

Sensors



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Sensors

Overview and selection tools

Overview sensors

Temperature								
Model		Room sensors	Duct sensors	Immersion sensors	Outside sensors		Strap-on sensors	Cable sensors
Type reference		QAA	QAM	QAE	QAC	QAC	QAD	QAP
Category:	Standard	■	■	■		■	■	■
	High Quality				■			

Humidity									
Model		Room sensors				Duct sensors			Outside sensors
Type reference		QFA	QFA..D	QFA	QFA..D	QFM	QFM	QFM..D	QFA
Category	Standard	■	■			■			
	High Quality			■	■		■	■	■
	Certified			■	■		■		

Air quality						
Model		Room sensors			Air duct sensors	
Type reference		QPA1..	QPA2..	QPA..D	QPM1..	QPM2..
Measured value		VOC			■	
		CO ₂	■			■
		CO ₂ / VOC	■	■		■
		CO ₂ / T	■	■		■
		CO ₂ / H / T	■	■		■
Display				■		■
Category	Basic	■			■	
	Standard		■	■		■

Pressure							
Model		Differential pressure sensors				Absolute pressure sensors	
Medium		Air	Air	Liquids / gases	Liquids / gases	Liquids / gases	Refrigeration
Type reference		QBM3../4..	QBM2030	QBE63	QBE3x00-D	QBE2x03-P	QBE2x04-P
Category	Standard		■	■		■	■
	High Quality	■			■		
	Certified	■					

Flow							
Model		Flow switch			Flow sensor		Air velocity sensor
Medium		Liquids	Liquids	Liquids	Liquids	Liquids	Air
Type reference		QVE1900	QVE1901	QVE1902	QVE2x00	QVE3x00	QVM62.1
Category	Basic	■	■	■			
	Standard				■		■
	High Quality					■	

Xtra			
Model		Solar sensors	Flue gas temperature sensors
Type reference		QLS60	FGT-PT1000
Medium			Air
Measured value		Intensity of radiation	Flue gas temperature
Category	Standard	■	■
	High Quality		

Overview module combinations – room sensors for flush mounting

Active sensors			Measuring variables					Display	Selection tool controller range						
Basic module	+	Front module	CO ₂	VOC	Relative humidity	Active temp.	Passive temp.	CO ₂ -indicator	Desigo PX	RXL	RXB	RXC	RVL4, RVP3	Synco 200	Synco 700
AQR2540Nx	+	AQR2532NNW				■			■					■	■
AQR2540Nx	+	AQR2535NNW			■	■			■					■	■
AQR2546Nx	+	AQR2530NNW	■						■					■	■
AQR2546Nx	+	AQR2532NNW	■			■			■					■	■
AQR2546Nx	+	AQR2535NNW	■		■	■ ²⁾			■					■	■
AQR2546Nx	+	AQR2535NNWQ	■		■	■ ²⁾		■	■					■	■
AQR2547Nx	+	AQR2530NNW		■					■					■	■
AQR2547Nx	+	AQR2532NNW		■		■			■					■	■
AQR2547Nx	+	AQR2535NNW		■	■	■ ²⁾			■					■	■
AQR2548Nx	+	AQR2530NNW	■	■ ¹⁾					■					■	■
AQR2548Nx	+	AQR2532NNW	■	■ ¹⁾²⁾		■			■					■	■
AQR2548Nx	+	AQR2535NNW	■	■ ¹⁾²⁾	■	■ ²⁾			■					■	■
AQR2548Nx	+	AQR2535NNWQ	■	■ ¹⁾²⁾	■	■ ²⁾		■	■					■	■

For passive sensors see page 6-4

¹⁾ Here, the in-door air quality is calculated from the CO₂ and VOC measuring variables. VOC is not available as direct measuring variable.

²⁾ The measuring variable is solely available as switch output.

Sensors

Overview and selection tools

Passive sensors			Measuring variables					Selection tool controller range						
Mounting plate	+	Front module	CO ₂	VOC	Relative humidity	Active temp.	Passive temp.	Desigo PX	RXL	RXB	RXC	RVL4, RVP3	Synco 200	Synco 700
AQR2500Nx	+	AQR2531ANW					LG-Ni1000	■	■	■	■	■	■	■

Replace x with:

- F for VDE/CEE (70x70 mm)
- G for Italian Standard 3 modular (110x64 mm)
- J for UL Standard 2" x 4" (64x110 mm)

Power supply: AC 24 V, DC 15...36 V

Signal range active sensor: DC 0...5 V, DC 2...10 V, DC 0...10 V, DC 0...20 mA, DC 4...20 mA, and DC 0...10 mA

A freely selectable switching contact is available for every measuring variable.

Communicating sensors			Measuring variables			Display	Inputs	
Base modul	+	Front module	CO ₂	Relative humidity	Temperature	CO ₂ -indicator	Passive temperature NTC 10k	Two potential-free contacts
AQR2570Nx	+	AQR2532NNW			■		■	■
AQR2570Nx	+	AQR2535NNW		■	■		■	■
AQR2576Nx	+	AQR2530NNW	■				■	■
AQR2576Nx	+	AQR2532NNW	■		■		■	■
AQR2576Nx	+	AQR2535NNW	■	■	■		■	■
AQR2576Nx	+	AQR2535NNWQ	■	■	■	■	■	■

Replace x with:

- F for VDE/CEE (70x70 mm)
- H for British Standard (83x83 mm)
- G for Italian Standard 3 modular (110x64 mm)
- J for UL Standard 2" x 4" (64x110 mm)

The room sensors are KNX certified and can be used in conjunction with all devices capable of communicating over KNX.

Furthermore the sensors can be used with the following Siemens building automation systems:

- Desigo TRA (PL-Link)
- Synco 700 (KNX LTE-Mode)
- GAMMA (KNX S-Mode)

Sensors Temperature Room sensors - wall mounted QAA..

Room temperature sensor, passive

Measuring range, temperature	0...50 °C
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	90 x 100 x 32 mm

QAA2..



Range overview QAA2..

Sensing element, temperature	Time constant [min]	Measurement accuracy [K]	Stock no.	Product no.
LG-Ni1000	7	At 0...50 °C: ±0.8 °	BPZ:QAA24	QAA24
Pt100	7	At 0...50 °C: ±0.6	BPZ:QAA2010	QAA2010
Pt1000	7	At 0...50 °C: ±0.6	BPZ:QAA2012	QAA2012
NTC 10k	7	At 0...50 °C: ±0.8	BPZ:QAA2030	QAA2030

Room unit with room temperature sensor and setpoint adjuster

For Synco™ and Desigo™ PX applications

Data sheet	N1721
Setpoint setting range	5...35 °C
Measuring range, temperature	0...50 °C
Sensing element, temperature	LG-Ni1000
Time constant	7 min
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	90 x 100 x 36 mm

QAA25



Stock no.	Product no.
BPZ:QAA25	QAA25

Room unit with room temperature sensor and setpoint adjuster 5..30 °C

For Desigo™ PX applications

Data sheet	N1721
Time constant	7 min
Setpoint setting range	5...30 °C
Measuring range, temperature	0...50 °C
Sensing element, temperature	LG-Ni1000
Degree of protection	IP30
Dimensions (W x H x D)	90 x 100 x 36 mm

QAA26



Stock no.	Product no.
BPZ:QAA26	QAA26

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Sensors

Temperature

Room sensors - wall mounted QAA..

QAA27



Room unit with room temperature sensor and setpoint readjuster -3...3 K

For Synco™ and Desigo™ PX applications

Data sheet	N1721
Setpoint readjustment range	-3...3 K
Measuring range, temperature	0...50 °C
Sensing element, temperature	LG-Ni1000
Time constant	7 min
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	90 x 100 x 36 mm

Stock no.	Product no.
BPZ:QAA27	QAA27

QAA20..1



Room temperature sensors, active

Data sheet	N1749
Measuring range, temperature	0...50 °C
Time constant	7 min
Measurement accuracy	at AC 24 V in the range of -25 °C...+25 °C ± 0.75 K -50 °C...+50 °C ± 0.9 K

Range overview QAA20..1

Analog output, signal	Operating voltage [V]	Display	Stock no.	Product no.
DC 0...10 V	AC 24 DC 13.5...35		BPZ:QAA2061	QAA2061
DC 0...10 V	AC 24 DC 13.5...35	LCD	BPZ:QAA2061D	QAA2061D
DC 4...20 mA	DC 13.5...35		BPZ:QAA2071	QAA2071

QAA64



Room temperature sensor LG-Ni1000 for mounting on recessed conduit boxes

For mounting on recessed conduit boxes.
Not suited for cooling in VAV installations.

Data sheet	N1722
Measuring range, temperature	0...50 °C
Sensing element, temperature	LG-Ni1000
Time constant	6.5 min
Measurement accuracy	At 0...50 °C: ±0.8 K
Connection, electrical	Screw terminals
Degree of protection	IP40
Dimensions (W x H x D)	84 x 84 x 25 mm

Stock no.	Product no.
BPZ:QAA64	QAA64

Room temperature sensor NTC 3 kOhm

QAA32



Data sheet	N1747
Measuring range, temperature	0...40 °C
Sensing element, temperature	NTC 3k
Time constant	6 min
Measurement accuracy	At 25 °C: ±0.3 K
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	97 x 100 x 36 mm

Stock no.

Product no.

BPZ:QAA32

QAA32

Accessories for QAA32

Product Title	Data sheet	Stock no.	Product no.
Mounting plate 120 x 120 mm for 4 x 4" housing	N3009	BPZ:ARG70	ARG70

Sensors

Temperature

Room sensors - flush mounted AQR25..

AQR253..



Front modules for base module

- Front module with sensors

Data sheet	N1411
Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm

Range overview AQR253..

Measuring range, temperature [°C]	Signal output temperature	Measurement range humidity [%]	Display	Stock no.	Product no.
0...50	Active LG-Ni1000	0...100		S55720-S138	AQR2534ANW
				S55720-S137	AQR2530NNW
0...50	Active			S55720-S136	AQR2532NNW
0...50	Active	0...100		S55720-S141	AQR2535NNW
0...50	Active	0...100	CO2 indicator by LED	S55720-S219	AQR2535NNWQ

The matching design frame must be ordered separately.

Frames for front modules AQR253..

Product Title	Data sheet	Stock no.	Product no.
Frame DELTA line for front module	N1410	S55720-S158	AQR2510NFW
Frame DELTA azio for front module	N1410	S55720-S160	AQR2510NGW
Frame DELTA miro for front module	N1410	S55720-S159	AQR2510NHW

AQR2540..



Base modules for temperature and humidity measurement

- Base module without sensor for plugging onto a front module

Data sheet	N1410
Operating voltage	AC 24 V DC 15...36 V
Connection, electrical	Screw terminals
Analog output, signal	DC 0...10 V DC 2...10 V DC 0...5 V DC 0...20 mA DC 4...20 mA DC 0...10 mA
Digital outputs	1-pin Potential-free Changeover contact

Range overview AQR2540..

Mechanical design	Dimensions (W x H)	Stock no.	Product no.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S142	AQR2540NF
IT (3 modular)	110 x 64 mm	S55720-S144	AQR2540NG
UK (British Standard)	83 x 83 mm	S55720-S143	AQR2540NH

Base module with KNX for temperature and humidity measurement

AQR2570..

