

# DS 6

## Electronic Pressure Switch

OEM

### 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 fat free version
  - oxygen application



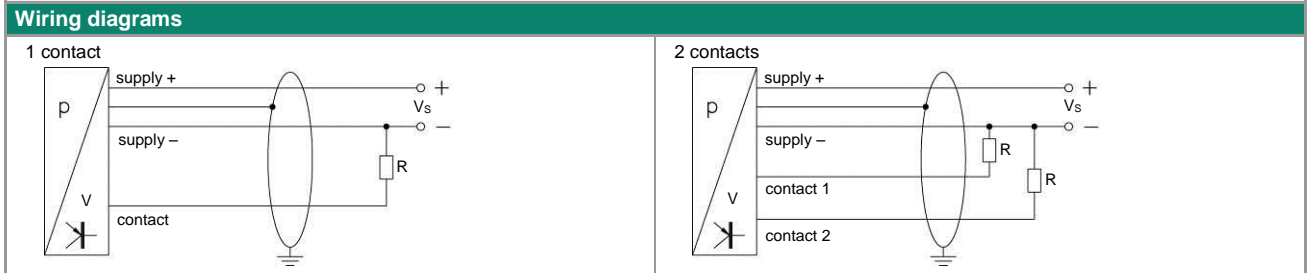
## Technical Data

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 <sub>DC</sub>							
Current consumption		max. 14 mA (without contacts)							
Contacts									
Number		standard: 1				optional: 2			
Type		PNP							
Switching performance		max. 300 mA, short-circuit proof							
Accuracy of contacts		IEC 60770: $\leq \pm 1$ % FSO							
Repeatability		$\leq \pm 0.2$ % FSO							
Minimum hysteresis of contacts		$\leq \pm 0.5$ % FSO							
Status indication		SP 1: green				SP 2: yellow			
Switching function <sup>1</sup>		standard: n/o				optional: n/c			
Switching mode <sup>1</sup>		standard: hysteresis mode				optional: window mode			
Switch on point <sup>1</sup>		standard: factory setting 80 % FSO others: specify on order; adjustable range 5 ... 100 % FSO							
Switch off point <sup>1</sup>		standard: factory setting 75 % FSO others: specify on order; adjustable range 5 ... 100 % FSO							
Switch on / switch off delay <sup>1</sup>		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		$> 100 \times 10^6$							
<sup>1</sup> Parameters can be programmed by customer either with the programming kit CIS 685 / CIS 686 or with the programming device P6 (available as accessories).									
Thermal effects (Offset and Span) / Permissible temperatures									
Thermal error		$\leq \pm 0.3$ % FSO / 10 K				in compensated range -25 ... 85 °C			
Permissible temperatures		medium / electronics / environment: -25 ... 85 °C				storage: -40 ... 85 °C			

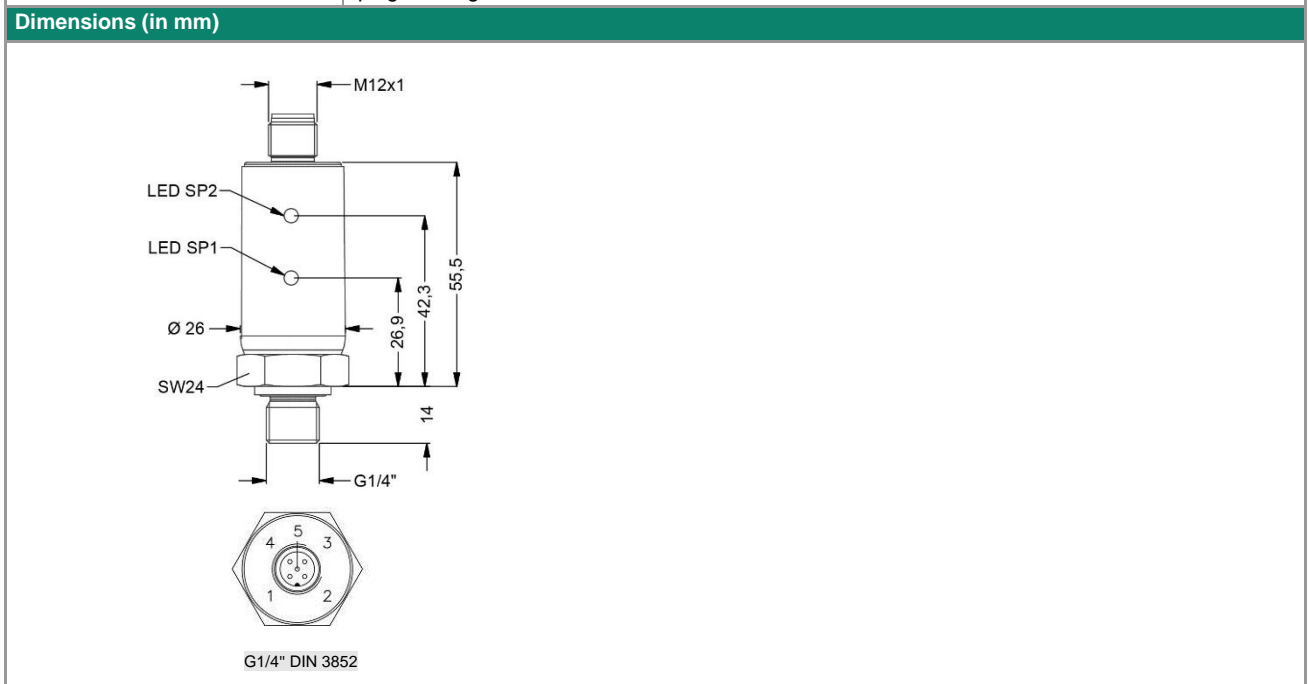
Electrical protection	
Short-circuit protection	permanent
Reverse polarity protection	no damage, but also no function
Electromagnetic compatibility	emission and immunity according to EN 61326
Mechanical stability	
Vibration	10 g RMS (20 ... 2000 Hz)
Shock	100 g / 11 msec
Materials	
Pressure port	stainless steel 1.4305
Housing	stainless steel 1.4305, POM black
Seals (media wetted)	Standard: FKM optional: EPDM
Diaphragm	ceramic Al <sub>2</sub> O <sub>3</sub> 96 %
Media wetted parts	pressure port, seals, diaphragm

