

Pressure sensors SPAU

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Pressure sensors SPAU

Key features

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At a glance

Product description

The pressure sensor SPAU is suitable for monitoring compressed air and non-corrosive gases. The variant with display offers the option of reading the pressure and setting values on-site. The pressure value is transmitted to the connected control system as a switching signal, as an analogue signal or via IO-Link.



The pressure sensor without display transmits the pressure value to the connected control system as an analogue signal. Display of the pressure and parameterisation of the sensor are provided centrally, e.g. via a display forming part of a machine control system. The pressure sensor can be parameterised using IO-Link as a tamper-proof pressure switch without display with up to two switching outputs.



Areas of application

- Network monitoring (pressure present)
- Regulator monitoring (pressure in the target area)
- Vacuum (partial suction)
- Air-pressure test (pressure drop over time)
- Object detection (back pressure present)

Product benefits

An assembly concept with short assembly times that is easy to implement in all installation situations. Female/male thread or push-in fitting QS – the perfect pneumatic adapter for every application.

Assembly:

- Threaded mounting
- H-rail mounting
- Front panel mounting
- Mounting bracket
- Wall mounting

Electronic components:

- Maximum versatility and reduced warehousing owing to switchable electrical outputs (PNP/NPN/ normally closed/normally open and current/voltage output)

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Operation

Monitoring and setting of a pressure threshold, a pressure range or a pressure difference using a teach-in function or by entering values.

Variants with display:

- Pressure display, pressure switching outputs and readout of analogue value from an on-site device can be set
- Quick commissioning of the pressure sensor thanks to straightforward menu navigation
- Display colour blue/red as visual feedback about the pressure of the medium
- Min./max. value memory for monitoring compressed air (display of rapid pressure peaks that are not visible to the human eye)
- Adjustable filter attenuates the sensor signal generated by pressure peaks
- Scaling the analogue output to increase the signal dynamics
- Choice of pressure units: bar, MPa, PSI and more
- Offset compensation possible
- ECO function "Switch off display" available
- Optional security code can be freely chosen (4-digit code)
- All settings that have been carried out on one sensor (master) can be transferred (replication) to other, identical sensors (device). This makes it possible to significantly shorten commissioning time

Variants without display:

- Analogue value output and pressure switching outputs proportional to the pressure
- Switching output behaviour can be set on the machine display using IO-Link
- Other functions can be set using IO-Link

Variants with IO-Link:

- With and without display
- Serial communication integrated using IO-Link 1.1
- Analogue process value is provided digitally
- The sensor can be parameterised and maintained remotely at control level using an IO-Link master
- Automatic parameterisation following sensor change: no need to repeat parameterisation and sensor settings after changing the sensor

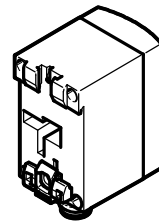
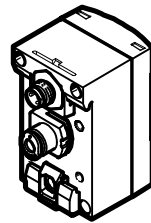
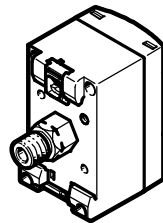
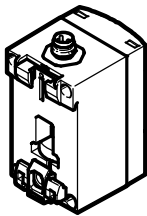
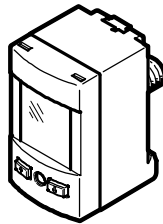
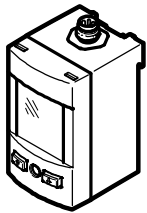
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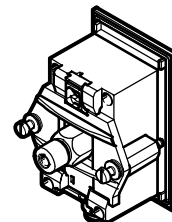
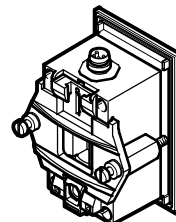
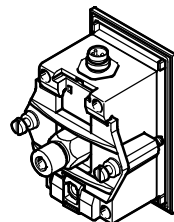
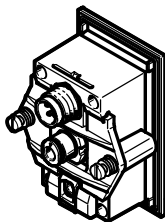
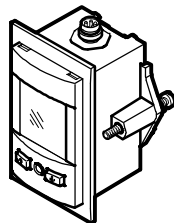
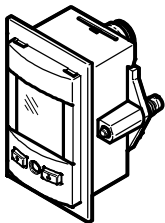
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Device variants

Variants with display



Variants with display for front panel mounting



The connections shown are by way of example.

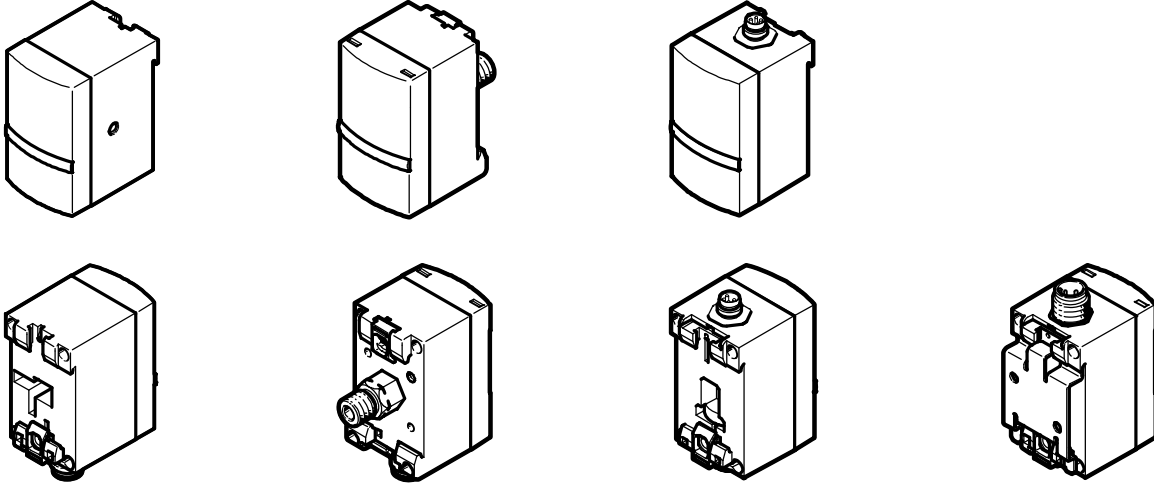
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Device variants

