

Series SWMN and SWMS compact electronic pressure switches / vacuum switches

Ports: G1/8, M5 thread or Ø 4, 6 mm plug-in tube
Measuring range: 0 ÷ -1 bar, 0 ÷ 1 bar with analog output,
0 ÷ -1 bar, 0 ÷ 6 bar with digital PNP output



SERIES SWMN/SWMS PRESSURE/VACUUM SWITCHES

The Series SWMN and SWMS vacuum/pressure switches can be installed directly at the measuring point or pressure/vacuum determination point in handling systems, thanks to its highly compact dimensions.

Its reduced weight (only 50 grams with a 2 meter cable) and robust construction allow its installation on applications with high accelerations.

The four types of connection enable a high flexibility and an easy installation inside machines or pneumatic cabinets.

- » Minimum dimensions
- » Reduced weight
- » Available with analog or digital output
- » High measuring precision

GENERAL DATA

Operating pressure range	-1 ÷ 0 bar; 0 ÷ 10 bar; -1 ÷ 10 bar
Medium	filtered air and inert gases
Supply voltage	12 ÷ 24 V DC
Maximum load	80 mA (SWMN-AP/AV/PN/PP) 40 mA (SWMS-NO/NC)
Voltage drop	0.8 V (SWMN-AP/AV/PN/PP) 5 V (SWMS-NO/NC)
Short circuit protection	models SWMN-AP/AV/PN/PP
Response time	about 1 msec
Repeatability	±1% F.S.
Hysteresis	3% F.S. (SWMN-AP/AV/PN/PP) 4% F.S. (SWMS-NO/NC)
Protection class	IP40
Operating temperature	0 ÷ 50°C
Connection cable	oil resistant, 2 or 3-wire cable (according to the model), outer sheath Ø 2.6 mm

CODING EXAMPLE

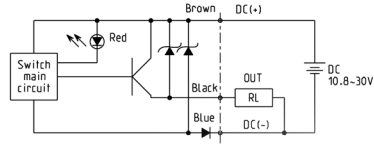
SWMN	-	AP	-	T	-	2
SWMN	SERIES SWMN SWMS					
AP	OUTPUT SIGNAL (SWMN) AV = analog output signal - vacuum AP = analog output signal - pressure PN = PNP output - vacuum PP = PNP output - pressure			OUTPUT SIGNAL (SWMS) NO = normally open NC = normally closed		
T	TYPE OF CONNECTION T = Ø 6 tube U = Ø 4 tube (only for SWMN) G = G1/8 thread M = M5 thread					
2	ELECTRIC CONNECTION 2 = cable of 2 meters M = M8 3 pin connector					

TECHNICAL DATA

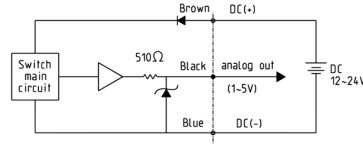
Mod.	SWMN-PN	SWMN-PP	SWMN-AV	SWMN-AP	SWMS-NO	SWMS-NC
Medium	air, non-corrosive and non-flammable gases	air, non-corrosive and non-flammable gases	air, non-corrosive and non-flammable gases	air, non-corrosive and non-flammable gases	air, non-corrosive and non-flammable gases	air, non-corrosive and non-flammable gases
Operating pressure range	-1 ÷ 0 bar	0 ÷ 6 bar	-1 ÷ 0 bar	0 ÷ 10 bar	-1 ÷ 6 bar	-1 ÷ 6 bar
Precision	±1% operating range	±1% operating range	±1% operating range	±1% operating range	±1% operating range	±1% operating range
Max overpressure	6 bar	15 bar	2 bar	15 bar	15 bar	15 bar
Output signal	PNP	PNP	1 ÷ 5 V ≤ ±1% F.S. Linearity ≤ ±0.5% F.S.	1 ÷ 5 V ≤ ±1% F.S. Linearity ≤ ±0.5% F.S.	NO	NC
Hysteresis	3% F.S.	3% F.S.	-	-	≤4% F.S.	≤4% F.S.
Maximum output current	80 mA	80 mA	-	-	5 ÷ 40 mA	5 ÷ 40 mA
Voltage	10.8 ÷ 30 V DC	10.8 ÷ 30 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC	12 ÷ 24 V DC
Voltage drop	≤0.8 V	≤0.8 V	≤0.8 V	≤0.8 V	≤5 V	≤5 V
Protection class	IP40	IP40	IP40	IP40	IP40	IP40
Short circuit protection	yes	yes	yes	yes	-	-
Temperature effect (temperature range between 0 and 50°C)	±3% F.S.	±3% F.S.	±2% F.S.	±2% F.S.	±3% F.S.	±3% F.S.
Response time	1 ms	1 ms	-	-	1 ms	1 ms
Environmental temperature	0 ÷ 60°C	0 ÷ 60°C	0 ÷ 50°C	0 ÷ 50°C	0 ÷ 60°C	0 ÷ 60°C
Repeatability	≤±1% F.S.	≤±1% F.S.	-	-	≤±1% F.S.	≤±1% F.S.
Indication	LED	LED	-	-	LED	LED
Electric connection	cable or M8 3 pin female connector	cable or M8 3 pin female connector	cable or M8 3 pin female connector	cable or M8 3 pin female connector	cable or M8 3 pin female connector	cable or M8 3 pin female connector
Cable (oil resistant)	2 wires 0.18 mm ² , Ø 2.6 mm	2 wires 0.18 mm ² , Ø 2.6 mm	2 wires 0.18 mm ² , Ø 2.6 mm	2 wires 0.18 mm ² , Ø 2.6 mm	2 wires 0.18 mm ² , Ø 2.6 mm	2 wires 0.18 mm ² , Ø 2.6 mm
Weight (with 3-meter cable)	50 g	50 g	50 g	50 g	50 g	50 g

