

Pressure transmitters SPTW



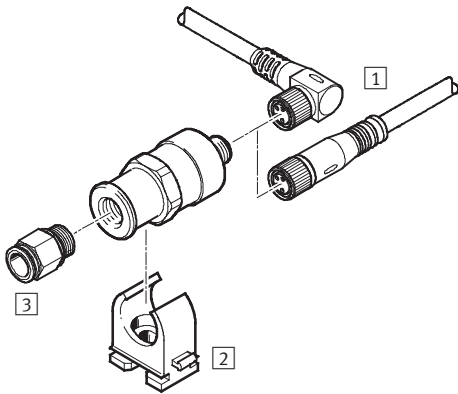
Pressure transmitters SPTW

Product range overview

Method of measurement	Pressure measuring range [bar]	Measured variable	Pneumatic connection	Operating voltage [V DC]	Electrical connection
Piezoresistive pressure sensor	-1 ... +1	Relative pressure	G $\frac{1}{4}$	8 ... 30	Plug M12x1, 4-pin, to EN 60947-5-2, round design
	0 ... 2				
	0 ... 6				
Thin-film metal pressure sensor	0 ... 10	Relative pressure	G $\frac{1}{4}$	8 ... 30	Plug M12x1, 4-pin, to EN 60947-5-2, round design
	-1 ... +10				
	0 ... 16				
	0 ... 25				
	0 ... 50				
	0 ... 100				

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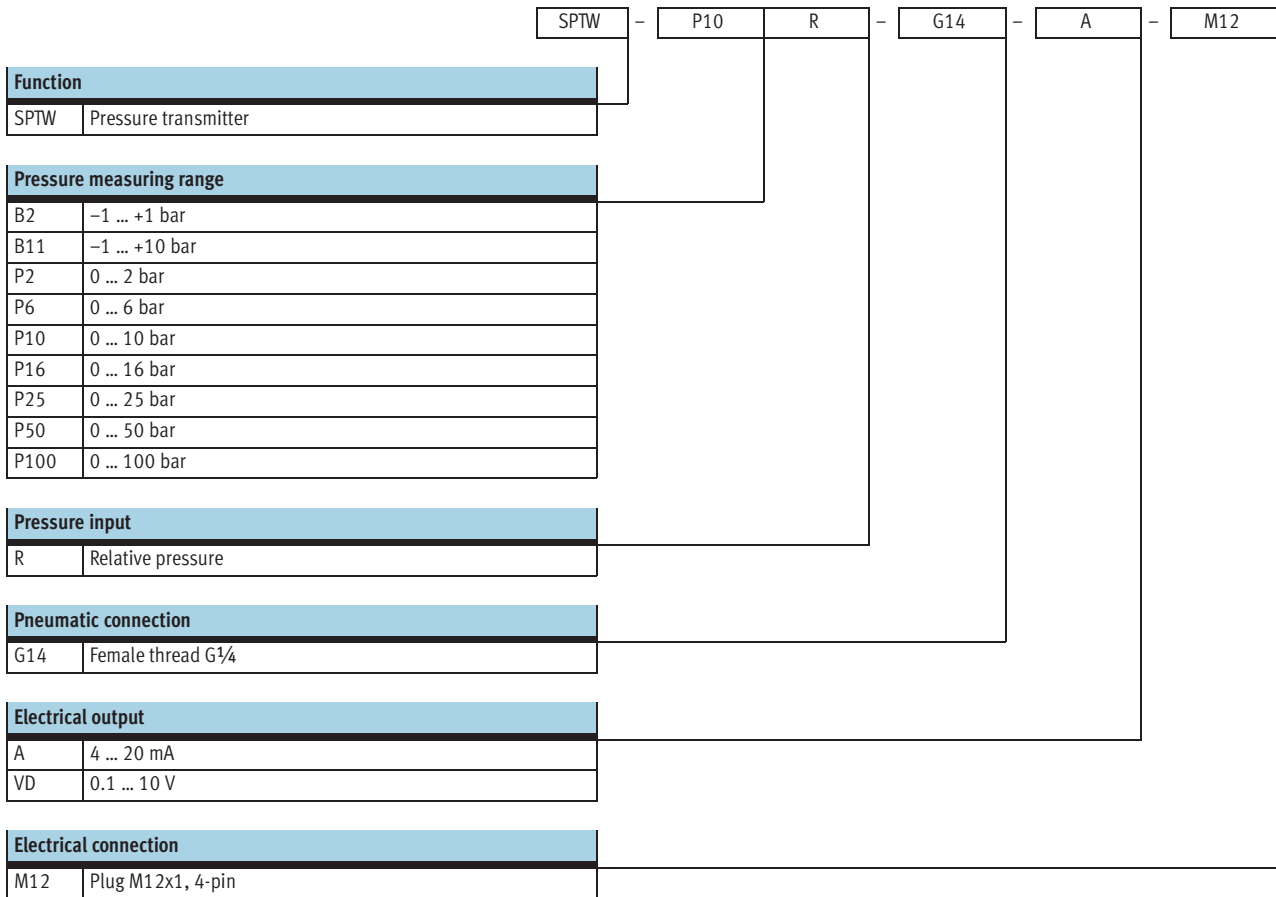
Peripherals overview