Variants without display

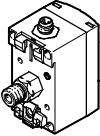
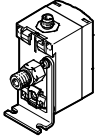
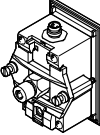
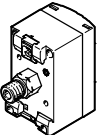
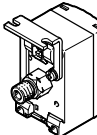
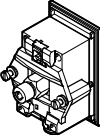
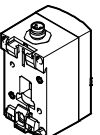
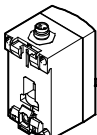
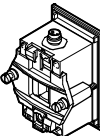
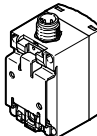
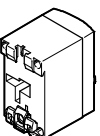
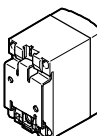
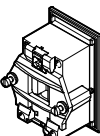
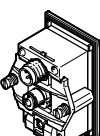
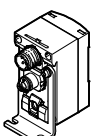


The connections shown are by way of example.

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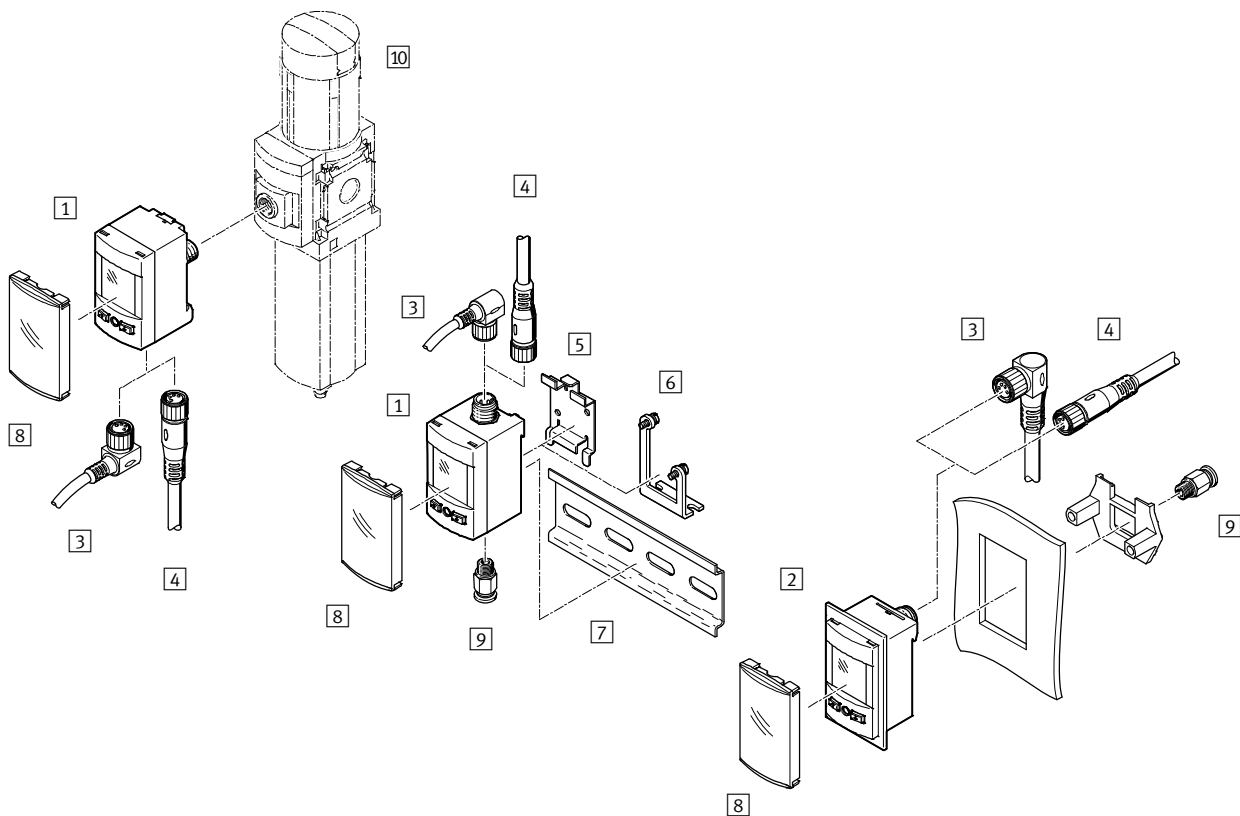
Housing variants	Mounting options		Pneumatic connection
- Pneumatic connection at rear - Electrical connection at top	 Threaded mounting ¹⁾	 Wall mounting bracket (upright)	Male thread: G1/8, R1/8, N1/8, R1/4 Female thread: M5, M7
	 Front panel mounting		
- Pneumatic connection at rear - Electrical connection underneath	 Threaded mounting	 Wall mounting bracket (suspended)	Male thread: G1/8, R1/8, N1/8, R1/4 Female thread: M5, M7
	 Front panel mounting		
- Pneumatic connection underneath - Electrical connection at top	 Threaded mounting	 H-rail mounting	Female thread: G1/8, R1/8, N1/8, M7 Push-in connector: QS4, QS6, QS5/32
	 Front panel mounting	 Wall mounting	
- Pneumatic connection underneath - Electrical connection underneath	 H-rail mounting	 Wall mounting	Push-in connector: QS4, QS5/32
	 Front panel mounting		
- Pneumatic connection at rear - Electrical connection at rear	 Front panel mounting	 Wall mounting bracket (upright)	Push-in connector: QS4, QS6, QS5/32

1) Threaded mounting with M5 female thread is not recommended

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Peripherals overview

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Accessories	→ Page/ Internet
1 Pressure sensors SPAU, display variants	10
2 Pressure sensors SPAU, display variants for front panel mounting	10
3 Connecting cable, angled socket M8x1	23
4 Connecting cable, straight socket M8x1	23
3 Connecting cable, angled socket M12x1	23
4 Connecting cable, straight socket M12x1	23

