

Series SWDN electronic vacuum/pressure switches

With digital display High precision, easy to use



- » Compact and lightweight
- » Digital indicator: precision electronic insertion with two separated switch outputs
- » Switching point and hysteresis can be programmed with a membrane keypad.

APPLICATIONS:

- electronic vacuum/pressure switch for safety monitoring, optimization of cycle times or energy saving devices;
- it can be installed directly on the gripping point of a handling system;
- setting of the limit vacuum value and continuous vacuum control;
- perfectly suitable for customer needs.

ELECTRIC CONNECTION:

the device is available with hardwired cable of 2 meters or can be supplied with M8 connector.

Accessories and extensions have to be ordered separately. Codes can be found at the end of this section.

GENERAL DATA

Type of pressure/vacuum switch
Port with external thread G1/8 and internal thread M5
Display 3 digit display with membrane keypad for the values set up
LED integrated LED indicators for switching state
Electric connection with M8 4-pole connector or pre-wired cable of 2 meters

SERIES SWDN ELECTRONIC VACUUM/PRESSURE SWITCHES

CODING EXAMPLE

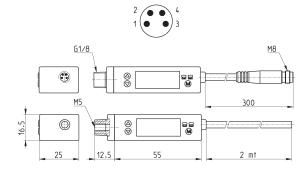
SWDN	-	V01	-	Р3	-	2
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SWDN	SERIES
V01	SET PRESSURE RANGE: V01 = from -1 bar to 1 bar P10 = from 0 bar to 10 bar
Р3	TYPE OF ELECTRIC CONNECTION: P3 = 2 PNP outputs + 1 analog output 1 - 5 V DC (this version is available with 5-pole cable only) P4 = 2 PNP outputs
2	ELECTRIC CONNECTION: 2 = cable of 2 meters M = M8 4 pin connector

Vacuum/Pressure switch Series SWDN



1 = brown (+)
2 = white (OUT 2)
3 = blue (-)
4 = black (OUT 1)
Analogic output = orange



Mod.

SWDN-V01-P3-2

SWDN-V01-P4-2

SWDN-V01-P4-M SWDN-P10-P3-2

SWDN-P10-P4-2

SWDN-P10-P4-M



TECHNICAL DATA

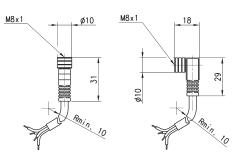
CHARACTERISTICS				
	SWDN-V01 SWDN-P10			
Rated pressure range (set-value)	-1 ÷ 1 bar 0 ÷ 10 bar			
Setting pressure range (it can be displayed on the screen)	-1 ÷ 1 bar -1 ÷ 10 bar			
Withstand (Maximum) pressure	3 bar 15 bar			
Fluid	Air, non-corrosive gases, incombustible gases			
Set pressure resolution: kPa MPa	0,1 - - 0.001			
Kgf/cm ²	0,001 0,01			
bar Psi	$egin{array}{ccc} 0,001 & & 0,01 \\ 0,01 & & 0,1 \\ \end{array}$			
InHg	0,1 -			
mmHg	1 -			
mmH20	0,1 -			
Power supply voltage	12-24 VDC ± 10%, ripple (P-P) 10% or less			
Current consumption	≤55mA			
PNP switch output	2 outputs with open collector max. load current of 100mA			
	max. power supply voltage of 24VDC			
	residual voltage ≤ 1V (with load current of 80mA)			
Repeatibility (switch output)	≤ ± 0,2% F.S. ± 1 digit			
Analog output (where foreseen)	$1 - 5V \pm 5\%$ F.S. $1 - 5V \pm 2,5\%$ F.S.			
Hostonia Butania ad	(within the linear range: ≤ ± 1% F.S.)			
Hysteresis: Hysteresis mode Window comparator mode	Adjustable Fixed (3 digits)			
Response time	≤ 2,5ms (chattering-proof function: 24ms, 192ms and 768ms)			
Output short circuit protection	YES			
7 segment LED display	3 ⅓ digit (sampling rate of 5 times/sec)			
Indicator accuracy	≤ ± 2% F.S. ± 1 digit (ambient temperature: 25 ± 3°C)			
Indicator	green LED (OUT1), red LED (OUT2)			
Environment: Protection class	IP40			
Temperature	Operation: 0 ÷ 50°C			
	Storage: -20 ÷ 60°C			
	(without condensation or freezing)			
Relative humidity	Operation/Storage: 35 ÷ 85%			
	(without condensation)			
Withstand (Max.) voltage	1000 VAC in 1 min (between case and lead wire)			
Insulation resistance	$50 M\Omega$ min. (at $500 VDC$ between case and lead wire)			
Vibration	Total amplitude 1.5 mm			
	10Hz-55Hz-10Hz scan for 1 minute			
	2 hours each direction of X, Y and Z			
Shock	980 m/s² (100G)			
	3 times each direction of X, Y and Z			
Changes due to temperature	\leq ± 2% F.S. of detected pressure (25°C) within the operating temperature range			
Port size	G1/8 - M5			
Lead wire	Oil-resistance cable (0,15 mm²)			
Weight	About 67 g for the version with 2-meter lead wire			
	About 35 g for the version with male connector			

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Circular M8 4-pole connectors, Female

Protection class: IP65 Materials: PU non shielded cable







Mod.	Type of connector	Cable length (m)
CS-DF04EG-E200	straight	2
CS-DF04EG-E500	straight	5
CS-DR04EG-E200	90°	2
CS-DR04EG-E500	90°	5