



Pressure Sensors

for neutral and slightly aggressive liquids and gases

**QBE2003-
QBE2103-**

-
- High-precision measuring
 - Measuring range 0 to 60 bar relative
 - Supply voltage AC 24 V / DC 12...33 V o
 - DC 0 ...10 V or DC output signal
 - Measurement unaffected by changes in temperature
 - High temperature stability
 - Connection: external thread G ½", inside thread M5
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Use

The pressure sensors are suitable for the measurement of relative pressure in HVAC plant, particularly in hydraulic and pneumatic systems using liquid or gaseous media (steam applications).

Type summary

Type reference	Order number	Pressure range		Output signal
QBE2003-P1	S55720-S290	0...1 bar	0...100 kPa	
QBE2003-P1.6	S55720-S291	0...1.6 bar	0...160 kPa	
QBE2003-P2.5	S55720-S292	0...2.5 bar	0...250 kPa	
QBE2003-P4	S55720-S293	0...4 bar	0...400 kPa	
QBE2003-P6	S55720-S294	0...6 bar	0...600 kPa	
QBE2003-P10*)	S55720-S295	0...10 bar	0...1.0 MPa	
QBE2003-P16*)	S55720-S296	0...16 bar	0...1.6 MPa	
QBE2003-P25*)	S55720-S297	0...25 bar	0...2.5 MPa	
QBE2003-P40	S55720-S298	0...40 bar	0...4.0 MPa	
QBE2003-P60	S55720-S299	0...60 bar	0...6.0 MPa	
QBE2103-P1	S55720-S300	0...1 bar	0...100 kPa	
QBE2103-P1.6	S55720-S301	0...1.6 bar	0...160 kPa	
QBE2103-P2.5	S55720-S302	0...2.5 bar	0...250 kPa	
QBE2103-P4	S55720-S303	0...4 bar	0...400 kPa	
QBE2103-P6	S55720-S304	0...6 bar	0...600 kPa	
QBE2103-P10*)	S55720-S305	0...10 bar	0...1.0 MPa	
QBE2103-P16*)	S55720-S306	0...16 bar	0...1.6 MPa	
QBE2103-P25*)	S55720-S307	0...25 bar	0...2.5 MPa	mA
QBE2103-P40	S55720-S308	0...40 bar	0...4.0 MPa	
QBE2103-P60	S55720-S309	0...60 bar	0...6.0 MPa	

*) These types do not have M5 inside threads.

Ordering and delivery

When ordering a pressure sensor, please provide quantity, type reference, order number and product name.

Example

Quantity	Type ref. (ASN)	Order number (SSN)	Product Name
1	QBE2003-P1	S55720-S290	Pressure sensor

Any accessories required must be ordered separately.

Accessories

Type	Order No.(SSN)	Name	Data Sheet
AQB2004**)	S55720-S318	Mounting bracket to attach the pressure sensor for remote mounting.	A6V10434028
AQB2001**)	S55720-S116	Connection set for remote mounting with 1 m copper capillary line. Pressure connection external thread G " or G ½".	A6V10434028

**) Cannot be used with types QBE2003-P10, QBE2003-P16, QBE2003-P25, QBE2103-P10, QBE2103-P16, and QBE2103-P25. These types do not have M5 inside threads.

Mode of omG(0)JTETQ0.000000 0 59.381.9eWhBT/F 5 Tf1 0 0 1/MC381.9eWhBT/F 5 Tf1 0 0 1 542.44 52.8m/GS7gs0 g/GS

