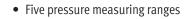
### Pressure sensors SDE1, with display

Product overview





- Measurement of relative or differential pressure
- Switch outputs PNP, NPN and with analogue current or voltage output
- LCD or illuminated LCD display
- Wide range of connection and mounting options



Detailed product information

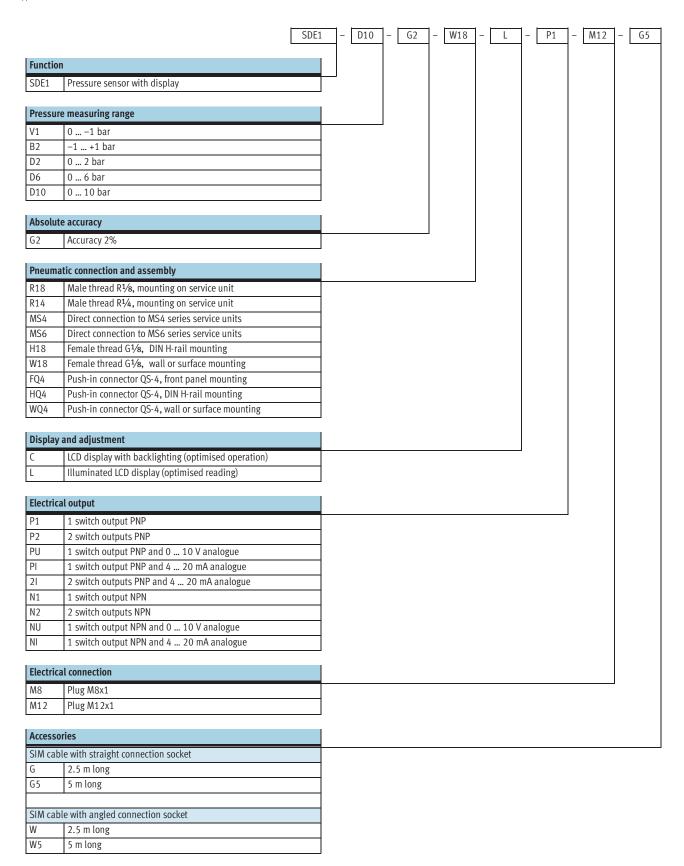
→ www.festo.com/catalogue/sde1

Product overview							
Method of measure-	Measured variable	Pressure measuring	Switching function	Pneumatic connec-	Type of mounting	Electrical ou	tput
ment		range		tion			
		[bar]				Digital	Analogue
Piezoresistive pres-	Relative pressure	01	Freely program-	Male thread R½,	On DIN H-rail	PNP	-
sure sensor with dis-	Differential and rela-	-1 +1	mable	R1/4	Via wall/surface	2x PNP	-
play	tive pressure	0 2		Female thread G½	bracket	PNP	0 10 V
		0 6		Push-in fitting for	On service unit	PNP	4 20 mA
		0 10		tubing OD 4 mm	Front panel mounting	2x PNP	4 20 mA
						NPN	-
						2x NPN	-
						NPN	0 10 V
						NPN	4 20 mA

#### Pressure sensors SDE1, with display



Type codes



### Pressure sensors SDE1, with display Technical data



3

Design							
Pressure measuring range	[bar]	01	-1 +1	0 2	0 6	0 10	
Measured variable		Relative pressu	ure				
		Differential pre					
Pneumatic connection		R <sup>1</sup> /8					
		R <sup>1</sup> / <sub>4</sub>					
		G <sup>1</sup> / <sub>8</sub>					
		QS-4					
Type of display		Back illuminat	ed LCD				
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Illuminated LC					
Accuracy FS <sup>1)</sup>		±2%					
Setting options		Teach-in					
Type of mounting		Via DIN H-rail					
.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Via wall/surfac	ce bracket				
		On service unit					
		Front panel mo					
		Tront panet me	ounting .				
Electrical data							
Switch output		PNP					
- · · · · · · · · · · · · · · · · · · ·		NPN					
Analogue output	[V]	0 10					
	[mA]	4 20					
Switching element function	į j	Switchable					
Switching function		Freely program	ımable				
Operating voltage range DC	[V]	15 30					
Max. output current	[mA]	150					
Electrical connection	ţ1	Plug M8x1, round design to EN 60 947-5-2					
			ound design to EN 60				
Protection against short circuit		Pulsed					
Protection against polarity reversal		For all electrica	al connections				
Operating and environmental conditions							
Operating medium		Filtered compr	essed air, lubricated o	or unlubricated, grad	le of filtration 40µm		
Ambient temperature	[°C]	0 50		. 3	·		
CE mark (see declaration of conformity)		In accordance	with EU EMC directive				
Protection class		IP65					
Certification		c UL us - Recog	gnised (OL)				
		C-Tick					
		1					
Materials							
Housing		Polyacetate re	einforced, polyamide				

