



**DIPLOMATIC**  
HYDRAULICS

91 100/103 ED



# PS\*

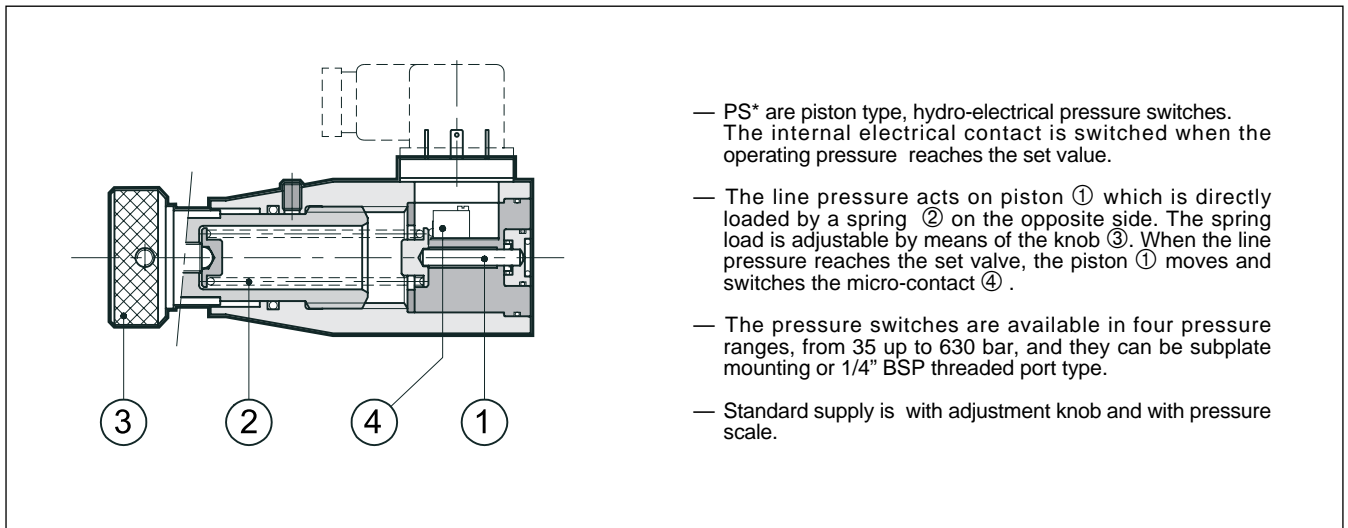
## PISTON TYPE PRESSURE SWITCH

### SERIES 20

p max **650 bar**

max adjustable p **35 - 140 - 350 - 630 bar**

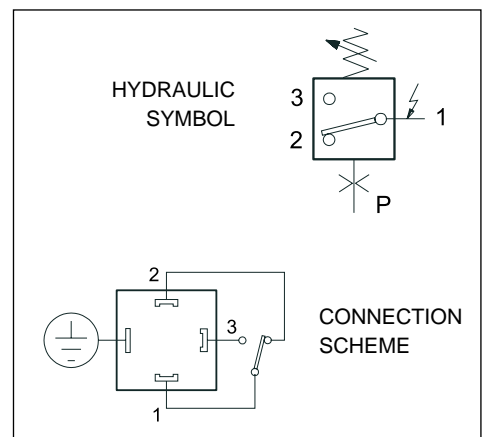
#### OPERATING PRINCIPLE



#### TECHNICAL CHARACTERISTICS

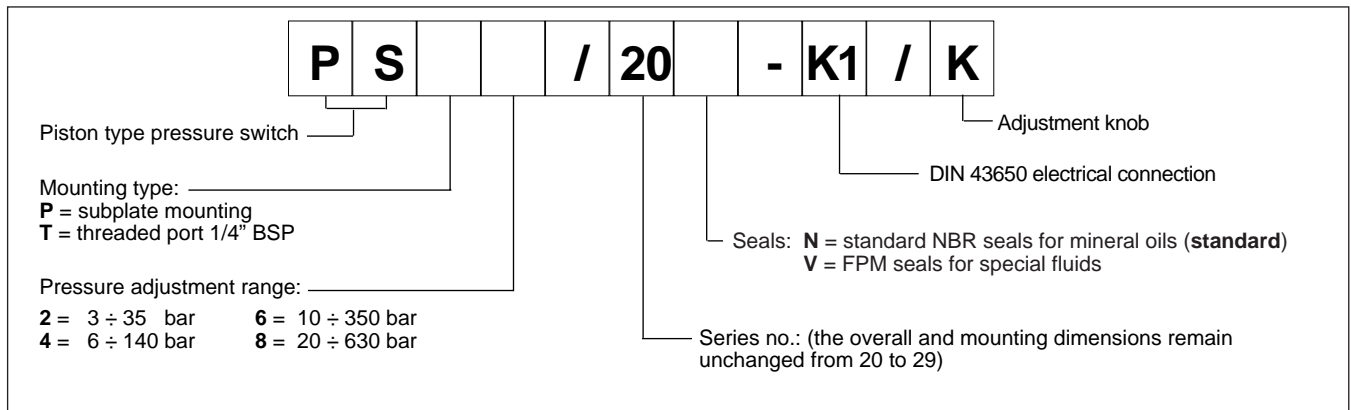
PRESSURE SWITCH		PS*2	PS*4	PS*6	PS*8
Pressure adjustment range	bar	3 ÷ 35	6 ÷ 140	10 ÷ 350	20 ÷ 630
Max operating pressure	bar	350	350	650	650
Hysteresis	see par. 5				
Repeatability	< ± 1 % of set pressure				
Electrical characteristics	see par. 3				
Ambient temperature range	°C	-20 ÷ +50			
Fluid temperature range	°C	-20 ÷ +70			
Fluid viscosity range	cSt	2,8 ÷ 380			
Recommended viscosity	cSt	25			
Fluid contamination degree	according to NAS 1638 class 10				
Mass	kg	0,67			

