0.13	≤ 0.16	0.10 ... 0.32	0.16 ... 0.32	0.16 ... 0.96	0.24 ... 0.96
0.4 ... 4	9	≤ 0.32	≤ 0.40	0.24 ... 0.80	0.40 ... 0.80	0.40 ... 2.40	0.60 ... 2.40
0.7 ... 7	18	≤ 0.56	≤ 0.70	0.42 ... 1.40	0.70 ... 1.40	0.70 ... 4.20	1.05 ... 4.20
1 ... 10	18	≤ 0.80	≤ 1.00	0.60 ... 2.00	1.00 ... 2.00	1.00 ... 6.00	1.50 ... 6.00
1.6 ... 16	25	≤ 1.28	≤ 1.60	0.96 ... 3.20	1.60 ... 3.20	1.60 ... 9.60	2.40 ... 9.60
Measuring element – 316L SS bellows							
–1 ... 0	4	≤ 0.13	≤ 0.16	0.10 ... 0.32	0.16 ... 0.32	–	–
0.2 ... 1.6	9	≤ 0.13	≤ 0.16	0.10 ... 0.32	0.16 ... 0.32	0.16 ... 0.96	0.24 ... 0.96
0.4 ... 4	9	≤ 0.32	≤ 0.40	0.24 ... 0.80	0.40 ... 0.80	0.40 ... 2.40	0.60 ... 2.40
0.7 ... 7	18	≤ 0.56	≤ 0.70	0.42 ... 1.40	0.70 ... 1.40	0.70 ... 4.20	1.05 ... 4.20
1 ... 10	18	≤ 0.80	≤ 1.00	0.60 ... 2.00	1.00 ... 2.00	1.00 ... 6.00	1.50 ... 6.00
1.6 ... 16	25	≤ 1.28	≤ 1.60	0.96 ... 3.20	1.60 ... 3.20	1.60 ... 9.60	2.40 ... 9.60
4 ... 25	36	≤ 2.00	≤ 2.50	1.50 ... 5.00	2.50 ... 5.00	2.50 ... 15.00	3.75 ... 15.0
8 ... 32	36	≤ 2.56	≤ 3.20	1.92 ... 6.40	3.20 ... 6.40	3.20 ... 19.20	4.80 ... 19.20
7 ... 35	52	≤ 2.80	≤ 3.50	2.10 ... 7.00	3.50 ... 7.00	3.50 ... 21.00	5.25 ... 21.00

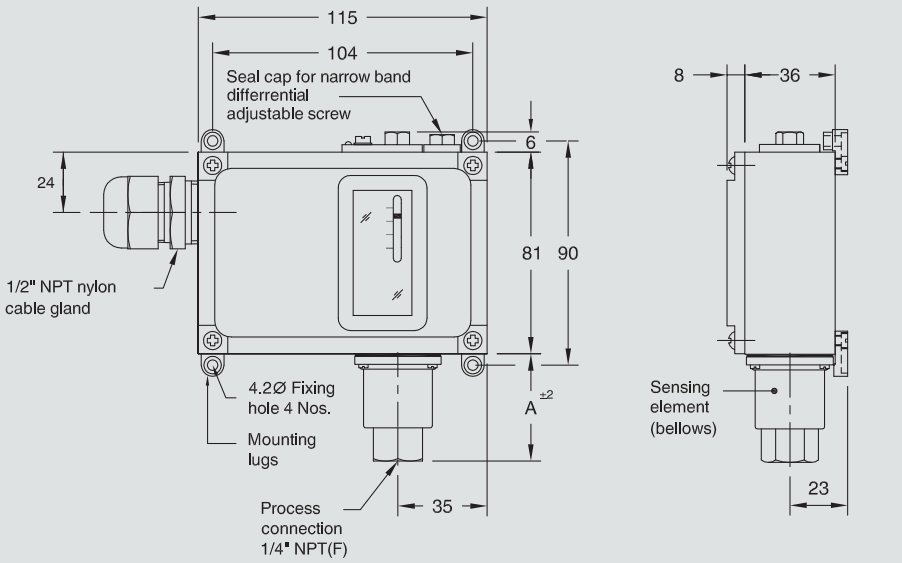
1. Select working range of the instrument such that the set pressure lies between 35% to 70% of span.
2. On and off settings should not exceed the upper or lower range value.