### Pressure sensors SDE1, with display





Ordering data							
Variant	Pressure measur-	Switch out-	Analogue	Electrical connection	Type of display	Part No.	Туре
	ing range [bar]	put	output				
emale thread	G½, DIN H-rail moun	ting, relative p	ressure measu	rement			
	01	PNP	-	Plug, M8x1, 3-pin	LCD <sup>1)</sup>	192 034	SDE1-V1-G2-H18-C-P1-M8
					Illuminated LCD	529 973	SDE1-V1-G2-H18-L-P1-M8
959		2x PNP	-	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	192 035	SDE1-V1-G2-H18-C-P2-M8
					Illuminated LCD	529 974	SDE1-V1-G2-H18-L-P2-M8
		PNP	0 10 V	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	529 959	SDE1-V1-G2-H18-C-PU-M8
					Illuminated LCD	529 975	SDE1-V1-G2-H18-L-PU-M8
	0 10	PNP	-	Plug, M8x1, 3-pin	LCD <sup>1)</sup>	192 030	SDE1-D10-G2-H18-C-P1-M8
					Illuminated LCD	529 961	SDE1-D10-G2-H18-L-P1-M8
		2x PNP	-	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	192 031	SDE1-D10-G2-H18-C-P2-M8
					Illuminated LCD	529 962	SDE1-D10-G2-H18-L-P2-M8
		PNP	0 10 V	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	529 955	SDE1-D10-G2-H18-C-PU-M8
					Illuminated LCD	529 963	SDE1-D10-G2-H18-L-PU-M8
	•	•	•	•	•	•	
Push-in connec	ctor QS-4, for DIN H-rai	il mounting, di	fferential press	ure and relative pressure m	neasurement		
$\sim$	01	PNP	-	Plug, M8x1, 3-pin	LCD <sup>1)</sup>	192 036	SDE1-V1-G2-HQ4-C-P1-M8
					Illuminated LCD	529 976	SDE1-V1-G2-HQ4-L-P1-M8
530		2x PNP	-	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	192 037	SDE1-V1-G2-HQ4-C-P2-M8
					Illuminated LCD	529 977	SDE1-V1-G2-HQ4-L-P2-M8
Ó.U.	0 2	2x PNP	-	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	535 581	SDE1-D2-G2-HQ4-C-P2-M8
	0 10	PNP	-	Plug, M8x1, 3-pin	LCD <sup>1)</sup>	192 032	SDE1-D10-G2-HQ4-C-P1-M8
					Illuminated LCD	529 964	SDE1-D10-G2-HQ4-L-P1-M8
		2x PNP	-	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	192 033	SDE1-D10-G2-HQ4-C-P2-M8
					Illuminated LCD	529 965	SDE1-D10-G2-HQ4-L-P2-M8
		PNP	0 10 V	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	529 956	SDE1-D10-G2-HQ4-C-PU-M8
Female thread	G½, for wall or surfa		elative pressure				
	01	PNP	-	Plug M12x1, 3-pin	Illuminated LCD	534 065	SDE1-V1-G2-W18-L-P1-M12
		PNP	4 20 mA	Plug, M8x1, 4-pin		537 022	SDE1-V1-G2-W18-L-PI-M8
600				Plug M12x1, 4-pin		537 023	SDE1-V1-G2-W18-L-PI-M12
	0 2	PNP	-	Plug, M8x1, 3-pin		537 024	SDE1-D2-G2-W18-L-P1-M8
10. E		2x PNP	-	Plug, M8x1, 4-pin		537 025	SDE1-D2-G2-W18-L-P2-M8
	0 6	PNP	-	Plug, M8x1, 3-pin		537 026	SDE1-D6-G2-W18-L-P1-M8
		2x PNP	-	Plug, M8x1, 4-pin		537 027	SDE1-D6-G2-W18-L-P2-M8
	0 10	PNP	-	Plug M12x1, 3-pin		534 063	SDE1-D10-G2-W18-L-P1-M12
			0 10 V	Plug, M8x1, 4-pin		530 900	SDE1-D10-G2-W18-L-PU-M8
		2x PNP	4 20 mA	Plug M12x1, 5-pin		534 062	SDE1-D10-G2-W18-L-2I-M12
		PNP	4 20 mA	Plug, M8x1, 4-pin		537 020	SDE1-D10-G2-W18-L-PI-M8
				Plug M12x1, 4-pin		537 021	SDE1-D10-G2-W18-L-PI-M12

- Back illuminated
  Adapter plate SDE1-...-W... included in the scope of delivery.



