

Pressure transmitters SPTE

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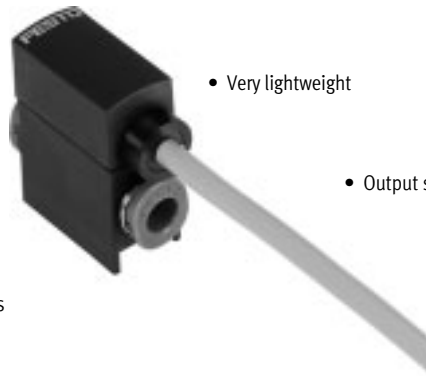
Pressure transmitters SPTE

Key features

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At a glance

- Compact design
- Various pneumatic connection options
- Choice of pressure ranges
- Very lightweight
- Output signal: 0 ... 10 V or 1 ... 5 V



Pneumatic connections



Push-in sleeve



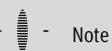
Push-in connector



Flange



Cartridge



Note

The version with 10 mm cartridge is designed for the vacuum generator OVEL.

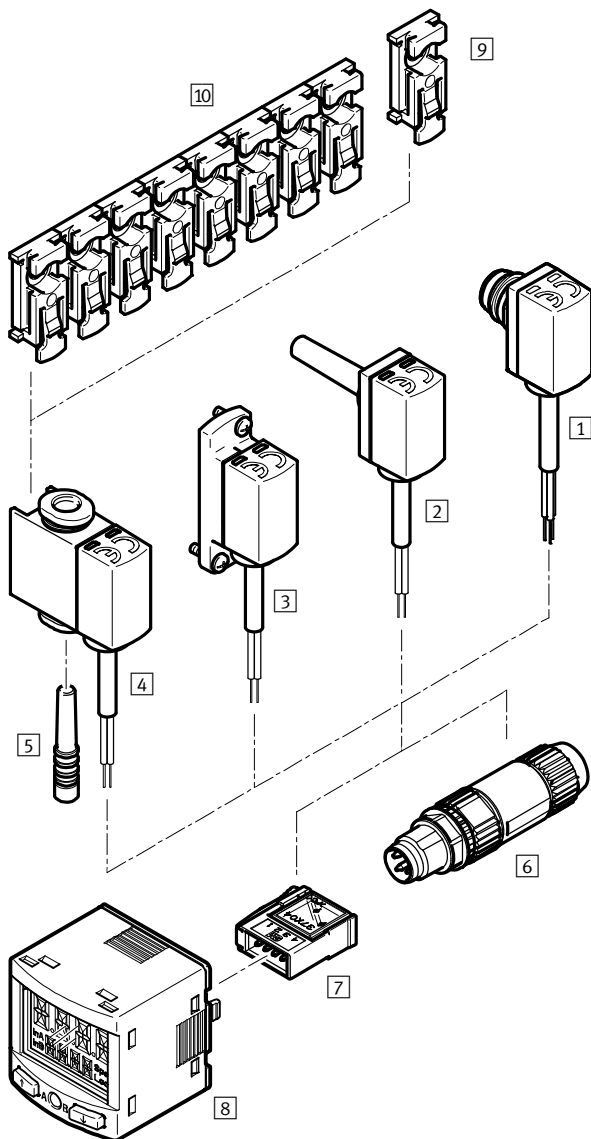
Use with SCDN



- One or two SPTE transmitters can be connected to a SCDN signal converter
- Measured value indicator with selection of units
- Blue display with high-contrast white text and red switchover
- IO-Link®/2x PNP or NPN switching outputs
- Min./max. monitoring

Pressure transmitters SPTE

Peripherals overview



Accessories		→ Page/Internet
1	Pressure transmitter SPTE-...-PC10-...	5
2	Pressure transmitter SPTE-...-S...	5
3	Pressure transmitter SPTE-...-F	5
4	Pressure transmitter SPTE-...-Q...	5
5	Blanking plug QSMC-3H (included in the scope of delivery with SPTE-...-Q...)	qs
6	Plug NECU-S-M...G3-HX	10
7	Plug NECU-S-ECG4-HX-Q3	10
8	Signal converter SCDN-2V-EC4-PNLK-L1	scdn
9	Mounting clip SAMH-PE-MC-1	10
10	Mounting clip SAMH-PE-MC-8	10