Mounting attachments and accessories		→ Page/Internet
1	Connecting cable NEBU-M12	8
2	Pipe clamp (included in the scope of delivery)	-
3	Push-in fitting QS-1/4	8

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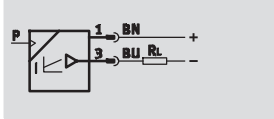
Type codes



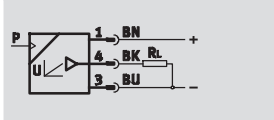
Pressure transmitters SPTW

Technical data

Function
SPTW-...-A



SPTW-...-VD



Voltage
8 ... 30 V DC

Pressure
-1 ... +100 bar

Temperature range
0 ... 80 °C



- Pressure and vacuum sensing for gaseous and liquid media
- High media resistance

General technical data	
Certification	cULus listed (OL) C-Tick
CE mark (see declaration of conformity) ¹⁾	To EU EMC Directive
Note on materials	Contains PWIS (paint wetting impairment substances) RoHS-compliant

1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com → Support → User documentation.
If the component is subject to restrictions on usage in residential, office or commercial environments or small businesses, further measures to reduce the emitted interference may be necessary.

Input signal/measuring element		B2	P2	P6	P10	B11	P16	P25	P50	P100
Measured variable		Relative pressure								
Method of measurement		Piezoresistive pressure sensor				Thin-film metal pressure sensor				
Pressure measuring range starting value [bar]		-1	0	0	0	-1	0	0	0	0
Pressure measuring range final value [bar]		1	2	6	10	10	16	25	50	100
Overload pressure [bar]		2	4	12	20	20	32	50	100	200
Operating medium		Compressed air Liquid media Gaseous media Vacuum								
Temperature of medium [°C]		0 ... 80								
Ambient temperature [°C]		0 ... 80								

Output, general		
Accuracy ±FS ¹⁾	[%]	1
Repetition accuracy ±FS ¹⁾	[%]	0.1

1) % FS = % of the measuring range (full scale)

Analogue output			
SPTW-...-		A	VD
Analogue output	[mA]	4 ... 20	-
	[V]	-	0.1 ... 10
Linearity error ±FS ¹⁾	[%]	0.5	

1) % FS = % of the measuring range (full scale)

Pressure transmitters SPTW

Technical data

Output, additional data	
Protection against short circuit	Yes



Electronic components			
SPTW-...-		A	VD
Operating voltage range DC	[V]	8 ... 30	14 ... 30
Reverse polarity protection		For operating voltage	

Electromechanical components	
Electrical connection	Plug M12x1, 4-pin
	To EN 60947-5-2
	Round design
Plug housing material	PA

Mechanical components	
Type of mounting	Via female thread
	Via accessories
Mounting position	Any
Pneumatic connection	G1/4
Product weight	[g] 80
Housing materials	High-alloy stainless steel
	PA
	VMQ (silicone)
Materials in contact with the medium	High-alloy stainless steel

Immissions/emissions	
Protection class	IP67
Corrosion resistance class CRC ¹⁾	4

1) Corrosion resistance class 4 according to Festo standard 940 070
 Components subject to particularly high corrosion stress. Parts used with aggressive media, e.g. in the food or chemical industry. These applications should be supported with special tests with the media if required.

Pin allocation			Pin allocation		
SPTW-...-A			SPTW-...-VD		
Plug M12x1, 4-pin	Pin	Meaning	Plug M12x1, 4-pin	Pin	Meaning
	1	Operating voltage U_0 /signal +		1	Operating voltage U_0
	3	0 V/signal -		3	0 V
					4

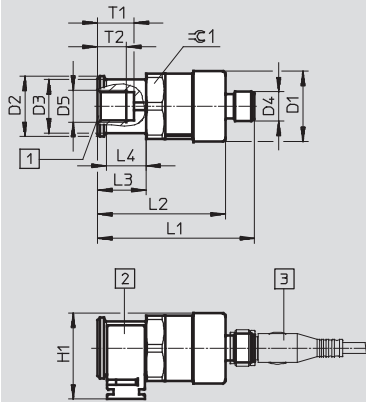
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Technical data

