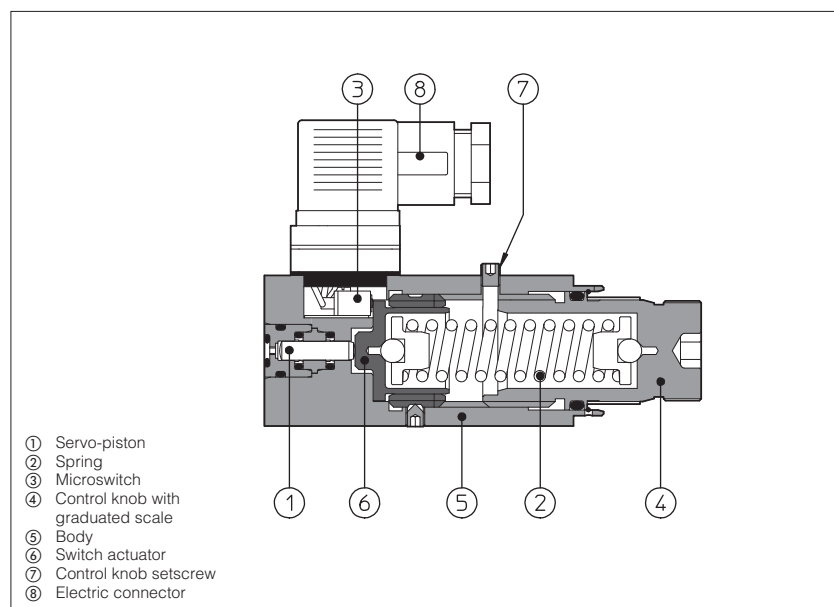


# Pressure switches type MAP

with fixed differential



MAP pressure switches produce an electrical make/break contact which is triggered when pressure in the hydraulic circuit reaches a given setting.

Fluid pressure in the circuit operates a piston ① flitted with adjustable spring bias ②; once the pressure setting is reached, the piston is urged forward so as to actuate a microswitch ③ and make or break its contacts.

The pressure setting is selected by turning a graduated control knob ④.

Clockwise rotation increases the setting pressure.

Pressure switches are designed to operate in hydraulic systems with hydraulic mineral oil or synthetic fluid having similar lubricating characteristics.

Max pressure = 650 bar

## 1 MODEL CODE

**MAP**

-

**160**

**/E**

**\*\***

**/\***

Fixed differential pressure switch

Seals material:  
omit for NBR (mineral oil & water glycol)  
**PE** = FPM

Series number

Pressure range:

**40** = 5 ÷ 40 bar

**80** = 7 ÷ 80 bar

**160** = 10 ÷ 160 bar

**320** = 30 ÷ 320 bar

**630** = 50 ÷ 630 bar

Options:



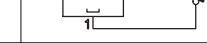
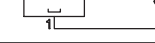
**E** = Common electric contact connected to pin 1 (see section 3)

Note: special version with gold-plated microswitch contact available on request

## 2 MAIN CHARACTERISTICS OF PRESSURE SWITCHES TYPE MAP

Assembly position / location	Any position
Subplate surface finishing	Roughness index Ra 0,4 - flatness ratio 0,01/100 (ISO 1101)
Ambient temperature	from -20°C to +70°C
Fluid	Hydraulic oil as per DIN 51524 .... 535; for other fluids see section 1
Recommended viscosity	15 ÷ 100 mm <sup>2</sup> /s at 40°C (ISO VG 15 ÷ 100)
Fluid contamination class	ISO 4401 class 21/19/16 NAS 1638 class 10 (filters at 25 µm value with β <sub>25</sub> ≥ 75 recommended)
Fluid temperature	-20°C +60°C (standard seals and water glycol)    -20°C +80°C (/PE seals)

## 3 MAIN CHARACTERISTICS AND WIRING OF INTERNAL MICROSWITCH

	Supply voltage [V]				STD	Resting position	Pressure operated position
	125 AC	250 AC	30 DC	250 DC			
Max current - resistive load - [A]	7	5	5	0,2			
Max current - inductive load (Cos φ = 0,4) - [A]	4	2	3	0,02			
Insulating resistance	≥ 100 MΩ						
Contact resistance	= 15 mΩ						
Electrical life-expectancy	≥ 1.000.000 switchings				/E		
Mechanical life-expectancy	≥ 10.000.000 switchings						

