



26.273.0

Electronic pressure sensor



The display not only indicates system pressure, but also switching point settings and the output state of the digital outputs. The pressure display can be switched between bar, psi, MPa, inHg and kg/cm<sup>2</sup>.



1. Indication of the applied pressure
2. Set pressure unit
3. Set values for switching points 1 and 2
4. „▲“:key: Displays important parameters values
5. Press and hold the ▼ key to switch to programming mode
6. Set key lock (password-protected)

Information on the display simplifies parameter setting. For intuitive menu navigation. The clear menu structure is based on the VDMA standard 24574-1.

Parameter setting:



#### Step 1: Select

1. Reference to which parameter is selected
2. „▲“ key: Navigate up in the menu
3. „▼“ key: Navigate down in the menu
4. Selection of the parameters to set using the middle „→“ key
5. Parameter value currently set



#### Step 2: Set

1. Setting of the new parameter value (here: SP1)
2. „▲“ key: Increase value
3. „▼“ key: Decrease value
4. Confirmation of the value set by pressing the „→“ key
5. Previous setting
6. For information: Corresponding reset point

## STRIKINGLY FLEXIBLE: THE APPLICATION POSSIBILITIES OF THE 26.273.0

With its positive and negative pressure ranges, the 26.273.0 is suitable for a variety of applications: Monitors the compressed-air supply of a system. Measures the system pressure in a pneumatic control. Determines the suction pressure in a vacuum gripper. Monitors the air pressure required for clamping a workpiece. The 26.273.0 reliably handles these different tasks, making an important contribution to safe operation of the system.

Flexible installation: The 26.273.0 has a pressure connection on the bottom of the housing. This pressure connection is available either as a G ¼ thread.

The 26.273.0 also has a second pressure connection with G ¼ thread on the back of the housing.

In addition, the 26.273.0 has an integrated DIN rail mounting. A wall-mounting kit and frame for panel mounting are also available as mounting accessories.



### 26.273.0: THE ALL-ROUNDER

- The switching outputs are programmable: PNP, NPN or push-pull
- The optional analog output automatically detects if the attached control requires a current or voltage output signal and adjusts automatically.
- The analog output signals can be inverted specifically for negative measuring ranges
- The 26.273.0 covers a wide range of requirements, thus reducing storage costs.

## Detailed technical data

### Features

<b>Medium</b>	Dry compressed air
<b>Compressed air quality</b>	According to ISO 8573-1:2010 Max. particle size: $\leq 40 \mu\text{m}$ Oil content: 0-40 mg/m <sup>3</sup> The pressure dew point must be at least 15°C below the ambient and medium temperatures and must not exceed 3°C
<b>Measuring ranges</b>	
Gauge pressure	-1 bar ... +10 bar
<b>Process temperature</b>	0 °C ... +60 °C
<b>Analog output signal and maximum ohmic load R<sub>A</sub></b>	Optional, 4 mA ... 20 mA / 0 V... 10 V. Automatic detection depending on connected load or programmable. Output signals can be inverted: 20 mA ... 4 mA / 10 V ... 0 V Load resistance for current output < 600 Ohm Load resistance for voltage output > 3 kOhm
<b>Zero point adjustment</b>	Max. 5 % of span
<b>Switching output</b>	Available transistor output switches: refer to type code PNP/NPN/push-pull programmable  Function: normally open/normally closed, window/hysteresis function freely programmable Switching voltage: supply voltage L <sup>+</sup> -2 V [V DC] Max. switching current per switching output: 100 mA Switching delay: 0 s ... 50 s (programmable) Switching time $\leq 5$ ms
<b>Diagnostics output</b>	Switching output 2 can be set as diagnostics output
<b>Display</b>	LCD with LED backlight (green/red), can be rotated electronically by 180° Pressure display: 4 digits, 16 segments Pressure unit in display can be switched: bar, MPa, kPa, psi, and inHg Update: 1,000, 500, 200 und 100 ms (programmable)

### Performance

<b>Non-linearity</b>	$\leq \pm 0.5$ % of span (Best Fit Straight Line, BFSL) according to IEC 61298-2
<b>Accuracy</b>	$\leq \pm 1.5$ % of span (including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement according to IEC 61298-2)) $\leq \pm 2$ % of span incl. temperature error (including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement according to IEC 61298-2))
<b>Non-repeatability</b>	$\leq \pm 0.2$ % of span
<b>Rated temperature range</b>	+10 °C ... +60 °C