Certificates (option)	
Production Certificates	■ 2.2 test report per EN 10204 ■ 3.1 inspection certificate per EN 10204

Dimensions in mm

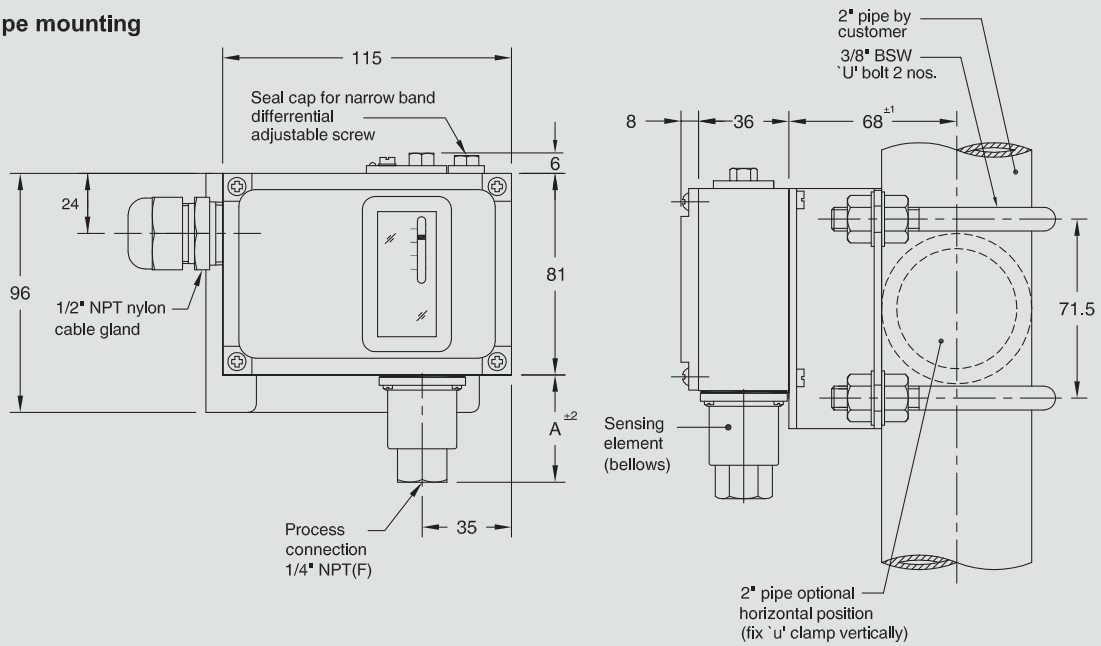
Model : Fixed -Diffl. / Narrow band (or) Wide band - Differential adjustable type

Wall / panel mounting



► Dim. 'A' varies from 42 to 75 depending on range

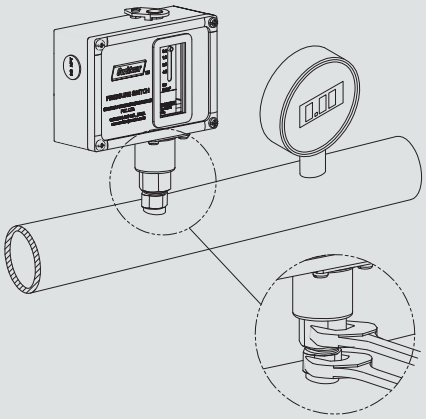
2" pipe mounting



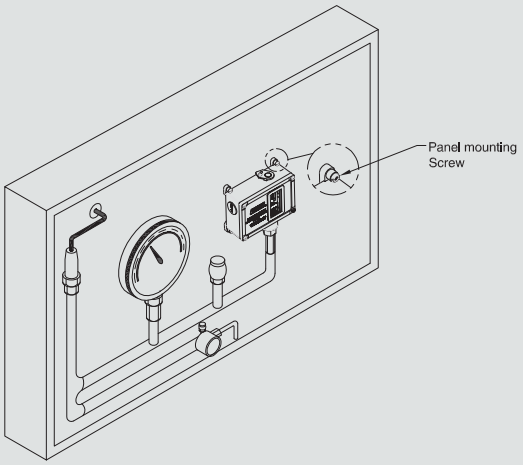
► Dim. 'A' varies from 42 to 75 depending on range

Mounting

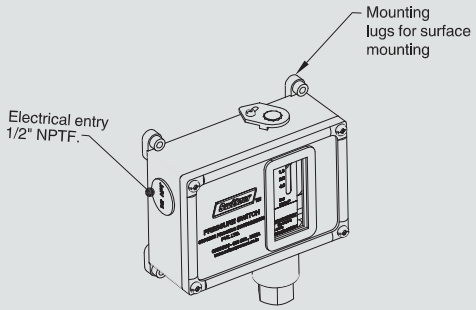
Direct mounting



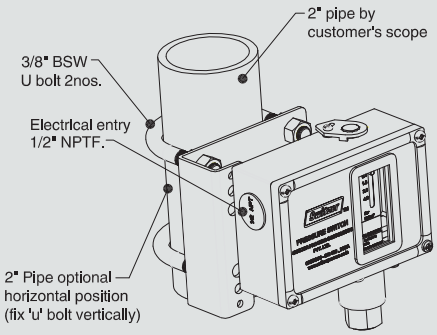
Panel mounting



Wall mounting



Pipe mounting



Ordering information

Model / Switching differential / measuring element / Setting range / Switching function / Electrical connection / Mounting type and material / Environment sealing / Option

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