Huba Control

FOR FINE PRESSURE AND FLOW MEASUREMENT

Relative and differential pressure switch type 630

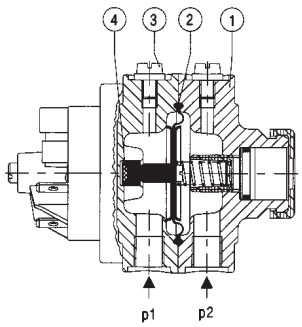
Pressure range
6 ... 5500 mbar

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 to10/20 bar safety margin in both pressure chambres.

- High overpressure safety margin at both connections (P1 + P2) up to 10/20 bar
- Funcionally 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 < ± 0.4 mbar

Technical overview

Pressure range		
Relative und differential		6 ... 5500 mbar
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
	> 200 mbar	20 bar
Rupture pressure		30 bar
Lowest turn-on pressure		≥ 6 mbar
Smallest switching difference		≥ 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 ⅛
Straight screwed connection	Zinc plated steel with NBR seal for pipe (Ø 6 mm)	G ⅛
Screwed Socket	CuZn nickel plated for tube (Ø 6 mm)	G ⅛
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

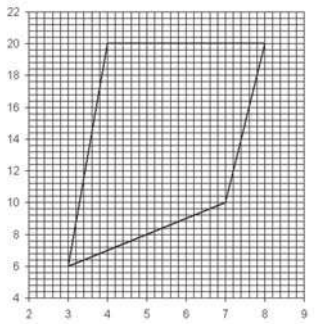
[1] Admissible switching difference has to be concidered [2] For installation arrangement electrical connections upward [3] With O-Ring

Order code selection table

			1	2	3	4	5	6	7
	630.		X	X	X	X	X	X	X
Presssure 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				
Pressure case	Anodized aluminium, black					0			
	Brass					1			
	Nickelplated brass					2			
	Anodized aluminium, black	with straight screwed connection G1/8 for pipe ø 6 mm				3			
	Brass	with straight screwed connection G1/8 for pipe ø 6 mm				4			
	Nickel plated brass	with straight screwed connection G1/8 for pipe ø 6 mm				5			
	Anodized aluminium, black	with screwed socket G⅛ for tube ø 6 mm				6			
	Brass	with screwed socket G⅛ for tube ø 6 mm				7			
	Nickel-plated brass	with screwed socket G⅛ for tube ø 6 mm				8			
Diaphragm material	NBR						0		
	FPM						1		
	EPDM						2		
	Q (silicone)						3		
Cover PG9 on side / Bracket	Without cover	without bracket						0	
		with bracket type A						1	
		with bracket type B						2	
	With cover (plastic) (Fig.1) (PG11)	without bracket						3	
		with bracket type A						4	
		with bracket type B						5	
	With spec. cover (Fig.2) (PG9)	without bracket						6	
		with bracket type A						7	
		with bracket type B						8	
Switching points (optional)	Two factory set switching points	(please specify on order e.g.: W10/8mbar)							W
	One factory set switching point high	(please specify on order e.g.: R25mbar)							R
	One factory set switching point low	(please specify on order e.g.: U100mbar)							U

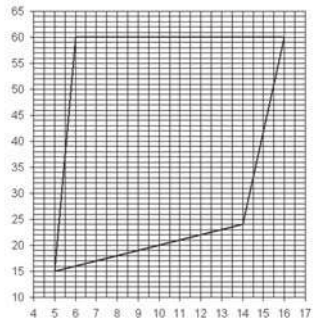
Setting ranges

6 ... 20 mbar



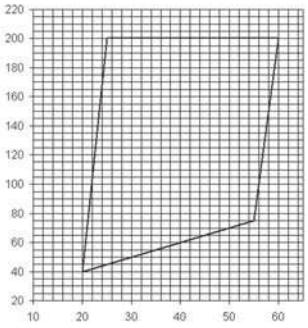
Δp (mbar)

15 ... 60 mbar



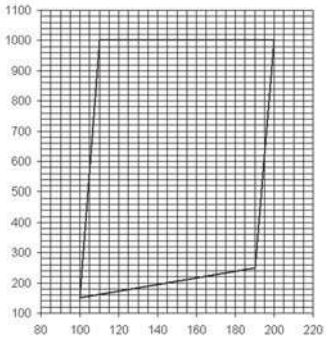
Δp (mbar)

40 ... 200 mbar



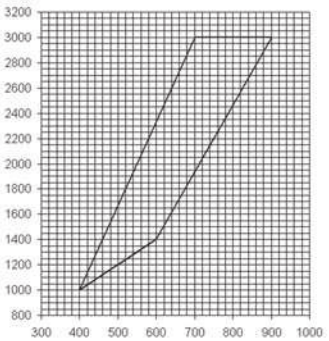
Δp (mbar)