- Base module without sensor for plugging onto a front module
- 1 analog input to connect temperature sensors with NTC 10k sensing element to measure room, floor, or ceiling temperature
- 2 multifunctional binary inputs to connect window contacts or buttons
- Power supply via KNX bus, bus load < 5 mA
- Communication: KNX S-Mode, KNX LTE-Mode (Synco)



Data sheet	N1411
Voltage supply	KNX bus
Analog inputs, number	1
Analog inputs	Passive temperature sensor NTC 10k
Digital inputs, number	2
Digital inputs	Potential-free contacts

Range overview AQR2570..

Mechanical design	Dimensions (W x H)	Stock no.	Product no.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S203	AQR2570NF
IT (3 Modular)	110 x 64 mm	S55720-S205	AQR2570NG
UK (British Standard)	83 x 83 mm	S55720-S204	AQR2570NH
US (UL)	64 x 110 mm	S55720-S206	AQR2570NJ

Front modules with passiv temperature measurement

AQR2531..

Front module with passiv sensor.

Data sheet	N1408
Measuring range, temperature	0...50 °C
Connection, electrical	Screw terminals
Color	Titanium white
Degree of protection	IP30



Range overview AQR2531..

Sensing element, temperature	Dimensions (W x H)	Stock no.	Product no.
LG-Ni1000	55 x 55 mm	S55720-S133	AQR2531ANW

Mounting plates for front modules AQR2531..

Product Title	Data sheet	Stock no.	Product no.
Mounting plate EU (CEE/VDE)	N1408	S55720-S161	AQR2500NF
Mounting plate IT (3 modular)	N1408	S55720-S163	AQR2500NG
Mounting plate US (UL)	N1408	S55720-S164	AQR2500NJ

Sensors

Temperature

Duct sensors QAM.. / FK-TP..

QAM21..

Duct temperature sensor, passive



Fully active, flexible probe for averaging.

Note on fixing:

Supplied complete with mounting flange.

Data sheet

N1761

Time constant

At $v = 2 \text{ m/s}$: 30 s

Connection, electrical

Screw terminals

Type of fixing

Flange

Degree of protection

IP42

Dimensions (W x H x D)

80 x 61 x 31 mm

Range overview QAM21..

Probe length [mm]	Sensing element, temperature	Measuring range, temperature [°C]	Measurement accuracy [K]	Stock no.	Product no.
400	Pt100	-50...80	At -50...80 °C: ± 0.7	BPZ:QAM2110.040	QAM2110.040
2000	Pt1000	-50...80	At -50...80 °C: ± 0.7	BPZ:QAM2112.200	QAM2112.200
400	LG-Ni1000	-50...80	At -50...80 °C: ± 1.8	BPZ:QAM2120.040	QAM2120.040
2000	LG-Ni1000	-50...80	At -50...80 °C: ± 1.8	BPZ:QAM2120.200	QAM2120.200
6000	LG-Ni1000	-50...80	At -50...80 °C: ± 1.8	BPZ:QAM2120.600	QAM2120.600
400	NTC 10k	-40...80	At -40...80 °C: ± 1.2	BPZ:QAM2130.040	QAM2130.040
400	Pt1000	-50...80	At -50...80 °C: ± 0.7	BPZ:QAM2112.040	QAM2112.040

QAM21..1..

Duct temperature sensor active



Fully active, flexible probe for averaging.

Note on fixing:

Supplied complete with mounting flange.

Power consumption

$\leq 1 \text{ VA}$

Measuring range, temperature

-50...50 °C

Measurement accuracy

At -50...50 °C: $\pm 0.9 \text{ K}$

Time constant

30 s at $v = 2 \text{ m/s}$

Immersion length

400 mm

Connection, electrical

Screw terminals

Type of fixing

Flange

Degree of protection

IP54

Dimensions (W x H x D)

80 x 88 x 39 mm

Range overview QAM21..1..

Signal output temperature	Operating voltage [V]	Probe length [mm]	Stock no.	Product no.
Modbus RTU	AC 24 DC 13.5...35	400	S55720-S466	QAM2151.040/MO
DC 0...10 V	AC 24 DC 13.5...35	400	BPZ:QAM2161.040	QAM2161.040
DC 4...20 mA	DC 13.5...35	400	BPZ:QAM2171.040	QAM2171.040

Accessories for QAM21.. and QAM21..1

Product Title	Data sheet	Stock no.	Product no.
Mounting flange, adjustable depth	N1193	BPZ:AQM63.0	AQM63.0
3 capillary supports and 3 spacers for QAF.. Mounting	N1821	BPZ:AQM63.2	AQM63.2
6 Capillary tube clamps for QAF../QAM.. mounting	N1284	BPZ:AQM63.3	AQM63.3

Duct temperature sensor Pt100, for high temperature

FK-TP/200

With connecting head to DIN.
No protection pocket required.

Supplied complete with mounting flange.

Data sheet	N1778
Measuring range, temperature	-70...+260 °C
Sensing element, temperature	Pt100
Signal output temperature	Pt100
Measurement accuracy	-70...+260 °C: ±1.8 K
Time constant	<100 s at v = 1 m/s
Immersion length	200 mm
Material, immersion pocket	Stainless steel
Connection, mechanical	Flange
Connection, electrical	Screw terminals
Type of fixing	Flange
Degree of protection	IP65
Dimensions (W x H x D)	60 x 80 x 83 mm



Stock no.	Product no.
BPZ:FK-TP/200	FK-TP/200

Sensors
Temperature
Immersion sensors QAE.. / FT-TP..

QAE1612.010



Immersion temperature sensor

Passive sensor for acquiring the water temperature in pipes and tanks

Data sheet	Q3730
Sensing element	Pt1000
Measuring range, temperature	0...100 °C
Measurement accuracy	±2 % FS
Immersion length	100 mm
Connection cable	Screw terminal / cable entry via cable entry gland
Degree of protection	IP42
Dimensions (W x H x D)	151 x 56 x 72 mm

Stock no.	Product no.
S55720-S197	QAE1612.010

QAE21..



Immersion temperature sensor, passive

Fixing is made by protection pocket or compression fitting. If for the nominal pressure no entry can be found in the table, no protection pocket is included as standard and the nominal pressure depends on the protection pocket used (see accessories). By using the compression fitting AQE2102 the nominal pressure is 16 bar (PN16).

Data sheet	N1781
Time constant	With protection pocket: 30 s Without protection pocket: 8 s
Material, immersion pocket	Stainless steel
Connection, electrical	Screw terminals
Degree of protection	IP42
Dimensions (W x H x D)	80 x 60 x 31 mm

Range overview QAE21..

Sensing element, temperature	Measuring range, temperature [°C]	Measurement accuracy [K]	Immersion length [mm]	Protection pocket	Stock no.	Product no.
Pt100	-30...130	At -30...130 °C: ±0.95	100	Not included	BPZ:QAE2111.010	QAE2111.010
Pt100	-30...130	At -30...130 °C: ±0.95	150	Not included	BPZ:QAE2111.015	QAE2111.015
Pt1000	-30...130	At -30...130 °C: ±0.95	100	Not included	BPZ:QAE2112.010	QAE2112.010
Pt1000	-30...130	At -30...130 °C: ±0.95	150	Not included	BPZ:QAE2112.015	QAE2112.015
LG-Ni1000	-30...130	At -30...130 °C: ±1.3	100	Protection pocket included, PN 10	BPZ:QAE2120.010	QAE2120.010
LG-Ni1000	-30...130	At -30...130 °C: ±1.3	150	Protection pocket included, PN 10	BPZ:QAE2120.015	QAE2120.015
LG-Ni1000	-30...130	At -30...130 °C: ±1.3	100	Not included	BPZ:QAE2121.010	QAE2121.010
LG-Ni1000	-30...130	At -30...130 °C: ±1.3	150	Not included	BPZ:QAE2121.015	QAE2121.015
NTC 10k	-30...125	At -30...125 °C: ±1.7	100	Not included	BPZ:QAE2130.010	QAE2130.010
NTC 10k	-30...125	At -30...125 °C: ±1.7	150	Not included	BPZ:QAE2130.015	QAE2130.015

Sensors

Temperature

Immersion sensors QAE.. / FT-TP..

QAE21..4



Immersion temperature sensor active

Fixing is made by protection pocket or compression fitting. No protection pocket is included as standard. The nominal pressure depends on the protection pocket used (see accessories). By using the compression fitting AQE2102 the nominal pressure is 16 bar (PN 16).

Power consumption	≤ 1 VA
Measuring range, temperature	-10...120 °C
Measurement accuracy	At 0...70 °C: ±1 K At -10...120 °C: ±1.4 K
Time constant	With protection pocket: 30 s
Material, immersion pocket	Stainless steel
Connection, electrical	Screw terminals
Degree of protection	IP54
Dimensions (W x H x D)	80 x 88 x 39 mm

Range overview QAE21..4

Operating voltage [V]	Signal output temperature	Immersion length [mm]	Stock no.	Product no.
AC 24 DC 13.5...35	Modbus RTU	100	S55720-S465	QAE2154.010/MO
AC 24 DC 13.5...35	DC 0...10 V	100	BPZ:QAE2164.010	QAE2164.010
AC 24 DC 13.5...35	DC 0...10 V	150	BPZ:QAE2164.015	QAE2164.015
DC 13.5...35	DC 4...20 mA	100	BPZ:QAE2174.010	QAE2174.010
DC 13.5...35	DC 4...20 mA	150	BPZ:QAE2174.015	QAE2174.015

Protection pocket for QAE21..

Packaging unit	Protection pocket [LW7]	Material	PN class	Data sheet	Stock no.	Product no.
1 pc	100 mm, G½"	Brass, nickel-plated	PN 10	N1194	BPZ:ALT-SB100	ALT-SB100
1 pc	150 mm, G½"	Brass, nickel-plated	PN 10	N1194	BPZ:ALT-SB150	ALT-SB150
1 pc	100 mm, G½"	Stainless steel V4A	PN 16	N1194	BPZ:ALT-SS100	ALT-SS100
1 pc	150 mm, G½"	Stainless steel V4A	PN 16	N1194	BPZ:ALT-SS150	ALT-SS150
1 pc	100 mm, G½" (with flange)	Stainless steel V4A	PN 40	N1194	BPZ:ALT-SSF100	ALT-SSF100
1 pc	150 mm, G½" (with flange)	Stainless steel V4A	PN 40	N1194	BPZ:ALT-SSF150	ALT-SSF150

Accessories for QAE21..

Product Title	Data sheet	Stock no.	Product no.
Compression fitting with threaded nipple ½"	N1781	BPZ:AQE2102	AQE2102

Immersion temperature sensor Ø 6 mm with cable and fitting

QAE26.9

With connecting cable.

Data sheet	N1790
Measuring range, temperature	-40...180 °C
Sensing element, temperature	LG-Ni1000
Time constant	<3 s
Immersion length	25...260 mm
Material, immersion pocket	Stainless steel
Connection cable	Silicone, 2-wire
Cable length	1.2 m
Type of fixing	Thread R ¼ "
PN class	PN 40
Diameter	6 mm
Degree of protection	IP64



Stock no.

Product no.

BPZ:QAE26.9

QAE26.9

Immersion temperature sensur Ø 4 mm with cable and fitting

QAE26.9..

With connecting cable.

Other technical data identical to QAE26.9

Packaging unit QAE1020.024 100 pieces

Data sheet	N1790
Sensing element, temperature	LG-Ni1000
Measurement accuracy	At -50...180 °C: ±1.75 K
Time constant	<2.5 s
Material, immersion pocket	Stainless steel
Cable length	2 m
Type of fixing	R¼ " thread
PN class	PN 16
Diameter	4 mm
Degree of protection	IP64



Range overview QAE26.9..

