

DS 6

Electronic OEM Pressure Switch

Applications:

- ▶ mechanical engineering / hydraulics
- ▶ measuring, control and process technology

Characteristics:

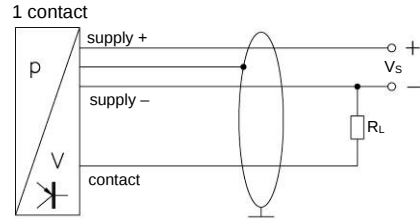
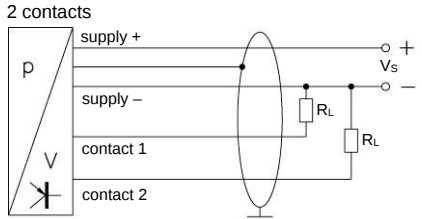
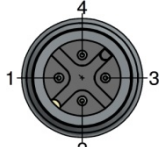
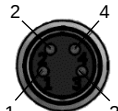
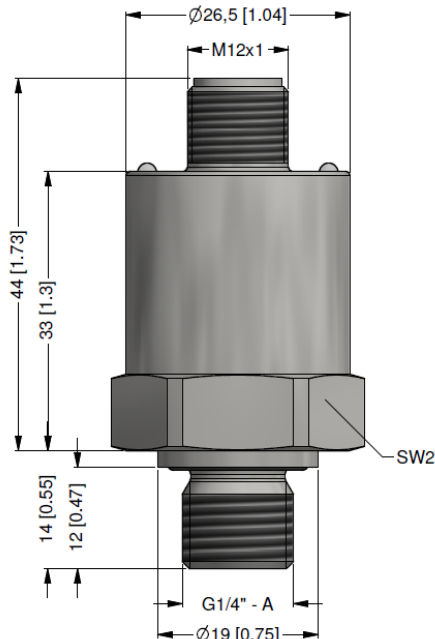
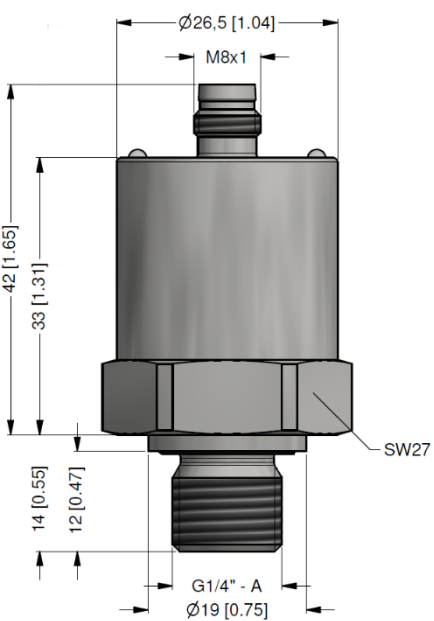
- ▶ nominal pressure ranges from 0 ... 2 bar up to 0 ... 400 bar
- ▶ 1 or 2 contacts
- ▶ configurable via PC or programming device P6
- ▶ optional:
oil- and grease free version



Technical Data



Input pressure range									
Nominal pressure gauge	[bar]	2	5	10	20	50	100	200	400
Nominal pressure abs.	[bar]	2	5	10	20	50	100	200	400
Overpressure	[bar]	7	12	25	50	120	250	400	600
Supply									
Supply voltage		V _S = 12 ... 30 V _{DC}							
Current consumption		max. 14 mA (without contacts)							
Contacts									
Number		standard: 1				option: 2			
Type		PNP							
Switching performance		max. 300 mA, short-circuit proof							
Accuracy of contacts		IEC 60770: ≤ ± 1 % FSO							
Repeatability		≤ ± 0.2 % FSO							
Minimum hysteresis of contacts		≤ ± 0.5 % FSO							
Status indication		SP 1: green				SP 2: yellow			
Switching function ¹		standard: n/o				option: n/c			
Switching mode ¹		standard: hysteresis mode				option: window mode			
Switch on point ¹		standard: factory setting 80 % FSO others: specify on order; adjustable range 5 ... 100 % FSO							
Switch off point ¹		standard: factory setting 75 % FSO others: specify on order; adjustable range 5 ... 100 % FSO							
Switch on / switch off delay ¹		standard: off others: specify on order, adjustable range from 10 msec up to 90 sec (step 10 msec)							
Switching frequency		200 Hz (without switching delay)							
Switching cycles		> 100 x 10 ⁶							
¹ Parameters can be programmed by customer either with the programming kit CIS-G or with the programming device P6 (available as accessories).									
Thermal effects (offset and span) / Permissible temperatures									
Thermal error		≤ ± 0.3 % FSO / 10 K				in compensated range 0 ... 85 °C			
Permissible temperatures		medium / electronics / environment: -25 ... 85 °C				storage: -40 ... 85 °C			

Electrical protection				
Short-circuit protection	permanent			
Reverse polarity protection	no damage, but also no function			
Electromagnetic compatibility	emission and immunity according to EN 61326			
Mechanical stability				
Vibration	20 g RMS / 10 ... 2000 Hz	according to DIN EN 60068-2-6		
Shock	500 g / 1 msec half sine	according to DIN EN 60068-2-27		
Materials				
Pressure port	stainless steel 1.4301 (304)			
Housing	stainless steel 1.4305 (303)			
Seals (media wetted)	standard: FKM	option: EPDM		
Diaphragm	ceramic Al ₂ O ₃ 96 %			
Media wetted parts	pressure port, seals, diaphragm			
Miscellaneous				
Weight	approx. 90 g			
Installation position	any			
Operational life	100 million load cycles			
Ingress protection	IP 67			
CE-conformity	EMC Directive: 2014/30/EU Pressure Equipment Directive: 2014/68/EU (module A) ²			
² This directive is only valid for devices with maximum permissible overpressure > 200 bar				
Wiring diagrams				
1 contact  2 contacts 				
Pin configuration				
Electrical connection	M12x1 (4-pin), metal		M8x1 (4-pin), metal	
Supply +	1		1	
Supply -	3		3	
Contact 1	4		4	
Contact 2	2		2	
Shield	plug housing	plug housing		
Dimensions (mm / in)				
 G1/4" DIN 3852 with male plug M12x1  G1/4" DIN 3852 with male plug M8x1				

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Ordering code DS 6

DS 6

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Pressure																				
	gauge	6	8	5																
	absolute	6	8	6																
Input		[bar]																		
	2				2	0	0	1												
	5				5	0	0	1												
	10				1	0	0	2												
	20				2	0	0	2												
	50				5	0	0	2												
	100				1	0	0	3												
	200				2	0	0	3												
	400				4	0	0	3												
	customer				9	9	9	9												consult
Number of contacts																				
	1 contact							1												
	2 contacts							2												
Analogue output																				
	without analogue output							0												
Electrical connection																				
	M12x1 (4-pin), metal								M	1	3									
	M8x1 (4-pin), metal								Q	0	0									
	customer								9	9	9									consult
Mechanical connection																				
	G1/4" DIN 3852								3	0	0									
	customer								9	9	9									consult
Seal																				
	FKM										1									
	EPDM										3									
	customer										9									consult
Setting code																				
	BD SENSORS standard ¹										0	0	0							
	setting according to customer ¹										9	9	9							consult
Special version																				
	standard													0	0	0				
	oil and grease free													0	0	8				
	customer													9	9	9				consult

¹ Parameters can be programmed by customer either with the programming kit CIS-G or with the programming device P6 (available as accessories).