

Parker Series PSB Pressure Switch Service Manual

The electro-hydraulic pressure switch provides an electric signal when the sensed pressure goes above or below the selected setting.

Function

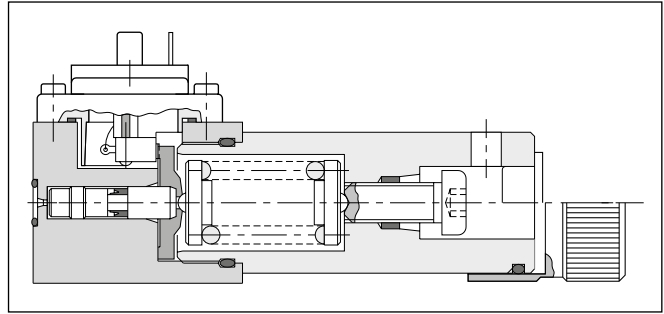
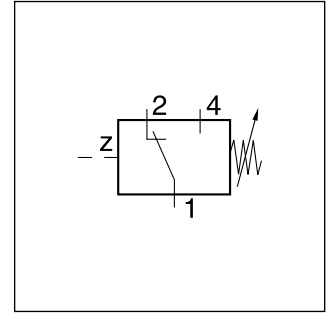
The spring loaded piston is hydraulically dampened. The PSB provides a very accurate hysteresis between the switching points (see diagram).

The required operating pressure is adjusted by the set-screw. Unauthorised adjustments can be prevented by the optional cylinder lock. The electric element is a micro switch with snap-action contact. Three terminals permit application as "On", "Off" or "Changeover" switch.

The electrical connection is made with a 3-pole plug-in connector to EN 175301-803 with ground.

Note

For inductive DC loads a spark discharger should be used to increase service life.



Features

- Flange or pipe mounting
- 4 pressure ranges
- Can be used as opener or closer
- Cylinder lock optional

Ordering code

PSB						
Pressure switch with manual switching point adjustment	Switching pressure range	Adjustment	Connec-tion	Seal	Design series (not required for ordering)	Lock

Code	Switching pressure range
040	3 to 40 bar
100	10 to 100 bar
160	10 to 160 bar
250	20 to 250 bar

Code	Adjustment
A	Hexagon socket
S	Knob with scale

Code	Connection
F1	Flange (front face)
V1	Fitting (front face, tube Ø6)

Code	Lock
-	without lock
Z	Cylinder lock (not for scale knob)

Code	Seal
A	NBR
1	FPM

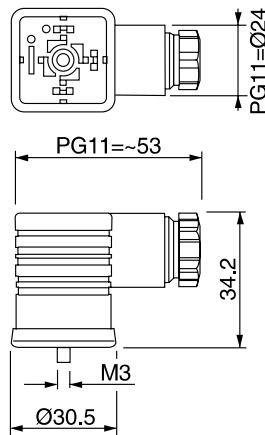
Bold letters = Short-term availability

Technical data

General			
Symbol	DIN 24340		
Design	Plunger type switch		
Mounting	PSB*F1* flange (front face) PSB*V1 pipe mounting		
Mounting position	unrestricted		
Ambient temperature	[°C]	-20 ... +60	
MTTF _D value	[years]	150	
Weight	[kg]	1.0	
Hydraulic			
Operating pressure	[bar]	to 315	
Actuating pressure difference	see diagram		
Duty cycle	max. 1/s		
Fluid	Hydraulic oil according to DIN 51524		
Fluid temperature	[°C]	-20...+70 (NBR: -25...+70)	
Viscosity, permitted	[cSt] / [mm ² /s]	20 ... 400	
	recommended	[cSt] / [mm ² /s]	30 ... 80
Filtration	ISO 4406 (1999); 18/16/13		
Electrical connection	Plug-in connector to EN 175301-803		
Insulation	IP65 as per EN 60529 (with correctly mounted plug-in connector)		
Contact load carrying capacity	5 A at 250 VAC; 1 A at 50 VDC; 0.2 A at 250 VDC		