Immersion length [mm]	Measuring range, temperature [°C]	Connection cable	Stock no.	Product no.
15...65	-50...180	Silicone	BPZ:QAE26.90	QAE26.90
15...125	-50...180	Silicone	BPZ:QAE26.91	QAE26.91
15...240	-50...180	Silicone	BPZ:QAE26.93	QAE26.93
15...465	-50...180	Silicone	BPZ:QAE26.95	QAE26.95
15...240	-5...105	PVC	BPZ:QAE1020.024	QAE1020.024

Sensors

Temperature

Immersion sensors QAE.. / FT-TP..

QAE3..



Immersion temperature sensor for high temperature

With connection head made of die-cast aluminium.
No protection pocket required.

Data sheet	N1794
Sensing element, temperature	Pt100
Time constant	25 s
Material, immersion pocket	Stainless steel
Connection, electrical	Screw terminals
Type of fixing	Protection pocket G 1/2 "
PN class	PN 40
Material, housing	Die-cast aluminum
Degree of protection	IP65
Dimensions (W x H x D)	69 x 92 x 81 mm

Range overview QAE3..

Measuring range, temperature [°C]	Analog output, signal	Immersion length [mm]	Operating voltage [V]	Stock no.	Product no.
-50...200	Passive	100		BPZ:QAE3010.010	QAE3010.010
-50...200	Passive	160		BPZ:QAE3010.016	QAE3010.016
0...200	DC 4...20 mA	100	DC 7.5...30	BPZ:QAE3075.010	QAE3075.010
0...200	DC 4...20 mA	160	DC 7.5...30	BPZ:QAE3075.016	QAE3075.016

FT-TP/..



Immersion temperature sensor Pt100, short time constant, for high temperature

With connecting head to DIN.
No protection pocket required.

Data sheet	N1797
Measuring range, temperature	-100...450 °C
Sensing element, temperature	Pt100
Time constant	Air v = 1 m/s: <100 s Water v = 0,4 m/s: <5 s
Material, immersion pocket	Stainless steel
Connection, electrical	Screw terminals
Type of fixing	Protection pocket G 1/2 "
PN class	PN 40
Degree of protection	IP65
Dimensions (W x H x D)	60 x 80 x 85 mm

Range overview FT-TP/..

Immersion length [mm]	Stock no.	Product no.
100	BPZ:FT-TP/100	FT-TP/100
100	S55720-S498	FT-TP/100-200
400	BPZ:FT-TP/400	FT-TP/400

Strap-on temperature sensor

QAD2..

Supplied complete with strap for pipe diameters from 15...140 mm.

Data sheet	N1801
Connection, electrical	Screw terminals
Degree of protection	IP42
Dimensions (W x H x D)	60 x 67 x 43 mm



Range overview QAD2..

Sensing element, temperature	Measuring range, temperature [°C]	Time constant [s]	Stock no.	Product no.
LG-Ni1000	-30...130	3	BPZ:QAD22	QAD22
Pt100	-30...130	3	BPZ:QAD2010	QAD2010
Pt1000	-30...130	3	BPZ:QAD2012	QAD2012
NTC 10k	-30...125	6	BPZ:QAD2030	QAD2030

Strap-on temperature sensor with cable LG-Ni1000

QAD26.220

With cable, without housing

Supplied complete with strap for pipe diameters from 10...50 mm.

Data sheet	N1802
Measuring range, temperature	-35...90 °C
Sensing element	LG-Ni 1000
Time constant	<10 s
Connection cable	2-wire
Cable length	2 m
Degree of protection	IP65



	Stock no.	Product no.
	BPZ:QAD26.220	QAD26.220

Sensors

Temperature

Outside sensors QAC..

QAC..



Outside sensor, passive

For acquiring the outside temperature and – to a lesser degree – solar radiation, the effect of wind and the temperature of the wall.

Data sheet	N1811
Connection, electrical	Screw terminals
Material	Plastic (ASA)
Degree of protection	IP54
Dimensions (W x H x D)	80 x 92 x 50 mm

Range overview QAC..

Measuring range, temperature [°C]	Sensing element, temperature	Measurement accuracy [K]	Time constant [min]	Stock no.	Product no.
-50...70	Pt100	At 0 °C: ±0.3	14	BPZ:QAC2010	QAC2010
-50...70	LG-Ni1000	At 0 °C: ±0.4	14	BPZ:QAC22	QAC22
-50...70	NTC 575	At -10...20 °C: ±1	12	BPZ:QAC32	QAC32
-40...70	NTC 10k	At 25 °C: ±0,46	14	BPZ:QAC2030	QAC2030
-50...70	Pt1000	At 0 °C: ±0.3	14	BPZ:QAC2012	QAC2012

QAC31..



Outside temperature sensor active

Active sensor for acquiring the outside temperature. For use in heating, ventilation and air conditioning plants.

The QAC31.. may be used as an high-quality room sensor.

Data sheet	N1814
Sensing element, temperature	Pt1000
Measuring range, temperature	-50...50 °C
Time constant	20 min
Connection, electrical	Screw terminals
Degree of protection	IP65
Dimensions (W x H x D)	80 x 88 x 39 mm

Range overview QAC31..

Analog output, signal	Operating voltage [V]	Measurement accuracy [K]	Stock no.	Product no.
DC 0...10 V	AC 24 DC 13.5...35	At -50...50 °C: ±0.9	BPZ:QAC3161	QAC3161
DC 4...20 mA	DC 13.5...35	At -50...50 °C: ±0.9	BPZ:QAC3171	QAC3171

Window pan and flue gas sensors: QAT.. / FGT..

Flue gas temperature sensor Pt1000

FGT-PT1000

For measuring the flue gas temperature in flueways.



Data sheet	N1846
Measuring range, temperature	-20...400 °C
Sensing element, temperature	Pt1000
Immersion length	65 mm
Material, immersion pocket	Sensor sleeve, stainless steel
Connection cable	2-wire, 1.5 m, teflon with steel wire mesh
Cable length	1.5 m
Material	Stainless steel V4A
Dimensions (W x H x D)	150 x 80 x 30 mm

Stock no.

Product no.

BPZ:FGT-PT1000

FGT-PT1000

Window pane temperature sensor

QAT22

Data sheet	N1830
Measuring range, temperature	-10...50 °C
Sensing element, temperature	LG-Ni1000
Measurement accuracy	At 0 °C: ±0.4 K
Time constant	30 s
Connection cable	2-wire
Cable length	1.5 m
Degree of protection	IP65
Dimensions (W x H x D)	19 x 12 x 37 mm



Stock no.

Product no.

BPZ:QAT22

QAT22

Sensors

Temperature

Cable sensors QAP.. / QAZ.. / QAH..

QAP..



Cable temperature sensor (6 x 40.5 mm) for HVAC applications

Data sheet	N1831
Time constant	Fitted to pipe: <20 s
Protection pocket	40,5 x 6 mm
Material, protection pocket	Stainless steel
Type of fixing	Cable tie or with accessories

Range overview QAP..

Cable length [m]	Sensing element, temperature	Connection cable	Measurement accuracy [K]	Measuring range, temperature [°C]	Stock no.	Product no.
1.5	LG-Ni1000	Silicone	At -30...130 °C: ±1.3	-30...130	BPZ:QAP21.3	QAP21.3
8	LG-Ni1000	Silicone	At -30...130 °C: ±1.3	-30...130	BPZ:QAP21.3/8000	QAP21.3/8000
1.5	Pt100	Silicone	At -30...130 °C: ±0.95	-30...130	BPZ:QAP2010.150	QAP2010.150
1.5	Pt1000	Silicone	At -30...130 °C: ±0.95	-30...130	BPZ:QAP2012.150	QAP2012.150
2	LG-Ni1000	PVC	At -30...130 °C: ±1.3	-25...95	BPZ:QAP22	QAP22
2	NTC 10k	PVC	At -25...95 °C: ±1.4	-25...95	BPZ:QAP1030.200	QAP1030.200

Accessories for QAP..

Product Title	Packaging unit	Data sheet	Stock no.	Product no.
Changeover cable holder for QAP..	Set of 10 pieces	N1831	BPZ:ARG22.1	ARG22.1
Aluminium bar attachment for QAP..	Set of 5 pieces	N1831	BPZ:ARG22.2	ARG22.2
Terminal housing	1 box	N1207	S55700-P131	RAK-H-M
Cable holder for protection pocket mounting		N1831	BPZ:421314160	421314160

QAP21.2



Cable temperature sensor for high-temperature applications (180°C)

For acquiring the water temperature in flat solar collectors.

Data sheet	N1833
Measuring range, temperature	-30...180 °C
Sensing element, temperature	LG-Ni1000
Measurement accuracy	At -30...180 °C: ±1.65 K
Time constant	Fitted to pipe: <20 s
Protection pocket	50 x 6 mm
Material, protection pocket	Stainless steel
Cable length	1.5 m

Stock no.	Product no.
BPZ:QAP21.2	QAP21.2

Cable temperature sensor for use in refrigeration plants (-50 °C)

QAZ21.68..

Supplied complete with 2 cable ties and sleeve coated with thermal conductive wax for fitting to pipework.



Data sheet	N1848
Measuring range, temperature	-50...80 °C
Sensing element, temperature	LG-Ni1000
Time constant	Fitted to pipework <20 s
Material, protection pocket	Stainless steel
Protection pocket	50 x 6 mm
Connection cable	Silicone, 2-wire
Degree of protection	IP67

Range overview QAZ21.68..

Cable length [m]	Packaging unit	Stock no.	Product no.
2	1 piece	BPZ:QAZ21.682/101	QAZ21.682/101
5	100 pieces	BPZ:QAZ21.685/101	QAZ21.685/101

Cable sensor for fan coil applications

QAH11..

For installation in fan coil units as

- a return air temperature sensor
- a changeover sensor



Data sheet	N1840
Measuring range	For fixed cable
Measuring range, temperature	-20...70 °C
Sensing element, temperature	NTC 3k
Time constant	1.5 min at v = 0 m/s
Cable length	2.5 m

Range overview QAH11..

Connection cable	Packaging unit	Stock no.	Product no.
2-wire, cable complete with connectors	10 pieces	BPZ:QAH11	QAH11
2-wire, with ferrules	10 pieces	BPZ:QAH11.1	QAH11.1

Accessories for QAH11..

Product Title	Packaging unit	Data sheet	Stock no.	Product no.
Changeover cable holder for QAH11..	10 pieces	N3009	BPZ:ARG86.3	ARG86.3

Sensors

Humidity and temperature

Room sensors QFA..

QFA20..

Room sensor for rel. humidity / temperature



For relative humidity and temperature.

Data sheet	N1857
Measurement range humidity	0...95 % r.h.
Measurement accuracy	At 0...95 % r.h. and 23 °C: ±5 % At 30...70 % r.h. and 23 °C: ±3 %
Time constant	Humidity <20 s Temperature <8.5 min
Connection, electrical	Screw terminals
Type of fixing	Screws
Degree of protection	IP30
Dimensions (W x H x D)	90 x 100 x 36 mm

Range overview QFA20..

