

- Monolithisches Design
 - Keine interne Dichtung
 - Kein Materialmix
 - Keine Schweißnaht
- Hohe Medienverträglichkeit
- Unterdruckfest
- Messbereich von -1 bis 1000 bar
- Viele Anschlüsse



Der SCP03 ist ein Drucksensor für flüssige und gasförmige Medien.

Die digital abgegliche piezoresistive Messezelle erfasst Unterdrücke ab -1 bar bis hin zu Hochdrücken von 1000 bar.

Der medienberührende Druckanschluss hat einen monolithischen Aufbau. Hierdurch entfallen interne Dichtungen und Schweißnähte. Ein Materialmix wird vermieden.

Die daraus resultierende geringe Permeabilität in Kombination mit dem Edelstahl ergeben eine breite Medienbeständigkeit.

Das kompakte Edelstahlgehäuse ermöglicht einen platzsparenden Einsatz, selbst bei rauen Umgebungsbedingungen.

Mit den vielfältigen Druckbereichen, Ausgangssignalen und Steckern ist der SCP03 in industriellen und mobilen Applikationen einsetzbar.

Die für OEM's optimierte Verpackungsvariante ist umweltschonend, kostenoptimiert und erleichtert das Handling.

- Monolithic design
 - No internal seal
 - No material mix
 - No weld seam
- High media compatibility
- Measuring range from -1 to 1000 bar
- Negative pressure resistant
- Many connections



The SCP03 is a pressure sensor for liquid and gaseous media.

The digitally calibrated piezoresistive measuring cell detects negative pressures from -1 bar up to high pressures of 1000 bar.

The pressure connection in contact with the medium has a monolithic design. This eliminates the need for internal seals and weld seams. A mix of materials is avoided.

The resulting low permeability in combination with the stainless steel results in a broad media resistance.

The compact stainless-steel housing allows space-saving use, even in harsh environmental conditions. With its wide range of pressure ranges, output signals and connectors, the SCP03 can be used in industrial and mobile applications.

The packaging variant optimized for OEM's is environmentally friendly, cost-optimized and facilitates handling.

Technical data

SCP03-	004R	010R	025R
Pressure range -1 .. bar	3	9	24
P _n relative (-14,5 ...psi)	(43,5)	(130)	(348)

SCP03-	004	010	025	035	040	060	100	250	400	500	600	1000
Pressure range 0.. bar	4	10	25	35	40	60	100	250	400	500	600	1000
P _n relative (0...psi)	(580)	(145)	(363)	(500)	(580)	(870)	(1450)	(3625)	(5800)	(7300)	(8702)	(14503)
Overload Pressure P _{max} DIN EN 60770-1 (bar) relative	2x P _n											
Burst Pressure P _{burst} DIN EN 60770-1 (bar) relative	3 x P _n											

General	
Response time	≤ 1ms
Load change	> 100 million
Material Housing	EN/DIN 1.4301
Material Electr. Connector	PBT-GF30 black
Weight	Approx. 80 g

Ambient Conditions	
Media temperature	-40 to 125 °C (-40 to 257 °F)
Operation / Ambient temperature	-40 to 105 °C (-40 to 221 °F)
Storage temperature	-40 to 125 °C (-40 to 257 °F)
Vibration	IEC 60068-2-6 : 20 g
Shock	IEC 60068-2-27 : 100 g

Accuracy parameter	
Non-linearity + Hysteresis+ Repeatability	≤ 0,3 %FS
Long-term stability	≤ 0,1 %FS / year

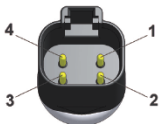
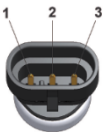
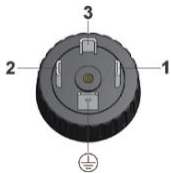
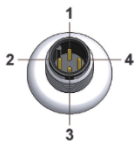
Overall Accuracy		
	< 10 bar	≥ 10 bar
@ 25°C	≤ 0,5 %FS	≤ 0,5 %FS
@ 0°C...+85 °C	≤ 2 %FS	≤ 1 %FS