Pressure transmitters SPTE

Type codes

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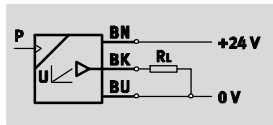
		SPTE	-		R	-		-		-	2.5K
Function											
SPTE	Pressure transmitter										
Pressure measuring range¹⁾											
B2	-1 ... 1 bar										
V1	0 ... -1 bar										
P10	0 ... 10 bar										
Pressure input											
R	Relative pressure										
Pneumatic connection											
S4	Push-in sleeve 4 mm										
S6	Push-in sleeve 6 mm										
Q3	Push-in connector 3 mm										
Q4	Push-in connector 4 mm										
F	Flange										
PC10	Cartridge 10 mm										
Electrical output											
B	1 ... 5 V										
V	0 ... 10 V										
Electrical connection											
2.5K	2.5 m cable, open end										

1) Additional pressure ranges on request (in packs of 80)

Pressure transmitters SPTE

Technical data

Function



-  - Voltage
10 ... 30 V DC
-  - Pressure
-1 ... +10 bar
-  - Temperature range
0 ... +50 °C



General technical data

Certification	RCM trademark
	c UL us - Recognized (OL)
CE mark (see declaration of conformity) ¹⁾	To EU EMC Directive
Note on materials	RoHS-compliant

- 1) For information about the applicability of the component see the manufacturer's EC declaration of conformity at: www.festo.com/sp → Certificates.
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

SPTE-	V1R	B2R	P10R
Measured variable	Relative pressure		
Method of measurement	Piezoresistive pressure sensor		
Pressure measuring range starting value [bar]	0	-1	0
Pressure measuring range final value [bar]	-1	1	10
Max. overload pressure [bar]	5	5	15
Operating medium	Compressed air in accordance with ISO 8573-1:2010 [7:4:4]		
Note on operating/pilot medium	Operation with lubricated medium possible		
Temperature of medium [°C]	0 ... +50		
Ambient temperature [°C]	0 ... +50		

Output, general

Accuracy ±FS ¹⁾ [%]	3 (at room temperature of approx. 23 °C) 4 (in the ambient temperature range 0 ... 50 °C)
Repetition accuracy ±FS ¹⁾ [%]	0.3
Temperature coefficient ±FS/K ¹⁾ [%]	0.05

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

Analogue output

SPTE-...-	-B-	-V-
Analogue output [V]	1 ... 5	0 ... 10
Rise time [ms]	1	
Min. load resistance of voltage output [kΩ]	15	

Pressure transmitters SPTE

Technical data

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Output, additional data						
Protection against short circuit		For all electrical connections				
Electronic components						
SPTE-...-		-B-			-V-	
Operating voltage range DC [V]		10 ... 30			18 ... 30	
Reverse polarity protection		For all electrical connections				
Electromechanical components						
Electrical connection		Cable, 3-wire, open end				
Cable length [m]		2.5				
Mechanical components						
SPTE-...-		S4	S6	Q3	Q4	F PC10
Type of mounting		Push-in		Via accessories		Via through-hole and screw Pin-type connection
Mounting position		Any				
Pneumatic connection		Push-in sleeve QS-4	Push-in sleeve QS-6	QS-3	QS-4	Flange Cartridge 10 mm
Product weight [g]		35				
Housing materials		PA, reinforced				
Immissions/emissions						
Protection class		IP40				
Corrosion resistance class CRC ¹⁾		2				

- 1) Corrosion resistance class 2 according to Festo standard 940 070
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

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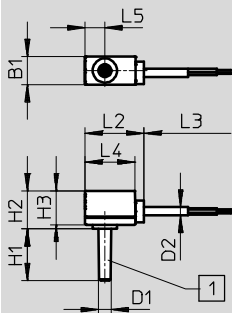
Technical data

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Dimensions

Download CAD data → www.festo.com

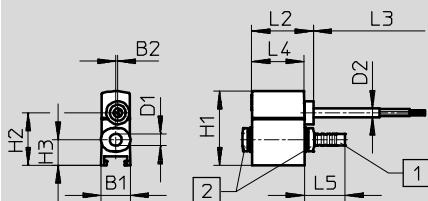
SPTE-...-S...