Accessories	→ Page/ Internet
5 Wall mounting SAMH-PU-W	21
6 Mounting bracket SAMH-PU-A	21
7 Mounting rail To DIN EN 60715	nrh
8 Safety guard SACC-PU-G	22
9 Pressure supply port	–
10 Service unit	ms4

Pressure sensors SPAU

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Type codes

SPAU		-	B2	R	-	H	-	Q4		D	-
------	--	---	----	---	---	---	---	----	--	---	---

Type	
SPAU	Pressure sensors

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

Pressure input	
R	Relative pressure

Type of mounting	
T	Threaded mounting
H	H-rail mounting
W	Wall mounting
A	Mounting bracket
F	Front panel mounting

Pneumatic connection	
G18	G1/8
R14	R1/4
R18	R1/8
N18	NPT1/8
M5	M5
M7	M7
Q4	Push-in connector 4 mm
Q6	Push-in connector 6 mm
T532	Push-in connector 5/32

Thread type	
-	None
M	Male thread
F	Female thread

Outlet direction	
-	At the rear
D	Underneath

Pressure sensors SPAU

Type codes

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		-	LK	-	A	+	2,5S	G	T
--	--	---	----	---	---	---	------	---	---

Display	
-	None
L	LCD, backlit

Electrical output 1	
PNLK	PNP, NPN, IO-Link
LK	IO-Link

Electrical output 2	
PNVBA	PNP, NPN, 0 ... 10 V, 1 ... 5 V, 4 ... 20 mA
V	0 ... 10 V
B	1 ... 5 V
A	4 ... 20 mA

Electrical connection	
M8	M8 plug connector
M12	Plug connector M12, A-coded

Electrical outlet direction	
-	At the rear
D	Underneath
U	Top

Electrical accessories	
-	None
2,5A	Angled socket, cable 2.5 m
2,5S	Straight socket, cable 2.5 m
5A	Angled socket, cable 5 m
5S	Straight socket, cable 5 m

Protective devices	
-	None
G	Safety guard

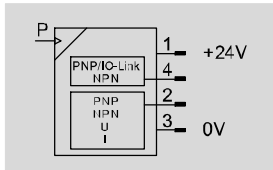
Certificate	
-	None
T	Test report

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Technical data

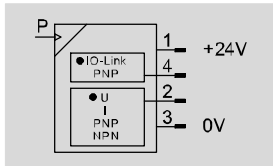
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Display ... -L



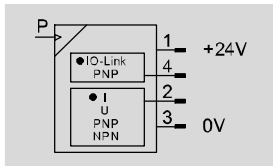
Variant without display

Output preset to voltage ... -LK-V



Variant without display

Output preset to current ... -LK-A



-  - Voltage
20 ... 30 V DC
-  - Pressure measuring range
-1 ... +16 bar
-  - Temperature range
0 ... +50 °C



General technical data	
Certification	RCM trademark c UL us listed (OL)
CE marking (see declaration of conformity)	To EU EMC Directive
Electrical connection	To EN 60947-5-2, 4-pin plug connector, round design
Note on materials	RoHS compliant

Input signal, measuring element		-B2	-B11	-V025	-V05	-V1	-P025	-P05	-P1	-P2	-P6	-P10	-P12	-P16
SPAU														
Measured variable		Relative pressure												
Method of measurement		Piezoresistive pressure sensor with display												
Pressure measuring range starting value	[bar]	-1		0										
Pressure measuring range final value	[bar]	1	10	-0.25	-0.5	-1	0.25	0.5	1	2	6	10	12	16
Overload range	[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 operating/pilot medium		Lubricated operation possible												
Temperature of medium	[°C]	0 ... +50												
Ambient temperature	[°C]	0 ... +50												

Signal processing	
Resolution ADC	[bit] 12

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												

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Technical data

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Switching output		
	-PNLK	-LK
Switching output	2x PNP or 2x NPN, switchable	2x PNP ¹⁾
Switching function	Freely programmable	
Switching element function	N/C or N/O contact, switchable	

1) Second PNP output can only be activated via IO-Link

Analogue output					
		-PNLK-PNVBA	-LK-A	-LK-V	-LK-B
Analogue output	[V]	0 ... 10	– 1)	0 ... 10	– 1)
	[V]	1 ... 5	– 2)	– 2)	1 ... 5
	[mA]	4 ... 20	4 ... 20	– 3)	– 3)
Rise time	[ms]	3			
Max. output current	[mA]	100			
Max. load resistance of current output	[Ω]	500			
Min. load resistance of voltage output	[kΩ]	10			

1) 0 ... 10 V analogue output can only be activated using IO-Link

2) 1 ... 5 V analogue output can only be activated using IO-Link

3) 4 ... 20 mA analogue output can only be activated using IO-Link

Output, additional data	
Protection against short circuit	Yes
Overload protection	Yes

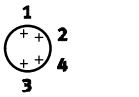
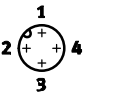
IO-Link device to IEC 61131-9	
Protocol	IO-Link
IO-Link	
Protocol version	Device V 1.1
Profile	Smart Sensor profile
Function classes	Binary data channel (BDC)
	Diagnostics
	Identification
	Process data variable (PDV)
	Teach channel
Communication mode	COM2 (38.4 kbd)
SIO mode support	Yes
Port class	A
Process data width OUT	0 bytes
Process data width IN	2 bytes
Process data content IN	14 bit PDV (pressure reading)
	2 bit BDC (pressure monitoring)
Minimum cycle time	[ms] 3
Data memory required	[KB] 0.5

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Technical data

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Electronics		
Operating voltage range DC	[V]	20 ... 30
Protection against incorrect polarity		For all electrical connections

Pin allocation to EN 60947-5-2				
Plug connector, 4-pin				
M8x1	M12x1	Pin	Wire colour	Allocation
		1	Brown	Operating voltage: +24 V DC
		3	Blue	Operating voltage 0 V
		4	Black	Switching output (C/Q-...)
		2	White	Switching output or analogue output

Display/operation		
SPAU	-L-PNLK	-LK
Display type	Illuminated LCD	LED
Displayable units	bar	-
	inchH2O	-
	inchHg	-
	kgf/cm²	-
	kPa	-
	mmHg	-
	MPa	-
	psi	-
Setting options	IO-Link	
	Teach-in	-
	Via display and keys	-
Protection against tampering	PIN code	-
Threshold value setting range	[%]	0 ... 100
Hysteresis setting range	[%]	0 ... 90

Immissions/emissions	
Degree of protection	IP67, IP65 (front panel mounting)
Corrosion resistance class CRC ¹⁾	2

1) Corrosion resistance class 2 according to Festo standard 940070

Components subject to moderate corrosion stress. External visible parts with primarily decorative surface requirements which are in direct contact with the surrounding industrial environment or media such as coolants or lubricating agents.

