



- 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

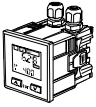
These sensors are designed for use in the most demanding environments. They can be used as an alternative to pressure gauges, for example.

The sensors offer:

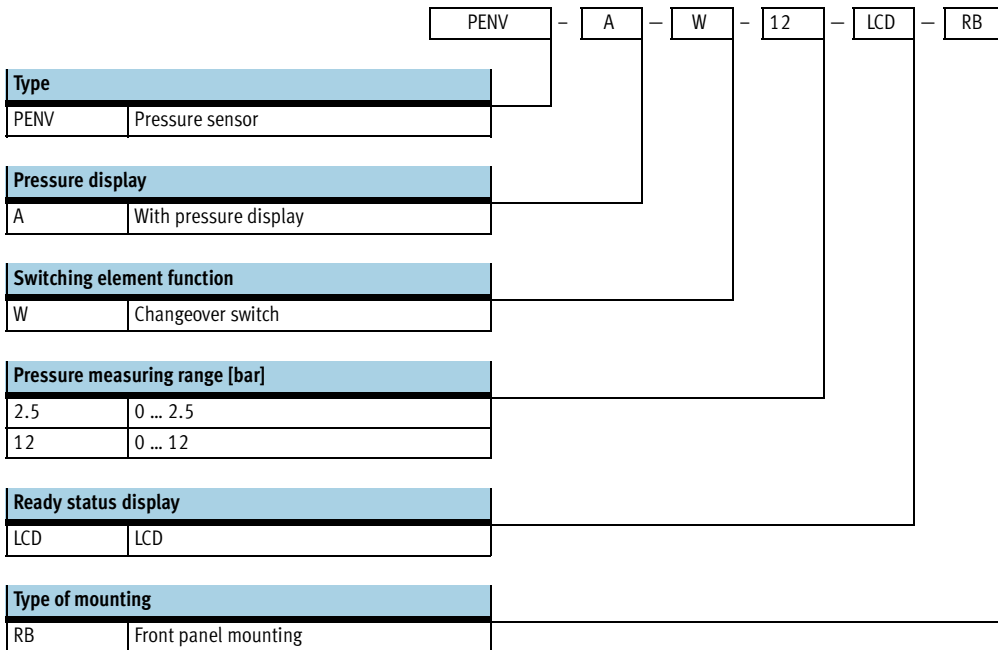
- A wide range of integrated functions
- A clear and easy to understand display
- Straightforward commissioning and simple servicing
- Wear-free characteristics
- High switching capacities
- Digital and analogue switching outputs

# 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 <sub>A</sub>	0 ... 10 V
	I <sub>A</sub>	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 <sup>1)</sup>	
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	

