

DS 5

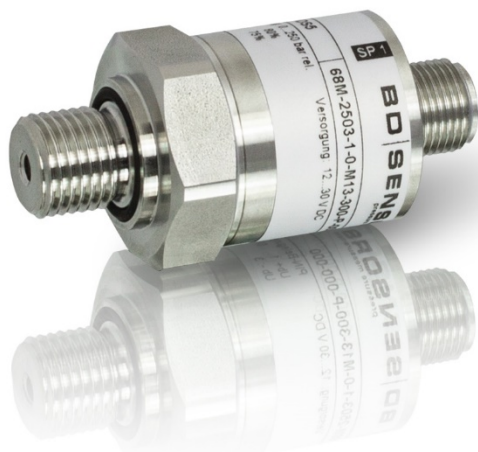
Electronic OEM Pressure Switch Heavy Duty

Applications:

- ▶ mobile hydraulics
- ▶ presses
- ▶ oxygen application

Characteristics:

- ▶ stainless steel sensor, welded
- ▶ nominal pressure ranges from 0 ... 16 bar up to 0 ... 600 bar
- ▶ configurable via PC or programming device P6
- ▶ optionally: oil and grease free version



Technical Data

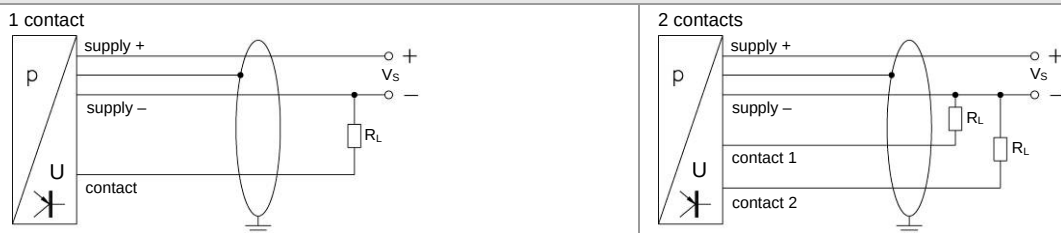
Input pressure range										
Nominal pressure gauge	[bar]	16	25	40	60	100	160	250	400	600
Overpressure (static)	[bar]	50	50	80	120	200	320	500	800	1200
Burst pressure ≥	[bar]	125	125	200	300	500	800	1250	2000	2000

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 61298-2: ≤ ± 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	≤ ± 0.2 % FSO / 10 K	in compensated range -20 ... 80 °C
Permissible temperatures	medium: -40 ... 125 °C	electronics / environment / 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 1.4404 (316L)	
Housing	stainless steel 1.4305 (303)	
Seal of pressure port	FKM	others on request
Seal of sensor	none (welded)	
Sensor	stainless steel 1.4548 (17-4PH)	
Media wetted parts	pressure port, seal, sensor	
Miscellaneous		
Oxygen application	option for mechanical connections 1/4" NPT, R 1/4" and 7/16"-20 UNF (on request)	
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

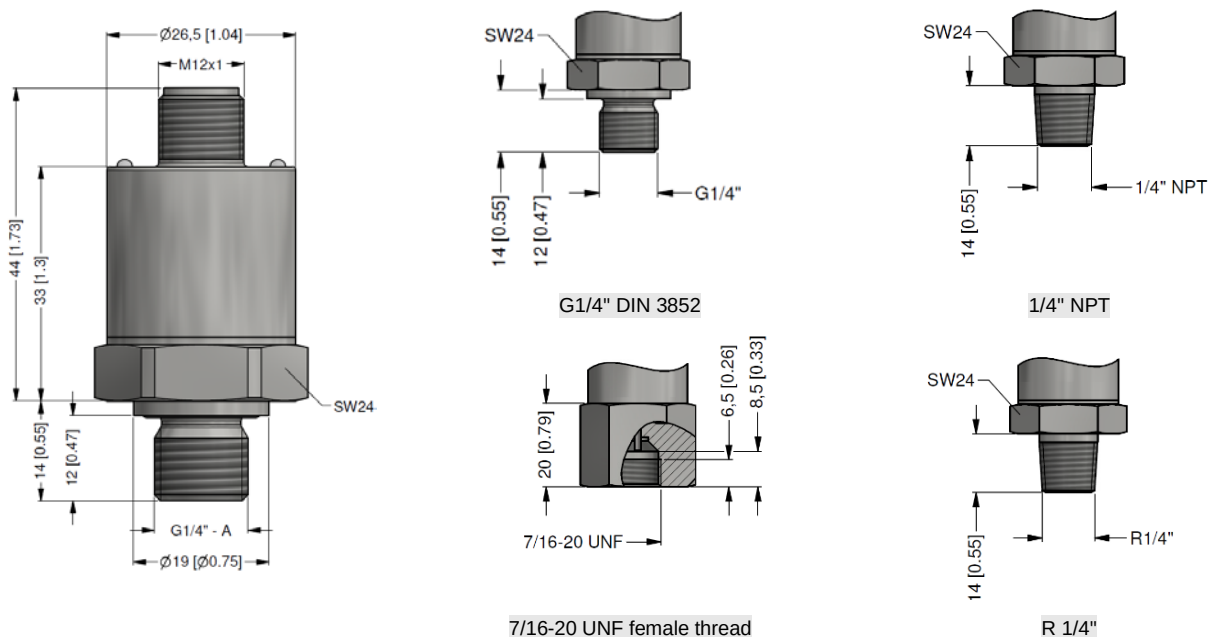
Wiring diagrams



Pin configuration

Electrical connection	M12x1 (4-pin), metal	
Supply +	1	
Supply -	3	
Contact 1	4	
Contact 2	2	
Shield	plug housing	

Dimensions / Mechanical connections (mm / in)



©— The specifications given in this document represent the state of engineering at the time of publishing. We reserve the right to make modifications to the specifications and materials.

Ordering code DS 5

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[illegible]

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