Pressure sensor liquids

Active sensor (4...20 mA) for pressure measurement in HVAC systems. The sensor is suitable for liquids, refrigerants or non-aggressive gases. The housing is made of stainless steel and is IP65/NEMA 4 rated.

5

5-year warranty

Type Overview

Type	Measuring range [psi]	Output signal active pressure	Overpressure	Negative overpressure	Burst pressure
22WP-531	0...15	4...20 mA	30 psi	-1 bar	45 psi
22WP-534	0...50	4...20 mA	100 psi	-1 bar	150 psi
22WP-536	0...100	4...20 mA	200 psi	-1 bar	300 psi
22WP-537	0...200	4...20 mA	400 psi	-1 bar	600 psi
22WP-53G	0...580	4...20 mA	1160 psi	-1 bar	1740 psi

Measuring range: The sensor can measure differential pressure (dp) within this range.

The maximum operating pressure (relative pressure to atmosphere prel) must be within the measuring range. For further information, please refer to «Product features».

Technical data

Electrical Data	Nominal voltage	DC 24 V
	Nominal voltage range	DC 13.5...26.4 V
	Power consumption DC	0.5 W
	Electrical connection	Connector Plug for wire 0.5...1.5 mm²
	Cable entry	MVS plug According to DIN EN175301-803 / Type A
Functional Data	Medium	Water Water-glycol mixture Steam
	Current output	1x 4...20 mA, max. resistance 500 Ω
	Mechanical connection	pressure connector: 1/4" NPT
	Typical response time	max. 2 ms
Measuring Data	Measured values	relative pressure
Specification pressure	Sensing element technology	strain gauge on stainless steel membrane
	Accuracy	<±0.5% FS @ 21°C [70°F] <±1.5% FS @ -10...50°C [14...122°F] <±2% FS @ -40...105°C [-40...221°F] FS = full scale
	Long term stability	±0.1% p.a.
Safety Data	Protection class IEC/EN	III, Protective Extra-Low Voltage (PELV)
	Degree of protection IEC/EN	IP65
	Degree of protection NEMA/UL	NEMA 4
	EU Conformity	CE Marking
	Certification IEC/EN	IEC/EN 60730-1
	Quality Standard	ISO 9001
	Ambient humidity	Max. 95% RH, non-condensing

Technical data

Safety Data	Ambient temperature		-40...221°F [-40...105°C]
	Fluid temperature		-40...255°F [-40...125°C] Frost protection must be guaranteed at fluid temperatures <2 °C [<36°F] steam inlet @ max. 100 kPa [15 psi]
Materials	Housing		Stainless steel 1.4301
	Housing seal		FKM fluororubber, Silicone-free

Safety Notes

⚠️ This device has been designed for use in stationary heating, ventilation and air-conditioning systems and must not be used outside the specified field of application. Unauthorized modifications are prohibited. The product must not be used in relation with any equipment that in case of a failure may threaten humans, animals or assets.

Ensure all power is disconnected before installing. Do not connect to live/operating equipment.

Only authorized specialists may carry out installation. All applicable legal or institutional installation regulations must be complied with during installation.

The device contains electrical and electronic components and must not be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Product Features

Solution   The device measures the relative pressure of the system to atmospheric pressure. Make sure that the maximum operating pressure stays within the measuring range.

Differential pressure <= measuring range (dp)

Operating pressure <= measuring range (dp)

Measuring range (dp)

The sensor can measure differential pressures (dp) within this range. The maximum operating pressure (prel) must be within the measuring range.

Overpressure (prel)

Maximum relative pressure (prel) that the device can withstand without permanent damage. No measurement is possible within the overpressure range.

Burst pressure (prel)

Maximum relative pressure (prel) up to which the device housing is tight. If this pressure is exceeded, the sensor will leak or burst.
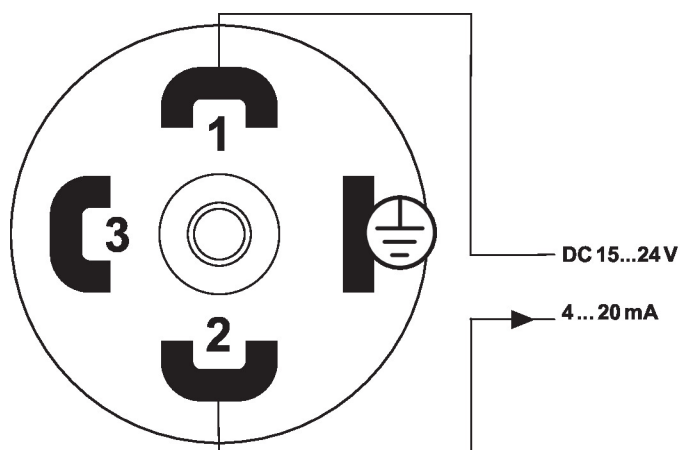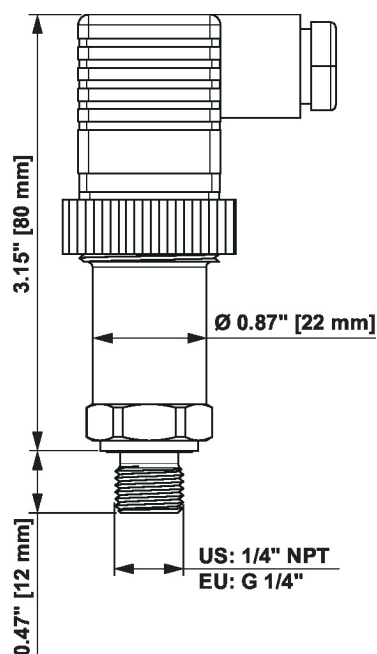
Parts included

1/2" NPT conduit adapter

Accessories

Optional accessories	Description	Type
	Reduction adapter, 1/4" NPT (internal thread) to 1/2" NPT (external thread)	A-22WP-A01

Wiring Diagram

DC 15...24 V

4 ... 20 mA

Dimensions

3.15" [80 mm]

Ø 0.87" [22 mm]

0.47" [12 mm]

US: 1/4" NPT
EU: G 1/4"

Type	Weight
22WP-531	0.26 lb [0.12 kg]
22WP-534	0.26 lb [0.12 kg]
22WP-536	0.26 lb [0.12 kg]
22WP-537	0.26 lb [0.12 kg]
22WP-53G	0.26 lb [0.12 kg]

Further documentation

• Installation instructions