Signal output humidity	Signal output temperature	Operating voltage [V]	Measuring range, temperature [°C]	Display	Stock no.	Product no.
DC 0...10 V		AC 24 DC 13.5...35			BPZ:QFA2000	QFA2000
DC 4...20 mA		DC 13.5...35			S55720-S114	QFA2001
DC 0...10 V	LG-Ni1000	AC 24 DC 13.5...35	0...50		BPZ:QFA2020	QFA2020
DC 0...10 V	DC 0...10 V	AC 24 DC 13.5...35	0...50 -35...35 -40...70		BPZ:QFA2060	QFA2060
DC 0...10 V	DC 0...10 V	AC 24 DC 13.5...35	0...50 -35...35 -40...70	LCD	BPZ:QFA2060D	QFA2060D
DC 4...20 mA	DC 4...20 mA	DC 13.5...35	0...50 -35...35 -40...70		S55720-S115	QFA2071

Room sensor for humidity (DC 0...10 V) and temperature (DC 0...10 V)

QFA2068

For relative humidity and temperature

Data sheet	A6V11600411
Operating voltage	AC 24 V $\pm 20\%$ or DC 13.5...35 V (SELV)
Power consumption	≤ 0.4 VA
Measuring range, temperature	-15...+50 °C
Measurement range humidity	0...100 % r.h.
Measurement accuracy	At 23 °C and AC/DC 24 V and at 0...95 % r.h.: $\pm 5\%$ r.h. At 23 °C and AC/DC 24 V and at 30...70 % r.h.: $\pm 3\%$ r.h. At AC/DC 24 V and 23 °C: ± 0.3 K At AC/DC 24 V and 15...35 °C: ± 0.7 K At AC/DC 24 V and -35...+50 °C: ± 1 K
Time constant	< 20 s
Signal output temperature	DC 0...10 V DC 4...20 mA LG-Ni1000
Signal output humidity	DC 0...10 V DC 4...20 mA
Color	White/Gray
Material	Housing front and Bottom section of housing: ASA + PC Base: PC
Degree of protection	IP30 according to EN 60529
Dimensions (W x H x D)	90 x 100 x 36 mm



Stock no.

Product no.

S55720-S462

QFA2068

QFA2068D



Room sensor for humidity (DC 0...10 V) and temperature (DC 0...10 V), with digital Display

For relative humidity and temperature

Data sheet

Operating voltage

Power consumption

Measuring range, temperature

Measurement range humidity

Measurement accuracy

Time constant

Signal output temperature

Signal output humidity

Color

Material

Degree of protection

Dimensions (W x H x D)

A6V11600411

AC 24 V $\pm 20\%$ or DC 13.5...35 V (SELV) ≤ 0.4 VA

-15...+50 °C

0...100 % r.h.

At 23 °C and AC/DC 24 V and at 0...95 % r.h.: $\pm 5\%$ r.h.At 23 °C and AC/DC 24 V and at 30...70 % r.h.: $\pm 3\%$ r.h.At AC/DC 24 V and 23 °C: ± 0.3 KAt AC/DC 24 V and 15...35 °C: ± 0.7 KAt AC/DC 24 V and -35...+50 °C: ± 1 K

< 20 s

DC 0...10 V

DC 4...20 mA

LG-Ni1000

DC 0...10 V

DC 4...20 mA

White/Gray

Housing front and Bottom section of housing: ASA + PC

Base: PC

IP30 according to EN 60529

90 x 100 x 36 mm

Stock no.

Product no.

S55720-S463

QFA2068D

Room sensor for humidity (DC 4...20 mA) and temperature (DC 4...20 mA)

QFA2079

For relative humidity and temperature



Data sheet	A6V11600411
Operating voltage	AC 24 V ± 20 % or DC 13.5...35 V (SELV)
Power consumption	≤ 1.4 W
Measuring range, temperature	-15...+50 °C
Measurement range humidity	0...100 % r.h.
Measurement accuracy	At 23 °C and AC/DC 24 V and at 0...95 % r.h.: ± 5 % r.h. At 23 °C and AC/DC 24 V and at 30...70 % r.h.: ± 3 % r.h. At AC/DC 24 V and 23 °C: ± 0.3 K At AC/DC 24 V and 15...35 °C: ± 0.7 K At AC/DC 24 V and -35...+50 °C: ± 1 K
Time constant	< 20 s
Signal output temperature	DC 0...10 V DC 4...20 mA LG-Ni1000
Signal output humidity	DC 0...10 V DC 4...20 mA
Color	White/Gray
Material	Housing front and Bottom section of housing: ASA + PC Base: PC
Degree of protection	IP30 according to EN 60529
Dimensions (W x H x D)	90 x 100 x 36 mm

Stock no.

Product no.

S55720-S464

QFA2079

Sensors

Humidity and temperature

Room sensors QFA..

QFA31..



Room sensors for rel. humidity / temperature for demanding requirements

For relative humidity and temperature.
Degree of protection: IP65, IP40 (measuring tip).

Data sheet

Measurement range humidity

Measurement accuracy

Time constant

Connection, electrical

Degree of protection

Dimensions (W x H x D)

N1858

0...100 % r.h.

Humidity at 0...100 % r.h. and 23 °C: ±2 % r.h.

Temperature, at 15...35 °C: ±0.6 K

Temperature, at 40...70 °C: ±0.8 K

Humidity: <20 s

Temperature: <8.5 min

Screw terminals

IP65 / IP40

80 x 144 x 39 mm

Range overview QFA31..

Signal output humidity	Signal output temperature	Operating voltage [V]	Measuring range, temperature [°C]	Display	Stock no.	Product no.
DC 0...10 V		AC 24 DC 13.5...35			BPZ:QFA3100	QFA3100
DC 4...20 mA		DC 13.5...35			BPZ:QFA3101	QFA3101
DC 0...10 V	DC 0...10 V	AC 24 DC 13.5...35	0...50 -35...35 -40...70		BPZ:QFA3160	QFA3160
DC 0...10 V	DC 0...10 V	AC 24 DC 13.5...35	0...50 -35...35 -40...70	LCD	BPZ:QFA3160D	QFA3160D
DC 4...20 mA	DC 4...20 mA	DC 13.5...35	0...50 -35...35 -40...70		BPZ:QFA3171	QFA3171
DC 4...20 mA	DC 4...20 mA	DC 13,5...35	0...50 -35...35 -40...70	LCD	QFA3171D	QFA3171D

QFA41..



Room sensors for rel. humidity / temperature for demanding requirements, with calibration certificate

For relative humidity and temperature.
Degree of protection: IP65, IP40 (measuring tip).

Data sheet	N1859
Measurement range humidity	0...100 % r.h.
Measurement accuracy	Humidity at 0...100 % r.h. and 23 °C: ± 2 % r.h. Temperature, at 15...35 °C: ± 0.6 K Temperature, at 40...70 °C: ± 0.8 K
Time constant	Humidity: <20 s Temperature: <8.5 min
Connection, electrical	Round connector
Degree of protection	IP65 / IP40
Dimensions (W x H x D)	80 x 144 x 39 mm

Range overview QFA41..

Signal output humidity	Signal output temperature	Operating voltage [V]	Measuring range, temperature [°C]	Display	Stock no.	Product no.
DC 0...10 V	DC 0...10 V	AC 24 DC 13.5...35	0...50 -35...35 -40...70	---	BPZ:QFA4160	QFA4160
DC 0...10 V	DC 0...10 V	AC 24 DC 13,5...35	0...50 -35...35 -40...70	LCD	QFA4160D	QFA4160D
DC 4...20 mA	DC 4...20 mA	DC 13.5...35	0...50 -35...35 -40...70	---	BPZ:QFA4171	QFA4171
DC 4...20 mA	DC 4...20 mA	DC 13,5...35	0...50 -35...35 -40...70	LCD	QFA4171D	QFA4171D

Accessories for QFA..

Product Title	Data sheet	Stock no.	Product no.
Radiation shield for exterior wall mounting	N1858	BPZ:AQF3100	AQF3100
Filter cap for humidity sensor	N1858	BPZ:AQF3101	AQF3101
Exchangeable measuring tip	N1858	AQF3150	AQF3150
Exchangeable measuring tip, with calibration certificate	N1859	BPZ:AQF4150	AQF4150
Remote sensing cable 3 m for sensor tip	N1859	AQY2010	AQY2010
Service-Set		AQF3153	AQF3153

Sensors

Humidity and temperature

Room sensors - flush mounted AQR25..

AQR253..



Front modules for base module

- Front module with sensors

Data sheet	N1411
Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm

Range overview AQR253..

Measuring range, temperature [°C]	Signal output temperature	Measurement range humidity [%]	Display	Stock no.	Product no.
0...50	Active LG-Ni1000	0...100		S55720-S138	AQR2534ANW
				S55720-S137	AQR2530NNW
0...50	Active			S55720-S136	AQR2532NNW
0...50	Active	0...100		S55720-S141	AQR2535NNW
0...50	Active	0...100	CO2 indicator by LED	S55720-S219	AQR2535NNWQ

The matching design frame must be ordered separately.

Frames for front modules AQR253..

Product Title	Color	Dimensions (W x H)	Data sheet	Stock no.	Product no.
Frame DELTA line for front module	Titanium white	80.2 x 80.2 mm	N1410	S55720-S158	AQR2510NFW
Frame DELTA azio for front module	Titanium white	80 x 120 mm / 120 x 80 mm	N1410	S55720-S160	AQR2510NGW
Frame DELTA miro for front module	Titanium white	90 x 90 mm	N1410	S55720-S159	AQR2510NHW

6

AQR2540..



Base modules for temperature and humidity measurement

- Base module without sensor for plugging onto a front module

Data sheet	N1410
Operating voltage	AC 24 V DC15...36 V
Connection, electrical	Screw terminals
Analog output, signal	DC 0...10 V DC 2...10 V DC 0...5 V DC 0...20 mA DC 4...20 mA DC 0...10 mA
Digital outputs	1-pin Potential-free Changeover contact

Range overview AQR2540..

Mechanical design	Dimensions (W x H)	Stock no.	Product no.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S142	AQR2540NF
IT (3 modular)	110 x 64 mm	S55720-S144	AQR2540NG
UK (British Standard)	83 x 83 mm	S55720-S143	AQR2540NH

Base module with KNX for temperature and humidity measurement

AQR2570..

- Base module without sensor for plugging onto a front module
- 1 analog input to connect temperature sensors with NTC 10k sensing element to measure room, floor, or ceiling temperature
- 2 multifunctional binary inputs to connect window contacts or buttons
- Power supply via KNX bus, bus load < 5 mA
- Communication: KNX S-Mode, KNX LTE-Mode (Synco)



Data sheet	N1411
Voltage supply	KNX bus
Analog inputs, number	1
Analog inputs	Passive temperature sensor NTC 10k
Digital inputs, number	2
Digital inputs	Potential-free contacts

Range overview AQR2570..

Mechanical design	Dimensions (W x H)	Stock no.	Product no.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S203	AQR2570NF
IT (3 Modular)	110 x 64 mm	S55720-S205	AQR2570NG
UK (British Standard)	83 x 83 mm	S55720-S204	AQR2570NH
US (UL)	64 x 110 mm	S55720-S206	AQR2570NJ

Sensors

Humidity and temperature

Room hygrostats: QFA..

QFA1000



Room hygrostat, setpoint setting range 30...90 % r.h., setpoint adjuster inside device

- 2-position controller with humidity sensor
- Setpoint adjuster inside device

Data sheet

N1518

Setpoint setting range

30...90 % r.h.

Switching differential

6 % r.h.

Time constant

At v = 0.2 m/s: 5 min

Digital outputs

1-pin

Potential-free

Changeover contact

Connection, electrical

Screw terminals

Digital output, switching voltage

AC 230 V

Digital output, switching current

5 (3) A

Degree of protection

IP20

Dimensions (W x H x D)

76 x 76 x 34 mm

Stock no.

Product no.