Additional variants and accessories can be configured and ordered through the SDE1 modular system

## Pressure sensors SDE1, with display Technical data



rdering data ariant	Pressure measur-	Switch out-	Analogue	Electrical connection	Type of display	Part No.	Type
ariant	ing range [bar]	put	output	Licetifeat confidential	Type of display	Ture ito:	Type
		'	<u> </u>				
ale thread R1/	s, mounting on service		, relative pres		Luco 1)	1.00.00	CDE CO CO DIO C DI HO
	0 10	PNP	_	Plug, M8x1, 3-pin	LCD <sup>1)</sup>	192 026	SDE1-D10-G2-R18-C-P1-M8
					Illuminated LCD	529 970	SDE1-D10-G2-R18-L-P1-M8
34				Plug M12x1, 3-pin	Illuminated LCD	534 064	SDE1-D10-G2-R18-L-P1-M12
		2x PNP	-	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	192 027	SDE1-D10-G2-R18-C-P2-M8
		PNP	0 10 V	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	529 958	SDE1-D10-G2-R18-C-PU-M8
					Illuminated LCD	529 972	SDE1-D10-G2-R18-L-PU-M8
ale thread R1/4	4, mounting on service	unit (D series)	, relative pres	ssure measurement			
<u>~</u>	0 10	PNP -		Plug, M8x1, 3-pin	LCD <sup>1)</sup>	192 028	SDE1-D10-G2-R14-C-P1-M8
					Illuminated LCD	529 967	SDE1-D10-G2-R14-L-P1-M8
34				Plug M12x1, 3-pin	Illuminated LCD	534 157	SDE1-D10-G2-R14-L-P1-M12
		2x PNP	-	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	192 029	SDE1-D10-G2-R14-C-P2-M8
°[   ]					Illuminated LCD	529 968	SDE1-D10-G2-R14-L-P2-M8
		PNP	0 10 V	Plug, M8x1, 4-pin	LCD <sup>1)</sup>	529 957	SDE1-D10-G2-R14-C-PU-M8
					Illuminated LCD	529 969	SDE1-D10-G2-R14-L-PU-M8
sh-in connect	tor OS-4, for front pane	el mounting, d	ifferential pre	ssure and relative pressure i	measurement		
en en	0 10	PNP	-	Plug, M8x1, 3-pin	Illuminated LCD	537 028	SDE1-D10-G2-FQ4-L-P1-M8
				0, , ,			•
				Plug M12x1, 3-pin		537 030	SDE1-D10-G2-FQ4-L-P1-M12
5.94				1 (ug12/11, 5 p		33, 636	0222 220 02 1 Q 7 2 1 2 1 1 1 1 1 2
	)	2x PNP	_	Plug, M8x1, 4-pin		537 029	SDE1-D10-G2-FQ4-L-P2-M8
		201111		1 (45, MOA1, 7 pill		33, 02)	3521 510 02 1Q7 E12-MIO
" W				Plug M12x1, 4-pin		537 031	SDE1-D10-G2-FQ4-L-P2-M12
\ II	1			riug Mit ZXI, 4-piil		22/ 021	3DE1-D10-02-FQ4-L-F2-M12

<sup>1)</sup> Back illuminated



Additional variants and accessories can be configured and ordered through the SDE1 modular system **→** 6.

# Pressure sensors SDE1, with display Modular product system





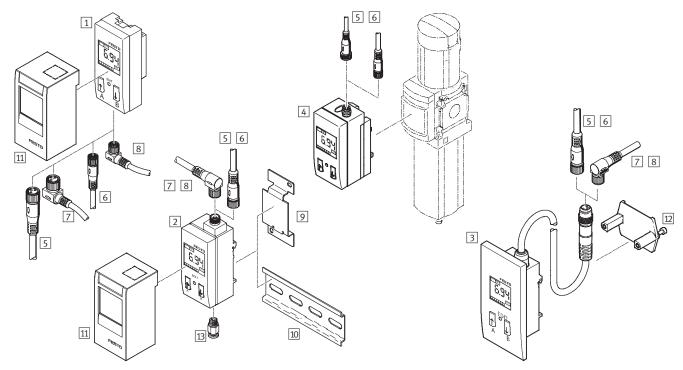
M Mandatory	Mandatory data							
Module No.	Function	Pressure range	Absolute accuracy	Pneumatic con- nection and as- sembly	Display and ad- justment	Electrical output	Electrical connection	Accessories: Plug socket
192 766	SDE1	B2, V1, D2, D6, D10	G2	R18, R14, MS4, MS6, H18, W18, HQ4, WQ4, FQ4	C, L	P1, P2, PU, PI, N1, N2, NU, NI	M8, M12	G, W, G5, W5
Order example 192 766	SDE1	– D6	- G2	- W18 -	- L .	- P2	- M12	- W5

