

Piston Type Pressure Switch

Model: HED8...1X



◆ Maximum working pressure 350 bar

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Features

- Subplate mounting
- Pipe installation
- Vertical stacking systems
- Four pressure rating
- Plug with connection (lamp)

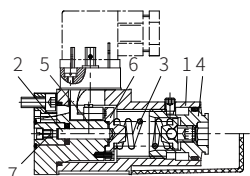
Function description, sectional drawing

The HED8 type hydraulic-electric pressure switch is a piston pressure switch.

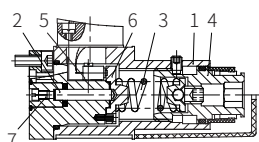
The pressure switch mainly includes the valve body (1), cartridge with spool (2), spring (3), adjusting element (4) and the micro switch (5).

If the monitored pressure is below the set value, the micro switch (5) will start working. The monitored hydraulic oil acts on the spool (2) through the damping hole (7). The spool (2) is supported by the spring seat (6) and acts against the continuously adjustable force of the spring (3). The spring seat (6) transfers the movement of the spool (2) to the micro switch (5) to release the micro switch (5) when the set pressure is reached. In this way, the circuit is switched on or off.

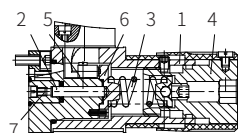
The mechanical structure of the spring seat (6) protects the micro switch (5) from damage when the pressure is reduced suddenly, and also prevents the spring (3) in case of overpressure.



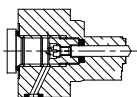
Model HED8OH-1XJ/...K14
Model HED8OH-1XJ/...K14S...



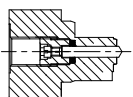
Model HED8OH-1XJ/...K14A...
Model HED8OH-1XJ/...K14AS...



Model HED8OH-1XJ/...K14KW...



Model HED8OP-1XJ/...



Model HED8OA-1XJ/...

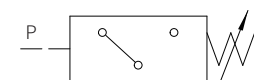
Attention:

In order to extend the working life, the pressure switch should be mounted vibration-proof and protected from hydraulic pressure shocks.

Models and specifications

HED8		1X						*
piston type pressure switch								more information in text
vertical stack systems		=OP						sealing material
subplate mounting		=OA						NBR seals
pipe installation		=OH						FKM seals
10 to 19 series		=1X						(consult for other seals)
10 to 19 series installation and connection size unchanged)								
maximum adjusting pressure 50bar		=5						for pipe installation
maximum adjusting pressure 100bar		=10						inch thread
maximum adjusting pressure 200bar		=20						metric thread
maximum adjusting pressure 350bar		=35						
electrical connection:								
no plug-in connector, with protective cap		=K14						No code= spindle without scale
small plug (lamp)		=Z14						S= spindle without scale, with protective cap
24V lamp (20~35V)		=L24						A= spindle with scale
110V lamp (90~130V)		=L110						AS= spindle with scale and protective cap
220V lamp (180~240V)		=L220						KS= lock rotary knob with scale
								KW= rotary knob with scale