1 Pneumatic connection

Type	B1	B2	B3	D1 Ø	D2 Ø	D3 Ø	D4	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7
SPTE-...-S4	9.8	-	-	4	2.9	-	-	18	13.3	11.8	-	20.5	2500	17.5	6.9	-	-
SPTE-...-S6		-	-	6		-	-	18	13.3	11.8	-				6.9	-	-

SPTE-...-Q...



1 Blanking plug
2 Pneumatic connection

Type	B1	B2	B3	D1 Ø	D2 Ø	D3 Ø	D4	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7
SPTE-...-Q3	9.8	0.7	-	3	2.9	-	-	24.7	17.5	8.5	-	20.5	2500	17.5	13.6	-	-
SPTE-...-Q4		0.7	-	4		-	-	24.7	17.5	8.5	-				13.6	-	-

Pressure transmitters SPTE

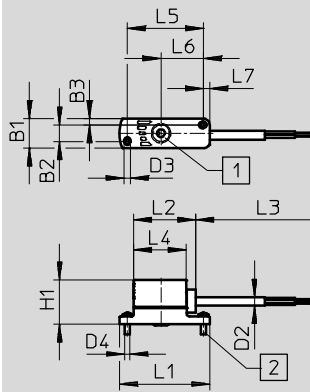
Technical data

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Dimensions

Download CAD data → www.festo.com

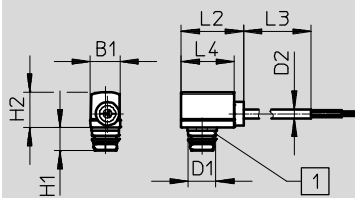
SPTE-...-F



- 1 Pneumatic connection with O-ring for flat mounting
- 2 M2x6 screw

Type	B1	B2	B3	D1 Ø	D2 Ø	D3 Ø	D4	H1	H2	H3	L1	L2	L3	L4	L5	L6	L7
SPTE-...-F	9.8	5.4	2.1	–	2.9	2.1	M2x6	15	–	–	30	20.5	2500	17.5	25	13.9	2.3

SPTE-...-PC10-...



- 1 Pressure supply port Pin-type Cartridge 10 mm

Type	B1	D1 Ø	D2 Ø	H1	H2	L2	L3	L4
SPTE-V1R-PC10-V-...	9.8	8.9	2.9	7.6	11.7	20.5	2500	17.5
SPTE-V1R-PC10-B-...								
SPTE-B2R-PC10-V-...								
SPTE-B2R-PC10-B-...								