rdering table		Condi-	Code	l E	nter
		tions	Code	-	ode
Module No.	192 766				
Function	Pressure sensor		SDE1	S	DE1
Pressure range	Pressure range −1 1 bar		-B2		
	Pressure range 0 −1 bar		-V1		
	Pressure range 0 2 bar		-D2		
	Pressure range 0 6 bar		-D6		
	Pressure range 0 10 bar		-D10		
Absolute accuracy	Accuracy 2%		-G2	-(	G2
Pneumatic connection and as-	Mounting R1/8 (service units)		-R18		
sembly	Mounting R1/4 (service units)		-R14		
	Direct connection, service units, MS4 series		-MS4		
	Direct connection, service units, MS6 series		-MS6		
	Relative pressure with G½ connection for DIN H-rail mounting		-H18		
	Relative pressure with G½ connection for wall or surface mounting		-W18		
	DIN H-rail mounting, 4 mm push-in connector		-HQ4		
	Wall mounting, 4 mm push-in connector		-WQ4		
	Front panel mounting, 4 mm push-in connector		-FQ4		
Display and adjustment	LCD display (optimised operation)		-C		
	Illuminated LCD (reading optimised)		-L		
Electrical output	1 switch (PNP)		-P1		
	2 switches (PNP)		-P2		
	1 switch (PNP) and 0 10 V analogue		-PU		
	1 switch (PNP) and 4 20 mA analogue		-PI		
	1 switch (NPN)		-N1		
	2 switches (NPN)		-N2		
	1 switch (NPN) and 0 10 V analogue		-NU		
	1 switch (NPN) and 4 20 mA analogue		-NI		
Electrical connection	M8 plug		-M8		
	M12 plug		-M12		
Accessories			-	-	
Plug socket	2.5 m SIM cable with straight connection socket		G		
	2.5 m SIM cable with angled connection socket		W		
	5 m SIM cable with straight connection socket		G5		
	5 m SIM cable with angled connection socket		W5		

Transfer order code						
192 766 SDE1	 - G2	-	-	-	-	] -

## Pressure sensors SDE1, with display Peripherals overview





Acce	Accessories								
1	Pressure sensor SDE1R14								
2	Pressure sensor SDE1H18, SDE1W18								
3	Pressure sensor SDE1FQ4								
4	Pressure sensor SDE1MS								
5	Connecting cable NEBU-M12G with straight socket								
6	Connecting cable NEBU-M8G with straight socket								
7	Connecting cable NEBU-M12W with angled socket								

Acce	Accessories								
8	Connecting cable NEBU-M8W with angled socket								
9	Adapter plate SDE1W								
10	Mounting rail to DIN EN 60715								
11	Safety guard SDE1-SH								
12	Clamping plate (included in scope of delivery with SDE1FQ4)								
13	Push-in fitting QS-1/8								

Ordering	data – Conn	ecting cable	s						
			Technical data → Internet: nebu						
	Number		Part No.	Туре					
	of wires	length [m]							
M8x1, str	M8x1, straight socket								
	3	2.5	541 333	NEBU-M8G3-K-2.5-LE3					
OF THE PERSON NAMED IN COLUMN TO PERSON NAME		5	541 334	NEBU-M8G3-K-5-LE3					
	4	2.5	541 342	NEBU-M8G4-K-2.5-LE4					
		5	541 343	NEBU-M8G4-K-5-LE4					
M8x1, an	gled socket								
	3	2.5	541 338	NEBU-M8W3-K-2.5-LE3					
<b>66</b>		5	541 341	NEBU-M8W3-K-5-LE3					
	4	2.5	541 344	NEBU-M8W4-K-2.5-LE4					
	1	5	541 345	NEBU-M8W4-K-5-LE4					

Ordering data – Connecting caples										
				Technical data → Internet: nebu						
	Number	Cable	Part No.	Туре						
	of wires	length [m]								
M12x1, strai	ight socke	t								
	3	2.5	541 363	NEBU-M12G5-K-2.5-LE3						
		5	541 364	NEBU-M12G5-K-5-LE3						
	4	5	541 328	NEBU-M12G5-K-5-LE4						
	5	2.5	541 330	NEBU-M12G5-K-2.5-LE5						
		5	541 331	NEBU-M12G5-K-5-LE5						
M12x1, angl	led socket									
	3	2.5	541 367	NEBU-M12W5-K-2.5-LE3						
<b>1</b>		5	541 370	NEBU-M12W5-K-5-LE3						
	4	5	541 329	NEBU-M12W5-K-5-LE4						

Ordering da	ta – Push-in fittings	Techi	nical data → Internet: quick star
	For tubing O.D.	Part No.	Туре
	4	186 095	QS-G <sup>1</sup> / <sub>8</sub> -4
ON	6	186 096	QS-G <sup>1</sup> / <sub>8</sub> -6
	8	186 098	QS-G <sup>1</sup> / <sub>8</sub> -8

Ordering data – Accessories		
	Part No.	Туре
	194 297	SDE1W
	537 074	SDE1-SH