

PSD 100

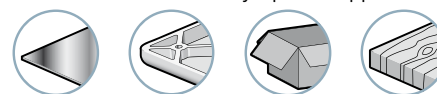
Vacuum Switch with 3-color Display



The new PSD100 series mini-vacuum switch with display offers easy reading thanks to the size of its screen and its 3-color display.

Its compactness and lightness facilitate its integration on all machines. Easily adjustable, it is equipped with an extremely precise electronic vacuum level sensor and has an adjustable digital output as well as an analog output. The PSD100 has mounting accessories on option, making it very easy to install.

Industry-specific applications

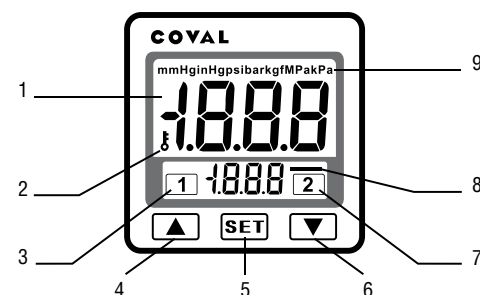


Specifications															
Pressure rating range	0.0 ~ -101.3 kPa														
Pressure setting range	10.0 ~ -101.3 kPa														
Max. pressure	300 kPa														
Fluid	Air, non-corrosive/non-flammable gas														
Pressure setting resolution	<table border="1"> <tr> <td>kPa</td> <td>MPa</td> <td>kgf/cm²</td> <td>bar</td> <td>psi</td> <td>inHg</td> <td>mmHg</td> </tr> <tr> <td>0.1</td> <td>/</td> <td>0.001</td> <td>0.001</td> <td>0.01</td> <td>0.1</td> <td>1</td> </tr> </table>	kPa	MPa	kgf/cm ²	bar	psi	inHg	mmHg	0.1	/	0.001	0.001	0.01	0.1	1
kPa	MPa	kgf/cm ²	bar	psi	inHg	mmHg									
0.1	/	0.001	0.001	0.01	0.1	1									
Power supply voltage	12 to 24 V DC ±10%, ripple (P-P) 10% or less														
Current consumption	≤ 40 mA (without load)														
Switch output	1 PNP digital output (2x on PNP2 version) Max. load current: 125 mA Max. supply voltage: 24 VDC Residual voltage: ≤ 1.5 V														
Repeatability (Switch output)	≤ ± 0.2% F.S. ±1 digit														
Hysteresis	Threshold mode	Adjustable (1 to 8 digits)													
	Hysteresis mode	Adjustable													
	Window comparator mode	Adjustable (1 to 8 digits)													
Response time	≤ 2.5ms (anti-vibration function: 25 ms, 100 ms, 250 ms, 500 ms, 1000 ms and 1500 ms selection)														
Output short circuit protection	Yes														
7 segment LCD display	Two colour (red / green) main display, orange sub-display (refresh rate: 5 times / 1sec.)														
Indicator accuracy	≤ ± 2% F.S. ± 1 digit (ambient temperature: 25 ± 3°C)														
Switch ON indicator	Orange OUT 1 / OUT 2 (PNP2 only)														
Analog output (voltage power) (PNP version only)	Output voltage: 1 to 5 V ≤ ± 2.5% F.S. (within rated pressure range), linearity: ≤ ± 1% F.S. / Output impedance: approx. 1 kΩ														
Environment	Enclosure	IP40													
	Ambient temp. range	operation: 0 – 50° C / storage: -10 – 60° C (no condensation or freezing)													
	Ambient humidity	Operation / Storage: 35-85% RH (no condensation)													
	Permissible voltage	1000 V AC in 1-min (between case and lead wire)													
	Insulation resistance	50 M Ohm min. (at 500 V DC, between case and lead wire)													
	Vibrations	Total amplitude 1.5 mm or 10 G, 10 Hz-150 Hz-10 Hz scan for 1 minute, two hours in each direction of X, Y and Z													
Shocks	100 m/s ² (10 G), 3 times each in direction of X, Y and Z														
Temperature characteristic	≤ ± 2% F.S. of detected pressure (25°C) at temp. range of 0~50°C														
Port size	G1/8", M5-F														
Lead wire	Oil-resistance cable (0.15 mm ²)														
Weight	Approx. 45 g (with M8, 4-pin male connector)														

Advantages

- 3-colour digital LCD display, easy readability.
- 6 pressure units available (kPa, bar, psi, inHg, mmHg, kgf/cm²).
- PNP version:
 - 1 PNP digital output (NO or NC).
 - 1 analog output (1-5V).
- PNP2 version:
 - 2 PNP digital outputs (NO or NC).
- Double display showing the measured value and threshold value at the same time.
- "Key lock function" with indicator light, «Lock» mode with light indicator to prevent an accidental misadjustment.
- "Power-save function" with indicator light.
- 3 mounting solutions.

Panel Description



- 1 - 2-colour main display
- 2 - Lock indicator
- 3 - Output 1 indicator
- 4 - Button
- 5 - Setting button
- 6 - Button
- 7 - Output 2 indicator (PNP2 version)
- 8 - Setting mode (sub-display section)
- 9 - Pressure unit display section



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For all orders, please specify:
Model.
Example: PSD100CPNP

1: Model	2: Electrical connection	3: Outputs
PSD100CPNP	M8 connector	1 digital output PNP 1 analog output
PSD100LPNP2	2 m cable	2 digital outputs PNP

Accessories

- CDM8: M8 Female connector – 4 poles, 2 m.
- PSDFIXA: Vertical attachment bracket.
- PSDFIXB: Horizontal attachment bracket.
- PSDFIXC: Front attachment kit.
- PSDFIXD: Front attachment kit + front protective lid.