BPZ:QFA1000

QFA1000

QFA1001



Room hygrostat, setpoint setting range 30...90 % r.h., external setpoint adjustment

- 2-position controller with humidity sensor
- External setpoint adjustment

Data sheet

N1518

Setpoint setting range

30...90 % r.h.

Switching differential

6 % r.h.

Digital outputs

1-pin

Potential-free

Changeover contact

Connection, electrical

Screw terminals

Digital output, switching voltage

AC 230 V

Digital output, switching current

5 (3) A

Degree of protection

IP20

Dimensions (W x H x D)

76 x 76 x 34 mm

Stock no.

Product no.

BPZ:QFA1001

QFA1001

Duct sensor for humidity (0...10 V) and temperature (0...10 V)

QFM1660

Active sensor for acquiring the air humidity and temperature in air duct



Data sheet	Q3731
Operating voltage	AC 24 V
Measurement range humidity	10...90% r. h.
Measurement accuracy	Temperature at AC 24 V and 25 °C: ±0.8 °C Humidity at 10...90% r. h. and 25 °C/20 °C: ±5% r. h.
Analogue output, signal	DC 0...10 V
Signal output temperature	DC 0...10 V
Signal output humidity	DC 0...10 V
Degree of protection	IP42

Stock no.	Product no.
S55720-S198	QFM1660

Duct sensor for rel. humidity / temperature

QFM21..

For relative humidity and temperature.



Measurement range humidity	0...95 % r.h.
Measurement accuracy	Humidity at 30...70 % r.h. and 23 °C: ±3 % r.h. Temperature, at 15...35 °C: ±0.8 K Temperature, at 35...50 °C: ±1.0 K
Time constant	Humidity: <20 s Temperature in with 2 m/s moved air: <3.5 min
Immersion length	90...154 mm
Dimensions (W x H x D)	80 x 88 x 39 mm

Range overview QFM21..

Signal output humidity	Signal output temperature	Operating voltage [V]	Measuring range, temperature [°C]	Stock no.	Product no.
DC 0...10 V		AC 24 DC 13.5...35		BPZ:QFM2100	QFM2100
DC 4...20 mA		DC 13.5...35		BPZ:QFM2101	QFM2101
DC 0...10 V	LG-Ni1000	AC 24 DC 13.5...35	0...50 -35...35 -40...70	BPZ:QFM2120	QFM2120
Modbus RTU	Modbus RTU	AC 24 DC 13.5...35	-40...+70	S55720-S467	QFM2150/MO
DC 0...10 V	DC 0...10 V	AC 24 DC 13.5...35	0...50 -35...35 -40...70	BPZ:QFM2160	QFM2160
DC 4...20 mA	DC 4...20 mA	DC 13.5...35	0...50 -35...35 -40...70	BPZ:QFM2171	QFM2171

Sensors

Humidity and temperature

Duct sensors QFM..

QFM31..



Duct sensors for rel. humidity / temperature for demanding requirements

For relative humidity and temperature.

Measurement range humidity	0...100 % r.h.
Measurement accuracy	Humidity at 0...100 % r.h. and 23 °C: ± 2 % r.h. Temperature, at 15...35 °C: ± 0.6 K Temperature, at 40...70 °C: ± 0.8 K
Immersion length	90...206 mm
Dimensions (W x H x D)	80 x 88 x 39 mm

Range overview QFM31..

Signal output humidity	Signal output temperature	Operating voltage [V]	Measuring range, temperature [°C]	Stock no.	Product no.
Modbus RTU	Modbus RTU	AC 24 DC 13.5...35	-40...+70	S55720-S468	QFM3150/MO
DC 0...10 V		AC 24 DC 13.5...35		BPZ:QFM3100	QFM3100
DC 4...20 mA		DC 13.5...35		BPZ:QFM3101	QFM3101
DC 0...10 V	DC 0...10 V	AC 24 DC 13.5...35	0...50 -35...35 -40...70	BPZ:QFM3160	QFM3160
DC 4...20 mA	DC 4...20 mA	DC 13.5...35	0...50 -35...35 0...70	BPZ:QFM3171	QFM3171

QFM31..D



Duct sensors for rel. humidity / temperature for demanding requirements

For relative humidity and temperature.

Data sheet	N1882
Measurement range humidity	0...100 % r.h.
Measurement accuracy	Humidity at 0...100 % r.h. and 23 °C: ± 2 % r.h. Temperature, at 15...35 °C: ± 0.6 K Temperature, at 40...70 °C: ± 0.8 K
Immersion length	90...206 mm
Dimensions (W x H x D)	80 x 88 x 39 mm

Range overview QFM31..D

Signal output humidity	Signal output temperature	Operating voltage [V]	Measuring range, temperature [°C]	Display	Stock no.	Product no.
DC 0...10 V	DC 0...10 V	AC 24 DC 13.5...35	0...50 -35...35 -40...70	LCD	BPZ:QFM3160D	QFM3160D
DC 4...20 mA	DC 4...20 mA	DC 13,5...35	0...50 -35...35 -40...70	LCD	QFM3171D	QFM3171D

QFM41..



Duct sensor for rel. humidity/temperature for demanding requirements, with calibration certificate

For relative humidity and temperature.

Data sheet	N1883
Measurement range humidity	0...100 % r.h.
Measurement accuracy	Humidity at 0...100 % r.h. and 23 °C: ± 2 % r.h. Temperature, at 15...35 °C: ± 0.6 K Temperature, at 40...70 °C: ± 0.8 K
Time constant	Humidity: <20 s Temperature in with 2 m/s moved air: <3.5 min
Immersion length	90...206 mm
Dimensions (W x H x D)	80 x 117 x 39 mm

Range overview QFM41..

Signal output humidity	Signal output temperature	Operating voltage [V]	Measuring range, temperature [°C]	Stock no.	Product no.
DC 0...10 V	DC 0...10 V	AC 24 DC 13.5...35	0...50 -35...35 -40...70	BPZ:QFM4160	QFM4160
DC 4...20 mA	DC 4...20 mA	DC 13.5...35	0...50 -35...35 -40...70	BPZ:QFM4171	QFM4171

Accessories for duct sensors QFM..

Product Title	Data sheet	Stock no.	Product no.
Filter cap for humidity sensor	N1858	BPZ:AQF3101	AQF3101
Exchangeable measuring tip	N1858	AQF3150	AQF3150
Exchangeable measuring tip, with calibration certificate	N1859	BPZ:AQF4150	AQF4150
Service-Set		AQF3153	AQF3153

Sensors

Humidity and temperature

Duct hygrostats QFM..

QFM81.2



Duct hygrostat, setpoint setting range 15...95 % r.h.

On / off hygrostat with humidity sensor.
External setpoint adjustment.

Supplied complete with mounting flange.

Data sheet	N1514
Setpoint setting range	15...95 % r.h.
Switching differential	4 % r.h.
Digital outputs	1-pin Potential-free Changeover contact
Immersion length	130...156 mm
Digital output, switching current	5 (3) A
Digital output, switching voltage	AC 250 V
Degree of protection	IP30
Dimensions (W x H x D)	73 x 140 x 64 mm

Stock no.

Product no.

BPZ:QFM81.2

QFM81.2

QFM81.21



Room hygrostat, setpoint setting range 15...95 % r.h., setpoint adjuster inside device

On / off hygrostat with humidity sensor.
Setpoint adjuster inside device.

Supplied complete with mounting flange.

Data sheet	N1514
Setpoint setting range	15...95 % r.h.
Switching differential	4 % r.h.
Digital outputs	1-pin Potential-free Changeover contact
Immersion length	130...156 mm
Digital output, switching current	5 (3) A
Digital output, switching voltage	AC 250 V
Degree of protection	IP55
Dimensions (W x H x D)	73 x 140 x 64 mm

Stock no.

Product no.

BPZ:QFM81.21

QFM81.21

Condensation monitor

QXA21..



For preventing condensation in buildings with chilled ceilings or in cooling plants.

Data sheet	A6V10741072
Operating voltage	AC 24 V DC 24 V
Power consumption	1 VA
Digital outputs	1-pin Potential-free Changeover contact
Switching point	95 ± 4 % r.h.
Connection, electrical	Screw terminals
Digital output, switching voltage	AC/DC 1...30 V
Digital output, switching current	0.02...1 (1) A
Degree of protection	IP40
Dimensions (W x H x D)	60 x 83 x 37 mm

Range overview QXA21..

Product Title	Stock no.	Product no.
Condensation monitor	S55770-T375	QXA2100
Condensation monitor with remote sensor head (cable length 1 m)	S55770-T376	QXA2101

Sensors

Air quality

Room sensor QPA..

QPA..



Room air quality sensor CO₂ / temperature / rel. Humidity / VOC

Note: Not suited for safety-related applications!

Data sheet	N1961
Operating voltage	AC 24 V
	DC 15...35 V
Analog output, signal	DC 0...5 V
	DC 0...10 V
	DC 4...20 mA
Ambient temperature, operation	0...50 °C
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	90 x 100 x 36 mm

Range overview QPA..

Measuring range	Measuring range, temperature [°C]	Measurement range humidity	Display	Stock no.	Product no.
0...100 % VOC				S55720-S119	QPA1000
CO ₂ : 0...2000 ppm				BPZ:QPA2000	QPA2000
0...2000 ppm CO ₂				BPZ:QPA2002	QPA2002
0...2000 ppm VOC					
CO ₂ : 0...2000 ppm			LCD	BPZ:QPA2002D	QPA2002D
CO ₂ +VOC: 0...2000 ppm					
CO ₂ : 0...2000 ppm	0...50 -35...35			BPZ:QPA2060	QPA2060
CO ₂ : 0...2000 ppm	0...50 -35...35		LCD	BPZ:QPA2060D	QPA2060D
CO ₂ : 0...2000 ppm	0...50 -35...35	0...95 % r.H.		BPZ:QPA2062	QPA2062
CO ₂ : 0...2000 ppm	0...50 -35...35	0...95 % r.H.	LCD	BPZ:QPA2062D	QPA2062D
CO ₂ : 0...2000 ppm				S55720-S121	QPA2080
CO ₂ : 0...2000 ppm			LCD	S55720-S122	QPA2080D

With the QPA2080 and QPA2080D the passive temperature element is freely selectable, enclosed in the delivery are LG-Ni1000, Pt1000, Pt100, NTC 10kOhm.

QPA84



Indoor air quality controller with integrated VOC sensor for mixed gas

In ventilation plant to optimize indoor air quality and consumption of energy by means of demand-controlled ventilation.

Data sheet	N1571
Operating voltage	AC 230 V
Power consumption	0.5 VA
Measured variable	Mixed gas (VOC)
Digital outputs	Non-floating
	Switching contact
Digital output, switching current	8 (6.8) A
Digital output, switching voltage	AC 230 V
Connection, electrical	Screw terminals
Degree of protection	IP30
Dimensions (W x H x D)	96 x 101 x 39 mm

Stock no.	Product no.
BPZ:QPA84	QPA84

Front modules for base module

AQR253..

- Front module with sensors

Data sheet	N1411
Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm



Range overview AQR253..

Measuring range, temperature [°C]	Signal output temperature	Measurement range humidity [%]	Display	Stock no.	Product no.
0...50	Active LG-Ni1000	0...100		S55720-S138	AQR2534ANW
				S55720-S137	AQR2530NNW
0...50	Active			S55720-S136	AQR2532NNW
0...50	Active	0...100		S55720-S141	AQR2535NNW
0...50	Active	0...100	CO2 indicator by LED	S55720-S219	AQR2535NNWQ

The matching design frame must be ordered separately.

