

Pressure transmitters SPTE

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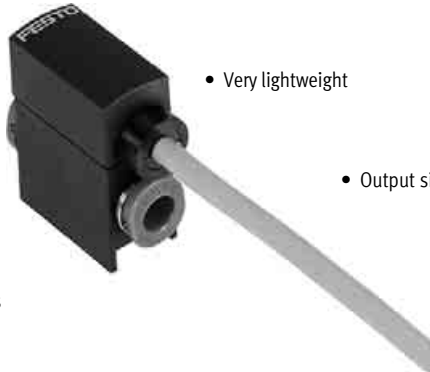


Pressure transmitters SPTE

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



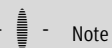
Push-in connector



Flange



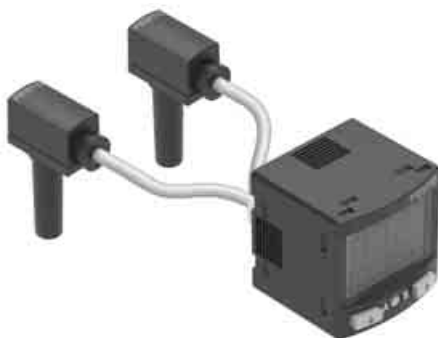
Cartridge



Note

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

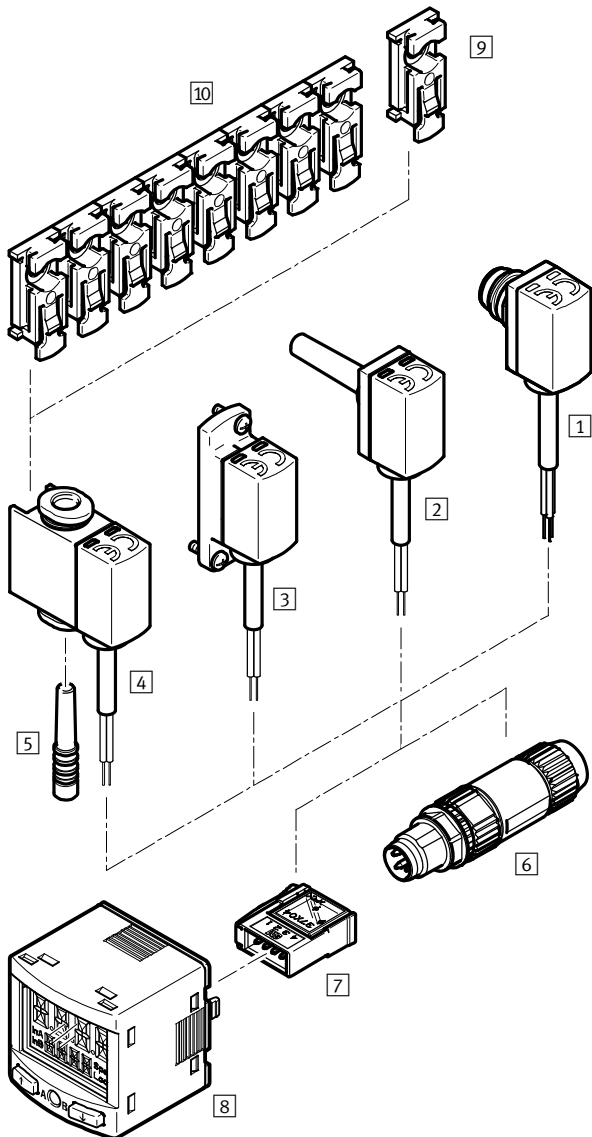
Use with SCDN



- 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	9
7	Plug NECU-S-ECG4-HX-Q3	9
8	Signal converter SCDN-2V-EC4-PNLK-L1	scdn
9	Mounting clip SAMH-PE-MC-1	9
10	Mounting clip SAMH-PE-MC-8	9

Pressure transmitters SPTE

Type codes

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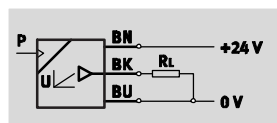
		SPTE	-		R	-		-		-	2.5K
Function											
SPTE	Pressure transmitter										
Pressure measuring range¹⁾											
B2	-1 ... 1 bar										
V1	0 ... -1 bar										
P10	0 ... 10 bar										
Pressure input											
R	Relative pressure										
Pneumatic connection											
S4	Push-in sleeve 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 → 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

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.

