

Pressure Detectors

QBE61.1...



Active pressure detector delivering a DC 0...10 V measuring signal and operating on AC 24 V.

There are five different versions available, with measuring ranges between 0 and 40 bar.

Application

Measuring and sensing of overpressure in heating, ventilating and air conditioning installations.

The QBE61.1... can be used as a

- control detector
- measuring detector

in POLYGYR control systems or in connection with building automation systems.

It is suitable for use with the following media:

- Hot water and chilled water (with or without additives such as hydrazin or max. 50 % glycol in water)
- Non-aggressive refrigerants of group 1 to DIN 8975 (R11, R12, R13, R21, R22, R113, R114, R134a and R502)
- Mineral oil
- Compressed air
- Steam, up to 200 °C, with water trap pipe only

Ordering

When ordering, please give the full type reference.

Combination of units

When used in POLYGYR control systems, the QBE61.1... is suitable for use with the following units:

- Range inserts
- Remote setting units
- Remote indicating units

For type references of these units refer to Data Sheet 3400.

Summary of types

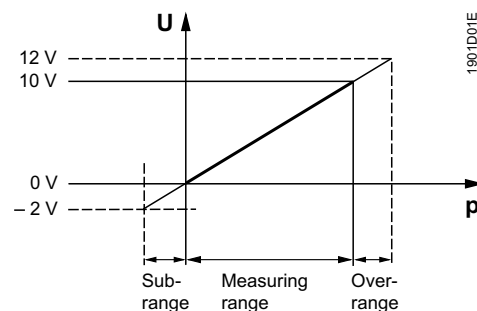
Type reference	Sub-range	Measuring range (bar)	Over-range	Permissible overload (bar)
QBE61.1-p0,5	-0.1...	0...0.5	...0,6	-0.15...0.75
QBE61.1-p2	-0.4...	0...2	...2,4	-0.6...3
QBE61.1-p10	-1...	0...10	...12	-1.0...15
QBE61.1-p20	-1...	0...20	...24	-1.0...30
QBE61.1-p40	-1...	0...40	...48	-1.0...60

Accessories

Description	Part no.
Water trap pipe for medium temperatures above 80 °C and below 0 °C and pressures up to 16 bar	4 2861652 0
Capillary tube 4 m long, with G $\frac{1}{2}$ " detector connection and SAE $\frac{7}{16}$ " refrigerant connection	4 661 1599 0

Function

The QBE61.1... is an active detector delivering an output signal of DC 0...10 V. The output signal is proportional to the measuring range which has a subrange and an overrange.



Design features

The plastic housing with cover, mounting bracket and threaded connection R $\frac{1}{2}$ " form one unit. The connecting terminals are located under the removable cover. The cable enters through a Pg 11 cable entry gland.

The measuring system consists of a metal diaphragm with permanent magnet and a Hall sensor. No physical contact is made when acquiring the measured value.

Engineering notes

The QBE61.1... pressure detector and all units that are electrically linked to it must be connected to the same G0. Also refer to the Data Sheets of the units to which the detector is connected.

The QBE61.1... may not be used for coolants with chloride content nor for ammonia.

With processed water, it should be made certain that the pH-value 10 is not exceeded.

Mounting and installation notes

With medium temperatures above 80 °C and below 0 °C, it is necessary to install a water trap pipe between the pipework and the detector.

There is a capillary tube available to dampen pulsating pressures.

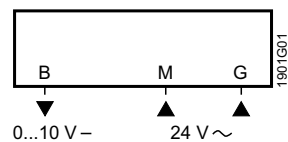
Mounting orientation: Optional, with the exception of the cable entry gland facing upward.

The detector is supplied complete with mounting instructions and a drilling template.

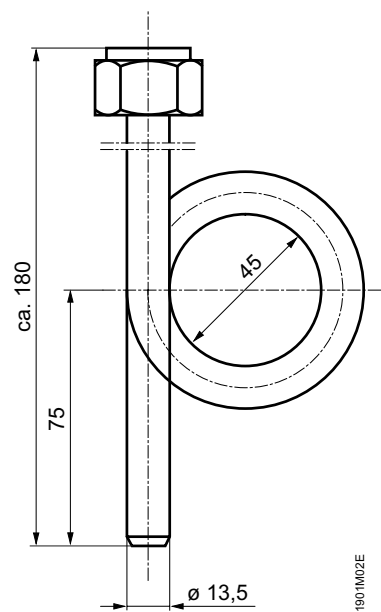
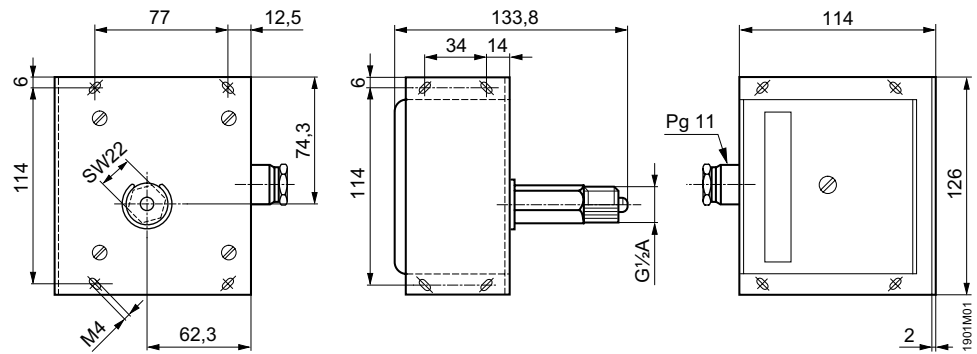
Technical data

Measuring range	see "Summary of types"
Operating voltage	AC 24 V $\pm 20\%$
Frequency	45...65 Hz
Power consumption	2 V \ddot{A}
Output signal	
Measuring range (MR)	DC 0...10 V, max. ± 1 mA
Subrange and overrange	DC $-2...+12$ V ($-20...+20\%$ MR)
Measuring accuracy at 20 °C including hysteresis	max. $\pm 2\%$ MR
Hysteresis	max. 0,5 % MR
Permissible cable lengths	
Copper cable 0,6 mm dia.	60 m
Copper cable 1 mm ²	220 m
Copper cable 1.5 mm ²	300 m
Permissible ambient temperature	
Operation	$-15...+50$ °C
Transport and storage	$-25...+65$ °C
Permissible ambient humidity	class D to DIN 40 040
Protection standard of housing	IP 42 to DIN 40 050
Weight	1 kg

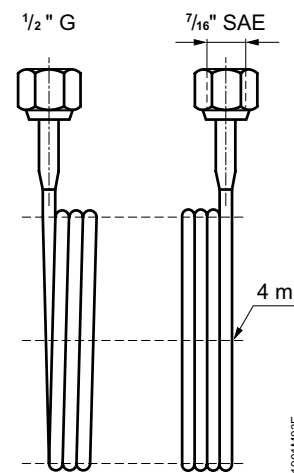
Connecting terminals



Dimensions



Water trap pipe



Capillary tube