Frames for front modules AQR253..

Product Title	Data sheet	Stock no.	Product no.
Frame DELTA line for front module	N1410	S55720-S158	AQR2510NFW
Frame DELTA azio for front module	N1410	S55720-S160	AQR2510NGW
Frame DELTA miro for front module	N1410	S55720-S159	AQR2510NHW

Base modules with integrated VOC measurement

- Base module with VOC sensing element to plug onto a front module

Data sheet	N1410
Operating voltage	AC 24 V DC 15...36 V
Analog output, signal	DC 0...10 V DC 2...10 V DC 0...5 V DC 0...20 mA DC 4...20 mA DC 0...10 mA
Measuring range	0...100 % VOC
Connection, electrical	Screw terminals
Digital outputs	1-pin Potential-free Changeover contact



Range overview AQR2547..

Mechanical design	Dimensions (W x H)	Stock no.	Product no.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S146	AQR2547NF

Sensors

Air quality

Room sensor flush mounted AQR25..

AQR253..



Front modules for base module

- Front module with sensors

Data sheet	N1411
Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm

Range overview AQR253..

Measuring range, temperature [°C]	Signal output temperature	Measurement range humidity [%]	Display	Stock no.	Product no.
0...50	Active LG-Ni1000	0...100		S55720-S138	AQR2534ANW
				S55720-S137	AQR2530NNW
0...50	Active			S55720-S136	AQR2532NNW
0...50	Active	0...100		S55720-S141	AQR2535NNW
0...50	Active	0...100	CO2 indicator by LED	S55720-S219	AQR2535NNWQ

The matching design frame must be ordered separately.

Frames for front modules AQR253..

Product Title	Data sheet	Stock no.	Product no.
Frame DELTA line for front module	N1410	S55720-S158	AQR2510NFW
Frame DELTA azio for front module	N1410	S55720-S160	AQR2510NGW
Frame DELTA miro for front module	N1410	S55720-S159	AQR2510NHW

AQR2546..



Base modules with integrated CO2 measurement

- Base module with maintenance-free CO2 sensing element to plug onto a front module

Data sheet	N1410
Operating voltage	AC 24 V DC 15...36 V
Analog output, signal	DC 0...10 V DC 2...10 V DC 0...5 V DC 0...20 mA DC 4...20 mA DC 0...10 mA
Measuring range	CO2: 0...2000 ppm
Connection, electrical	Screw terminals
Digital outputs	1-pin Potential-free Changeover contact

Range overview AQR2546..

Mechanical design	Dimensions (W x H)	Stock no.	Product no.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S147	AQR2546NF
IT (3 modular)	110 x 64 mm	S55720-S153	AQR2546NG
UK (British Standard)	83 x 83 mm	S55720-S150	AQR2546NH

Base modules with KNX for CO₂ measurement

AQR2576..

- Base module with maintenance and recalibration-free CO₂ sensor to plug onto a front module
- 1 analog input to connect temperature sensors with NTC 10k sensing element to measure room, floor, or ceiling temperature
- 2 multifunctional binary inputs to connect window contacts or buttons
- Power supply via KNX bus, bus load < 5 mA
- Communication: KNX S-Mode, KNX LTE-Mode (Synco)



Data sheet	N1411
Voltage supply	KNX bus
Measuring range	CO ₂ : 0...5000 ppm
Analog inputs, number	1
Analog inputs	Passive temperature sensor NTC 10k
Digital inputs, number	2
Digital inputs	Potential-free contacts

Range overview AQR2576..

Mechanical design	Dimensions (W x H)	Stock no.	Product no.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S207	AQR2576NF
IT (3 Modular)	110 x 64 mm	S55720-S209	AQR2576NG
UK (British Standard)	83 x 83 mm	S55720-S208	AQR2576NH
US (UL)	64 x 110 mm	S55720-S210	AQR2576NJ

Front modules for base module

- Front module with sensors

Data sheet	N1411
Color	Titanium white
Degree of protection	IP30
Dimensions (W x H)	55 x 55 mm



AQR253..

Range overview AQR253..

Measuring range, temperature [°C]	Signal output temperature	Measurement range humidity [%]	Display	Stock no.	Product no.
0...50	Active LG-Ni1000	0...100		S55720-S138	AQR2534ANW
				S55720-S137	AQR2530NNW
0...50	Active			S55720-S136	AQR2532NNW
0...50	Active	0...100		S55720-S141	AQR2535NNW
0...50	Active	0...100	CO ₂ indicator by LED	S55720-S219	AQR2535NNWQ

The matching design frame must be ordered separately.

Frames for front modules AQR253..

Product Title	Data sheet	Stock no.	Product no.
Frame DELTA line for front module	N1410	S55720-S158	AQR2510NFW
Frame DELTA azio for front module	N1410	S55720-S160	AQR2510NGW
Frame DELTA miro for front module	N1410	S55720-S159	AQR2510NHW

Sensors

Air quality

Room sensor flush mounted AQR25..

AQR2548..



Base modules with integrated CO₂ and VOC measurement

- Base module with maintenance-free CO₂/VOC sensing element to plug onto a front module

Data sheet	N1410
Operating voltage	AC 24 V DC 15...36 V DC 0...10 V DC 2...10 V DC 0...5 V DC 0...20 mA DC 4...20 mA DC 0...10 mA
Analog output, signal	0...2000 ppm CO ₂ 0...100 % VOC
Measuring range	
Connection, electrical	Screw terminals
Digital outputs	CO: 1 Potential-free

Range overview AQR2548..

Mechanical design	Dimensions (W x H)	Stock no.	Product no.
EU (CEE/VDE)	70.8 x 70.8 mm	S55720-S148	AQR2548NF

Duct air quality sensor CO₂/ temperature / rel. humidity / VOC

QPM..

Note: Not suited for safety-related applications!

Data sheet	N1962
Operating voltage	AC 24 V DC 15...35 V
Power consumption	2 VA
Max. air velocity	≤ 10 m/s
Ambient temperature, operation	-5...45 °C
Connection, electrical	Screw terminals
Analog output, signal	DC 0...10 V DC 0...5 V DC 0...20 mA
Degree of protection	IP54
Dimensions (W x H x D)	80 x 88 x 274 mm



Range overview QPM..

Measuring range	Measuring range, temperature [°C]	Measurement range humidity [% r.h.]	Immersion length [mm]	Display	Stock no.	Product no.
0...100 % VOC			70...135		S55720-S123	QPM1100
0...2000 ppm CO ₂			70...135		BPZ:QPM2100	QPM2100
0...2000 ppm CO ₂			70...135		BPZ:QPM2102	QPM2102
0...100 % VOC						
0...2000 ppm CO ₂			70...135	LCD	BPZ:QPM2102D	QPM2102D
0...100 % VOC						
0...2000 ppm CO ₂	0...50 -35...35		100...165		BPZ:QPM2160	QPM2160
0...2000 ppm CO ₂	0...50 -35...35		100...165	LCD	BPZ:QPM2160D	QPM2160D
0...2000 ppm CO ₂	0...50 -35...35	0...95	100...165		BPZ:QPM2162	QPM2162
0...2000 ppm CO ₂	0...50 -35...35	0...95	100...165	LCD	BPZ:QPM2162D	QPM2162D
0...2000 ppm CO ₂			100...165		S55720-S124	QPM2180

The passive temperature element within the QPM2180 is freely selectable, enclosed in the delivery are LG-Ni1000, Pt1000, Pt100, NTC 10kOhm.

Sensors

Air quality

Duct sensor QPM..

QPM../MO



Duct air quality sensor CO₂ / temperature / rel. humidity / VOC; Modbus

Note: Not suited for safety-related applications!

Data sheet	A6V11610641
Operating voltage	AC 24 V DC 15...35 V
Power consumption	2 VA
Max. air velocity	≤ 10 m/s
Ambient temperature, operation	-5...+45 °C
Connection, electrical	Screw terminals
Degree of protection	IP54
Dimensions (W x H x D)	80 x 88 x 274 mm
Communication	Modbus RTU (RS-485)

Range overview QPM../MO

Measuring range	Measuring range, temperature [°C]	Measurement range humidity [% r.h.]	Immersion length [mm]	Stock no.	Product no.
0...2000 ppm CO ₂ 0...100 % VOC		0...100	70...135	S55720-S469	QPM2102/MO
0...2000 ppm CO ₂	-35...+50		100...165	S55720-S470	QPM2150/MO
0...2000 ppm CO ₂	-35...+50	0...100	100...165	S55720-S471	QPM2152/MO

Fine dust sensor, 0-10V & Modbus

QSA2700

Room sensor for detection of PM2.5 and PM10



Data sheet	A6V11160938
Operating voltage	AC/DC 24 V
Connection cable	Micro USB
Analog outputs	DC 0...10 V
Display	3-color LED service indication
Communication	Modbus RS485

Stock no.	Product no.
S55720-S457	QSA2700

Fine dust sensor +display, 0-10V, Modbus

QSA2700D

Room sensor with LCD display for detection of PM2.5 and PM10



Data sheet	A6V11160938
Operating voltage	AC/DC 24 V
Connection cable	Micro USB
Analog outputs	DC 0...10 V
Display	2.4-inch color LCD screen for PM2.5
Communication	Modbus RS485

Stock no.	Product no.
S55720-S458	QSA2700D

Sensor module for replacement

AQS2700

Sensor module for replacement for QSA2700 or QSA2700D



Data sheet	A6V11160938
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Stock no.	Product no.
S55720-S459	AQS2700

Sensors

Pressure

Differential pressure sensor air and non-aggressive gas QBM..

QBM2030..



Differential pressure sensor, DC 0...10 V

With pressure-linear characteristic.

For use with air or nonaggressive gases, for general HVAC applications. With diaphragm sensing element and selectable pressure measuring ranges.

Supplied complete with set of 2 air duct connectors and PVC tube of 2 m.

Data sheet	N1910_01
Operating voltage	AC 24 V
	DC 13.5...33 V
Power consumption	0.5 VA
Analog output, signal	DC 0...10 V
Sensing element	Pressure diaphragm
Time constant	1 s
Pressure connection	Connection branch, 6.2 mm dia.
Connection, electrical	Screw terminals
Degree of protection	IP42
Dimensions (W x H x D)	92 x 94 x 49 mm

Range overview QBM2030..

Measuring range, pressure [Pa]	Stock no.	Product no.
-50...50	S55720-S244	QBM2030-1U
-100...100		
0...100		
0...200	S55720-S245	QBM2030-5
0...250		
0...500		
0...1000	S55720-S246	QBM2030-30
0...1500		
0...3000		

Note on max. permissible pressure: overpressure on one side.

Differential pressure sensor air and non-aggressive gas QBM..

QBM3..



Air duct differential pressure sensor

For use with air or nonaggressive gases, for extremely demanding accuracy and high requirements. With diaphragm sensing element.

Available with switchable pressure-linear or extracting-the-root characteristic and digital display. With extracting-the-root characteristic, the pressure measuring range is adjustable.

CE-, UL listed.

Supplied complete with PVC connecting tube of 2 m.

Data sheet	N1916
Sensing element	Pressure diaphragm
Response time	<20 ms
Pressure connection	Connection branch, 6.2 mm dia.
Connection, electrical	Screw terminals
Degree of protection	IP54
Dimensions (W x H x D)	101 x 86 x 49 mm

Range overview QBM3..