Functional symbols



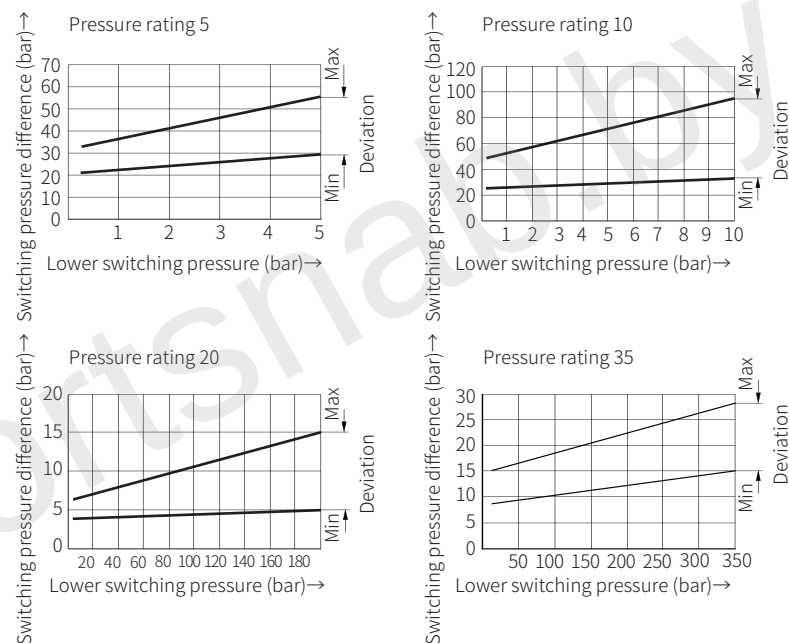
Functional symbol

Technical parameters

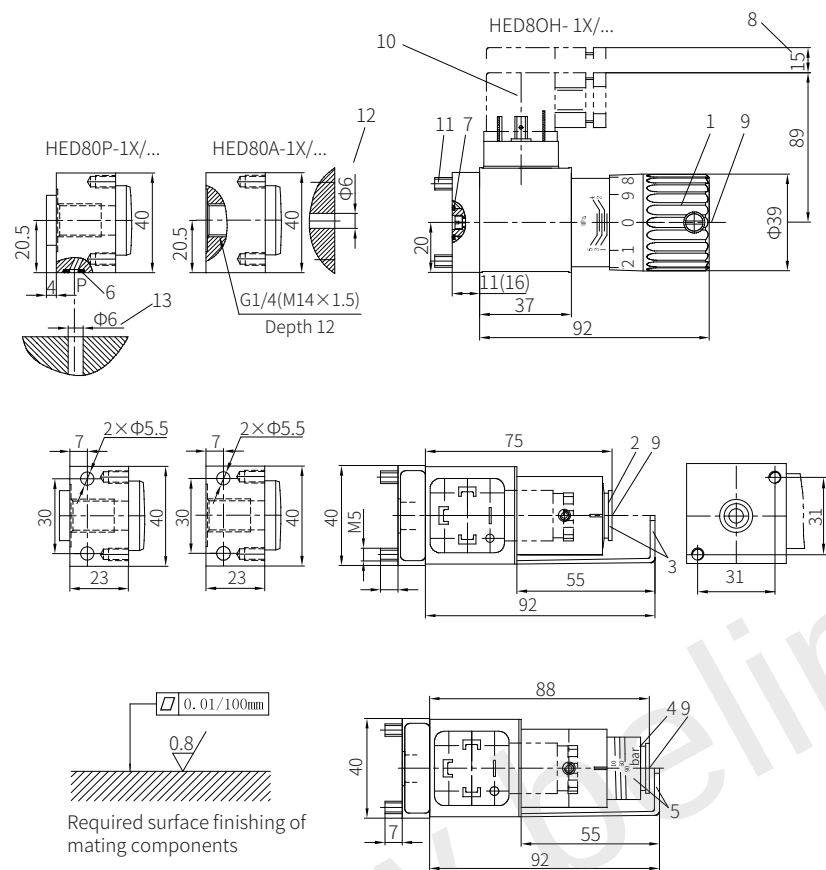
Weight	-pressure switch	kg	0.8
	-subplate for vertical stacking systems	kg	0.8 (size 6, plate height 40.5mm)
			3 (size 6, plate height 120mm)
			2 (size 10)
Hydraulic oil			Mineral oil - suitable for NBR and FKM seal Phosphater- suitable for FKM seal
Hydraulic oil temperature range	°C		-30 to +80 (NBR seals) -20 to +80 (FKM seals)
Viscosity range	mm²/s		2.8 to 500
Cleanliness of oil:			The maximum allowable pollution level of oil is ISO4406 (C) Class 20/18/15
Switching accuracy (repeatability)			< ±1% of setting range
Allowed switching frequency	1/h		4800
Pressure setting range			
Pressure grade (maximum set pressure) bar		Maximum working pressure (bar)	Pressure setting range (bar)
50		350	2~50
100		350	4~100
200		350	5~200
350		500	8~350
Electrical connection		Plug-in connector to DIN 43 650 form A 3... pin +PE	
Maximum connection section area mm²		1.5	
Maximum contact load -AC		250V; 5V	
-DC		50V/ 1A; 125V/0.03A; 250V/0.02A	
Valve protection to DIN 40 050		IP65	
If DC inductive loading , it need to use a spark suppressor to extend the life			