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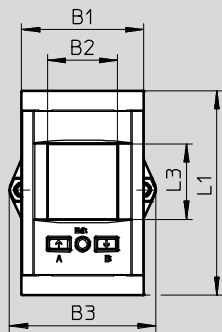
Technical data

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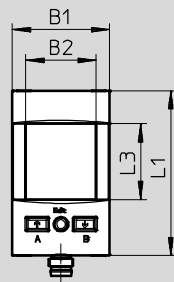
Dimensions

Download CAD data → www.festo.com

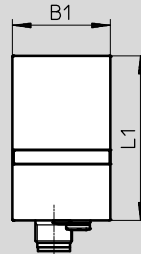
SPAU-...-F-...-L-PNLK-...



SPAU-...-L-PNLK-...



SPAU-...-LK-...



Type	B1	B2	B3	L1	L3
SPAU-...-F-...-L-PNLK-...	40	23	48	67	24.8
SPAU-...-L-PNLK-...	32		-	54	
SPAU-...-LK-...		-	-		-

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Technical data

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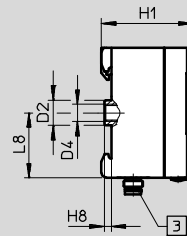
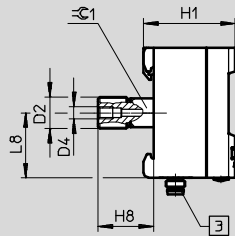
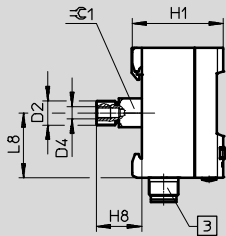
Dimensions – Pressure supply ports

Download CAD data → www.festo.com

SPAU-...-G18M-...
SPAU-...-R18M-...
SPAU-...-N18M-...
SPAU-...-M5F-...

SPAU-...-R14M-...

SPAU-...-M7F-...

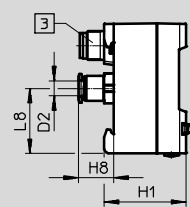
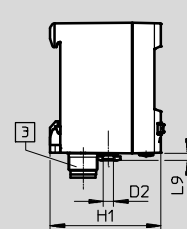
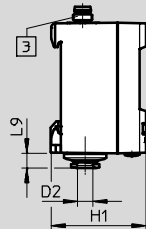
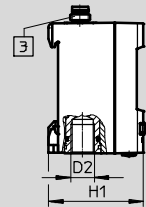
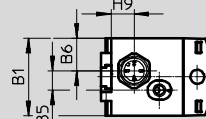
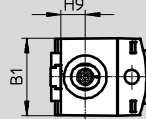
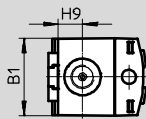


SPAU-...-G18MD-...
SPAU-...-R18MD-...
SPAU-...-N18MD-...
SPAU-...-M7FD-...

SPAU-...-Q4D-...-MxU
SPAU-...-Q6D-...-MxU
SPAU-...-Q532D-...-MxU

SPAU-...-Q4D-...-MxD
SPAU-...-Q532D-...-MxD

SPAU-...-Q4-...-Mx
SPAU-...-Q532-...-Mx



3 Pressure supply port
SPAU-...-M12... M12, 4pin
SPAU-...-M8... M8, 4pin

Type	B1	B5	B6	D2	Thread length		Thread engagement	D4	H1	H8	H9	L8	L9	≅C1	
					External (M)	Internal (F)									
SPAU-...-G18M-...-MxD	-			G1/8	8	-	Until stop	M5	37.9	19	-	27		12	
SPAU-...-R18M-...-MxD				R1/8			Min. 6,5								
SPAU-...-N18M-...-MxD				NPT1/8			Min. 6,9								
SPAU-...-M5F-...-MxD				M5	-	6	Until stop								
SPAU-...-R14M-...-MxD				R1/4	12	-	Min. 9,7								23
SPAU-...-M7F-...-MxD				M7		8	Until stop			M7					3
SPAU-...-G18FD-...-MxU	32	-	-	G1/8	-		12	Until stop	-	39.4	-	10	-	6.1	-
SPAU-...-R18FD-...-MxU				R1/8		Min. 6,5									
SPAU-...-N18FD-...-MxU				NPT1/8		Min. 6,9									
SPAU-...-M7FD-...-MxU				M7		Until stop									
SPAU-...-Q4D-...-MxU				QS4											
SPAU-...-Q6D-...-MxU				QS6											
SPAU-...-T532D-...-MxU				T5/32											
SPAU-...-Q4D-...-MxD		8	13.5	-	-	-	-	-		45.9	9.5	3			
SPAU-...-T532D-...-MxD													T5/32		
SPAU-...-Q4-...-Mx													QS4		
SPAU-...-Q6-...-Mx	-	-	-	-	-	-	-	33.9	14.8	-	27	-			
SPAU-...-T532-...-Mx													T5/32		