Measuring range, pressure [Pa]	Analog output, signal	Operating voltage [V]	Display	Stock no.	Product no.
0...100	DC 0...10 V	AC 24 V / DC 13,5...33		S55720-S234	QBM3020-1
0...100	DC 4...20 mA	DC 8...33		S55720-S443	QBM3120-1
0...100	DC 0...10 V	AC 24 V / DC 13,5...33	LCD	S55720-S239	QBM3020-1D
0...100	DC 4...20 mA	DC 8...33	LCD	S55720-S448	QBM3120-1D
-50...50	DC 0...10 V	AC 24 V / DC 13,5...33		S55720-S233	QBM3020-1U
-50...50	DC 4...20 mA	DC 8...33		S55720-S442	QBM3120-1U
0...300	DC 0...10 V	AC 24 V / DC 13,5...33		S55720-S235	QBM3020-3
0...300	DC 4...20 mA	DC 8...33		S55720-S444	QBM3120-3
0...300	DC 0...10 V	AC 24 V / DC 13,5...33	LCD	S55720-S240	QBM3020-3D
0...300	DC 4...20 mA	DC 8...33	LCD	S55720-S449	QBM3120-3D
0...500	DC 0...10 V	AC 24 V / DC 13,5...33		S55720-S236	QBM3020-5
0...500	DC 4...20 mA	DC 8...33		S55720-S445	QBM3120-5
0...500	DC 0...10 V	AC 24 V / DC 13,5...33	LCD	S55720-S241	QBM3020-5D
0...500	DC 4...20 mA	DC 8...33	LCD	S55720-S450	QBM3120-5D
0...1000	DC 0...10 V	AC 24 V / DC 13,5...33		S55720-S237	QBM3020-10
0...1000	DC 4...20 mA	DC 8...33		S55720-S446	QBM3120-10
0...1000	DC 0...10 V	AC 24 V / DC 13,5...33	LCD	S55720-S242	QBM3020-10D
0...1000	DC 4...20 mA	DC 8...33	LCD	S55720-S451	QBM3120-10D
0...2500	DC 0...10 V	AC 24 V / DC 13,5...33		S55720-S238	QBM3020-25
0...2500	DC 4...20 mA	DC 8...33		S55720-S447	QBM3120-25
0...2500	DC 0...10 V	AC 24 V / DC 13,5...33	LCD	S55720-S243	QBM3020-25D
0...2500	DC 4...20 mA	DC 8...33	LCD	S55720-S452	QBM3120-25D

Sensors

Pressure

Differential pressure sensor air and non-aggressive gas QBM..

QBM3700..



Modus differential pressure sensor with I/O extension

Differential pressure sensor with I/O extension, designed for Modus (RTU) communication networks, 2 AI, 2 AO

Data sheet	A6V11684000
Operating voltage	AC/DC 24 V ±15 %
Power consumption	<2 VA
Analog output, signal	DC 0...10 V
Analog outputs, number	2
Analog inputs, number	2
Degree of protection	IP54 (Housing)
Dimensions (W x H x D)	146 x 81.9 x 60 mm

Range overview QBM3700..

Measuring range, pressure [Pa]	Stock no.	Product no.
0...500	S55720-S487	QBM3700-5/MO
0...1250	S55720-S485	QBM3700-13/MO
0...2500	S55720-S486	QBM3700-25/MO

Differential pressure sensor air and non-aggressive gas QBM..

Air duct differential pressure sensor with calibration certificate

QBM400..



Technical data and accessories identical to QBM3...
With plug-in connection.

Data sheet	N1919_01
Mounting position	Membrane vertical, pressure connection nipples at the bottom
Degree of protection	IP54
Dimensions (W x H x D)	186 x 86 x 49 mm

Range overview QBM400..

Measuring range, pressure [Pa]	Stock no.	Product no.
0...100	S55720-S247	QBM4000-1
0...300	S55720-S248	QBM4000-3
0...1000	S55720-S249	QBM4000-10
0...2500	S55720-S250	QBM4000-25

Note on max. permissible pressure: overpressure on one side.

Sensors

Pressure

Differential pressure sensor air and non-aggressive gas QBM..

QBM410..



Air duct differential pressure sensor, DC 4...20 mA, with calibration certificate

For use with air and nonaggressive gases. For extremely demanding accuracy and high requirements. With diaphragm sensing element.

CE-, UL listed.

Supplied complete with PVC connecting tube of 2 m.

Accessories for QBM41 are identical to those for QBM3...

Data sheet	N1919_01
Operating voltage	DC 8...33 V
Analog output, signal	DC 4...20 mA
Sensing element	Pressure diaphragm
Pressure connection	Connecting branch, 6.2 mm dia.
Connection, electrical	Screw terminals
Mounting position	Membrane vertical, pressure connection nipples at the bottom
Degree of protection	IP54
Dimensions (W x H x D)	186 x 86 x 49 mm

Range overview QBM410..

Measuring range, pressure [Pa]	Display	Stock no.	Product no.
-50...50	no	S55720-S251	QBM4100-1U
0...100	LCD	S55720-S252	QBM4100-1D

Note on max. permissible pressure: overpressure on one side.

Accessories for QBM..

Product Title	Data sheet	Stock no.	Product no.
Mounting bracket for differential pressure sensor for air	N1590	BPZ:AQB2000	AQB2000
Top hat rail adapter for differential pressure sensor for air	N1590	BPZ:AQB21.2	AQB21.2
Air duct probe for simple, quick and airtight mounting	N1589	BPZ:FK-PZ1	FK-PZ1
Air duct probe for accurate measurements	N1589	BPZ:FK-PZ2	FK-PZ2
Air duct probe for differential pressure sensor, fixed length	N1589	BPZ:FK-PZ3	FK-PZ3

Differential pressure monitor

QBM81..

Used as a flow switch or filter monitor in air ducts.

Supplied complete with set of 2 air duct connectors (plastic) and 2 m long PVC tube.

Data sheet	N1552
Digital outputs	1-pin Potential-free Switchover contact
Permissible operating pressure	7500 Pa
Ambient temperature, operation	-30...85 °C
Mounting position	Diaphragm vertical, pressure connection pointing downward
Pressure connection	Connection branch, 6.2 mm dia.
Degree of protection	IP54
Dimension (Ø x L)	81 x 90 mm



Range overview QBM81..

Measuring range, pressure [Pa]	Stock no.	Product no.
20...300	BPZ:QBM81-3	QBM81-3
50...500	BPZ:QBM81-5	QBM81-5
100...1000	BPZ:QBM81-10	QBM81-10
500...2000	S55720-S125	QBM81-20
1000...5000	S55720-S126	QBM81-50

Accessories for QBM81..

Product Title	Data sheet	Stock no.	Product no.
Air duct probe for simple, quick and airtight mounting	N1589	BPZ:FK-PZ1	FK-PZ1
Air duct probe for accurate measurements	N1589	BPZ:FK-PZ2	FK-PZ2
Air duct probe for differential pressure sensor, fixed length	N1589	BPZ:FK-PZ3	FK-PZ3

Sensors

Pressure

Pressure sensors for liquids and gases QBE..

QBE2003-P..



Pressure sensor for neutral and slightly aggressive liquids and gases (0...10 V)

With threaded connection G $\frac{1}{2}$ " and plug DIN EN175301-803A.

Suited for use with oil-containing media.

Data sheet	A6V10432494
Time constant	<2 ms
Pressure connection	External thread G $\frac{1}{2}$ "
Connection, electrical	Plug-in connection
Medium temperature	-15...125 °C
Max. permissible pressure	2.5 x scale end value (FS)
Mounting position	Any
Degree of protection	IP65
Dimension (Ø x L)	24 x 101 mm

Range overview QBE2003-P..

Analog output, signal [V]	Operating voltage [V]	Measuring range, pressure	Stock no.	Product no.
DC 0...10	AC 24 DC 12...33	0...100 kPa 0...1 bar	S55720-S290	QBE2003-P1
DC 0...10	AC 24 DC 12...33	0...160 kPa 0...1.6 bar	S55720-S291	QBE2003-P1.6
DC 0...10	AC 24 DC 12...33	0...250 kPa 0...2.5 bar	S55720-S292	QBE2003-P2.5
DC 0...10	AC 24 DC 12...33	0...400 kPa 0...4 bar	S55720-S293	QBE2003-P4
DC 0...10	AC 24 DC 12...33	0...600 kPa 0...6 bar	S55720-S294	QBE2003-P6
DC 0...10	AC 24 DC 12...33	0...1 MPa 0...10 bar	S55720-S295	QBE2003-P10
DC 0...10	AC 24 DC 12...33	0...1.6 MPa 0...16 bar	S55720-S296	QBE2003-P16
DC 0...10	AC 24 DC 12...33	0...2.5 MPa 0...25 bar	S55720-S297	QBE2003-P25
DC 0...10	AC 24 DC 12...33	0...4 MPa 0...40 bar	S55720-S298	QBE2003-P40
DC 0...10	AC 24 DC 12...33	0...6 MPa 0...60 bar	S55720-S299	QBE2003-P60

Pressure sensors for liquids and gases QBE..

Pressure sensor for neutral and slightly aggressive liquids and gases (4...20 mA)

QBE2103-P..



With threaded connection G $\frac{1}{2}$ " and plug DIN EN175301-803A.

Suited for use with oil-containing media.

Data sheet	A6V10432494
Time constant	<2 ms
Pressure connection	External thread G $\frac{1}{2}$ "
Connection, electrical	Plug-in connection
Medium temperature	-15...125 °C
Max. permissible pressure	2.5 x scale end value (FS)
Mounting position	Any
Degree of protection	IP65
Dimension (Ø x L)	24 x 101 mm

Range overview QBE2103-P..

Analog output, signal [mA]	Operating voltage [V]	Measuring range, pressure	Stock no.	Product no.
DC 4...20	DC 7...33	0...100 kPa 0...1 bar	S55720-S300	QBE2103-P1
DC 4...20	DC 7...33	0...160 kPa 0...1.6 bar	S55720-S301	QBE2103-P1.6
DC 4...20	DC 7...33	0...250 kPa 0...2.5 bar	S55720-S302	QBE2103-P2.5
DC 4...20	DC 7...33	0...400 kPa 0...4 bar	S55720-S303	QBE2103-P4
DC 4...20	DC 7...33	0...600 kPa 0...6 bar	S55720-S304	QBE2103-P6
DC 4...20	DC 7...33	0...1 MPa 0...10 bar	S55720-S305	QBE2103-P10
DC 4...20	DC 7...33	0...1.6 MPa 0...16 bar	S55720-S306	QBE2103-P16
DC 4...20	DC 7...33	0...2.5 MPa 0...25 bar	S55720-S307	QBE2103-P25
DC 4...20	DC 7...33	0...4 MPa 0...40 bar	S55720-S308	QBE2103-P40
DC 4...20	DC 7...33	0...6 MPa 0...60 bar	S55720-S309	QBE2103-P60

Accessories for QBE200..-P.. and QBE210..-P..

Product Title	Data sheet	Stock no.	Product no.
Connection kit to mount QBE2x03..	A6V10434028	S55720-S116	AQB2001
Mounting bracket for pressure sensor QBE2x03..	A6V10434028	S55720-S318	AQB2004

Sensors

Pressure

Pressure sensors for liquids and gases QBE..

QBE61.3-DP..



Differential pressure sensor for liquids and gases

For slightly aggressive liquids and gases, highly resistant to overpressure. Suitable for use with hot water and chilled water.

With threaded connections G 1/2" and wall mounting bracket.

Not suitable for use with ammonia or freones.

For a smaller measuring range see QBE63-DP...