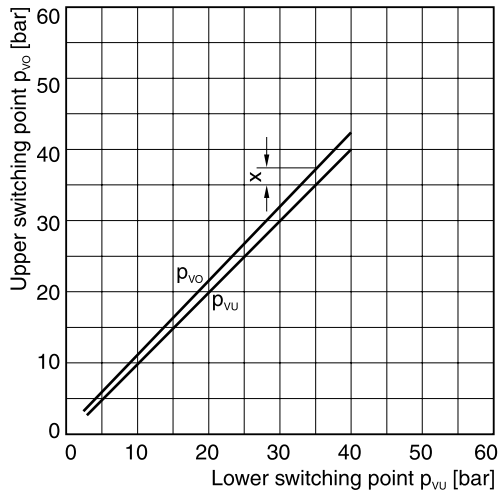
Plug EN 175301-803

Description	Threaded cable joint	Ordering code
Plug EN 175301-803, design type AF, protection class IP65	PG11	HR 21500157
Plug with LED, 12...230 V AC/DC, protection class IP65	PG11	HR 21502321

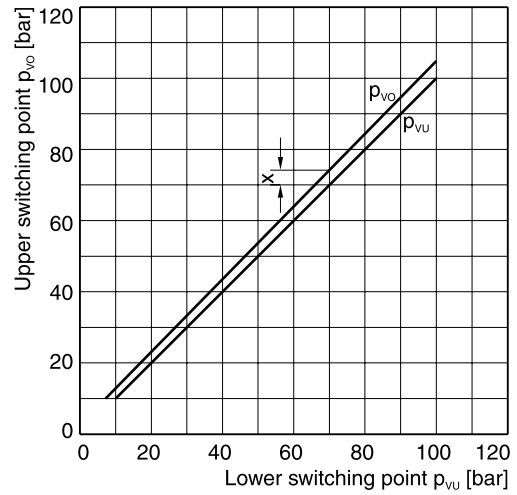


Switching pressure difference

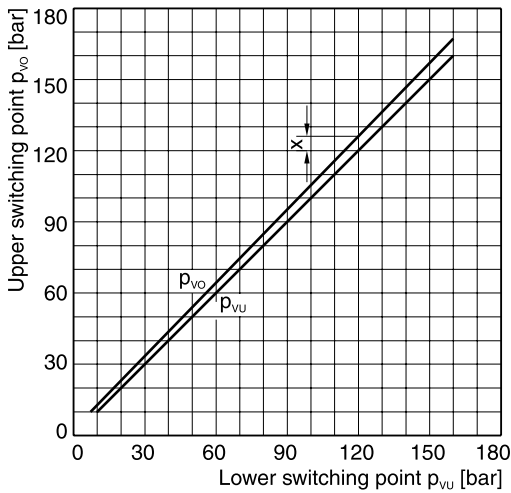
PSB040



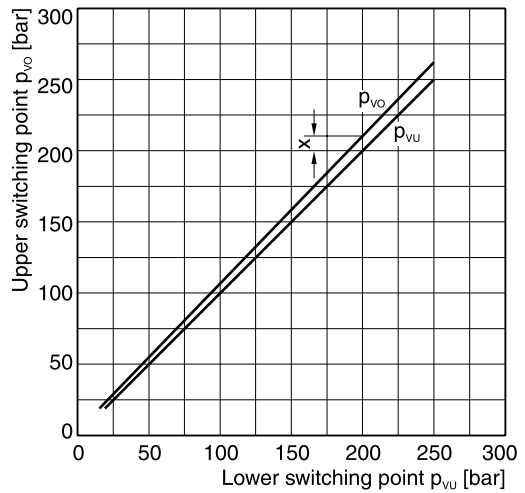
PSB100



PSB160



PSB250

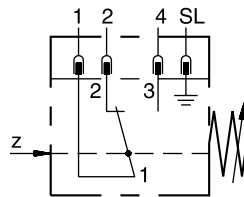


X = switching differential

All characteristic curves measured with HLP46 at 50 °C.