Characteristic curve

(Measured when using HLP46, $\vartheta_{oil} = 40^{\circ}\text{C} \pm 5^{\circ}\text{C}$)

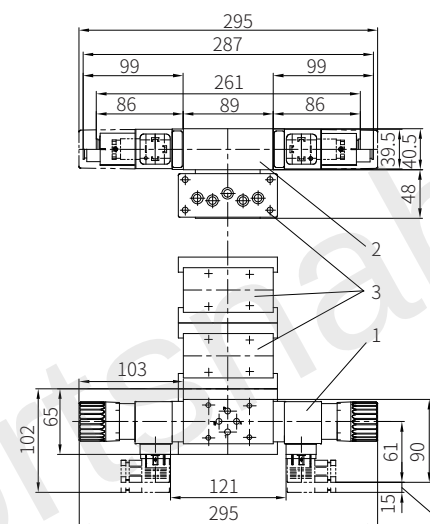


Pressure switch



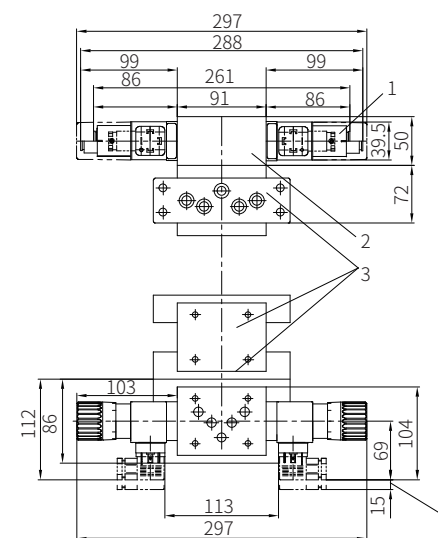
- 1 Regulating element "kW"
 - 2 Regulating element " "
 - 3 Regulating element "s"
 - 4 Regulating element "A"
 - 5 Regulating element "AS"
 - 6 O-ring 5.3x1.8
 - 7 O-ring 10.82x1.78
 - 8 Space required to remove plug
 - 9 Internal hexagon nut AF 10
 - 10 Plug without cable to DIN 43650
 - 11 Valve fixing screws 2ps M5x12 GB/T70.1-10.9
Tightening torque $M_A=8.9\text{Nm}$
 - 12 Maximum diameter of mounting surface of mating parts
(Model HED80H)
 - 13 Maximum diameter of mounting surface of mating parts
(Model HED80P)
- Valve fixing (Model HED80P):
2-M5x50 GB/T70.1-10.9
Tightening torque $M_A=7.8\text{Nm}$

Model HED80H... in vertical stacking size 6



- 1 Pressure switch HED80H is used in stacking assemblies (can be installed by $4 \times 90^\circ$). The mounting option of pressure switch depends on the nearest stacking plate.
- 2 Sandwich plate model HSZ06 is used for pressure switch as stacking element
- 3 Stacking elements
- 4 Space required to remove plug

