

Piston Type Pressure Switch

Model: HED4...1X



◆ Maximum working pressure 350 bar

Contents

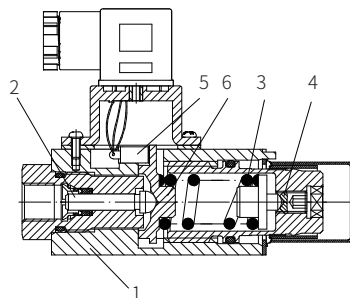
Function description, sectional drawing	02
Models and specifications	02
Functional symbols and terminal connection	03
Technical parameters	03
Characteristic curve	04
Component size	05-06

Features

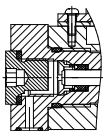
- Piston type, sensitive and reliable action
- Subplate mounting
- Pipe installation

Function description, sectional drawing

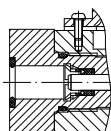
The HED4 type hydraulic-electric pressure switch is a piston pressure switch. It consists of the valve body (1), cartridge with piston (2), spring (3), adjusting element (4) and micro switch (5). The detected pressure acts on the piston (2), then the piston (2) is supported by the spring seat (6) and acts against the continuously adjustable force of the spring (3). The spring seat (6) transfers the movement of the piston (2) to the micro switch (5) to make the circuit switched on or off according to the design requirements.



Model HED4OA-1XJ/



Model HED4OP-1XJ/



Model HED4OH-1XJ/

Models and specifications

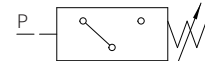
HED4	-1X	Z14	*
piston type pressure switch			
subplate mounting	=OP		
piping installation	=OA		
vertical stacking systems	=OH		
10 to 19 series	=1X		
(10 to 19 series installation and connection size unchanged)			
maximum adjusting pressure 50bar	=50		
maximum adjusting pressure 100bar	=100		
maximum adjusting pressure 350bar	=350		
		L24=	24V lamp (25~35V)
		L110=	110V lamp (90~130V)
		L220=	220V lamp (180~240V)
		Z14=	small plug
		No code=	sealing material
		V=	NBR seals
			FKM seals
			(consult for other seals)
		S=	protective cap

more information in text

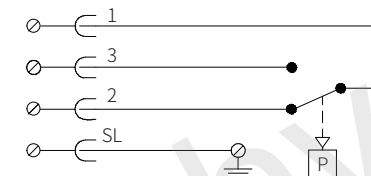
sealing material
No code= NBR seals
V= FKM seals
(consult for other seals)

protective cap

Functional symbols and terminal connection



Functional symbol



terminal connection -Z14 small plug

Technical parameters

Working medium		Mineral oil - suitable for NBR and FKM seal			
		Phosphate ester - suitable for FKM seal			
Working medium temperature range		°C	20 to +80 (FKM seal)		
		°C	30 to +80 (NBR seal)		
Viscosity range		mm²/s	2.8 to 500		
Cleanliness of oil:		The maximum allowable pollution level of oil is NAS16389 and ISO4406 Class 20/18/15			
Switching accuracy (repeatability)		%	<± 1% of setting range		
Allowed switching frequency		times/per minute	120		
Electrical connection		Plug-in connector to DIN 43 650 form A, 3... Pin +PE			
Rated pressure (bar)	Maximum setting pressure (bar)	Recover pressure (bar)		Action pressure (bar)	
		min	max	min	max
50	50	2	46	4	50
100	100	3	89	8	100
350	350	6	322	20	350
Maximum connection cross-sectional area		mm²/s	1.5		
Valve protection to DIN43650		IP 65			
If DC inductive loading, it need to use a spark suppressor to extend the life.					
Contact load	AC	250V/5A;			
	DC	50V/1A, 250V/0.2A			
Weight	Pressure switch	0.6			
	Stacking plate	0.8 (size 6)			
		1.9 (size 10)			