CONNECTION CIRCUIT

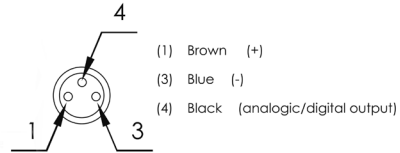
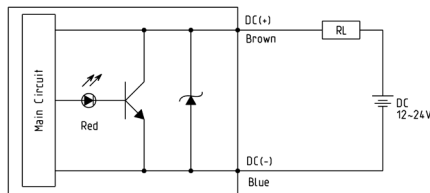
SWMN-PN / SWMN-PP



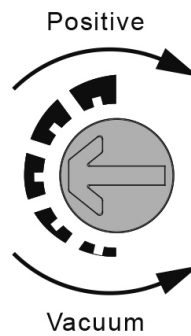
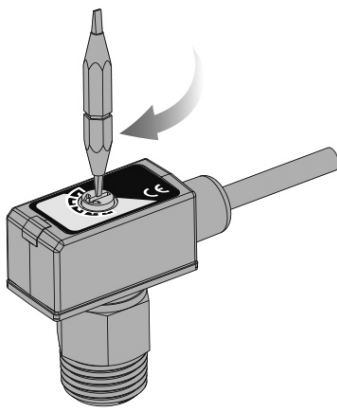
SWMN-AV / SWMN-AP



SWMS-NO / SWMS-NC



PRESSURE ADJUSTMENT



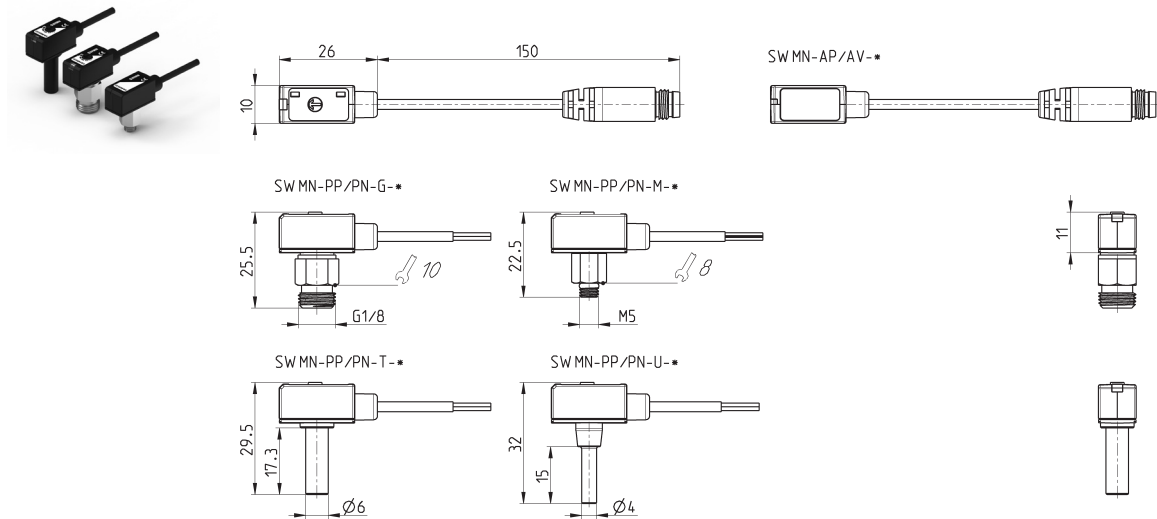
For models SWMS-NO and SWMS-NC

Rotate clockwise to increase the opening pressure of the contact for NC versions and the closing for NO versions.

For models SWMN-PN and SWMN-PP

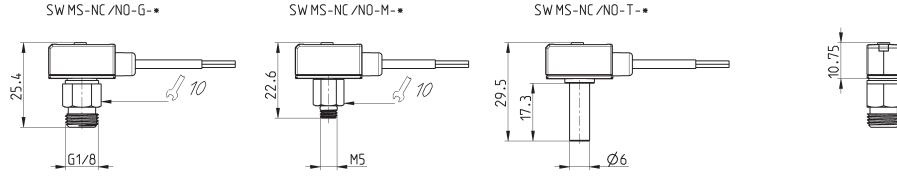
Rotate clockwise to increase the opening pressure of the contact for NC versions and the closing for NO versions.