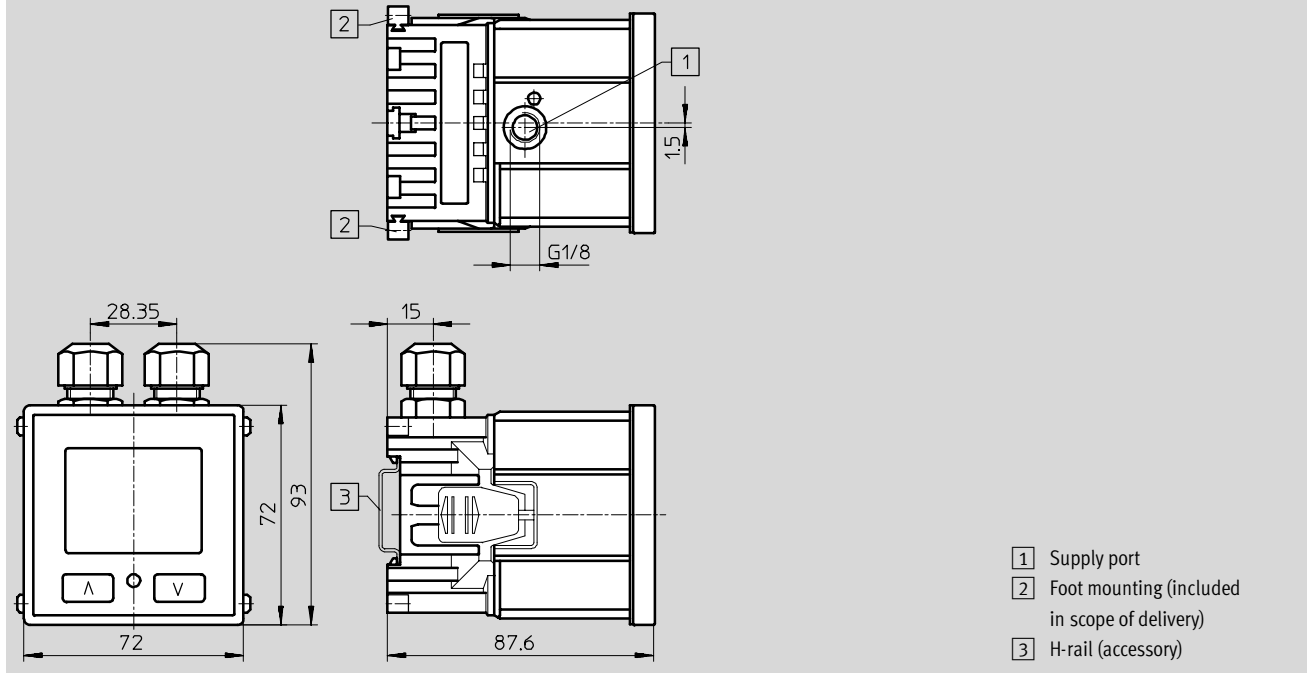
# Pressure sensors PENV-A, with display



Technical data

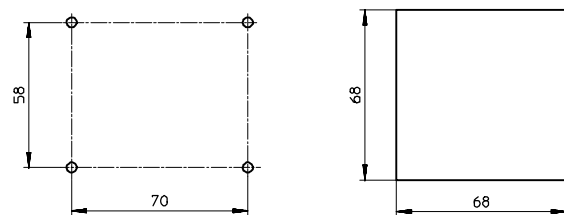
Materials	
Housing	Polycarbonate
Cover	Polyacetal
Window	Polycarbonate
Keyboard	Silicone rubber

## Dimensions Download CAD data → [www.festo.com/en/engineering](http://www.festo.com/en/engineering)

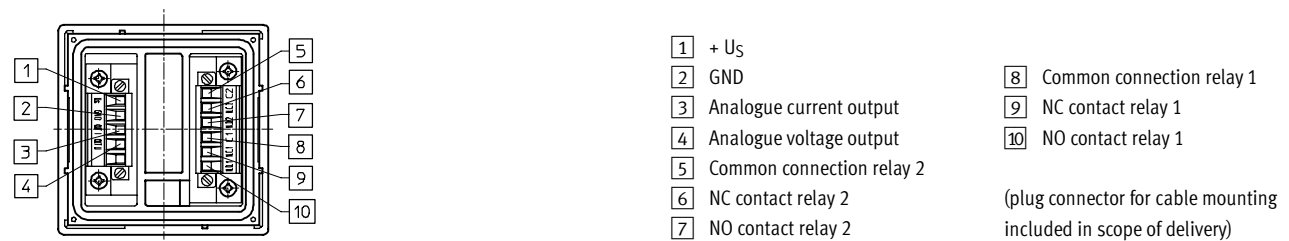


## Mounting

Drilling pattern for wall mounting      Aperture for front panel mounting



## Electrical connection, shown without cover

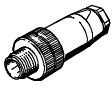
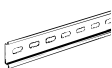


Ordering data				
Description	Pneumatic connection	Pressure measuring range [bar]	Part No.	Type
Piezoresistive pressure sensor with LCD display	G1/8	0 ... 2.5	161 055	PENV-A-W-2,5-LCD-RB
	G3/8	0 ... 12	161 056	PENV-A-W-12-LCD-RB

# 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
<b>Plug</b>				
	PENV-A...	Straight plug, 4-pin, M12x1, Pg7	<b>18 666</b>	<b>SEA-GS-7</b>
		Straight plug, 4-pin, M12x1, Pg9	<b>18 778</b>	<b>SEA-GS-9</b>
		Straight plug, 4-pin, M12x1, Pg11, for 2 sensor cables	<b>18 779</b>	<b>SEA-GS-11-DUO</b>
		Straight plug, 4-pin, M12x1	<b>192 008</b>	<b>SEA-GS-7-2,5</b>
		Straight plug, 5-pin, M12x1, Pg11, for 2 sensor cables	<b>192 010</b>	<b>SEA-5GS-11-DUO</b>
<b>DIN mounting rail to DIN EN 50 022</b>				
	PENV-A...	2 m long	<b>35 430</b>	<b>NRH-35-2000</b>