150 ... 1000 mbar



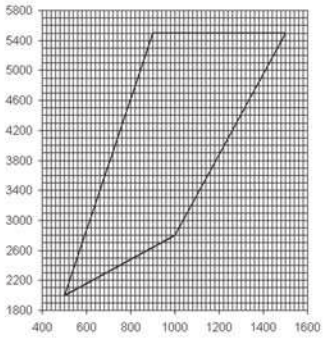
Δp (mbar)

1000 ... 3000 mbar (1... 3 bar)



Δp (mbar)

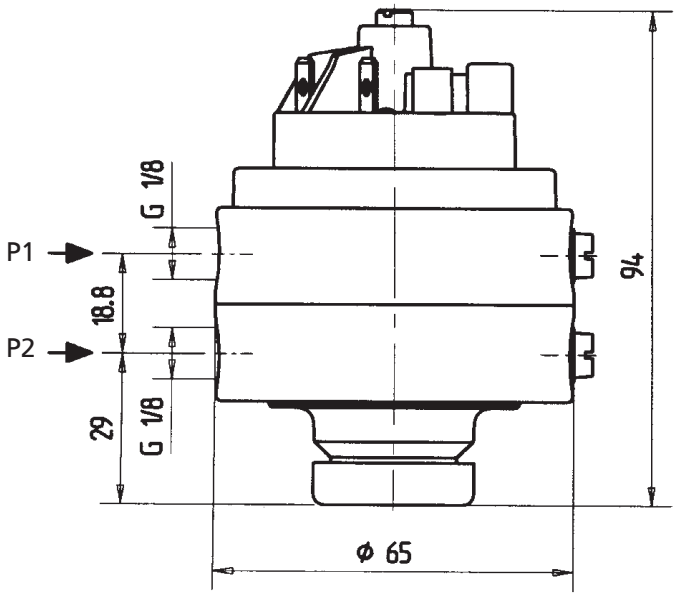
2000 ... 5500 mbar (2 ... 5.5 bar)



Δp (mbar)

[1] Other pressure range on request

Dimensions in mm / Electrical connections



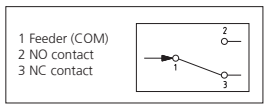


Fig. 1

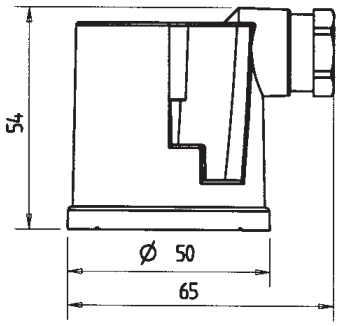
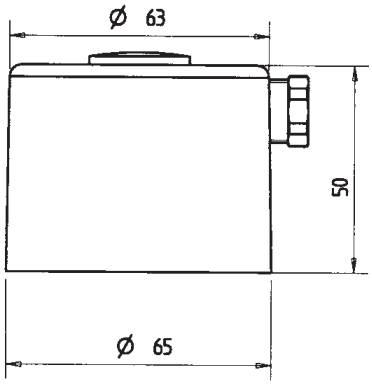
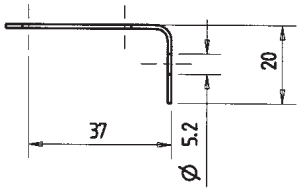
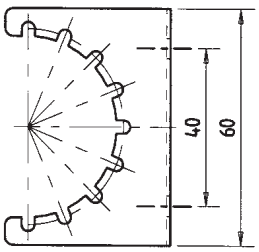


Fig. 2

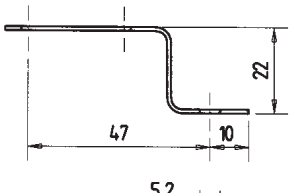


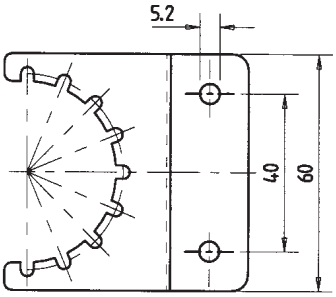
Type A



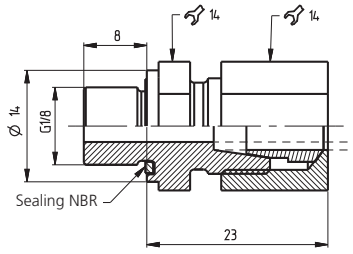


Type B





Straight screwed connector G ⅛



Screwed Socket G ⅛