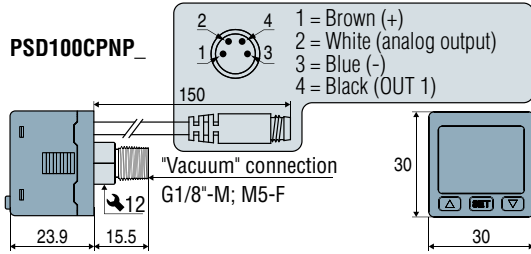
PSD 100

Vacuum Switch with 3-color Display

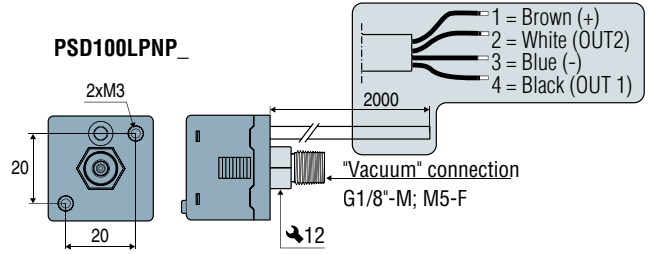


Electrical Diagrams - Dimensions

■ M8 Connector-4 poles

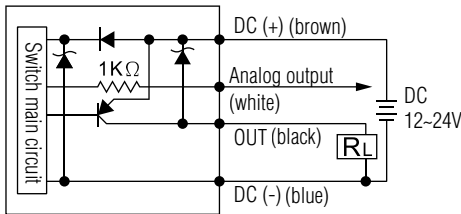


■ 2 m. cable

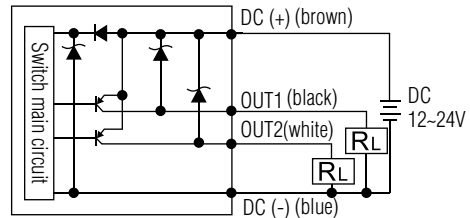


Electrical Diagrams

PSD100_PNP



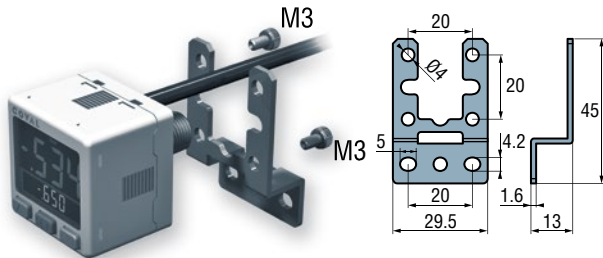
PSD100_PNP2



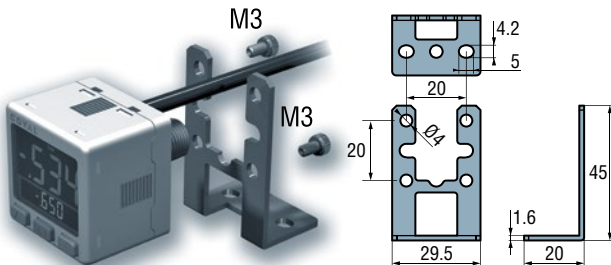
Mounting Solutions

Mounting brackets

■ PSDFIXA, vertical attachment.



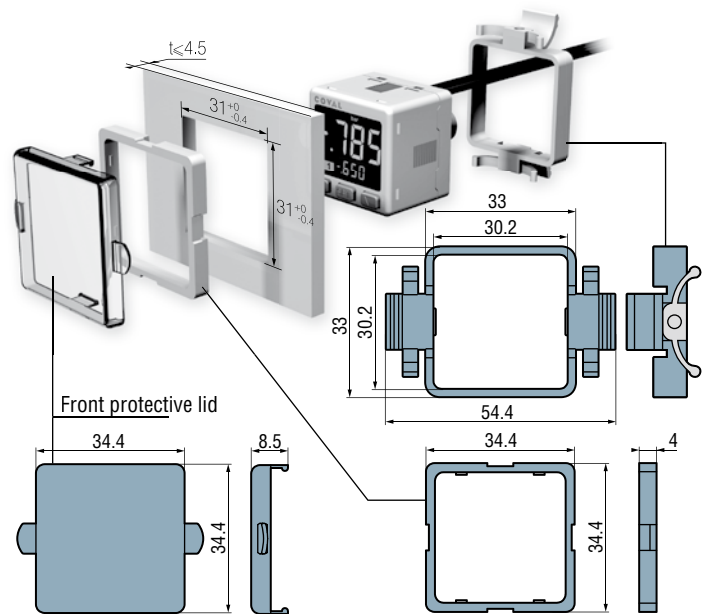
■ PSDFIXB, horizontal attachment.



Panel mounting kits

■ PSDFIXC: front attachment kit.

■ PSDFIXD: front attachment kit + front protective lid



Panel opening (max. thickness: 4.5 mm)

For 1 vacuum switch

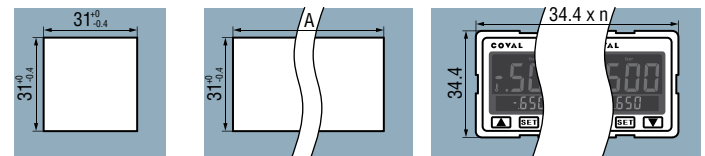
For multiple vacuum switches:

$A = (34.4 \times n) - 3.4$

$n = \text{number of switches}$

Dimensions after installation

$n = \text{number of switches}$



Note: all dimensions shown in (mm)