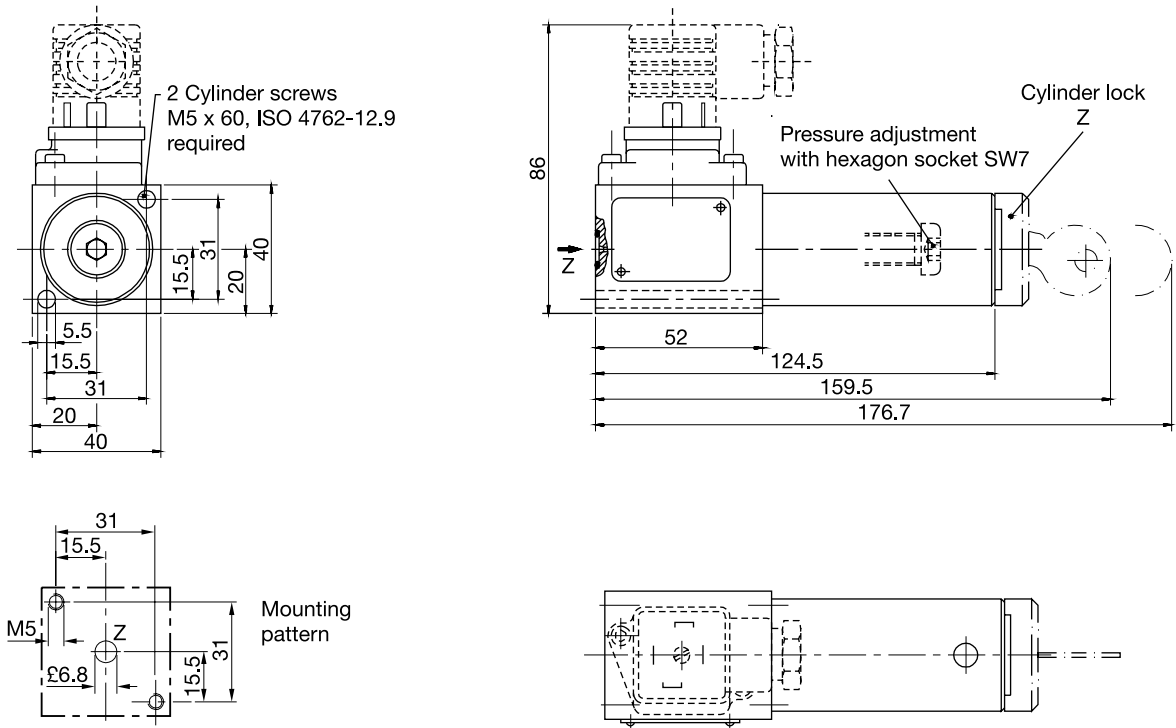
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Electrical connections

