Characteristics

At a glance

Communication interface

IO-Link

Practical design
- Compact design 30x30 mm
- Degree of protection IP40
- Weight reduction with QS4

Universal pressure measurement
- Pressure and vacuum
- 13 pressure measuring ranges
- All standard pressure units
- Optional test report

Easy operation
- Clear 2-line display
- Configurable red surround for the entire display
- Intuitive menu navigation

Quick installation
- L1 plug for fast commissioning
- M8 electrical adapters allow maximum flexibility
- Wide range of mounting options
- QS4 quick connector

Switchable electrical outputs
- Various switching functions
- Switching outputs (PNP/NPN, NO/NC)
- Analogue outputs (0 ... 10 V, 1 ... 5 V, 4 ... 20 mA)

Product description

The pressure sensor SPAN is suitable for monitoring compressed air and non-corrosive gases. The sensor can be used in many industries thanks to its compact design. The measuring method is based on a piezoresistive measuring cell for relative pressure measurement. The pressure value is transmitted to the connected controller as a switching signal, as an analogue signal or via IO-Link depending on the sensor variant and selected parameters.

Areas of application

- Network monitoring (pressure present)
- Regulator monitoring (pressure in the setpoint range)
- Vacuum (part picked up)
- Leak test (pressure drop over time)
- Object detection (back pressure present)

Functions

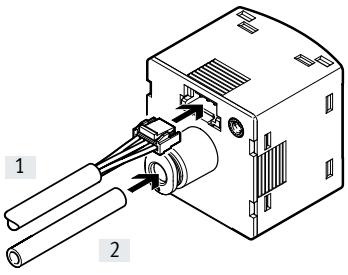
- Monitoring and setting a pressure threshold, a pressure range or differential pressure monitoring with teach-in function or by entering values
- ECO function with option to switch off the display
- Optional security code can be freely chosen (4-digit code)
- Adjustable low-pass filter to smooth the pressure signal
- Scaling the analogue output to increase the signal dynamics
- Offset compensation possible
- Min./max. value memory for monitoring compressed air
- All settings that have been carried out on one sensor (master) can be transferred (replication) to identical sensors (device)

Variants with IO-Link

- Serial communication integrated using IO-Link 1.1
- Cyclical transfer of two operating statuses and the measured pressure value
- The sensor can be parameterised remotely using an IO-Link Master
- Sensor can be changed easily using automatic parameterisation (hot swap)
- Sensor identification, diagnostics and teach-in via IO-Link possible

2-step connection

[1] Push in L1 plug
[2] Push in tubing



Type codes

001	Series	
SPAN	Pressure sensor	

002	Pressure measuring range	
B2	-1 ... 1 bar	
B11	-1 ... 10 bar	
P025	0 ... 0.25 bar	
P05	0 ... 0.5 bar	
P1	0 ... 1 bar	
P2	0 ... 2 bar	
P6	0 ... 6 bar	
P10	0 ... 10 bar	
P12	0 ... 12 bar	
P16	0 ... 16 bar	
V025	0 ... -0.25 bar	
V05	0 ... -0.5 bar	
V1	0 ... -1 bar	

003	Pressure inlet	
R	Relative pressure	

004	Pneumatic connection	
G18	G1/8	
R18	R1/8	
N18	1/8 NPT	
M5	M5	
Q4	Push-in connector 4 mm	

005	Thread type	
	None	
F	Female	
M	Male	

006	Electrical output 1	
PN	PNP or NPN	
PNLK	PNP or NPN or IO-Link®	

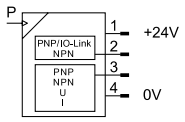
007	Electrical output 2	
PN	PNP or NPN	
PNVBA	PNP or NPN or 0 ... 10 V or 1 ... 5 V or 4 ... 20 mA	

008	Electrical connection	
L1	Plug type L1	

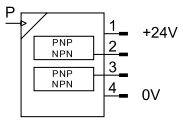
009	Certificate	
	None	
T	Test report	

Data sheet

Variant with IO-Link and analogue outputs ... -PNLK-PNVBA



Variant with 2 switching outputs ... -PN-PN



- Compact design 30x30
- 13 pressure measuring ranges −1 ... +16 bar available
- Voltage 15 ... 30 V DC
- Temperature range 0 ... +50°C
- Degree of protection IP40

General technical data	
Certification	RCM compliance mark
	c UL us listed (OL)
Certificate issuing authority	UL E322346
CE marking (see declaration of conformity)	To EU EMC Directive
	To EU RoHS Directive
KC mark	KC EMC
Note on materials	RoHS-compliant

Input signal, measuring element		-B2	-B11	-V025	-V05	-V1	-P025	-P05	-P1	-P2	-P6	-P10	-P12	P16
Measured variable		Relative pressure												
Measurement method		Piezoresistive pressure sensor												
Pressure measuring range start value	[bar]	−1		0										
Pressure measuring range end value	[bar]	1	10	−0.25	−0.5	−1	0.25	0.5	1	2	6	10	12	16
Max. overload pressure	[bar]	5	15	1	2	5	1	2	5	6	15	15	15	20
Operating medium		Compressed air to ISO 8573-1:2010 [7:4:4]												
		Inert gases												
Note on the operating/pilot medium		Lubricated operation possible												
Temperature of medium	[°C]	0 ... +50												
Ambient temperature	[°C]	0 ... +50												

Output, general		-B2	-B11	-V025	-V05	-V1	-P025	-P05	-P1	-P2	-P6	-P10	-P12	P16
Accuracy FS	[%]	±1.5												±2
Repetition accuracy	[%]	±0.3												
Temperature coefficient	[%FS/K]	±0.05												

Switching output	
Switching output	2x PNP or 2x NPN, switchable
Switching function	Window comparator
	Threshold value comparator
	Auto difference monitoring
Switching element function	N/C or N/O contact, switchable
Max. output current	[mA] 100
Short circuit protection	Yes