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Dimensions

Download CAD Data → www.festo.com/us/cad



- 1 Pneumatic connection
- 2 Pipe clamp (included in the scope of delivery)
- 3 Connecting cable




Type	D1 Ø	D2 Ø	D3 Ø	D4	D5	H1	L1	L2	L3	L4	T1	T2	☉
SPTW	29	25	22	M12x1	G $\frac{1}{4}$	35.5	64.8	52.8	20	16.5	15	12	27

Ordering data


Pressure measuring range [bar]	Analogue output	Pneumatic connection	Electrical connection	Part No.	Type
-1 ... +1	4 ... 20 mA	G $\frac{1}{4}$	Plug M12x1, 4-pin	8000100	SPTW-B2R-G14-A-M12
-1 ... +10				8000101	SPTW-B11R-G14-A-M12
0 ... 2				8000102	SPTW-P2R-G14-A-M12
0 ... 6				8000103	SPTW-P6R-G14-A-M12
0 ... 10				8000104	SPTW-P10R-G14-A-M12
0 ... 16				8000105	SPTW-P16R-G14-A-M12
0 ... 25				8000106	SPTW-P25R-G14-A-M12
0 ... 50				8000107	SPTW-P50R-G14-A-M12
0 ... 100				8000108	SPTW-P100R-G14-A-M12
-1 ... +1				0.1 ... 10 V	G $\frac{1}{4}$
-1 ... +10	8000110	SPTW-B11R-G14-VD-M12			
0 ... 2	8000111	SPTW-P2R-G14-VD-M12			
0 ... 6	8000112	SPTW-P6R-G14-VD-M12			
0 ... 10	8000113	SPTW-P10R-G14-VD-M12			
0 ... 16	8000114	SPTW-P16R-G14-VD-M12			
0 ... 25	8000115	SPTW-P25R-G14-VD-M12			
0 ... 50	8000116	SPTW-P50R-G14-VD-M12			
0 ... 100	8000117	SPTW-P100R-G14-VD-M12			

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Accessories

Ordering data – Connecting cables				Technical data → Internet: nebu	
	Number of wires/pins	Cable length [m]	Part No.	Type	
M12x1, straight socket, open end					
	3	2.5	541363	NEBU-M12G5-K-2.5-LE3	
		5	541364	NEBU-M12G5-K-5-LE3	
	4	2.5	550326	NEBU-M12G5-K-2.5-LE4	
		5	541328	NEBU-M12G5-K-5-LE4	
	5	2.5	541330	NEBU-M12G5-K-2.5-LE5	
		5	541331	NEBU-M12G5-K-5-LE5	
M12x1, angled socket, open end					
	3	2.5	541367	NEBU-M12W5-K-2.5-LE3	
		5	541370	NEBU-M12W5-K-5-LE3	
	4	2.5	550325	NEBU-M12W5-K-2.5-LE4	
		5	541329	NEBU-M12W5-K-5-LE4	
Socket M12x1, straight; plug M8x1, straight					
	4	2.5	554034	NEBU-M12G5-E-2.5-W2-M8G4-V1¹⁾	
	4		554033	NEBU-M12G5-E-2.5-W3-M8G4-V2²⁾	

- 1) Pin allocation designed for connecting the pressure transmitter SPTW...-A-M12 to the signal converter SVE4-IS
- 2) Pin allocation designed for connecting the pressure transmitter SPTW...-VD-M12 to the signal converter SVE4-US

Ordering data – Push-in fittings ¹⁾				Technical data → Internet: quick star	
	For tubing O.D.	Part No.	Type		
	4 mm	190644	QS-¼-4¹⁾		
	6 mm	153003	QS-¼-6¹⁾		
	8 mm	153005	QS-¼-8¹⁾		

- 1) Temperature-dependent operating pressure –0.95 ... 14 bar

Product Range and Company Overview

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Our experienced engineers provide complete support at every stage of your development process, including: conceptualization, analysis, engineering, design, assembly, documentation, validation, and production.



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Electromechanical actuators, motors, controllers & drives



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PLCs and I/O Devices
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Festo is a leading global manufacturer of pneumatic and electromechanical systems, components and controls for industrial automation, with more than 12,000 employees in 56 national headquarters serving more than 180 countries. For more than 80 years, Festo has continuously elevated the state of manufacturing with innovations and optimized motion control solutions that deliver higher performing, more profitable automated manufacturing and processing equipment. Our dedication to the advancement of automation extends beyond technology to the education and development of current and future automation and robotics designers with simulation tools, teaching programs, and on-site services.

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