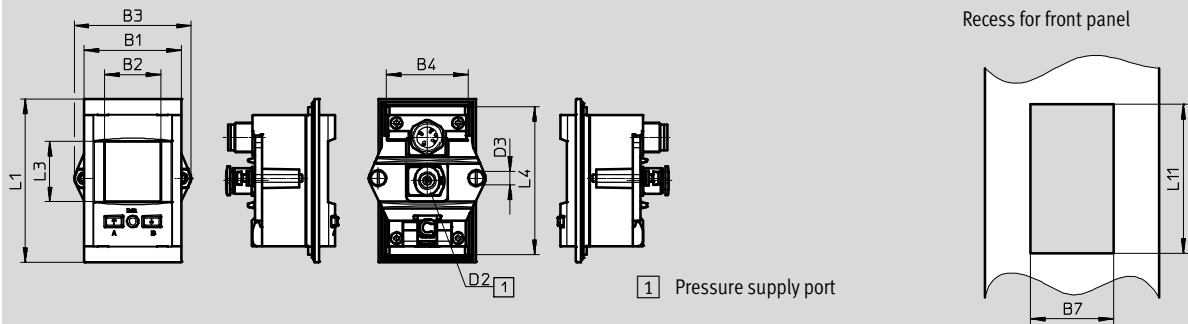
Pressure sensors SPAU

Technical data

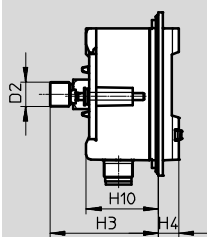
FESTO

Dimensions – Front panel mounting

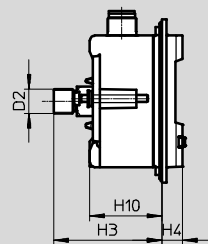
Download CAD data → www.festo.com



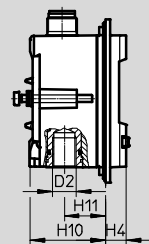
SPAU-...-F-...-MxD



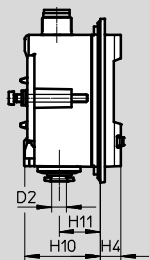
SPAU-...-F-...-MxU



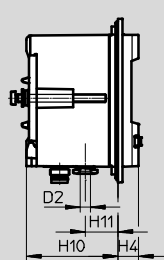
SPAU-...-F-...-FD-...-MxU



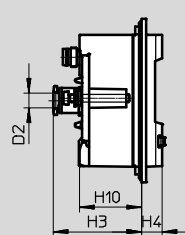
SPAU-...-F-Q...-D-...-MxU
SPAU-...-F-T532D-...-MxU



SPAU-...-F-Q4D-...-MxD
SPAU-...-F-T532D-...-MxD



SPAU-...-F-Q...-...-Mx
SPAU-...-F-T532-...-Mx



Type	B1	B2	B3	B4	B7 ±0.3	D2	D3	H3	H4	H10	H11	L1	L3	L4	L11 ±0.3											
SPAU-...-F-...18M-...-MxD	40	23	48	33.5	34	–	M3	44.4	8.4	29.5	–	67	24.8	60.5	61											
SPAU-...-F-R14M-...-MxD						R1/8		48.4																		
SPAU-...-F-M7F-...-MxD						M7		28.4																		
SPAU-...-F-M5F-...-MxD						M5		–																		
SPAU-...-F-...18M-...-MxU						–		44.4																		
SPAU-...-F-R14M-...-MxU						R1/4		48.4																		
SPAU-...-F-M7F-...-MxU						M7		28.4																		
SPAU-...-F-M5F-...-MxU						M5																				
SPAU-...-F-...18FD-...-MxU						–				31	16.9															
SPAU-...-F-M7FD-...-MxU						M7																				
SPAU-...-F-Q...D-...-MxU						–																				
SPAU-...-F-T532D-...-MxU						T5/32																				
SPAU-...-F-Q4D-...-MxD						QS4				37.5	13.4															
SPAU-...-F-T532D-...-MxD						T5/32				25.5	–															
SPAU-...-F-Q...-...-Mx						–		36.1																		
SPAU-...-F-T532-...-Mx						T5/32																				

Pressure sensors SPAU

Technical data

FESTO

Ordering data – Display variants								
	Type of mounting	Pneumatic connection	Outlet direction	Electrical connection	Outlet direction	Product weight	Part No.	Type
Pressure measuring range –1 ... +1								
	Thread	R1/8	At the rear	M8x1	Underneath	80	8001207	SPAU-B2R-T-R18M-L-PNLK-PNVBA-M8D
	H-rail	G1/8	Underneath	M8x1	Top	70	8001219	SPAU-B2R-H-G18FD-L-PNLK-PNVBA-M8U
Pressure measuring range 0 ... –1								
	H-rail	G1/8	Underneath	M8x1	Top	70	8001223	SPAU-V1R-H-G18FD-L-PNLK-PNVBA-M8U
		QS-4	Underneath	M8x1	Underneath	65	8001213	SPAU-V1R-H-Q4D-L-PNLK-PNVBA-M8D
		QS-5/32	Underneath	M8x1	Underneath	65	8001217	SPAU-V1R-H-T532D-L-PNLK-PNVBA-M8D
		QS-5/32	Underneath	M12x1	Underneath	65	8001218	SPAU-V1R-H-T532D-L-PNLK-PNVBA-M12D
	Wall/surface bracket	G1/8	Underneath	M8x1	Top	70	8001235	SPAU-V1R-W-G18FD-L-PNLK-PNVBA-M8U
		G1/8	Underneath	M12x1	Top	70	8001234	SPAU-V1R-W-G18FD-L-PNLK-PNVBA-M12U
		QS-4	Underneath	M8x1	Underneath	65	8001239	SPAU-V1R-W-Q4D-L-PNLK-PNVBA-M8D
		QS-4	Underneath	M12x1	Underneath	65	8001214	SPAU-V1R-H-Q4D-L-PNLK-PNVBA-M12D
		QS-4	Underneath	M12x1	Underneath	65	8001238	SPAU-V1R-W-Q4D-L-PNLK-PNVBA-M12D
	Front panel mounting	QS-4	At the rear	M12x1	At the rear	70	8001227	SPAU-V1R-F-Q4-L-PNLK-PNVBA-M12
		QS-6	At the rear	M12x1	At the rear	70	8001228	SPAU-V1R-F-Q6-L-PNLK-PNVBA-M12
		QS-5/32	At the rear	M12x1	At the rear	70	8001229	SPAU-V1R-F-T532-L-PNLK-PNVBA-M12
Pressure measuring range 0 ... 2								
	Wall/surface bracket	G1/8	Underneath	M8x1	Top	70	8001232	SPAU-P2R-W-G18FD-L-PNLK-PNVBA-M8U
Pressure measuring range 0 ... 6								
	Wall/surface bracket	G1/8	Underneath	M8x1	Top	70	8001233	SPAU-P6R-W-G18FD-L-PNLK-PNVBA-M8U