Technical data

Electrical interface	Power supply	Protection by extra low voltage (SELV, PELV) AC 24 V \pm 15%, 50...60 Hz or DC 12...33 V		
	Current consumption	<7 mA, < 0.5 VA		
	Current consumption	<23 mA, < 0.7 VA		
	External supply line protection	Fuse slow max. 10 A or Circuit breaker max. 13 A Characteristic B, C, D according to EN 60898 or Power source with current limitation of max. 10 A		
	Output signal QBE2003	DC 0 ...10 V, load > 10 k Ω , < 100 nF, 3-wire		
	Output sig	Load	Operating voltage 7 V 0,02 A	Ohm
		2-wire		
	Insulation voltage	500V		
	Short circuit proof, protected against reverse polarity	Any connection		
	Application range	Refer to "Type summary"		
Functional data Measuring accuracy <i>FS = Full scale</i>	Characteristic curve ¹⁾	\pm 0.3 % FS		
	Resolution	0.1 % FS		
	Temperature response	< \pm 0.2 % FS/10 °C (- 3 °C)		
	Long-term stability (as per IEC EN60770-1) ¹⁾	< \pm 0.25 % FS		
	Dynamic response	Response time:	<2 ms, typical 1 ms	
		Load change:	< 100 Hz	
	Nominal pressure	Relative pressure as in "Type summary" (measurement of difference from ambient pressure)		
	Max. admissible pressure/ Rupture pressure	3 x scale end value of measuring range 0 1 to 0 4 bar 2.5 x scale end value of measuring range 0...6 to 0...60 bar		
	Media	Neutral and slightly corrosive liquids and gases (suited for use with oil-contacting media)		
	Admissible temperature of medium	-15...+125 °C		
Maintenance	Maintenance-free			
Mounting position	Optional			
Protection	Protection standard	IP 65 to EN 60529		
	Protection class	III according to EN 60730		
Connections	Electric connection	Plug DIN EN 175301-803-A, Cable diameter 6-8 mm		
	Screwed fitting	External thread G 1/2", inside thread M5*)		
Environmental conditions	Temperature	Operation	Storage	
		-30...+85 °C	-50...+100 °C	
	Humidity	Insensitive to Condensation	Insensitive to Condensation	

Directives and standards	Product standard	EN 61326-1 Electrical equipment for measurement, control and laboratory use. EMC requirements. General requirements
Materials	Pressure connection	Stainless steel 1.4404 / AISI 316L
	Plug housing	Polyarylamide 50 % GF VO
	Materials and media contact	Press. connection Meas.elem.**) Stainless steel 1.4404 / AISI 316L Ceramics Al2O3 (96 %) Stainless steel Sealant FPM
Conformity	EU Conformity (CE)	8000078214 ***)
	RCM Conformity	CE1T1909en_C1 ***)
Weight	Including packaging	0,171 kg

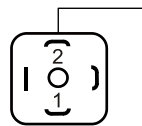
*) The following types do not have M5 inside threads.

QBE2003-P10, QBE2003-P16, QBE2003-P25, QBE2103-P10, QBE2103-P16, and QBE2103-P25

***) Stainless steel for types QBE2003-P10, QBE2003-P16, QBE2003-P25, QBE2103-P10, QBE2103-P16, and QBE2103-P25

***) The documents can be downloaded from <http://siemens.com/bt/download>.

Internal diagram



<i>BT-Terminal marking</i>	<i>Terminal nr.</i>	<i>Meaning</i>
U (↗)	2	Output signal DC 0...10 V (signal ground GND)
M (0)	3	GND
G (+)	1	Supply voltage AC 24 V or DC 12...33 V



<i>BT-Terminal marking</i>	<i>Terminal nr.</i>	<i>Meaning</i>
I (↗)	2	Output signal DC 4...20 mA
G (+)	1	Supply voltage DC 7...33 V

Dimensions

QBE2003-
QBE2103-

*) The following types do not have

M5 interior threads:

QBE2003-P10

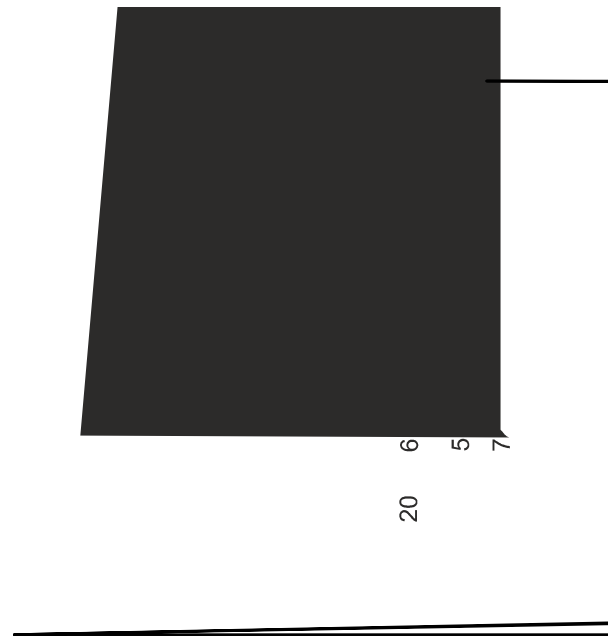
QBE2003-P16

QBE2003-P25

QBE2103-P10

QBE2103-P16

QBE2103-P25



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