

Pressure Transmitter SCPSi

IO-Link sensor or switch



The fully electronic pressure switch SCPSi is adjustable and free from susceptible mechanical and moving components.

With its digital interface and smart functions, the SCPSi is future-proof for the increasing demands of automation solutions.

The 2 switching outputs are individually and safely parameterized from the machine control system via the standardized digital IO-Link interface (IEC 61131-9). This replaces manual programming and the commissioning phase is considerably shortened. Devices can be replaced during operation without the need for reparameterization. In order to react promptly to machine status changes or process adjustments, the reparameterization is carried out during operation.

As an alternative to the switching functions, diagnostic values, process data and status messages are recorded directly via IO-Link and enable subsequent more complex analyses. Via the integrated temperature measurement of the pressure measuring cell, the media or ambient temperature is recorded.

IO-Link replaces time-consuming manual programming and eliminates the need for a sensitive key display with the manufacturer-dependent setting menu.

The compact stainless steel housing allows spacesaving use, even in harsh environments.



The proven stainless steel measuring cell with the wide pressure range of applications for liquid and gaseous media. The media-contacting pressure connection with the pressure measuring cell is monolithically manufactured from a stainless steel without welds and sets new standards in media compatibility and pressure resistance.

Product Features:

- Pressure sensor / -switch
- Temperature measurement
- IO-Link 1.1
- Smart Sensor Profile 2nd edition
- Plug & Play
- Compact
- Optimized design
- Adjustable via IO-Link
- Readable via IO-Link
- Useable as IO-Link sensor or switch
- Monolith pressure cell



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Technical data

SCPSi		001	004	010	025	060	100	250	400	600
Pressure range P _n vacuum tight / relative P _n	bar (psi)	-1...1 (-14...14)	-1...4 (-14...58)	-1...10 (-14...14)	-1...25 (-14...362)	0...60 (0...870)	0...100 (0...1450)	0...250 (0...3625)	0...400 (0...5801)	0...600 (0...8702)
Overload Pressure relative P _{max}	bar (psi)	6 (87)	19 (145)	030 (435)	80 (1160)	200 (2900)	300 (4351)	750 (10877)	1200 (17404)	1400 (20305)
Burst Pressure relative P _{burst}	bar (psi)	9 (130)	15 (217)	100 (1450)	150 (2175)	500 (7251)	800 (11603)	1000 (14503)	2000 (29007)	2200 (31908)
Wetted parts		1.4542 (17-4PH); 1.4548; FKM		Monolithic 316L; FKM						
Set point SP Range		1 - 100 %								
reset Point rP Range		0 - 99 %								
Steps / Incremental	mbar	0,1	1	1	1	10	10	100	100	100
smallest hysteresis (SP-rP) & (FH-FL)	bar	0,001	0,001	0,01	0,01	0,1	0,1	1	1	1

General

Overall Accuracy @ RT ⁽¹⁾	≤ 0,5 %FS
Min. pressure cycles	> 100 million
Material Housing	Stainless steel 1.4404
Weight	Approx. 80 g

Conformity

RoHS	2011/65/EU, 2015/863
CE	Yes
UKCA	Yes

Process Connection

Thread	G1/4, DIN 3852 T11 (E)
Seal	ED type: FKM
Installation Torque	Max. 35 Nm

Ambient conditions

Media temperature	-25 to 85 °C (-13 to 185°F)
Operation/Ambient temp.	-25 to 85 °C (-13 to 185°F)
Storage temperature	-40 to 85 °C (-40 to 185°F)
Vibration	DIN EN 60068-2-6, 20 g
Shock	DIN EN 60068-2-27, 500 g
MTTFd	>100 years

Overall Accuracy

@ -40°C...-25°C	≤ 2,5 %FS
@ -25...0°C	≤ 1,5 %FS
@ 0...85°C	≤ 1 %FS

Temperature signal

Output	Via IO-Link
Measuring range	-40 to 125 °C (-40 to 257°F)
Resolution	1 K
Accuracy	± 10°K
t _{0,9}	80 sec.

Protection

Overvoltage	70 V
Short circuit	Yes
Reverse polarity	Yes
Signal on GND/V ₊	Yes

Electronic Connectivity

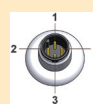
Power Supply Voltage V ₍₊₎	18...30VDC
Connector	M12
Consumption	< 15 mA @ 24V
Output	2 switching outputs, NPN / PNP, 1 IO-Link output
Switch current	Max. 200mA
Max. switch frequency	200 Hz
Response time	≥ 3 ms

IO-Link Interface

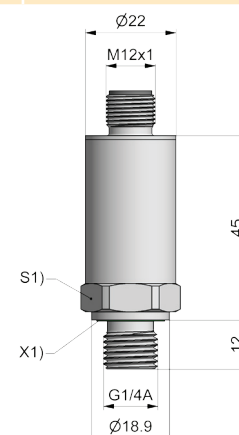
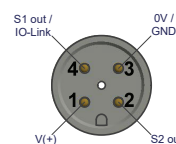
Revision	IO-Link V1.1 Process Data Variable; Device Identification; Device Diagnosis
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M12x1

Protection class (mounted connector)	IP67
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Pin 1	V ₍₊₎
Pin 2	S2 out
Pin 3	0V / GND
Pin 4	S1 out / IO-Link



Order code

Pressure sensor SCPSi **SCPSi-xxx-04-07**

Pressure range

001 / 004 / 010 / 025 / 060 / 100 / 250 / 400 / 600