



- Clear LCD display
- Digital and analogue switching outputs
- High switching capacity
- Many integrated functions

Pressure sensors PENV-A, with display

Key features

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Key features

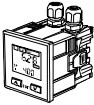
These sensors are designed for use in the most demanding environments. They can be used as an alternative to pressure gauges, for example.

The sensors offer:

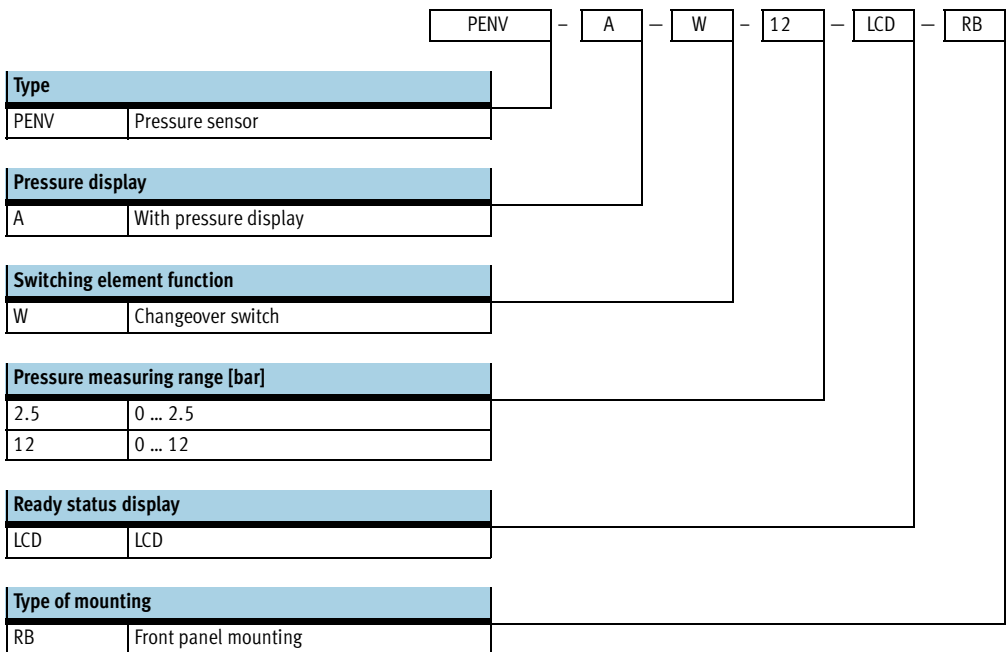
- A wide range of integrated functions
- A clear and easy to understand display
- Straightforward commissioning and simply servicing
- Wear-free characteristics
- High switching capacities
- Digital and analogue switching outputs

Pressure sensors PENV-A, with display

Overview and type codes

Product range overview								
Function	Version	Type	Pneumatic connection	Operating voltage	Switch output	Electrical connection		→ Page
						Cable	Plug	
Pressure sensors		PENV-A-W	G1/8	15 ... 30 V DC	Relay	-	■	4 / 8.2-88

Type codes



Pressure sensors PENV-A, with display

Technical data



- Voltage
15 ... 20 V DC
- Pressure
0.2 ... 12 bar
- Temperature range
0 ... 50 °C



Sensors and monitoring devices
Sensors
8.2

General technical data		
Type	PENV-A-W-2,5-LCD-RB	PENV-A-W-12-LCD-RB
Operating pressure [bar]	0 ... 2.5	0 ... 12
Mechanical		
Pneumatic connection	G $\frac{1}{8}$	
Method of measurement	Piezoresistive pressure sensor	
Measured variable	Relative pressure	
Analogue outputs	U _A	0 ... 10 V
	I _A	4 ... 20 A
Accuracy of analogue outputs [% FS]	1	1
Reproducibility of switching point [% FS]	0.1	0.1
Hysteresis	0.01 ... 2.25 bar	0.02 ... 9 bar
Temperature coefficient	1.5% FS max.	1.5% FS max.
Electrical connection	Plug, 11-pin	Plug, 11-pin
Type of mounting	With mounting rail Via through-holes Front panel mounting	With mounting rail Via through-holes Front panel mounting
Mounting position	Any ¹⁾	
Weight [g]	270	270
Electrical		
Operating voltage range [V DC]	15 ... 30	15 ... 30
Protection against short circuit	Yes	Yes
Protection against polarity reversal	For operating voltage	For operating voltage
Switch output	PNP	PNP
Ready status display	Via LCD	Via LCD
Switching status display	Via LCD	Via LCD
Protection class to EN 60 529	IP65	
CE symbol	73/23/EEC (low voltage), 89/336/EEC (EMC)	

1) The collection of condensate in the sensor should be prevented.

Operating and environmental conditions		
Type	PENV-A-W-2,5-LCD-RB	PENV-A-W-12-LCD-RB
Operating medium	Filtered compressed air, lubricated or unlubricated	
Pressure measuring range [bar]	0 ... 2.5	0 ... 12
Threshold value setting range	0.05 ... 2.5 bar	0.2 ... 12 bar
Ambient temperature [°C]	0 ... 50	
Temperature of medium [°C]	0 ... 50	

