



Mechanical pressure switch



Huba Control

Relative and differential pressure switch

Type 630

Differential pressure, vacuum and overpressure switches of type series 630 are suitable for monitoring neutral and slightly aggressive liquids and gases. Switching element isolated from medium. Ideal for use as flow monitor in sanitary piping/ heating installations or for level monitoring in general in process technology applications. Extremely rugged construction with high functionality due to 10/20 bar safety margin in both pressure chambers.

Pressure range
6 ... 5500 mbar

- + High overpressure safety margin at both connections (P1 + P2) up to 10/20 bar
- + Functionally simple, rugged mechanics with high operating reliability
- + Also for slightly aggressive liquids and gases
- + Specially economical version with switching points adjusted in the factory
- + Repeatability up to $< \pm 0.4$ mbar

Technical overview

Pressure range

Relative und differential	6 ... 5500 mbar
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Operating conditions

Medium	Liquids and neutral gases	
Temperature	NBR-based	0 ... +80 °C
	FPM	-10 ... +80 °C
	EPDM	-10 ... +80 °C
	Q (Silicone)	-40 ... +80 °C
	Ambient	+65 °C
	Storage	-40 ... +80 °C
Tolerable overload and max. tolerable system pressure (P1 > P2)	≤ 200 mbar	10 bar
Rupture pressure	> 200 mbar	20 bar
Lowest turn-on pressure		30 bar
Smallest switching difference		≥ 6 mbar
		≥ 3 mbar

Materials in contact with the medium

Diaphragm	NBR based	
	EPDM	
	FPM	
	Silicone	
Case	Anodized aluminium	
	Brass	
	Brass chemically nickel plated	
Other components	X14CrMoS17	1.4104
	X5CrNi18-10	1.4301
	X10CrNi18-8	1.4310
	Steel category A2 for screws	
	Polyacetate-C, Polyamide	

Contact material / Loading

Nominal voltage, type of current		250 VAC
Nominal current for resistive loading		1 A
Nominal current for motor loading		0.5 A
Contact system		Changeover contact
Service life	Mechanically	10 ⁶ switching cycles ¹⁾

Protection standard

Without cover	IP 00
With cover (PG11) ²⁾	IP 54
With cover (PG9) ³⁾	IP 65

Repeatability

±5% of the switching point	with diaphragm NBR-based / silicone	minimum ±0.4 mbar
±10% of the switching point	with diaphragm FPM / EPDM	minimum ±0.8 mbar

Electrical connections

Screw terminals (Option)	
Tab connectors (AMP) 6.3 mm	
Cable gland PG9 / PG11	with cover

Pressure connections

Thread		G ½
Straight screwed connection	Zinc plated steel with NBR seal for pipe (Ø 6 mm)	G ½
Screwed Socket	CuZn nickel plated for tube (Ø 6 mm)	G ½

Mounting instructions

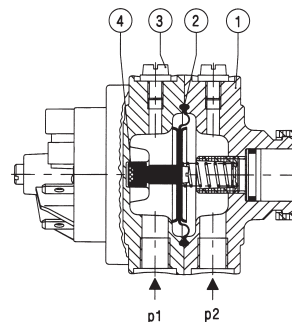
For switching points calibrated in the factory	Indicate installation arrangement	
In case of liquid media		Connections down
Remark:	By changing the mounting position the switching points also change. The adjustment ranges are in relation with the mounting position.	

Weight

With aluminium base	~ 380 g
With base brass / nickel-plated brass	~ 1000 g

Packaging

Single packaging in cardboard boxes



Legend to cross-section drawing

- 1 Pressure case
- 2 Diaphragm
- 3 Vent
- 4 Permanent magnet
- P1 Higher pressure / lower vacuum
- P2 Lower pressure / higher vacuum