Vacuum/pressure switches Mod. SWMN-AV/AP/PN/PP



Mod.	Output signal	Type of connection	Electric connection
SWMN-AV-T-2	analog output signal - vacuum	Ø 6 tube	cable of 2 meters
SWMN-AV-M-2	analog output signal - vacuum	M5 thread	cable of 2 meters
SWMN-AV-U-2	analog output signal - vacuum	Ø 4 tube	cable of 2 meters
SWMN-AV-G-2	analog output signal - vacuum	G1/8 thread	cable of 2 meters
SWMN-AV-T-M	analog output signal - vacuum	Ø 6 tube	M8 3 pin connector
SWMN-AV-M-M	analog output signal - vacuum	M5 thread	M8 3 pin connector
SWMN-AV-U-M	analog output signal - vacuum	Ø 4 tube	M8 3 pin connector
SWMN-AV-G-M	analog output signal - vacuum	G1/8 thread	M8 3 pin connector
SWMN-AP-T-2	analog output signal - pressure	Ø 6 tube	cable of 2 meters
SWMN-AP-M-2	analog output signal - pressure	M5 thread	cable of 2 meters
SWMN-AP-U-2	analog output signal - pressure	Ø 4 tube	cable of 2 meters
SWMN-AP-G-2	analog output signal - pressure	G1/8 thread	cable of 2 meters
SWMN-AP-T-M	analog output signal - pressure	Ø 6 tube	M8 3 pin connector
SWMN-AP-M-M	analog output signal - pressure	M5 thread	M8 3 pin connector
SWMN-AP-U-M	analog output signal - pressure	Ø 4 tube	M8 3 pin connector
SWMN-AP-G-M	analog output signal - pressure	G1/8 thread	M8 3 pin connector
SWMN-PN-T-2	PNP output - vacuum	Ø 6 tube	cable of 2 meters
SWMN-PN-M-2	PNP output - vacuum	M5 thread	cable of 2 meters
SWMN-PN-U-2	PNP output - vacuum	Ø 4 tube	cable of 2 meters
SWMN-PN-G-2	PNP output - vacuum	G1/8 thread	cable of 2 meters
SWMN-PN-T-M	PNP output - vacuum	Ø 6 tube	M8 3 pin connector
SWMN-PN-M-M	PNP output - vacuum	M5 thread	M8 3 pin connector
SWMN-PN-U-M	PNP output - vacuum	Ø 4 tube	M8 3 pin connector
SWMN-PN-G-M	PNP output - vacuum	G1/8 thread	M8 3 pin connector
SWMN-PP-T-2	PNP output - pressure	Ø 6 tube	cable of 2 meters
SWMN-PP-M-2	PNP output - pressure	M5 thread	cable of 2 meters
SWMN-PP-U-2	PNP output - pressure	Ø 4 tube	cable of 2 meters
SWMN-PP-G-2	PNP output - pressure	G1/8 thread	cable of 2 meters
SWMN-PP-T-M	PNP output - pressure	Ø 6 tube	M8 3 pin connector
SWMN-PP-M-M	PNP output - pressure	M5 thread	M8 3 pin connector
SWMN-PP-U-M	PNP output - pressure	Ø 4 tube	M8 3 pin connector
SWMN-PP-G-M	PNP output - pressure	G1/8 thread	M8 3 pin connector

Vacuum/pressure switches Mod. SWMS-NO/NC



Mod.	Output signal	Type of connection	Electrical connection	Operating pressure range	Range of adjustment
SWMS-NO-T-2	NO	Ø 6 tube	cable of 2 meters	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NO-M-2	NO	M5 thread	cable of 2 meters	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NO-G-2	NO	G1/8 thread	cable of 2 meters	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NO-T-M	NO	Ø 6 tube	M8 3 pin connector	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NO-M-M	NO	M5 thread	M8 3 pin connector	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NO-G-M	NO	G1/8 thread	M8 3 pin connector	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NC-T-2	NC	Ø 6 tube	cable of 2 meters	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NC-M-2	NC	M5 thread	cable of 2 meters	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NC-G-2	NC	G1/8 thread	cable of 2 meters	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NC-T-M	NC	Ø 6 tube	M8 3 pin connector	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NC-M-M	NC	M5 thread	M8 3 pin connector	-1 ÷ 15 bar	-1 ÷ 6 bar
SWMS-NC-G-M	NC	G1/8 thread	M8 3 pin connector	-1 ÷ 15 bar	-1 ÷ 6 bar

SERIES SWMN/SWMS PRESSURE/VACUUM SWITCHES