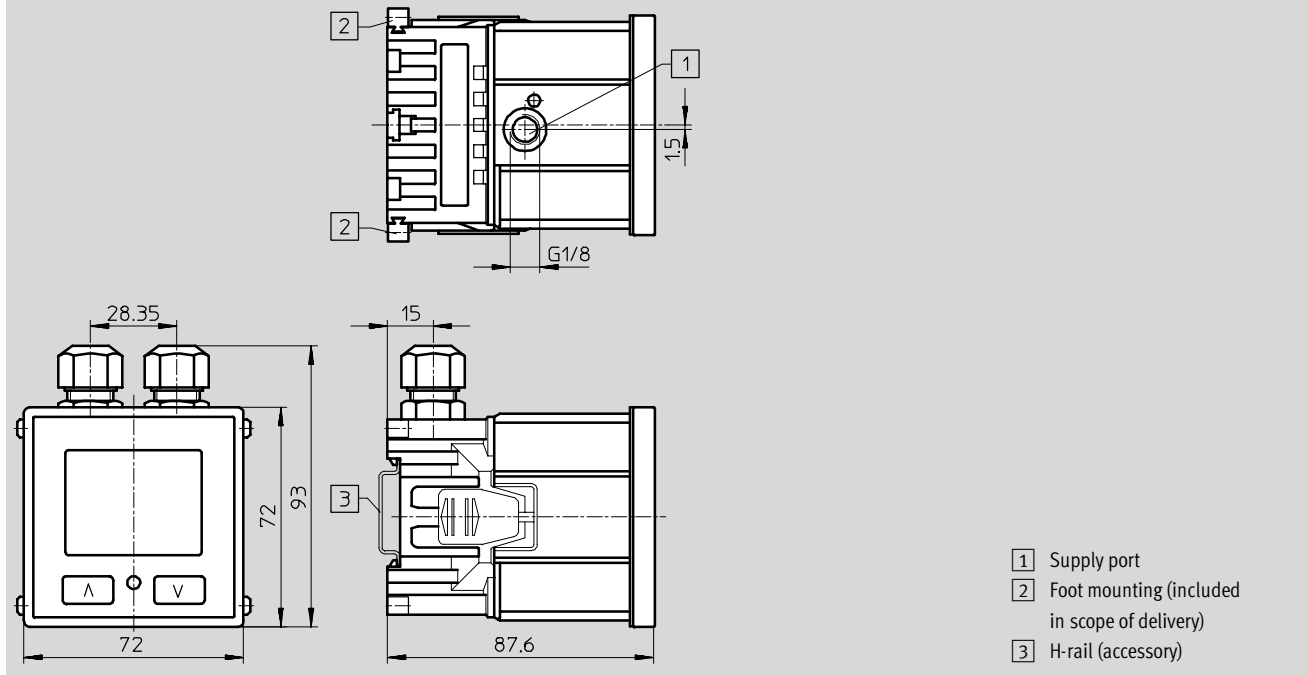
Pressure sensors PENV-A, with display



Technical data

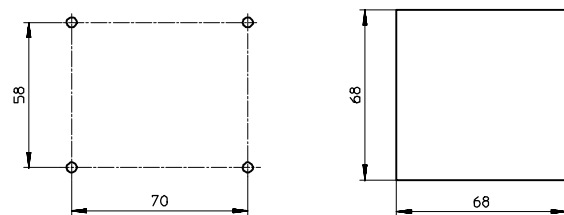
Materials	
Housing	Polycarbonate
Cover	Polyacetal
Window	Polycarbonate
Keyboard	Silicone rubber

Dimensions Download CAD data → www.festo.com/en/engineering

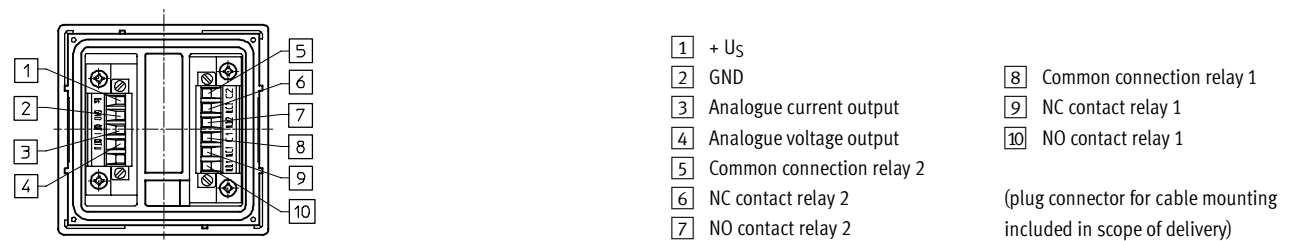


Mounting

Drilling pattern for wall mounting Aperture for front panel mounting



Electrical connection, shown without cover

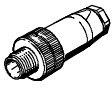
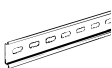


Ordering data				
Description	Pneumatic connection	Pressure measuring range [bar]	Part No.	Type
Piezoresistive pressure sensor with LCD display	G1/8	0 ... 2.5	161 055	PENV-A-W-2,5-LCD-RB
	G3/8	0 ... 12	161 056	PENV-A-W-12-LCD-RB

Pressure sensors PENV-A, with display

Accessories

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Ordering data – Accessories			Data sheets → 4 / 5.1-146	
	For pressure sensor	Brief description	Part No.	Type
Plug				
	PENV-A...	Straight plug, 4-pin, M12x1, Pg7	18 666	SEA-GS-7
		Straight plug, 4-pin, M12x1, Pg9	18 778	SEA-GS-9
		Straight plug, 4-pin, M12x1, Pg11, for 2 sensor cables	18 779	SEA-GS-11-DUO
		Straight plug, 4-pin, M12x1	192 008	SEA-GS-7-2,5
		Straight plug, 5-pin, M12x1, Pg11, for 2 sensor cables	192 010	SEA-5GS-11-DUO
DIN mounting rail to DIN EN 50 022				
	PENV-A...	2 m long	35 430	NRH-35-2000