Conformity	
CE	EN 61326-1 EN 61326-3-1
RoHs	Yes
MTTFd	>100 years

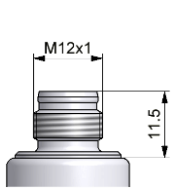
Process connection	Seal	Wetted parts
G1/4A BSPP; DIN 3852 T11, Form E	DIN 3869-14-FKM	EN/DIN 1.4404 ; FKM
SAE-4: 7/16-20 UNF O-ring	FKM	EN/DIN 1.4404 ; FKM
SAE 6: 9/16-18 UNF O-ring	FKM	EN/DIN 1.4404 ; FKM
G1/4 DIN ISO 228-1 O-ring	FKM	EN/DIN 1.4404 ; FKM
1/4 NPT		EN/DIN 1.4404

Electrical Connection

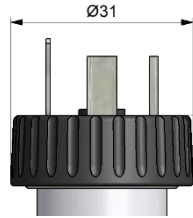
Output signal	(2 wire) 4...20 mA	0...20 mA 4...20 mA	0,5...4,5 V 0...5 V	1...6 V 0...10 V	0,5...4,5 V ratio.
Supply Voltage V ₊	10...32 VDC	12...32 VDC	8...32 VDC	12...32 VDC	5 V ±10%
Load _{max}	≤ (V ₊ - 10V) / 2mA [kΩ]		4,7 [kΩ]		
Overtoltage	50 VDC				
Short circuit	Yes				
Reverse polarity	Yes				
Signal on GND / V ₊	Yes				
M12 x 1 4 pole					
Pin 1	V ₊		V ₊		
Pin 2	P-Signal		P-Signal		
Pin 3	n.c.		0 V / GND		
Pin 4	n.c.		n.c.		
IP 67					
DIN EN 175301-803 Form A 4-pole (old 43650)					
Pin 1	P-Signal		P-Signal		
Pin 2	n.c.		0 V / GND		
Pin 3	V ₊		V ₊		
Pin 4 / GND	n.c.		n.c.		
IP 65					
AMP Superseal 1.5					
Pin 1	P-Signal		0 V / GND		
Pin 2	n.c.		P-Signal		
Pin 3	V ₊		V ₊		
IP 65					
DT04-4P					
Pin 1	V ₊		V ₊		
Pin 2	P-Signal		0 V / GND		
Pin 3	n.c.		P-Signal		
Pin 4 / GND	n.c.		n.c.		
IP 65					
DT04-3P					
A	V ₊		V ₊		
B	n.c.		P-Signal		
C	P-Signal		0 V / GND		
IP 65					
Junior Timer					
Pin 1	P-Signal		0 V / GND		
Pin 2	n.c.		P-Signal		
Pin 3	V ₊		V ₊		
IP 65					
Cable					
Bn	V ₊		V ₊		
Black	P-Signal		P-Signal		
Blue	n.c.		0 V / GND		
IP 69K					



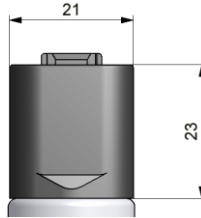
Drawings



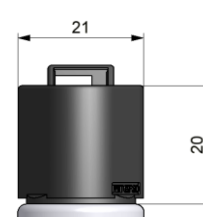
SCP03-.....-07
 M12 4P



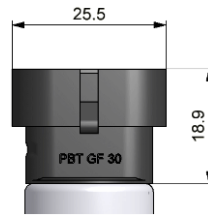
SCP03-.....-06
 DIN EN 175301-803
 Form A



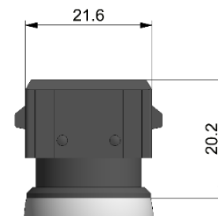
SCP03-.....-0D
 DT04 4P



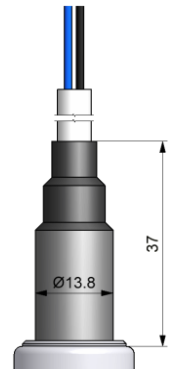
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 DT04 3P