#### SYMBOLS





### 1 - IDENTIFICATION CODE



### 2 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HLP type, according to ISO 6743/3.

For fluids HFD-R type (phosphate esters) use FPM seals (code V).

For the use of other fluid types such as HFA, HFB, HFC, please consult our technical department.

Using fluids at temperatures higher than 70°C causes a faster degradation of the fluid and of the seals characteristics.

The fluid must be preserved in its physical and chemical characteristics.

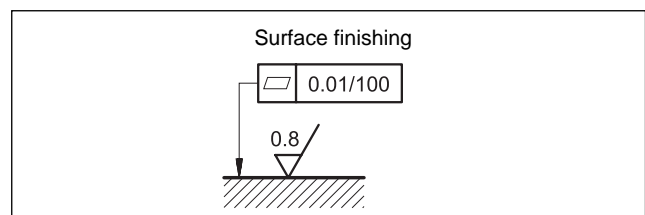
### 3 - ELECTRICAL CHARACTERISTICS

		AC		DC	
Power supply	V	125	250	30	250
Max load on contacts					
- resistive	A	7	5	5	0,2
- inductive		4	2	3	0,02
Electrical insulation (according to CEI EN 60204)		> 1 M Ω at 500 Vcc			
Max switching rate	switches/min	120			
MTBF mechanical parts	switches	10.000.000			
MTBF electrical contacts	switches	2.000.000			
Protection class (according to IEC 144)		IP 65			

### 4 - INSTALLATION

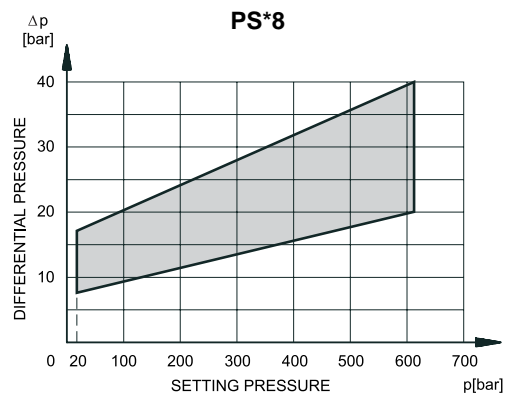
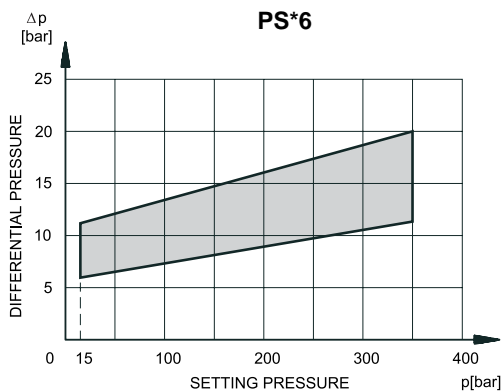
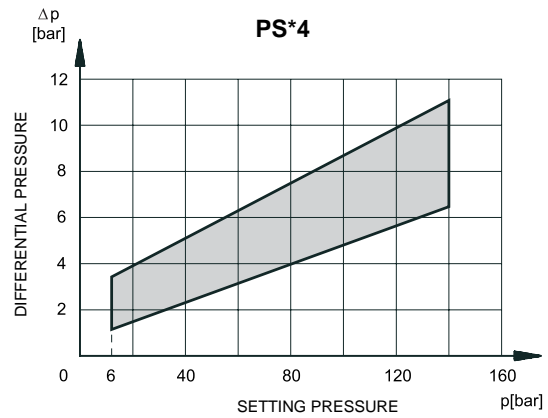
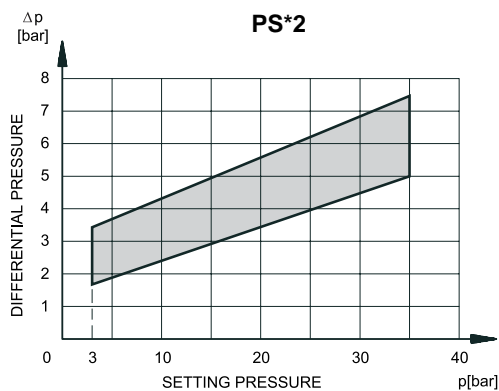
The subplate mounting pressure switches PSP type can be installed in any position without impairing its correct operation. Ensure that there is no air in the hydraulic circuit.

