

Pressure sensor liquids

Active sensor (0...10 V) 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.



Type Overview

Type	Measuring range [bar]	Output signal active pressure	Overpressure	Negative overpressure	Burst pressure
22WP-114	0...4	0...10 V	8 bar	-1 bar	12 bar
22WP-115	0...6	0...10 V	12 bar	-1 bar	18 bar
22WP-116	0...10	0...10 V	20 bar	-1 bar	30 bar
22WP-117	0...16	0...10 V	32 bar	-1 bar	48 bar
22WP-119	0...25	0...10 V	50 bar	-1 bar	75 bar

Measuring range: The sensor can measure relative pressure (prel) 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	AC/DC 24 V
	Nominal voltage range	AC 21.6...26.4 V / DC 13.5...26.4 V
	Power consumption AC	0.3 VA
	Power consumption DC	0.15 W
	Electrical connection	Connector plug for wire 0.5...1.5 mm ²
	Cable entry	MVS plug according to DIN EN175301-803 / Type A
Functional data	Medium	Water Water-glycol mixture Steam
	Voltage output	1 x 0...10 V, min. resistance 5 kΩ
	Mechanical connection	pressure connector: G 1/4"
	Typical response time	max. 2 ms
Measuring data	Measured values	Relative pressure
Specification Pressure	Sensing element technology	Strain gauge on precious metal
	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
	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

Technical data

Safety data	Ambient humidity	Max. 95% RH, non-condensing
	Ambient temperature	-40...105°C [-40...221°F]
	Fluid temperature	-40...125°C [-40...255°F]
	Fluid temperature note	At a fluid temperature of <2°C [<36°F], frost protection must be guaranteed steam inlet @ max. 100 kPa [15 psi]
Materials	Housing	Stainless steel 1.4301
	Housing seal	FKM fluororubber, Silicone-free
Terms	Abbreviations	dp: pressure difference between high and low pressure prel: relative pressure to atmosphere

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. Unauthorised 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 authorised 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.

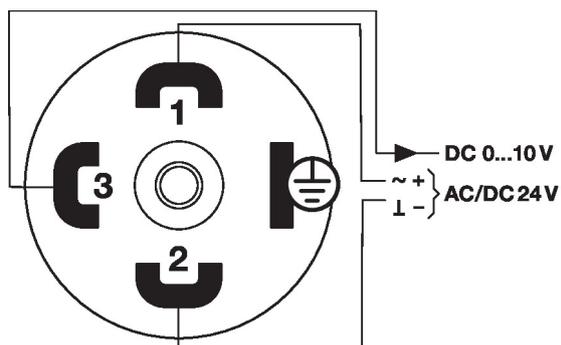
Product Features

Application	The device measures the relative pressure of the system to atmospheric pressure. Make sure that the maximum operating pressure stays within the measuring range.
	Measuring range (prel) The sensor can measure relative pressures (prel) within this range.
	Overpressure (prel) Maximum relative pressure (prel) that the device can withstand without permanent damage. No measurement is possible within the overpressure range.
	Negative Overpressure (prel) Maximum relative pressure (prel) below atmospheric pressure that the device can withstand without permanent damage.
	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.

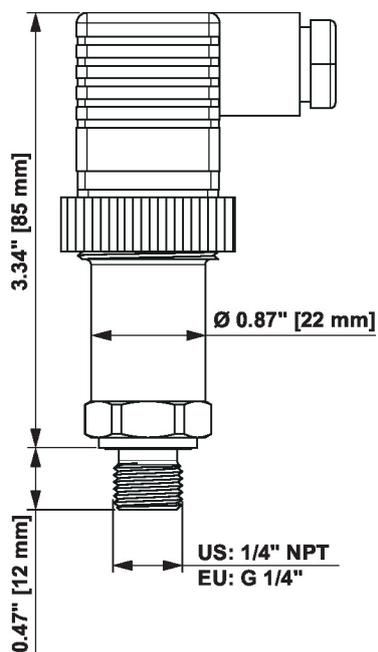
Accessories

Optional accessories	Description	Type
	Reduction adapter, G 1/4" (internal thread) to G 1/2" (external thread)	A-22WP-A02
Electrical accessories	Description	Type
	Connecting cable 1.5 m for 22WP-.. / 22WDP-..	EXT-MR-249184
	Connecting cable 5 m for 22WP-.. / 22WDP-..	EXT-MR-249185

Wiring diagram



Dimensions



Type	Weight
22WP-114	0.12 kg
22WP-115	0.12 kg
22WP-116	0.12 kg
22WP-117	0.12 kg
22WP-119	0.11 kg

Further documentation

- Installation instructions