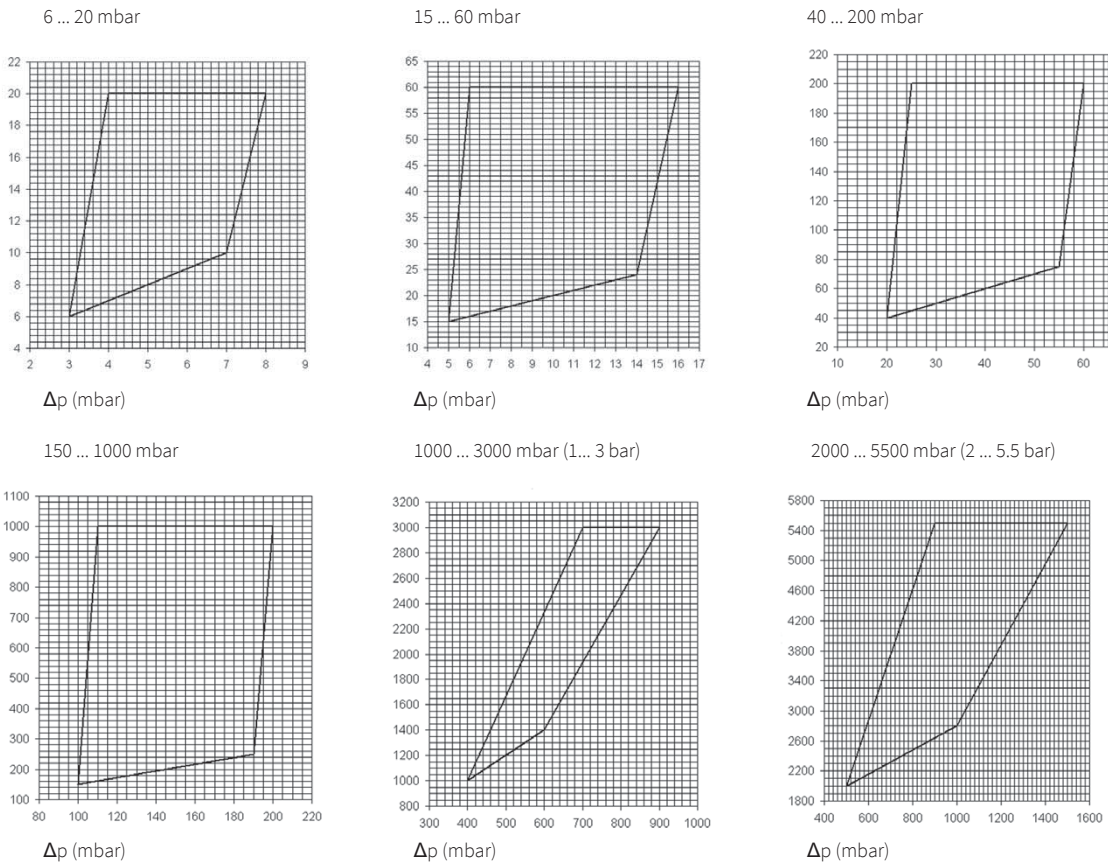
¹⁾ Admissible switching difference has to be considered

²⁾ For installation arrangement electrical connections upward

³⁾ With O-Ring

		1	2	3	4	5	6	7
Order code selection table		630. X X X X X X X						
Pressure range ¹⁾	6 ... 20 mbar	9	1					
	15 ... 60 mbar	9	2					
	40 ... 200 mbar	9	3					
	150 ... 1000 mbar	9	4					
	1 ... 3 bar	9	5					
	2 ... 5.5 bar	9	6					
Contact material	AgCdO			0				
	Anodized aluminium, black				0			
Pressure case	Brass				1			
	Nickelplated brass				2			
	Anodized aluminium, black				3			
	Brass				4			
	Nickel plated brass				5			
	Anodized aluminium, black				6			
	Brass				7			
	Nickel-plated brass				8			
Diaphragm material	NBR						0	
	FPM						1	
	EPDM						2	
	Q (silicone)						3	
Cover PG9 on side / Bracket	Without cover							0
	with bracket type A							1
	with bracket type B							2
	With cover (plastic) (Fig.1) (PG11)							3
	with bracket type A							4
	with bracket type B							5
	With spec. cover (Fig.2) (PG9)							6
	with bracket type A							7
with bracket type B							8	
Switching points (optional)	Two factory set switching points							W
	One factory set switching point high							R
	One factory set switching point low							U