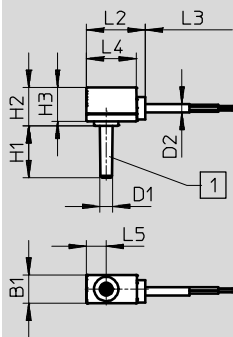
Pressure transmitters SPTE

Technical data

Dimensions

Download CAD data → www.festo.com

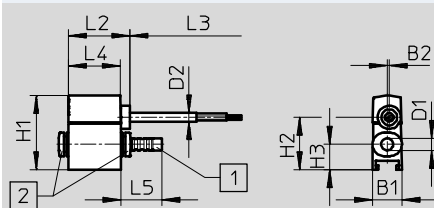
SPTE-...-S...



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

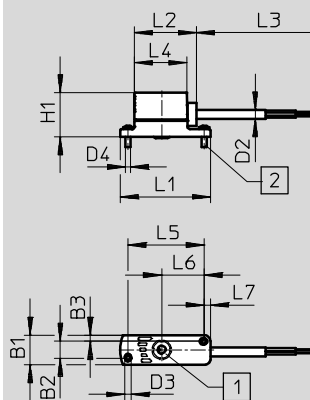
Technical data

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Dimensions

Download CAD data → www.festo.com

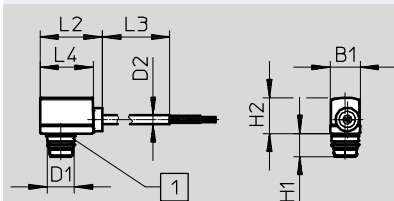
SPTE-...-F



- 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
		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
		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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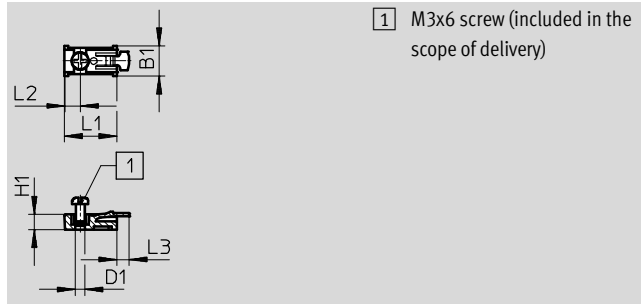
Mounting clip SAMH-PE-MC-1

Material:

POM

Note on materials:

RoHS-compliant



Dimensions and ordering data

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

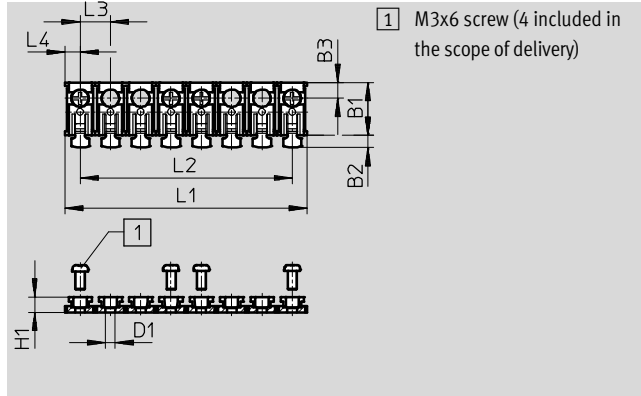
Mounting clip SAMH-PE-MC-8

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

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

Ordering data – Plugs

	Electrical connection	Part No.	Type
	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

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