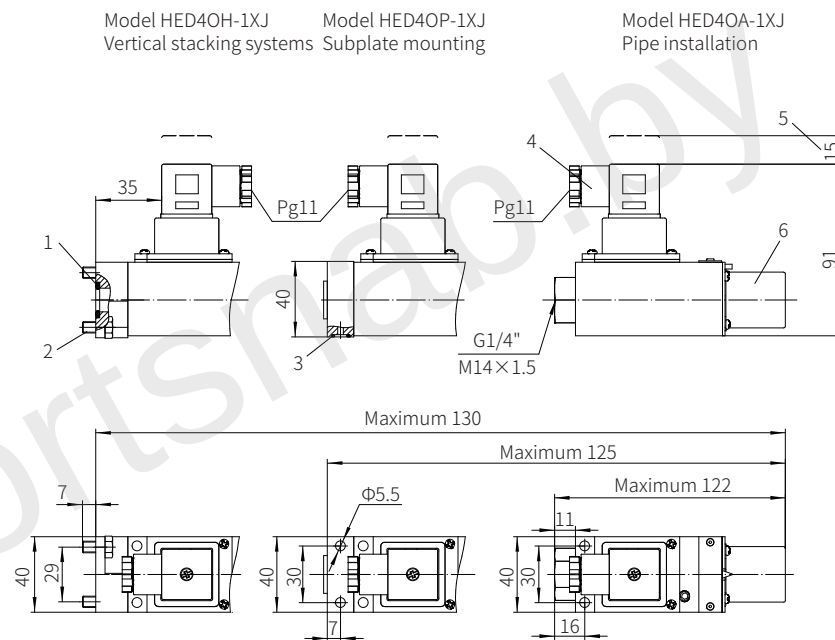
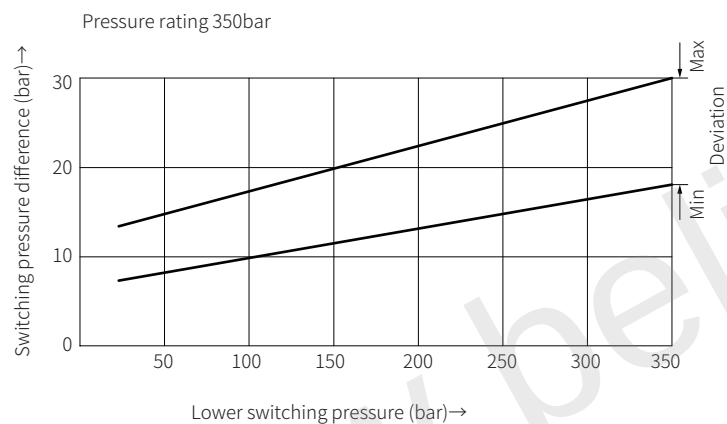
Component size

Size unit: mm

The figure contains two line graphs. The left graph is titled 'Pressure rating 50bar'. The y-axis is labeled 'Switching pressure difference (bar) →' and ranges from 0 to 10. The x-axis is labeled 'Lower switching pressure (bar) →' and ranges from 0 to 50. Two lines are plotted: an upper line labeled 'Max Deviation' and a lower line labeled 'Min Deviation'. Both lines show a positive linear trend. The right graph is titled 'Pressure rating 100bar'. The y-axis is labeled 'Switching pressure difference (bar) ↑' and ranges from 0 to 15. The x-axis is labeled 'Lower switching pressure (bar) →' and ranges from 0 to 100. Two lines are plotted: an upper line labeled 'Max Deviation' and a lower line labeled 'Min Deviation'. Both lines show a positive linear trend.

Lower switching pressure (bar)	Max Deviation (bar)	Min Deviation (bar)
0	~2.5	~0.5
10	~3.5	~1.5
20	~4.5	~2.5
30	~5.5	~3.5
40	~6.5	~4.5
50	~7.5	~5.5

Lower switching pressure (bar)	Max Deviation (bar)	Min Deviation (bar)
0	~6.0	~0.5
20	~7.5	~1.5
40	~9.0	~3.0
60	~10.5	~4.5
80	~12.0	~6.0
100	~13.5	~7.5

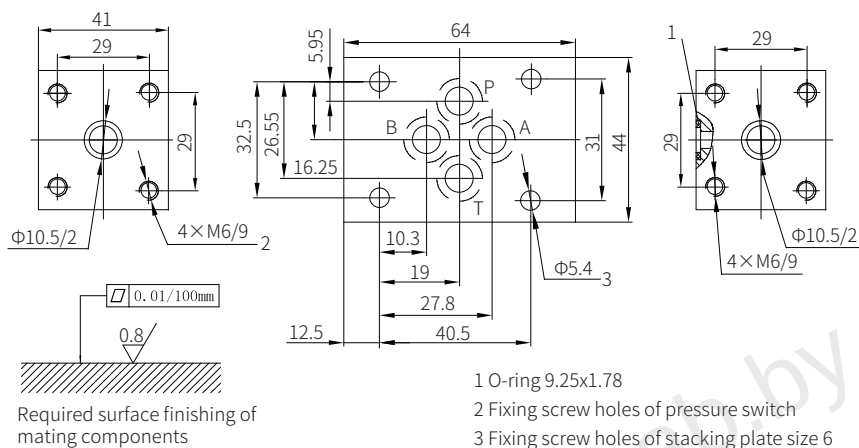


- | | |
|--------------------------------------|--|
| 1 O-ring 13x2 | 4 Plug can be rotated 90° |
| 2 Valve fixing screws 2 pieces M6x12 | 5 Space required for removing the plug |
| 3 O-ring 7x1.5 | 6 Protective cap |

Component size

Size unit: mm

Stacking plate size 6 (for pressure switch HED4...vertical stacking systems)



07

Component size

Size unit: mm

Stacking plate size 10 (for pressure switch HED4...vertical stacking systems)