Pressure transmitters SPTE

Technical data

Ordering data					
Pressure measuring range [bar]	Analogue output [V]	Pneumatic connection	Electrical connection	Part No.	Type
-1 ... 1	1 ... 5	Cartridge 10 mm	Cable, 3-wire, open end	8025977	SPTE-B2R-PC10-B-2.5K 
	0 ... 10			8025976	SPTE-B2R-PC10-V-2.5K 
0 ... -1	1 ... 5	Cartridge 10 mm	Cable, 3-wire, open end	8025975	SPTE-V1R-PC10-B-2.5K
		Push-in sleeve 4 mm		571469	SPTE-V1R-S4-B-2.5K
		Push-in sleeve 6 mm		571470	SPTE-V1R-S6-B-2.5K
		Push-in connector 3 mm		571471	SPTE-V1R-Q3-B-2.5K
		Push-in connector 4 mm		571472	SPTE-V1R-Q4-B-2.5K
		Flange		571473	SPTE-V1R-F-B-2.5K
	0 ... 10	Cartridge 10 mm		8025974	SPTE-V1R-PC10-V-2.5K 
		Push-in sleeve 4 mm		571474	SPTE-V1R-S4-V-2.5K
		Push-in sleeve 6 mm		571475	SPTE-V1R-S6-V-2.5K
		Push-in connector 3 mm		571476	SPTE-V1R-Q3-V-2.5K
		Push-in connector 4 mm		571477	SPTE-V1R-Q4-V-2.5K
		Flange		571478	SPTE-V1R-F-V-2.5K
0 ... 10	1 ... 5	Push-in sleeve 4 mm		571479	SPTE-P10R-S4-B-2.5K
		Push-in sleeve 6 mm		571480	SPTE-P10R-S6-B-2.5K
		Push-in connector 3 mm		571481	SPTE-P10R-Q3-B-2.5K
		Push-in connector 4 mm		571482	SPTE-P10R-Q4-B-2.5K
		Flange		571483	SPTE-P10R-F-B-2.5K
	0 ... 10	Push-in sleeve 4 mm		571484	SPTE-P10R-S4-V-2.5K
		Push-in sleeve 6 mm		571485	SPTE-P10R-S6-V-2.5K
		Push-in connector 3 mm		571486	SPTE-P10R-Q3-V-2.5K
		Push-in connector 4 mm		571487	SPTE-P10R-Q4-V-2.5K
		Flange		571488	SPTE-P10R-F-V-2.5K

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Accessories

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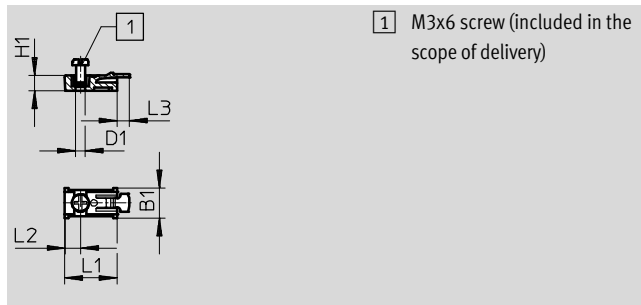
Mounting clip SAMH-PE-MC-1

Material:

POM

Note on materials:

RoHS-compliant



Dimensions and ordering data							Part No.	Type
B1	D1	H1	L1	L2	L3			
10	3.2	5	17.5	5.3	4		571489	SAMH-PE-MC-1

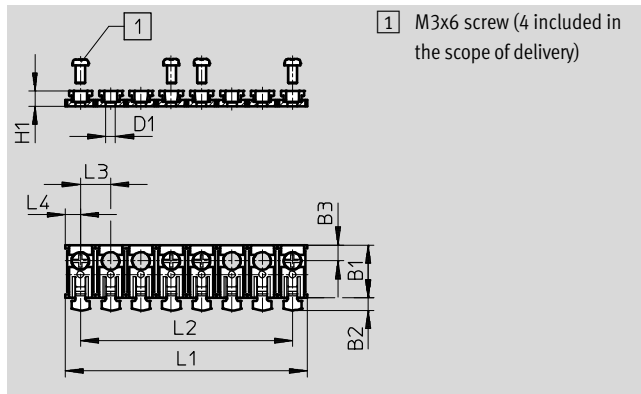
Mounting clip SAMH-PE-MC-8

Material:

POM

Note on materials:

RoHS-compliant



Note
The mounting clip SAMH-PE-MC-8 can be shortened by the user to the required number of slots.

Dimensions and ordering data									Part No.	Type
B1	B2	B3	D1	H1	L1	L2	L3	L4		
17.5	4	5.3	3.2	5	80	70	10	5	571490	SAMH-PE-MC-8

Ordering data – Plugs				Part No.	Type
	Electrical connection				
	Plug M8x1, 3-pin, straight, insulation displacement connector			562024	NECU-S-M8G3-HX
	Plug M12x1, A-coded, 3-pin, straight, insulation displacement connector			562027	NECU-S-M12G3-HX
	Straight plug/insulation displacement connector, 4-pin, square design			570922	NECU-S-ECG4-HX-Q3