Pressure sensors SPAU

Technical data

FESTO

Ordering data – Display variants								
	Type of mounting	Pneumatic connection	Outlet direction	Electrical connection	Outlet direction	Product weight	Part No.	Type
Pressure measuring range 0 ... 10								
	Thread	G1/8	At the rear	M8x1	Underneath	80	8001201	SPAU-P10R-T-G18M-L-PNLK-PNVBA-M8D
		G1/8	At the rear	M12x1	Underneath	80	8001204	SPAU-P10R-T-G18M-L-PNLK-PNVBA-M12D
		R1/8	At the rear	M8x1	Underneath	80	8001203	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M8D
		R1/8	At the rear	M12x1	Underneath	80	8001206	SPAU-P10R-T-R18M-L-PNLK-PNVBA-M12D
		R1/4	At the rear	M8x1	Underneath	80	8001209	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M8D
		R1/4	At the rear	M12x1	Underneath	80	8001208	SPAU-P10R-T-R14M-L-PNLK-PNVBA-M12D
		NPT1/8-27	At the rear	M8x1	Underneath	80	8001202	SPAU-P10R-T-N18M-L-PNLK-PNVBA-M8D
		NPT1/8-27	At the rear	M12x1	Underneath	80	8001205	SPAU-P10R-T-N18M-L-PNLK-PNVBA-M12D
	H-rail	G1/8	Underneath	M8x1	Top	70	8001221	SPAU-P10R-H-G18FD-L-PNLK-PNVBA-M8U
		G1/8	Underneath	M12x1	Top	70	8001220	SPAU-P10R-H-G18FD-L-PNLK-PNVBA-M12U
		QS-4	Underneath	M8x1	Underneath	65	8001211	SPAU-P10R-H-Q4D-L-PNLK-PNVBA-M8D
		QS-4	Underneath	M12x1	Underneath	65	8001212	SPAU-P10R-H-Q4D-L-PNLK-PNVBA-M12D
		QS-5/32	Underneath	M8x1	Underneath	65	8001215	SPAU-P10R-H-T532D-L-PNLK-PNVBA-M8D
		QS-5/32	Underneath	M12x1	Underneath	65	8001216	SPAU-P10R-H-T532D-L-PNLK-PNVBA-M12D
	Wall/surface bracket	G1/8	Underneath	M8x1	Top	70	8001231	SPAU-P10R-W-G18FD-L-PNLK-PNVBA-M8U
		G1/8	Underneath	M12x1	Top	70	8001230	SPAU-P10R-W-G18FD-L-PNLK-PNVBA-M12U
		QS-4	Underneath	M8x1	Underneath	70	8001237	SPAU-P10R-W-Q4D-L-PNLK-PNVBA-M8D
		QS-4	Underneath	M12x1	Underneath	70	8001236	SPAU-P10R-W-Q4D-L-PNLK-PNVBA-M12D
	Front panel mounting	QS-4	At the rear	M12x1	At the rear	70	8001224	SPAU-P10R-F-Q4-L-PNLK-PNVBA-M12
		QS-6	At the rear	M12x1	At the rear	70	8001225	SPAU-P10R-F-Q6-L-PNLK-PNVBA-M12
		QS-5/32	At the rear	M12x1	At the rear	70	8001226	SPAU-P10R-F-T532-L-PNLK-PNVBA-M12
Pressure measuring range 0 ... 16								
	Thread	R1/4	At the rear	M8x1	Underneath	80	8001210	SPAU-P16R-T-R14M-L-PNLK-PNVBA-M8D
	H-rail	G1/8	Underneath	M12x1	Top	70	8001222	SPAU-P16R-H-G18FD-L-PNLK-PNVBA-M12U

Ordering data – Variants without display								
	Type of mounting	Pneumatic connection	Outlet direction	Electrical connection	Analogue output	Product weight	Part No.	Type
Pressure measuring range 0 ... -1								
	Thread	G1/8	At the rear	M12x1	0 ... 10 V	80	8003347	SPAU-V1R-T-G18M-LK-V-M12D
			At the rear		4 ... 20 mA		8003348	SPAU-V1R-T-G18M-LK-A-M12D
	H-rail	QS-4	Underneath		0 ... 10 V	65	8003351	SPAU-V1R-H-Q4D-LK-V-M12D
			Underneath		4 ... 20 mA		8003352	SPAU-V1R-H-Q4D-LK-A-M12D
Pressure measuring range 0 ... 10								
	Thread	G1/8	At the rear	M12x1	0 ... 10 V	80	8003345	SPAU-P10R-T-G18M-LK-V-M12D
			At the rear		4 ... 20 mA		8003346	SPAU-P10R-T-G18M-LK-A-M12D
	H-rail	QS-4	Underneath		0 ... 10 V	65	8003349	SPAU-P10R-H-Q4D-LK-V-M12D
			Underneath		4 ... 20 mA		8003350	SPAU-P10R-H-Q4D-LK-A-M12D

