

Series SWCN electronic vacuum/pressure switches

With digital display
High precision, easy to use



- » Compact and lightweight
- » Digital indicator: precised electronic insertion with two separated switch outputs
- » Switching point and hysteresis can be programmed with a membrane keypad
- » Upper and lower limit values can be programmed through two PNP switch outputs

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 | electronic with polycarbonate housing |
| 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

| | | | | | | |
|-------------|----------|------------|----------|-----------|----------|----------|
| SWCN | - | V01 | - | P3 | - | 2 |
|-------------|----------|------------|----------|-----------|----------|----------|

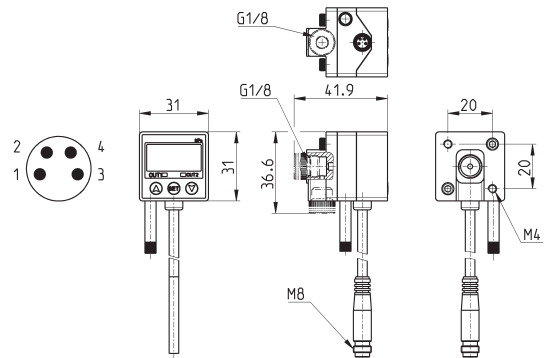
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|-------------|--|
| SWCN | SERIES |
| V01 | SET PRESSURE RANGE: V01 = from -1 bar to 1 bar P10 = from 0 bar to 10 bar |
| P3 | TYPE OF ELECTRIC CONNECTION: P3 = 2 PNP outputs + 1 analog output 1 - 5 V DC (this version is available with 5-pole cable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

SERIES SWCN ELECTRONIC VACUUM/PRESSURE SWITCHES

Vacuum/Pressure switch Series SWCN



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



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|---------------|
| Mod. |
| SWCN-V01-P3-2 |
| SWCN-V01-P4-2 |
| SWCN-V01-P4-M |
| SWCN-P10-P3-2 |
| SWCN-P10-P4-2 |
| SWCN-P10-P4-M |

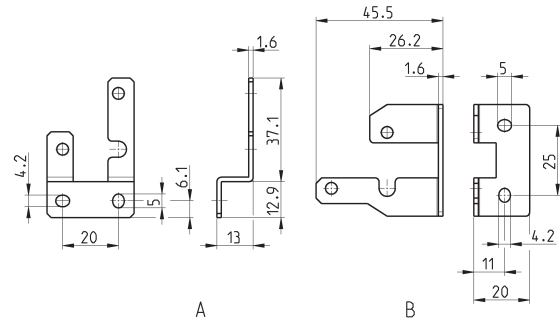
TECHNICAL DATA

| CHARACTERISTICS | | |
|--|---|---|
| | SWCN-V01-... | SWCN-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: | 0,1 | - |
| kPa | - | 0,001 |
| MPa | 0,001 | 0,01 |
| Kgf/cm ² | 0,001 | 0,01 |
| bar | 0,01 | 0,1 |
| Psi | 0,1 | - |
| InHg | 1 | - |
| mmHg | 0,1 | - |
| mmH ₂ O | - | - |
| 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 80mA max. power supply voltage of 24VDC residual voltage ≤ 1V (with load current of 80mA) | |
| Repeatability (switch output) | ≤ ± 0,2% F.S. ± 1 digit | |
| Analog output (where foreseen) | 1 - 5V ± 5% F.S. | 1 - 5V ± 2,5% F.S. (within the linearity range: ≤ ± 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 | IP65 | |
| 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 | 50MΩ 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/s ² (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 mm ²) | |
| Weight | About 105 g for the version with 2-meter lead wire About 71 g for the version with male connector | |

Mounting bracket Mod. SWCN-B

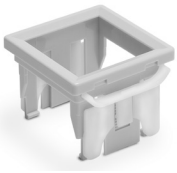


- Supplied with:
- 4 fixing screws M4x5 ISO 724 (fine pitch)
 - 1 fixing bracket for surface mounting (A)
 - 1 fixing bracket for wall mounting (B)

