



PS\* PISTON TYPE PRESSURE SWITCH SERIES 21

p max 650 bar
max adjustable p 35 - 140 - 350 - 630 bar

OPERATING PRINCIPLE



PS\* are piston type, hydro-electrical pressure switches.

The internal electrical contact is switched when the operating pressure reaches the set value.

- The line pressure acts on piston (1) which is directly loaded by a spring (2) on the opposite side. The spring load is adjustable by means of the knob (3). When the line pressure reaches the set valve, the piston (1) moves and switches the micro-contact (4).
- The pressure switches are available in four pressure ranges, from 35 up to 630 bar, and they can be subplate mounting or 1/4" BSP threaded port type.
- Standard supply is with adjustment knob and with pressure scale.

## **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 p. 5		SYMBOLS				
Repeatability	< ± 1 % of set pressure				•		
Electrical characteristics	see p. 3			HYDRAULIC 3	$\sum_{i=1}^{i}$		
Ambient temperature range	°C	-20 / +50		SYMBOL 2			
Fluid temperature range	°C	-20 / +80			* <sub>P</sub>		
Fluid viscosity range	cSt	10 ÷ 400		0			
Recommended viscosity	cSt	25			CONNECTION		
Fluid contamination degree	according to ISO 4406:1999 class 20/18/15				SCHEME		
Mass	kg	0.67		1			

#### **1 - IDENTIFICATION CODE**



#### 2 - HYDRAULIC FLUIDS

Use mineral oil-based hydraulic fluids HL or HM type, according to ISO 6743-4. For these fluids, use NBR seals (code N). For fluids HFDR 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 80 °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 - inductive	A	7 4	5 2	5 3	0.2 0.02	
Electrical insulation (according to CEI EN 60204)		> 1 M ohm at 500 Vdc				
Max switching rate	switches/min	120				
Protection class (according to CEI EN 60529)		IP65				

### 4 - INSTALLATION

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

The subplate mounting pressure switch PSP type 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 ISO 4401-03 (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 (1) is installed. The subplate code 1950621 permits the connection between the pressure switch and the P port.



### 7 - OVERALL AND MOUNTING DIMENSIONS





# DUPLOMATIC MS Spa

via Mario Re Depaolini, 24 | 20015 Parabiago (MI) | Italy T +39 0331 895111 | E vendite.ita@duplomatic.com | sales.exp@duplomatic.com duplomaticmotionsolutions.com