The valve is fixed by means of screws on a flat surface with planarity and roughness values equal to or better than those indicated in the relative symbols. If the minimum values are not observed, the fluid can easily leak between the valve and the mounting surface.





**5 - HYSTERESIS CHARACTERISTICS** (values measured with viscosity of 36 cSt at 50°C)



**6 - SUBPLATES FOR STACK MOUNTING**

The PSP pressure switches can be stack mounted by means of CETOP 03 subplates, code 1950611 and 1950621.

The subplate code 1950611 permits the connection between the pressure switch and A and/or B ports, depending on where the bolt ref. ① is installed. The subplate code 1950621 permits the connection between the pressure switch and the P port.

**SUBPLATE CODE 1950611 (A and B ports connection)**

**SUBPLATE CODE 1950621 (P port connection)**

**MAX PRESSURE 350 BAR**

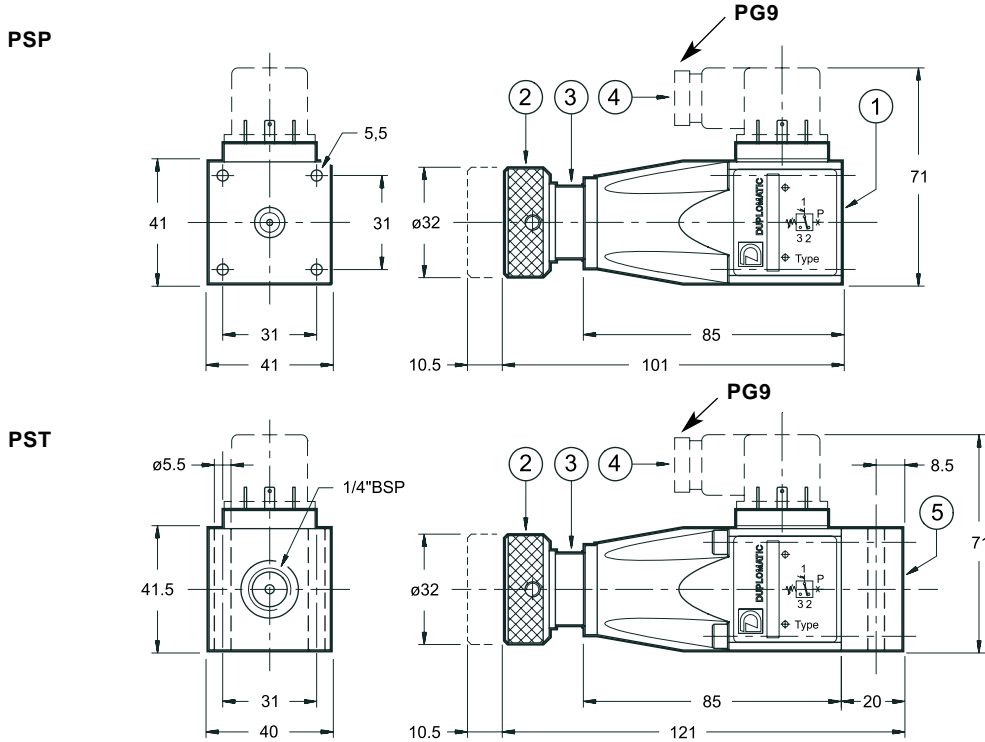
**MOUNTING INTERFACE**

dimensions in mm

1	Hexagonal head M4x12 bolt with "bonded seal" type 400-002 (Dowty) Unscrew the bolt and its seal from the side where the switch is installed
2	Mounting surface with sealing rings 4 OR type 2037

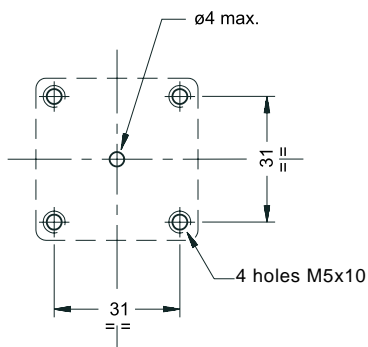


7 - OVERALL AND MOUNTING DIMENSIONS



MOUNTING INTERFACE (PSP version)

dimensions in mm



fastening bolts (PSP version)  
2 bolts M5x45 (4 bolts M5x45 for PSP8)  
Tightening torque: 5 Nm

1	Mounting surface with sealing rings: 1 OR type 2025 (PSP version)
2	Adjustment knob Clockwise rotation to increase pressure
3	Graduated scale with indication of setting pressure in [bar]
4	DIN 43650 electrical connector 3 poles + ground supplied with pressure switch
5	Interface plate for pipe connection: - 1/4" BSP threaded female connection - 2 clearance holes for possible fixing by means of bolts M5x50 <b>Note: the interface plate is already installed only on the PST type pressure switch</b>



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