Pressure sensors SPAU

Ordering data – Modular product system

FESTO

Mandatory data →			
Module no.	Product type		Supply port
8001200	Pressure measuring range		Type of mounting
	Pressure sensor SPAU	-1 ... 1 bar -1 ... 10 bar 0 ... -0.25 bar 0 ... -0.5 bar 0 ... -1 bar 0 ... 0.25 bar 0 ... 0.5 bar 0 ... 1 bar 0 ... 2 bar 0 ... 6 bar 0 ... 10 bar 0 ... 12 bar 0 ... 16 bar	Relative pressure Threaded mounting Mounting bracket Front panel mounting H-rail mounting Wall mounting
Order example			
8001200	SPAU	- P10	R - H -

Ordering table				
Pressure sensor SPAU		Condi- tions	Code	Entry code
M Module no.	8001200			
Product type	SPAU, U series	SPAU		SPAU
Pressure measuring range	-1 ... 1 bar	-B2		
	-1 ... 10 bar	-B11		
	0 ... -0.25 bar	-V025		
	0 ... -0.5 bar	-V05		
	0 ... -1 bar	-V1		
	0 ... 0.25 bar	-P025		
	0 ... 0.5 bar	-P05		
	0 ... 1 bar	-P1		
	0 ... 2 bar	-P2		
	0 ... 6 bar	-P6		
	0 ... 10 bar	-P10		
	0 ... 12 bar	-P12		
	0 ... 16 bar	-P16		
Supply port	Relative pressure	R		R
Type of mounting	Threaded mounting	-T		
	Mounting bracket	-A		
	Front panel mounting	-F		
	H-rail mounting	-H		
	Wall mounting	-W		

Transfer order code

	SPAU	-		R	-	
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Pressure sensors SPAU

Ordering data – Modular product system

FESTO

→ **Mandatory data**

Pneumatic connection		Outlet direction	
Thread type		Display	
G1/8 M5 M7 NPT1/8 Push-in connector 4 mm Push-in connector 6 mm R1/4 R1/8 Push-in connector 5/32	None Male thread Female thread	At the rear Underneath	None LCD, backlit
G18	F	D	L

Ordering table				
Pressure sensor SPAU		Condi- tions	Code	Entry code
M Pneumatic connection	G1/8	-G18		
	M5	-M5	1	
	M7	-M7		
	NPT1/8	-N18		
	Push-in connector 4 mm	-Q4	2	
	Push-in connector 6 mm	-Q6	2	
	R1/8	-R14	15	
	R1/8	-R18		
	Push-in connector 5/32	-T532	2	
Thread type	None			
	Male thread	M	3 , 4	
	Female thread	F	3 , 5	
Outlet direction	At the rear		6	
	Underneath	D	7	
Display	Without			
	LCD, backlit	-L	8	

- | | |
|--|--|
| 1 Only with mounting type A, F | 7 Not with pneumatic connection M5 |
| 2 Not with mounting type T | Not with mounting type A |
| Not with pressure measuring range P16 | Not with thread type M |
| 3 Mandatory in combination with G1/8, N1/8, R1/8, R1/4, M7, M5 | 8 In combination with mounting type F |
| 4 Not with mounting type W, H | |
| Not with pneumatic connection Q4, Q6, T532, M7, M5 | |
| 5 Not with mounting type A if pneumatic connection G1/8, R1/8, N1/8 | |
| 6 Not with mounting type W, H | |
| Not with thread type F if pneumatic connection G1/8, R1/8, N1/8 | |

Transfer order code

– –

Pressure sensors SPAU

Ordering data – Modular product system

FESTO

→ **M** **Mandatory data**

Electrical output 1		Electrical connection		Electrical accessories	
Electrical output 2		Electrical outlet direction		Protective devices	
IO-Link PNP or NPN or IO-Link	4 ... 20 mA 1 ... 5 V PNP or NPN or 0 ... 10 V or 1 ... 5 V 4 ... 20 mA	M8 plug connector M12 plug connector, A-coded	Top Underneath At the rear	None Angled socket, cable 2.5 m Straight socket, cable 2.5 m Angled socket, cable 5 m Straight socket, cable 5 m	None Safety guard
- PNLK	- PNVBA	- M8	U	+	

Ordering table					
SPAU			Condi- tions	Code	Entry code
M	Electrical output 1	PNP or NPN or IO-Link	-PNLK	10	
		IO-Link	-LK	9	
	Electrical output 2	PNP or NPN or 0 ... 10 V or 1 ... 5 V or 4 ... 20 mA	-PNVBA	10	
		0 ... 10 V	-V	9	
		1 ... 5 V	-B	9	
		4 ... 20 mA	-A	9	
	Electrical connection	M8 plug connector	-M8		
		M12 plug connector, A-coded	-M12		
	Electrical outlet direction	Top	U	13	
		Underneath	D	12	
		At the rear		11	
	Electrical accessories	None			
		Angled socket, cable 2.5 m	+2,5A		
		Straight socket, cable 2.5 m	+2,5S		
		Angled socket, cable 5 m	+5A		
		Straight socket, cable 5 m	+5S		
	Protective devices	None			
		Safety guard	G	16	
	Certificate	None			
		Test report	T		

- 9** Not with display L

10 Not without display

11 Only with mounting type A, F
Not with G18, N18, R18, M7, M5
Not with outlet direction D, U
Only with thread type None

12 Only with outlet direction D if QS4
or T532 selected
Not with outlet direction at the rear
if QS4, QS6, T532
- 13** Only with outlet direction U if QS4
or T532 selected
Not with outlet direction at the rear
if QS4, QS6, T532

15 Only with thread type M
Outlet direction at the rear only
Not with mounting type W/H
Not with electrical outlet direction at the rear