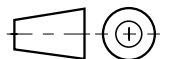
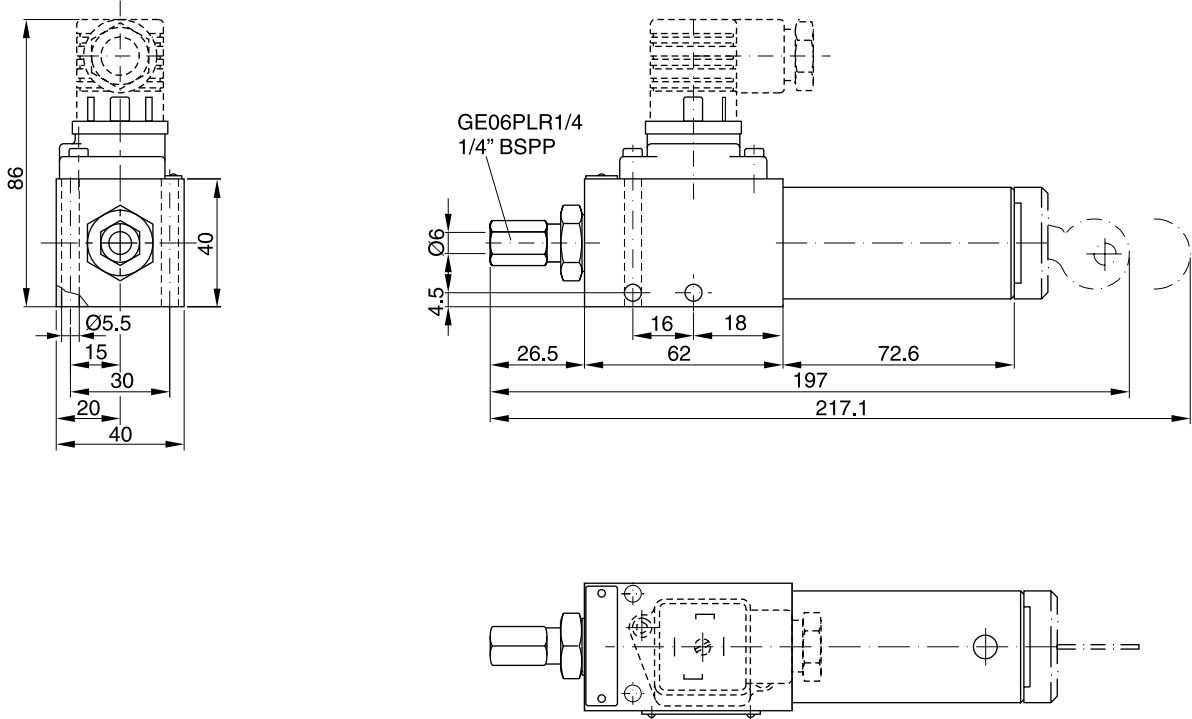


Electrical connection EN175301-803

PSB*F1*



PSB*V1*



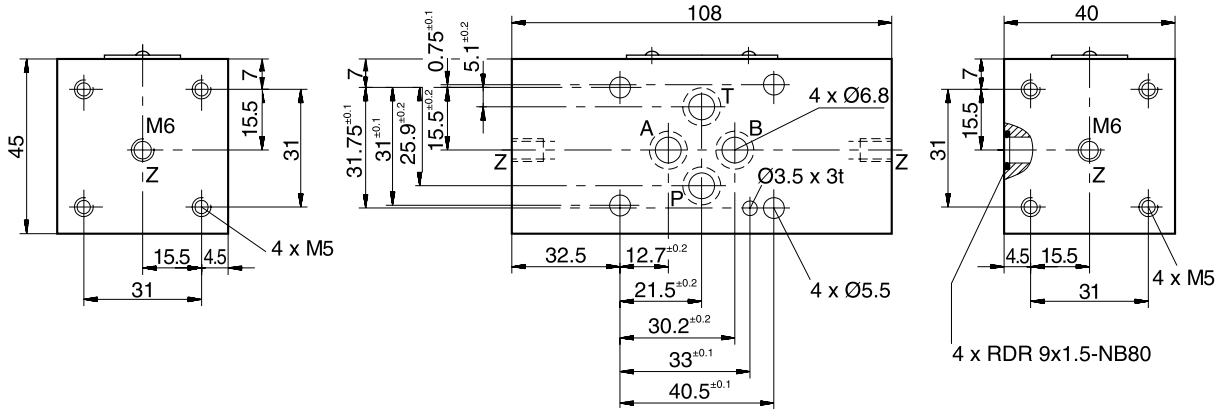
Intermediate Plates for Pressure Switch PSB

Technical Data

Switch code	Ordering code	Nominal size	Function
	H06PSB-994	06	Pressure switch connection to A or B or A and B: Connections not used are closed by plug.
	H10PSB-996	10	
	H06PSB-993	06	Pressure switch connection to P (left or right mounting is possible). Connection not used is closed by plug.
	H10PSB-995	10	

**Bold letters =
Short-term availability**

Dimensions NG06



Dimensions NG10