Miscellaneous	
Option oxygen application	for P <sub>N</sub> ≤ 15 bar: O-ring in 70 EPDM 281 (with BAM-approval); permissible maximum values are 15 bar / 60° C and 10 bar / 90° C for P <sub>N</sub> ≤ 25 bar: O-ring in FKM Vi 567 (with BAM-approval); permissible maximum values are 25 bar / 150° C
Weight	approx. 90 g
Installation position	any
Ingress protection	IP 67
CE-conformity	EMC Directive: 2004/108/EC Pressure Equipment Directive: 97/23/EC (module A) <sup>2</sup>

<sup>2</sup> This directive is only valid for devices with maximum permissible overpressure > 200 bar



Pin configuration	
Electrical connection	M12x1 (5-pin)
Supply +	1
Supply -	3
Contact 1	4
Contact 2	5
Shield	plug housing



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**DS 6B**

**DS 6B**

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Messgröße	Pressure															
relativ	gauge	6	8	8												
absolut	absolute	6	8	9												
Eingang	Input	[bar]														
10	10		1	0	0	2										
50	50		5	0	0	2										
100	100		1	0	0	3										
200	200		2	0	0	3										
400	400		4	0	0	3										
Sondermessbereiche	customer		9	9	9	9									auf Anfrage	consult
Anzahl Schaltausgänge	Number of contacts															
1 Schaltausgang	1 contact					1										
2 Schaltausgänge	2 contacts					2										
Analogausgang	Analogue output															
ohne Analogausgang	without analogue output					0										
Elektrischer Anschluss	Electrical connection															
Stecker M12x1 (4-polig)	Male plug M12x1 (4-pin)						M	1	0							
M12x1 (5-polig)	Male plug M12x1 (5-pin)						N	1	0							
andere	customer						9	9	9						auf Anfrage	consult
Mechanischer Anschluss	Mechanical connection															
G1/4" DIN 3852 Teil 11	G1/4" DIN 3852 section 11							W	0	2						
andere	customer							9	9	9					auf Anfrage	consult
Dichtung	Seals															
für P <sub>N</sub> < 100 bar	FKM for P <sub>N</sub> < 100 bar									1						
für P <sub>N</sub> ≥ 100 bar	NBR for P <sub>N</sub> ≥ 100 bar									5						
andere	customer									9					auf Anfrage	consult
Einstellungscode	Setting code															
LEITENBERGER Standard	LEITENBERGER standard									0	0	0				
nach Kundenvorgabe	setting according to customer									9	9	9			auf Anfrage	consult
Sonderausführungen	Special version															
Standard	standard												0	0	0	
andere	customer												9	9	9	auf Anfrage

<sup>1</sup> Die Parameter können kundenseitig durch das Konfigi The parameters can be adjusted of customer through configuration Set (consist of PC-Interface, connection net part, connection cable from PC-Interface to DS 6B, Konfigurations-Software P-Set) oder durch das Hand- configuration-software) or through Hand-Program device P6. The configuration set or Hand-Program device P6 is not part of supply and have to be ordered gehören nicht zum Lieferumfang und müssen separat separately. For more information see on last side of data sheet for DS 6B.