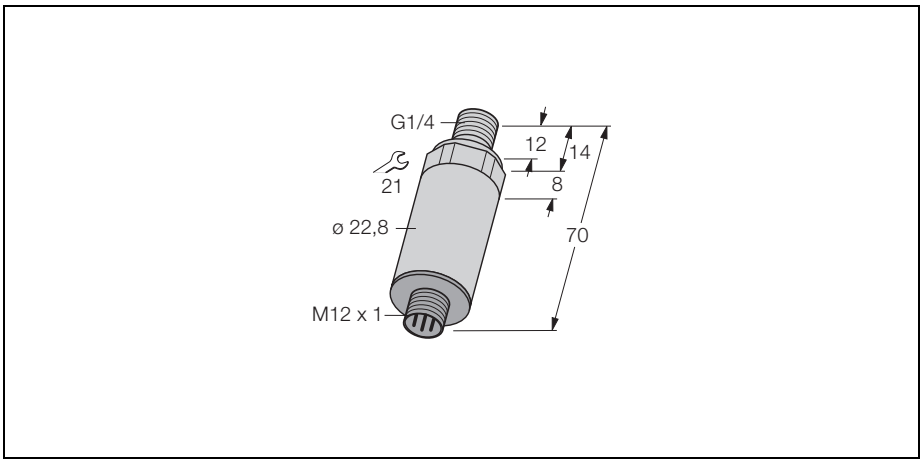
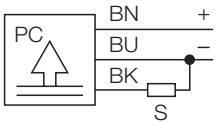
Pressure sensor
OEM pressure switch
PC016R-14-AP6



- **compact and robust construction**
- **pressure connection with integrated peak pressure aperture**
- **minimum temperature influence on the accuracy across the entire temperature range -40...85°C**
- **excellent EMC properties**
- **pressure range 0...16 bar**

Wiring diagram



Type	PC016R-14-AP6
Ident-No.	PC1-08
Operating range	0... 16 bar
Permitted overpressure	≤ 40 bar
Switch point SP1	customised
Release point rP1	customised
Switch point accurarcy	≤ ± 1% of f. v.
Repeat accuracy	≤ ± 0,1% of f. v.
Response time	< 2 ms
Temperature coefficient zero point T_{k0}	≤ ± 0,15 % of f. v./10 K
Temperature coefficient span T_{kS}	≤ ± 0,15 % of f. v./10 K
Medium temperature	-40... 85 °C
Ambient temperature	-40... 85 °C
Rated operational voltage (DC) U_B	8... 33 VDC
No-load current I_0	≤ 4 mA
Max. switching frequency	≤ 0,1 kHz
Output function	PNP, normally open
Rated operational current (DC) I_e	0,15 A
Degree of protection	IP67
Housing material	metal, A2 1.4305 (AISI 303)
Material pressure connection	stainless steel 1.4305 (AISI 303)
Material pressure transducer	ceramic Al_2O_3
Seal	fluor caoutchouc
Mechanical connection	G1/4 external thread
Pressure connection spanner size	SW 21
Vibration resistance	20 x g (9...200 Hz, 2...9 Hz with amplit +/-15 mm), according to IEC 68-2-6
Shock	75 x g (11 ms) , acc.ording to IEC 68-2-27
Wiring	connector, M12 x 1

Function principles

Electronic pressure sensors from TURCK work with piezo-resistive ceramic measuring cells. The deformation, which is caused by the pressure exerted on the measuring cell, is transferred to the thick-film resistors. Consequently, the resistance values of the resistors, which are integrated into a Wheatstone measuring bridge, change. This change in resistance is then processed electronically and displayed as a signal proportional to the pressure.

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