

# 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



#### **CODING EXAMPLE**

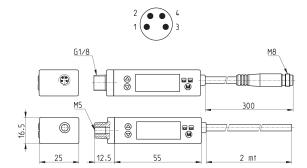
SWDN	-	V01	-	Р3	-	2

SWDN	SERIES	
V01	SET PRESSURE RANGE: VO1 = from -1 bar to 1 bar P10 = from 0 bar to 10 bar	
Р3	TYPE OF ELECTRIC CONNECTION: P3 = 2 PMP 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-P10-P3-2

SWDN-P10-P4-2

SWDN-P10-P4-M



#### **TECHNICAL DATA**

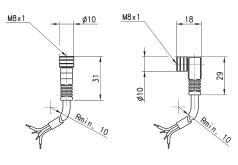
CHARACTERISTICS			
	SWDN-V01 SWDN-P10		
Rated pressure range (set-value)	-1 ÷ 1 bar 0 ÷ 10 bar		
Setting pressure range (it can be displayed on the screen)	-1÷10ar -1÷10 bar		
Withstand (Maximum) pressure	3 bar 15 bar		
Fluid			
Set pressure resolution: kPa	Air, non-corrosive gases, incombustible gases 0,1 -		
MPa	- 0,001		
Kgf/cm²	0,001 0,01		
bar Psi	$egin{array}{ccc} 0,001 & 0,01 & 0,01 & 0,1 & $		
InHg	0,1 -		
mmHg mmH2O	1 0,1 -		
Power supply voltage	12-24 VDC ± 10%, ripple (P-P) 10% or less		
Current consumption			
PNP switch output	≤ 55mA  2 outputs with open collector		
riar switch output	max. load current of 100mA		
	max. power supply voltage of 24VDC		
Donoralitility (contact contact)	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. (within the linear range: $\leq \pm 1\%$ F.S.)		
Hysteresis: Hysteresis mode	Adjustable		
Window comparator mode	Fixed (3 digits)		
Response time	≤ 2,5ms (chattering-proof function: 24ms, 192ms and 768ms)		
Output short circuit protection	YES		
7 segment LED display	3 ½ 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 500VDC 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	≤ ± 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		
	ADOUT 22 & TOT THE VERSION WITH HIGHE CONNECTION		



### 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