Setting ranges



¹⁾ Other pressure range on request

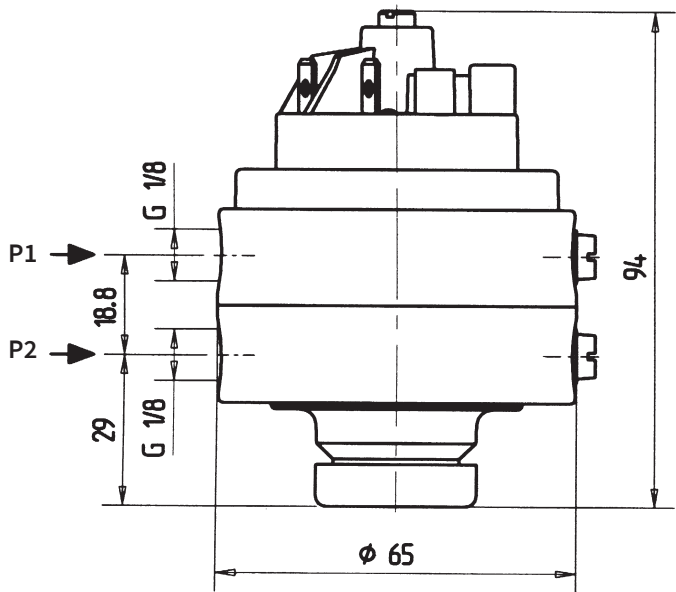
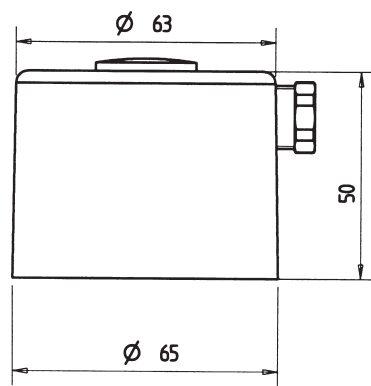
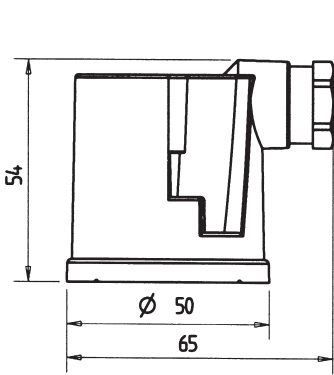


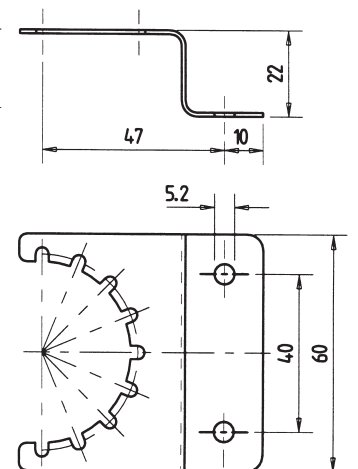
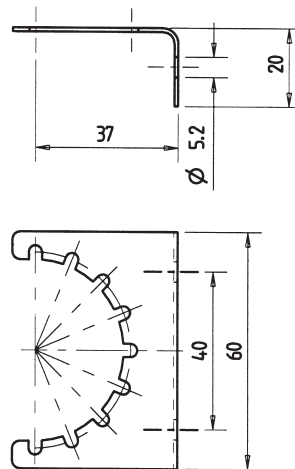
Fig. 1

Fig. 2



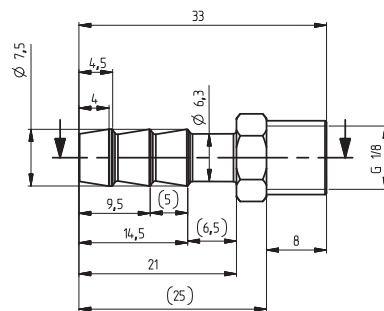
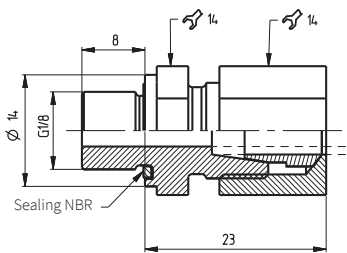
Type A

Type B



Straight screwed connector G 1/8

Screwed Socket G 1/8



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