### Mechanics/electronics

<b>Process connection</b>	2 x G ¼
<b>Housing material</b>	Housing: polycarbonate, Buttons: TPE, DIN rail mounting: POM, seals: NBR
<b>Electrical connection</b>	Round connector M12 x 1, 5-pin with 2 switching outputs and analog output
<b>Supply voltage</b>	17 V DC ... 30 V DC
<b>Power consumption</b>	Max. 40 mA at L <sup>+</sup> = 24 V DC
<b>Initialization time</b>	300 ms

<b>Electrical safety</b>	Protection class: III Overvoltage protection: 32 V DC Short-circuit protection: Q <sub>A</sub> , Q <sub>1</sub> , Q <sub>2</sub> towards M and L* Reverse polarity protection: L* towards M
<b>CE-conformity</b>	EMC directive: 2004/108/EC, EN 61326-2-3
<b>Weight sensor</b>	Approx. 40 g
<b>Enclosure rating</b>	IP 65 / IP 67 according to IEC 60529, when plugged in with a suitable mating connector
<b>RoHS certificate</b>	✓
<b>cULus certificate</b>	✓

<sup>1)</sup> Bottom side: thread G ¼ female, back side: thread G ¼ female, both according to DIN ISO 1630.

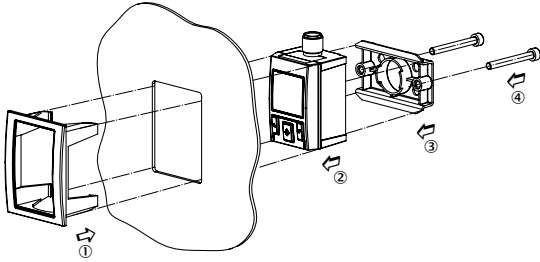
<sup>2)</sup> Bottom side: push-in fitting for 4 mm pneumatic hose, back side: thread G ¼ female according to DIN ISO 16030.

#### Ambient data

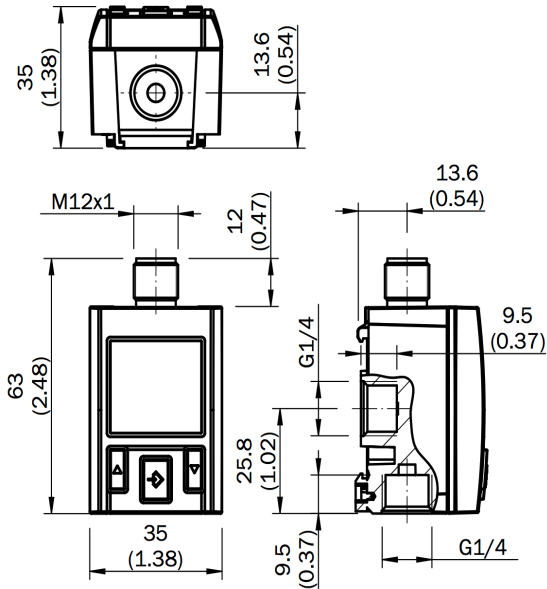
<b>Ambient temperature</b>	0 °C ... +60 °C
<b>Storage temperature</b>	-20 °C ... +80 °C
<b>Relative humidity</b>	< 90 %
<b>Shock load</b>	Max. 30 g, xyz according to IEC 60068-2-27 (11 ms, mechanical shock)
<b>Vibration load</b>	Max. 5 g (10 ... 150 Hz), xyz, according to DIN EN 60068-2-6 (10 to 150 Hz, vibration with resonance)

## Instruction for installation

Switch panel mounting set: CODE 26.274.0

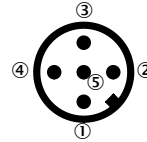


## Dimensional drawings (Dimensions in mm (inch))



## Electrical connection

Round connector M12 x 1, 5-pin : CODE 16.181.0



Output signals	Type code	Pin assignment
2 x digital + analog	26.273.0	L <sup>+</sup> = 1, M = 3, Q <sub>1</sub> = 4, Q <sub>2</sub> = 2, Q <sub>A</sub> = 5

L<sup>+</sup>: Positive supply connection  
M: Negative supply connection  
Q<sub>1</sub>: Switching output 1

Q<sub>2</sub>: Switching output 2  
Q<sub>A</sub>: Analog output