Sensor technologies → Pressure sensors

Pressure Switches, Series PM1

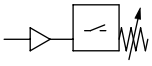
► Operating pressure: 0.2 - 16 bar ► mechanical ► electr. connection: Plug, ISO 4400, form A ► Compressed air connection: CNOMO ► Spring-loaded bellow, non-adjustable

18832

Measurement	Relative pressure
Switching element	microswitch (input/output)
Switching frequency	1,5 Hz
Protection against overpressure	80 bar
Ambient temperature min./max.	-20°C / +80°C
Medium temperature min./max.	-10°C / +80°C
Medium	Compressed air hydraulic oil
Shock resistance max. (XYZ direction)	15 g
Vibration resistance (XYZ direction)	10 g (60 - 500 Hz)
Repeatability (% of full scale value)	± 1 %
Switching point	adjustable
Hysteresis	max. switching pressure difference
DC operating voltage min./max.	12 V - 30 V
Operational voltage AC min./max.	12 V - 250 V
DC switching current, max.[A]	3
Mounting orientation	Any
Mounting types	via through holes
Function	change-over contact (mechanical)
Protection class	IP 65
Weight	0.16 kg
Materials:	
Housing	Aluminum
Bellow	Brass
Electr. connection	Brass, nickel-plated

Technical Remarks

- Switching function increasing pressure: contact switches from 1-2 to 1-3.Switching function decreasing pressure: contact switches from 1-3 to 1-2.
- Set to 1.5 bar operating pressure. Adjustment screw secured and covered by an adhesive label.
- Notice: Too-high currents can damage contacts. Inductive or capacitive loads must be equipped with appropriate spark-quenching!
- The microswitch has silver-plated contacts.

	Type	Operating pressure range min./max.	Part No.
		[bar]	
	PM1-M3-F001	0.2 / 16	**R412010721**
Min. switching pressure range 0.2 bar falling/0.5 bar rising Scope of delivery: without electrical connector			

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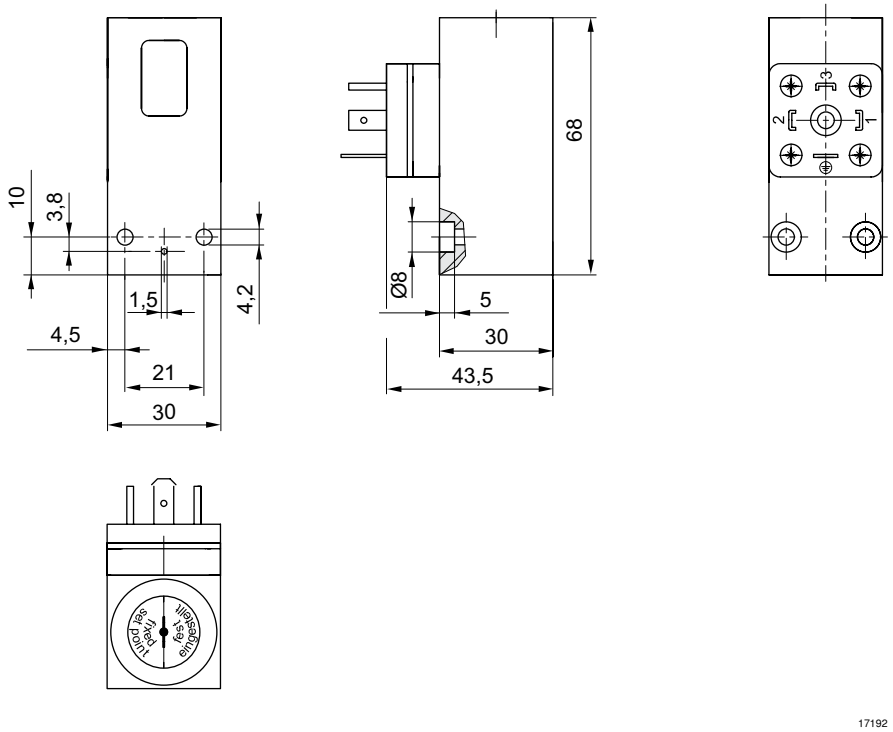
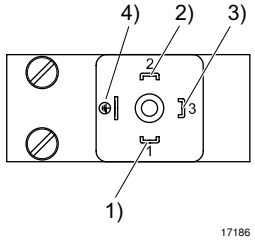
Dimensions



PIN assignment for electrical connector



1) +UB
electric for 12-24 V DC, break contact
3) make contact
4) GND

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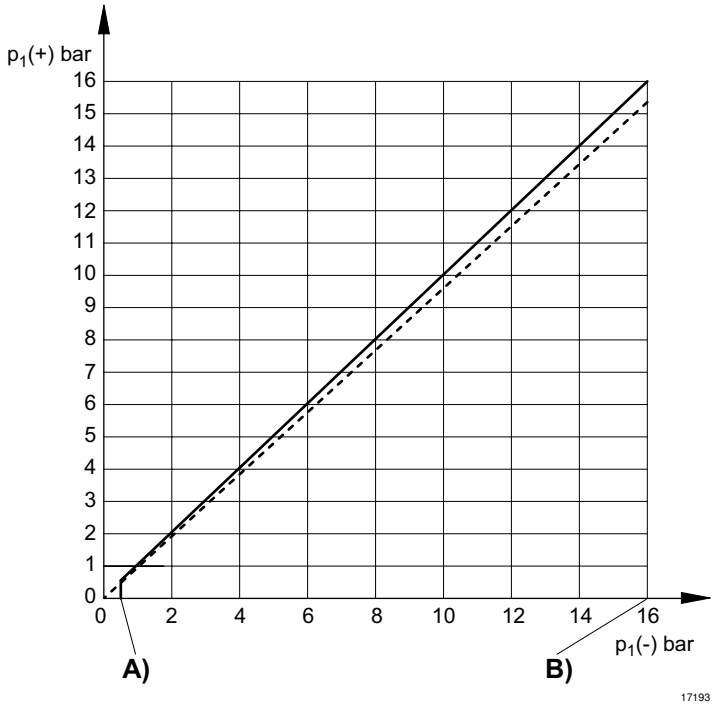
differential switching pressure characteristic curve (0,2 – 16 bar)



A) p1 (-), min.
B) p1 (-), max.
p1 (+) = upper switching pressure with increasing pressure
p1 (-) = lower switching pressure with decreasing pressure

max. permissible continuous current I max. [A] with ohmic load

U [V]	30	48	60	125	250							
I [A] 1)	5	5	5	5	5							
I [A] 2)	3	1,2	0,8	0,4	–							

reference cycle: 30/min., reference temperature: +30°C
1) AC
2) DC

max. permissible continuous current I max. [A] with inductive load

U [V]	30	48	60	125	250							
I [A] 1) 3)	3	3	3	3	3							
I [A] 2) 4)	2	0.55	0.4	0.15	–							

reference cycle: 30/min., reference temperature: +30°C
1) AC
2) DC
3) cos ≈ 0,7°
4) L/R ≈ 10 ms