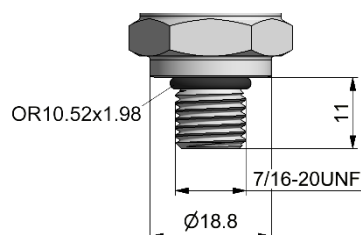
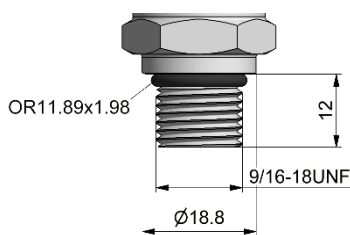
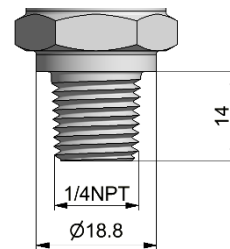
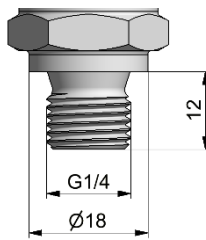
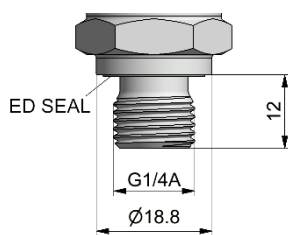
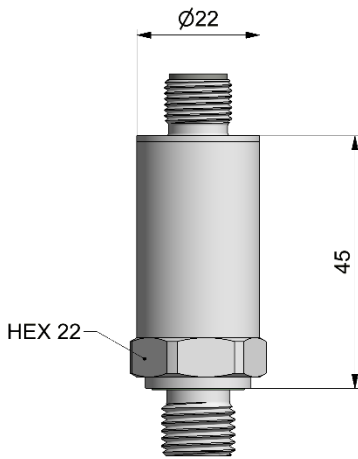
SCP03-.....-0A
 Superseal



SCP03-.....-0J
 Junior Timer 3P



SCP03-.....-00
 Cable



Order Code

Pressure Sensor SCP03

(extended Range) with min Order quantity

Q8: Multiple of 50 pcs.

Pressure range

- 1...3 bar
- 1...9 bar
- 1...24 bar
- 0...4 bar
- 0...10 bar
- 0...25 bar
- 0...35bar
- 0...60 bar
- 0...100 bar
- 0...250 bar
- 0...400 bar
- 0...500 bar
- 0...600 bar
- 0...1000 bar

Output Signal

- 0...20 mA
- 4...20 mA (2-wire)
- 4...20 mA (3-wire)
- 0...10 V
- 0...5 V
- 1...6 V
- 0.5...4.5 V (ratiometric)
- 0.5...4.5 V (nom.)

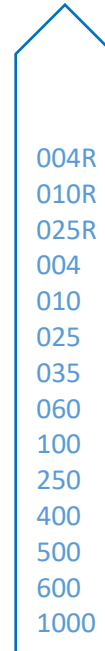
Process Connection

- G1/4 BSPP
- 1/4 NPT (Pn max. = 600 bar)
- 9/16-18 UNF, SAE 6 O-ring (Pn max. = 400 bar)
- 7/16-20 UNF SAE-4 O-ring (Pn max. = 400 bar)
- G1/4 O-ring (Pn max. = 600 bar)

Connecting Plug

- Device connector DIN EN 175301-803 Form A 4-pole
- Circular connector M12x1 4-pole
- Stationary cable 2 m
- Device plug AMP Superseal
- Device plug DT04 4-pole
- Device plug DT04 3-pole
- Junior Timer 3-pole

SCP03-XXX -XX -0X-Q8



- 1
- 3
- 2
- 4
- A
- B
- R
- S

- 4
- 5
- 6
- 7
- 8

Order example

150 Single sensors
 (multiple of 50's)
 Pressure range 0...400 bar
 Output signal 4 to 20 mA (2-wire)
 G1/4 BSPP
 M12 connecting plug 5-pole

↓

150x SCP03-400-34-07-Q8

- 6
- 7
- 0
- A
- D
- E
- J