



Pressure Sensors

**QBE2003-
QBE2103-**

for neutral and slightly aggressive liquids and gases

- 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

<i>Type reference</i>	<i>Order number</i>	<i>Pressure range</i>		<i>Output signal</i>
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 ½", 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

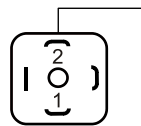
*) The following types do not have M5 inside threads.

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

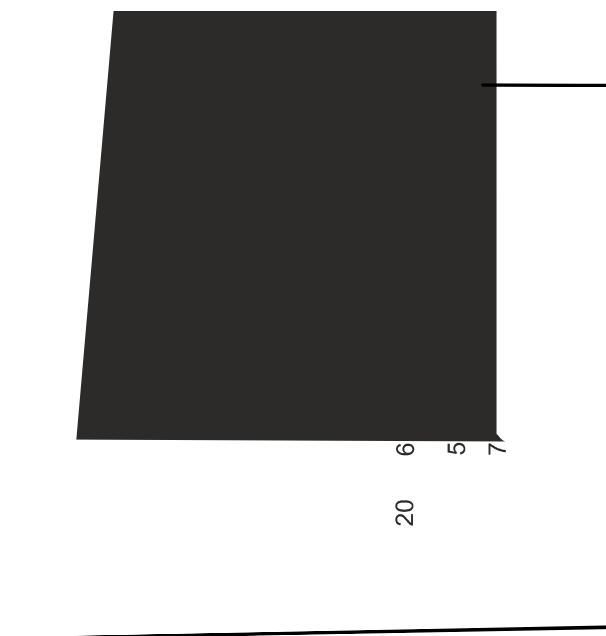
QBE2003-P16

QBE2003-P25

QBE2103-P10

QBE2103-P16

QBE2103-P25



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Siemens Switzerland Ltd.
Smart Infrastructure
Global Headquarters
Theilerstrasse 1a
CH-6300 Zug
Switzerland
Tel. +41 58-724 24 24
www.siemens.com/buildingtechnologies

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