16 Only with display L

Transfer order code

- - - +

Pressure sensors SPAU

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Accessories – Ordering data

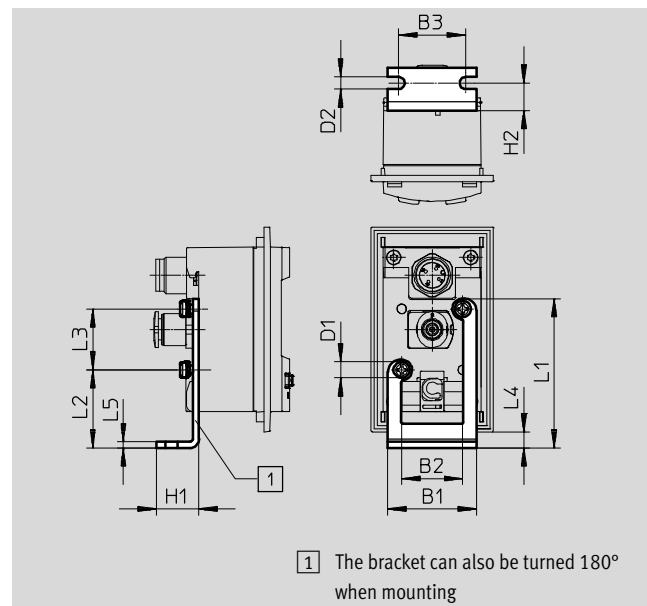
Mounting bracket SAMH-PU-A on even surfaces

Type of mounting: With through-hole
and template

Material: High-alloy stainless steel

Note on materials: RoHS compliant

Only for variants with:
Pneumatic connection
Outlet direction at the rear



Ordering data														
Type	B1	B2	B3	D1	D2 Ø	H1	H2	L1	L2	L3	L4	L5	CRC ¹⁾	Part No. Type
SAMH-PU-A	29	20	22	M3x8	4	14	9	49	25.6	20	8.6	2	2	8003354 SAMH-PU-A

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Wall mounting SAMH-PU-W

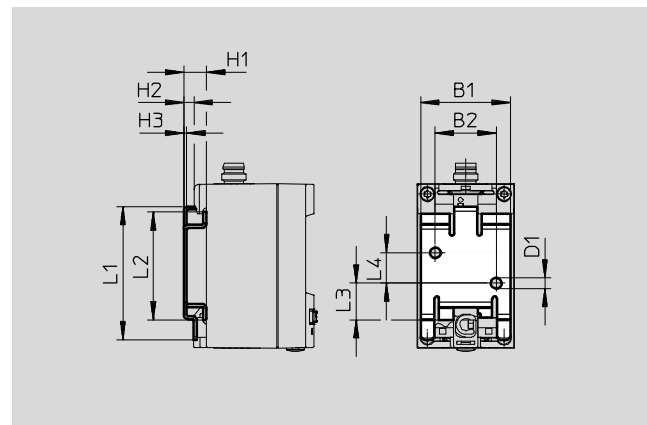
For H-rail mounting

Type of mounting: With through-hole

Material: High-alloy stainless steel

Note on materials: RoHS compliant

Only for variants with:
Pneumatic connection
Outlet direction underneath



Dimensions and ordering data												
Type	B1	B2	D1 Ø	H1	H2	H3	L1	L2	L3	L4	CRC ¹⁾	Part No. Type
SAMH-PU-W	29.4	20	3.5	7.5	3.4	1	43.8	35.4	12	10	2	8003355 SAMH-PU-W

1) Corrosion resistance class CRC 2 to Festo standard FN 940070
Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Pressure sensors SPAU

Accessories – Ordering data

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Safety guard SACC-PU-G

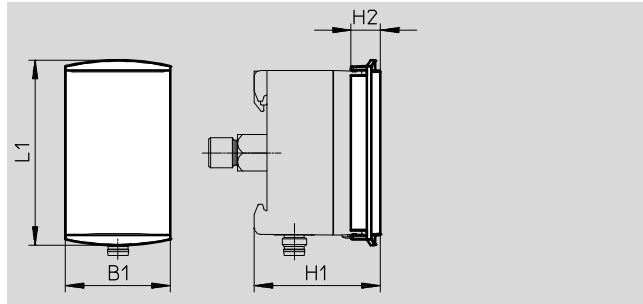
to protect the display and control elements

Material: PA

Note on materials:

RoHS compliant

Only for variants with: Display



Dimensions and ordering data								
Type		B1	H1	H2	L1	CRC ¹⁾	Part No.	Type
SACC-PU-G	SPAU- ... R-T- ...	34.5	41.6	9.6	60.8	2	8003353	SACC-PU-G
	SPAU- ... R-H- ... -D-L- ...		49.6					
	SPAU- ... R-H- ... -FD-L- ...		43.6					
	SPAU- ... R-F- ...		37.6					
	SPAU- ... R-W- ... -D-L- ...		43.6					
	SPAU- ... R-W- ... -FD-L- ...		49.6					

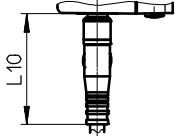
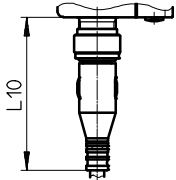
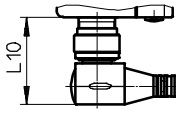
1) Corrosion resistance class CRC 2 to Festo standard FN 940070

Moderate corrosion stress. Indoor applications in which condensation may occur. External visible parts with primarily decorative requirements for the surface and which are in direct contact with the ambient atmosphere typical for industrial applications.

Pressure sensors SPAU

Accessories – Ordering data

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Connecting cables			
			L10
 	M8	Straight socket	36.3
		Angled socket	18.7
 	M12	Straight socket	50
		Angled socket	28.5

Ordering data				Technical data ➔ Internet: nebu	
	Number of wires	Cable length [m]	Part No.	Type	
M8x1, straight socket					
	4	2.5	541342	NEBU-M8G4-K-2.5-LE4	
		5	541343	NEBU-M8G4-K-5-LE4	
M8x1, angled socket					
	4	2.5	541344	NEBU-M8W4-K-2.5-LE4	
		5	541345	NEBU-M8W4-K-5-LE4	

Ordering data				Technical data ➔ Internet: nebu	
	Number of wires	Cable length [m]	Part No.	Type	
M12x1, straight socket					
	4	2.5	550326	NEBU-M12G5-K-2.5-LE4	
		5	541328	NEBU-M12G5-K-5-LE4	
M12x1, angled socket					
	4	2.5	550325	NEBU-M12W5-K-2.5-LE4	
		5	541329	NEBU-M12W5-K-5-LE4	