

IDS4

Electronic OEM Pressure Switch Pneumatics



Applications:

- ▶ Pneumatics
- ▶ Vacuum technology

Characteristics:

- ▶ nominal pressure ranges from 0 ... 1 bar up to 0 ... 10 bar also -1 ... 0 bar
- ▶ 1 or 2 contacts
- ▶ compact design
- ▶ configurable via PC or programming device P6

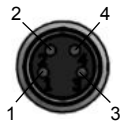


Technical Data

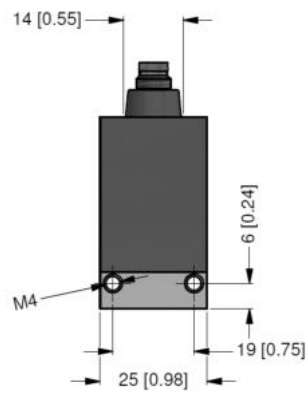
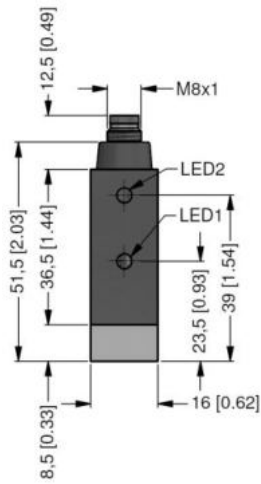
Input pressure range					
Nominal pressure gauge	[bar]	-1 ... 0	1	3.5	10
Overpressure	[bar]	2	2	7	13

Supply	
Supply voltage	$V_s = 12 \dots 30 V_{DC}$
Current consumption	max. 14 mA (without contacts)
Output signal / Contact ¹	
Number	standard: 1 option: 2
Type	PNP
Switching performance	max. 300 mA, short-circuit proof
Accuracy of contacts ²	$\leq \pm 1 \% \text{ FSO}$
Repeatability	$\leq \pm 0.2 \% \text{ FSO}$
Status indication	SP 1: green SP 2: yellow
Switching function ³	standard: n/o option: n/c
Switching mode ³	standard: hysteresis mode option: window mode
Switch on point ³	standard: factory setting 80 % FSO others: specify on order; adjustable range 0 ... 100 % FSO
Switch off point ³	standard: factory setting 75 % FSO others: specify on order; adjustable range 0 ... 100 % FSO
Switch on / switch off delay ³	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	$> 100 \times 10^6$
¹ with optional analogue output max. 1 contact possible	
² accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)	
³ Parameters can be programmed by customer either with the programming kit CIS680/CIS681 or with the programming device P6 (available as accessories).	

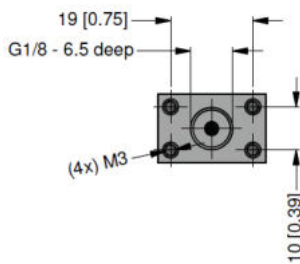
Output signal / Analogue output ¹ (optionally)			
Analogue output	1 ... 5 V / 3-wire		
Accuracy ²	≤ ± 2 % FSO		
Permissible load	R _{min} = 10 kΩ		
¹ with optional analogue output max. 1 contact possible			
² accuracy according to IEC 60770 – limit point adjustment (non-linearity, hysteresis, repeatability)			
Thermal effects (offset and span)			
Tolerance band	≤ ± 2 % FSO	in compensated range 0 ... 50 °C	
TC, average	≤ ± 0.4 % FSO / 10 K	in compensated range 0 ... 50 °C	
Permissible temperatures			
Medium	-25 ... 85 °C		
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)	according to DIN EN 60068-2-6	
Shock	100 g / 11 msec	according to DIN EN 60068-2-27	
Materials			
Pressure port	aluminium		
Housing	PA 6.6 black		
Seal (media wetted)	NBR		
Sensor	silicon, RTV		
Media wetted parts	pressure port, seal, sensor		
Miscellaneous			
Media	compressed air, non-aggressive gases		
Weight	approx. 50 g		
Installation position	any		
Operational life	100 million load cycles		
Ingress protection	IP 54		
CE-conformity	EMC Directive: 2014/30/EU		
Wiring diagrams			
<p>1 contact, without analogue output</p>		<p>2 contacts, without analogue output</p>	
<p>1 contact, with analogue output</p>			

Pin configuration				
Electrical connection	M8x1 / metal (4-pin)			
	1 contact	2 contacts	1 contact, 1 analogue output	
Supply +	1	1	1	
Supply -	3	3	3	
Signal +	-	-	2	
Contact 1	4	4	4	
Contact 2	-	2	-	
Shield	housing	housing	housing	

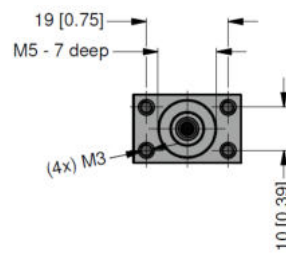
Dimensions (mm / in)



Mechanical connections (dimensions mm / in)



G1/8" internal thread



M5 internal thread

Ordering code IDS4

IDS4



Pressure									
gauge	6	8	0						
Input									
[bar]									
1.0		1	0	0	1				
3.5		3	5	0	1				
10		1	0	0	2				
-1 ... 0		X	1	0	2				
customer		9	9	9	9				consult
Number of contacts									
1 contact					1				
2 contacts ¹					2				
Analogue output									
without analogue output					0				
1 ... 5 V / 3-wire ¹					C				
Electrical connection									
M8x1 (4-pin) / metal					Q	0	0		
customer					9	9	9		consult
Mechanical connection									
G1/8" internal thread					Q	0	0		
M5 internal thread with slot for O-ring ²					R	0	0		
customer					9	9	9		consult
Seals									
NBR							5		
customer							9		consult
Setting code									
standard ³							0	0	0
setting according to customer ³							9	9	9
Special version									
standard							0	0	0
customer							9	9	9
									consult

¹ with optional analogue output max. 1 contact possible

² suitable for flange installation

³ Parameters can be programmed by customer either with the programming kit CIS 680 / CIS 681 or with the programming device P6 (available as accessories).