Model HED80H... in vertical stacking size 10

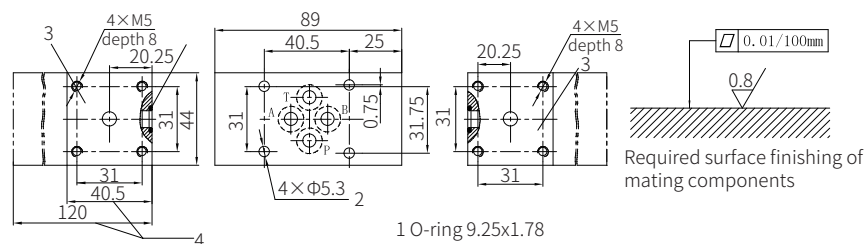


- 1 Pressure switch HED80H is used in stacking assemblies (can be installed by $4 \times 90^\circ$). The mounting option of pressure switch depends on the nearest stacking plate.
- 2 Sandwich plate model HSZ10 is used for pressure switch as stacking element
- 3 Stacking elements
- 4 Space required to remove plug

Component size

Size unit: mm

Model HED8 in sandwich version (350 bar)



- 1 O-ring 9.25x1.78
 - 2 Through holes for valve installation
 - 3 Valve mounting surface
 - 4 Plate height 40.5mm or 120mm, optional
- Stacking plate must be ordered separately

Models and specifications

Sandwich plate size 6: symbols, type number (type number in () for 120mm plate height)
(①= valve side; ②= subplate side)

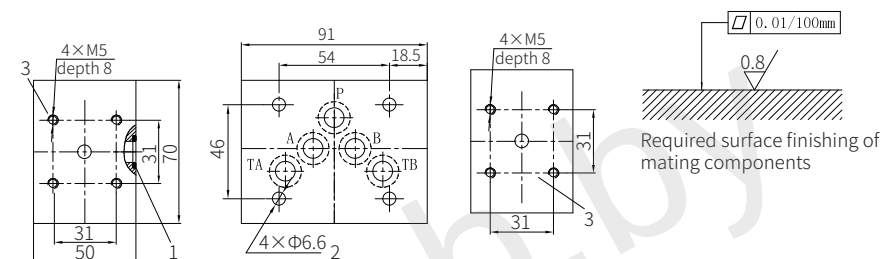
Pressure switch effective in channel...

Type number	608 (627)	609 (628)	601 (620)
Type number	602 (621)	603 (622)	604 (625)
Type number	605 (624)	606 (625)	607 (626)
Type number	610 (629)	611 (630)	612 (631)

Component size

Size unit: mm

Model HED8 in sandwich version (350 bar)

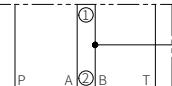
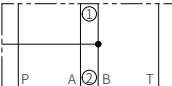
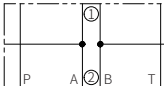
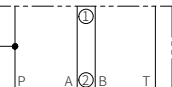
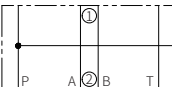
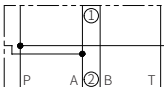
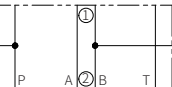
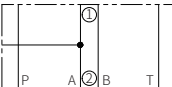
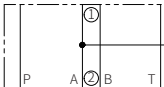
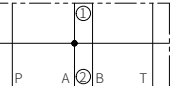
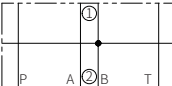
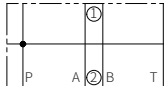


- 1 O-ring 12x2
 - 2 Through holes for valve installation
 - 3 Valve mounting surface
- Stacking plate must be ordered separately

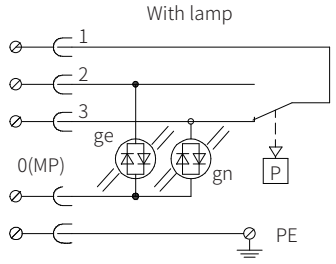
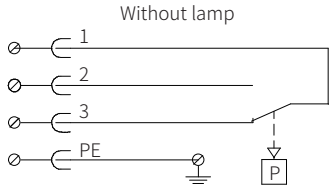
Models and specifications

Sandwich plate size 10: symbols, type number (①= valve side; ②= subplate side)

Pressure switch effective in channel...

			
Type number	601	602	603
			
Type number	604	605	606
			
Type number	607	608	609
			
Type number	610	611	612

Terminal connection



Circuit example