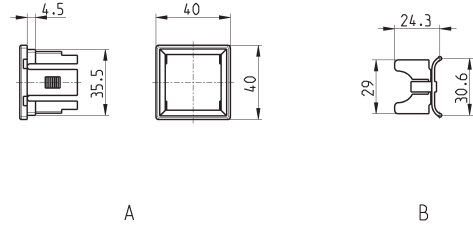


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| Mod. |
| SWCN-B |

Panel mounting set Mod. SWCN-F



- Supplied with:
- 1 pressure switch holder (A)
 - 2 panel mounting brackets (B)

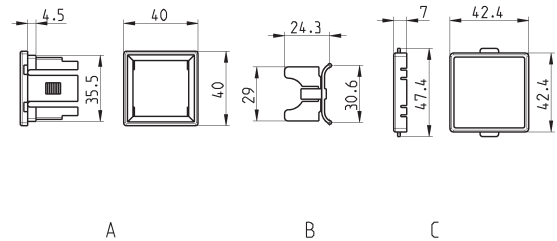


| |
|--------|
| Mod. |
| SWCN-F |

Panel mounting set + transparent cover Mod. SWCN-FP



- Supplied with:
- 1 pressure switch holder (A)
 - 2 panel mounting brackets (B)
 - 1 transparent cover (C)

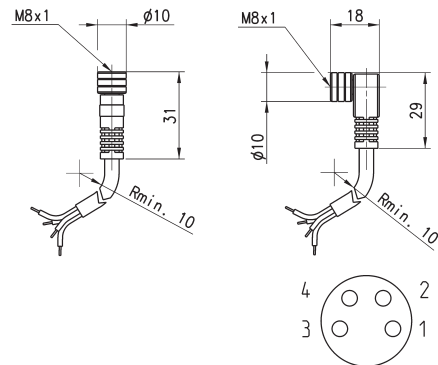


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|---------|
| Mod. |
| SWCN-FP |

Circular M8 4-pole connectors, Female



With PU sheathing, non shielded cable.
Protection class: IP65



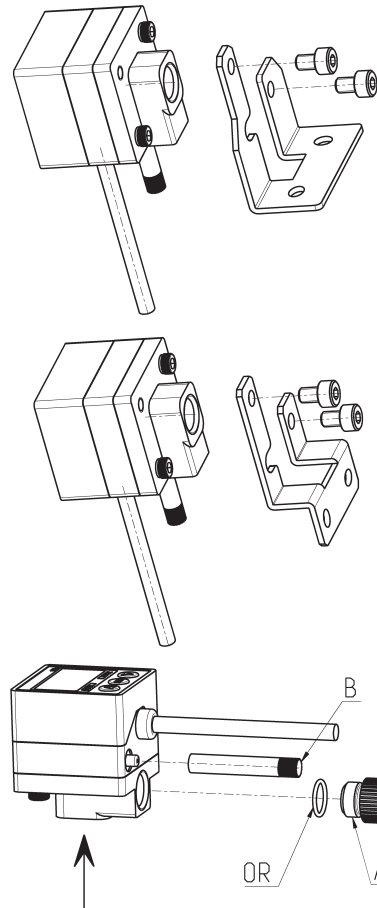
| Mod. | Type of connector | Cable length (m) |
|----------------|--------------------------|------------------|
| CS-DF04EG-E200 | straight | 2 |
| CS-DF04EG-E500 | straight | 5 |
| CS-DR04EG-E200 | right angle (90 degrees) | 2 |
| CS-DR04EG-E500 | right angle (90 degrees) | 5 |

Example of mounting with bracket Mod. SWCN-B and standard accessories

A: ADDITIONAL POWER SUPPLY

In case of use, please unscrew plug A from one side and mount it on the other one.

B: Use of the AIR FILTER TUBE to reach the IP 65 protection class.



Example of mounting with panel mounting set Mod. SWCN-F

A = PANEL MOUNTING SET MOD. SWCN-F

B = PRESSURE SWITCH MOD. SWCN-...

C = PANEL