Note on max. permissible pressure: overpressure on one side.

Data sheet	N1923
Operating voltage	AC 24 V DC 18...33 V DC 0...10 V
Analog output, signal	Pressure diaphragm
Sensing element	External thread G 1/2 "
Pressure connection	Screw-free terminals
Connection, electrical	-15...80 °C
Medium temperature	PN 40
PN class	Any
Mounting position	IP54
Degree of protection	126 x 135 x 60 mm
Dimensions (W x H x D)	

Range overview QBE61.3-DP..

Measuring range, pressure [bar]	Max. permissible pressure [bar]	Stock no.	Product no.
0...2	12	BPZ:QBE61.3-DP2	QBE61.3-DP2
0...5	20	BPZ:QBE61.3-DP5	QBE61.3-DP5
0...10	20	BPZ:QBE61.3-DP10	QBE61.3-DP10

Differential pressure sensors for liquids and gas (DC 0...10 V)**QBE63-DP..**

For slightly aggressive liquids and gases, highly resistant to overpressure. With threaded connections G1/8"

Supplied complete with mounting bracket.

Not suitable for use with ammonia or freones.

Data sheet	N1920
Operating voltage	AC 24 V
	DC 20...30 V
Analog output, signal	DC 0...10 V
Pressure connection	Internal thread G 1/8 "
Connection, electrical	Screw terminals
Medium temperature	-10...80 °C
Mounting position	any
Degree of protection	IP65
Dimension (Ø x L)	65 x 94 mm

**Range overview QBE63-DP..**

Measuring range, pressure [kPa]	Max. permissible pressure [bar]	Stock no.	Product no.
0...10	10	BPZ:QBE63-DP01	QBE63-DP01
0...20	10	BPZ:QBE63-DP02	QBE63-DP02
0...50	20	BPZ:QBE63-DP05	QBE63-DP05
0...100	20	BPZ:QBE63-DP1	QBE63-DP1

Note on max. permissible pressure: pressure on one side.

Sensors

Pressure

Pressure sensors for liquids and gases QBE..

QBE3000..



Differential pressure sensors for liquids and gas (0...10 V)

For slightly aggressive liquids and gases. With threaded connections G1/8". Including mounting bracket and 2 screwed fittings for copper pipe, 6 mm dia.

Not suitable for use with ammonia or freones.

Data sheet	N1922
Operating voltage	AC 24 V
	DC 18...33 V
Analog output, signal	DC 0...10 V
Pressure connection	Internal thread G 1/8 "
Connection, electrical	Plug-in connection
Medium temperature	-15...80 °C
Degree of protection	IP65

Range overview QBE3000..

Measuring range, pressure	Max. permissible pressure [bar]	Stock no.	Product no.
0...1 bar 0...100 kPa	25	S55720-S173	QBE3000-D1
0...1.6 bar 0...160 kPa	25	S55720-S174	QBE3000-D1.6
0...2.5 bar 0...250 kPa	25	S55720-S175	QBE3000-D2.5
0...4 bar 0...400 kPa	25	S55720-S176	QBE3000-D4
0...6 bar 0...600 kPa	25	S55720-S186	QBE3000-D6
0...10 bar 0...1 MPa	50	S55720-S177	QBE3000-D10
0...16 bar 0...1.6 MPa	50	S55720-S178	QBE3000-D16

Note on max. permissible pressure: pressure on both sides.

Pressure sensors for liquids and gases QBE..

Differential pressure sensors for liquids and gas (4...20 mA)

QBE3100..

For slightly aggressive liquids and gases. With threaded connections G1/8".
Including mounting bracket and 2 screwed fittings for copper pipe, 6 mm dia.

Not suitable for use with ammonia or freones.

Data sheet	N1922
Operating voltage	DC 11...33 V
Analog output, signal	DC 4...20 mA
Pressure connection	Internal thread G 1/8 "
Connection, electrical	Plug-in connection
Medium temperature	-15...80 °C
Degree of protection	IP65



Range overview QBE3100..

Measuring range, pressure	Max. permissible pressure [bar]	Stock no.	Product no.
0...1 bar 0...100 kPa	25	S55720-S179	QBE3100-D1
0...1.6 bar 0...160 kPa	25	S55720-S180	QBE3100-D1.6
0...2.5 bar 0...250 kPa	25	S55720-S181	QBE3100-D2.5
0...4 bar 0...400 kPa	25	S55720-S182	QBE3100-D4
0...6 bar 0...600 kPa	25	S55720-S187	QBE3100-D6
0...10 bar 0...1 MPa	50	S55720-S183	QBE3100-D10
0...16 bar 0...1,6 MPa	50	S55720-S184	QBE3100-D16

Note on max. permissible pressure: pressure on both sides.

Accessories for QBE63-DP.. and QBE3..

Product Title	Data sheet	Stock no.	Product no.
Connection kit to mount QBE63../64.., QBE3..	N1922	S55720-S117	AQB2002

Sensors

Pressure

Pressure sensors refrigerant QBE..

QBE2004-P..U



Pressure sensor for refrigerants (0...10 V)

With internally threaded pressure connection UNF7/16-20.

For use with all media, including ammonia.

Data sheet	A6V10434676
Current consumption	<4 mA
Time constant	<2 ms
Pressure connection	Internal thread UNF7/16-20
Connection cable	3-wire
Cable length	1.5 m
Connection, electrical	Cable
Medium temperature	-40...135 °C
Max. permissible pressure	3 x scale end value (FS)
Mounting position	Any
Degree of protection	IP67
Dimension (Ø x L)	24 x 68 mm

Range overview QBE2004-P..

Analog output, signal [V]	Operating voltage [V]	Measuring range, pressure	Stock no.	Product no.
DC 0...10	AC 24 DC 16...33	-1...9 bar -100...900 kPa	S55720-S310	QBE2004-P10U
DC 0...10	AC 24 DC 16...33	-1...24 bar -100...2400 kPa	S55720-S311	QBE2004-P25U
DC 0...10	AC 24 DC 16...33	-1...29 bar -100...2900 kPa	S55720-S312	QBE2004-P30U
DC 0...10	AC 24 DC 16...33	-1...59 bar -100...5900 kPa	S55720-S313	QBE2004-P60U

Pressure sensors for refrigerants (4...20 mA)

QBE2104-P..U

With internally threaded pressure connection UNF7/16-20.

For use with all media, including ammonia.

Data sheet	A6V10434676
Time constant	<2 ms
Pressure connection	Internal thread UNF7/16-20
Connection cable	2-wire
Cable length	1.5 m
Connection, electrical	Cable
Medium temperature	-40...135 °C
Max. permissible pressure	3 x scale end value (FS)
Mounting position	Any
Degree of protection	IP67
Dimension (Ø x L)	24 x 68 mm



Range overview QBE2104-P..

Analog output, signal [mA]	Operating voltage [V]	Measuring range, pressure	Stock no.	Product no.
DC 4...20	DC 8...33	-1...9 bar -100...900 kPa	S55720-S314	QBE2104-P10U
DC 4...20	DC 8...33	-1...24 bar -100...2400 kPa	S55720-S315	QBE2104-P25U
DC 4...20	DC 8...33	-1...29 bar -100...2900 kPa	S55720-S316	QBE2104-P30U
DC 4...20	DC 8...33	-1...59 bar -100...5900 kPa	S55720-S317	QBE2104-P60U

Accessories for QBE200..-P..U and QBE210..-P..U

Product Title	Data sheet	Stock no.	Product no.
Connection set, thread 1/2" for pressure sensor for refrigerant	N1907	BPZ:FT-PZ1	FT-PZ1

Sensors

Flow

Flow sensors QVE..

QVE2000.0..



Flow sensor for liquids in DN 10...25 pipes (plastic fitting, DC 0...10V)

For continuous flow measurement and monitoring of liquids such as hot water, heating water, or standard water-glycol mixes in HVAC plants

Data sheet	N1597
Operating voltage	DC 11.5...33 V
Connection cable	2 m, with 3 pin plug M12x1
Analog outputs	DC 0...10 V
Medium temperature	-15...125 °C
Ambient temperature, operation	-15...85 °C
Material	Housing under pressure: Fiberglass-reinforced plastic PA6T / 6I, Sensor: ETFE
Degree of protection	IP65

Range overview QVE2000.0..

Nominal size, piping	Connect. thread [""]	Measuring range [l/min]	Stock no.	Product no.
DN 10	G½	1.8...32	S55720-S189	QVE2000.010
DN 15	G¾	3.5...50	S55720-S190	QVE2000.015
DN 20	G1	5.0...85	S55720-S191	QVE2000.020
Dn 25	G1¼	9.0...150	S55720-S192	QVE2000.025

QVE2100.0..



Flow sensor for liquids in DN 10...25 pipes (plastic fitting, DC 4...20 mA)

For continuous flow measurement and monitoring of liquids such as hot water, heating water, or standard water-glycol mixes in HVAC plants

Data sheet	N1597
Operating voltage	DC 18...33 V
Connection cable	2 m, with 3 pin plug M12x1
Analog outputs	DC 4...20 mA
Medium temperature	-15...125 °C
Ambient temperature, operation	-15...85 °C
Material	Housing under pressure: Fiberglass-reinforced plastic PA6T / 6I, Sensor: ETFE
Degree of protection	IP65

Range overview QVE2100.0..

Nominal size, piping	Connect. thread [""]	Measuring range [l/min]	Stock no.	Product no.
DN 10	G½	1.8...32	S55720-S193	QVE2100.010
DN 15	G¾	3.5...50	S55720-S194	QVE2100.015
DN 20	G1	5.0...85	S55720-S195	QVE2100.020
DN 25	G1¼	9.0...150	S55720-S196	QVE2100.025

Flow sensor for liquids in DN 10...25 pipes (red brass fitting, DC 0...10V)

QVE3000.0..

For continuous flow measurement and monitoring of liquids such as hot water, heating water, or standard water-glycol mixes in HVAC plants

Data sheet	N1598
Operating voltage	DC 11.5...33 V
Connection cable	2 m, with 3 pin plug M12x1
Analog outputs	DC 0...10 V
Medium temperature	-15...125 °C
Ambient temperature, operation	-15...85 °C
Material	Housing under pressure: red brass, Sensor: ETFE
Degree of protection	IP65



Range overview QVE3000.0..

Nominal size, piping	Connect. thread [""]	Measuring range [l/min]	Stock no.	Product no.
DN 10	G $\frac{3}{4}$	1.8...32	S55720-S211	QVE3000.010
DN 15	G $\frac{3}{4}$	3.5...50	S55720-S212	QVE3000.015
DN 20	G1	5.0...85	S55720-S213	QVE3000.020
DN 25	G1 $\frac{1}{4}$	9.0...150	S55720-S214	QVE3000.025

Flow sensor for liquids in DN 10...25 pipes (red brass fitting, DC 4...20 mA)

QVE3100.0..

For continuous flow measurement and monitoring of liquids such as hot water, heating water, or standard water-glycol mixes in HVAC plants

Data sheet	N1598
Operating voltage	DC 18...33 V
Connection cable	2 m, with 3 pin plug M12x1
Analog outputs	DC 4...20 mA
Medium temperature	-15...125 °C
Ambient temperature, operation	-15...85 °C
Material	Housing under pressure: red brass, Sensor: ETFE
Degree of protection	IP65



Range overview QVE3100.0..

Nominal size, piping	Connect. thread [""]	Measuring range [l/min]	Stock no.	Product no.
DN 10	G $\frac{3}{4}$	1.8...32	S55720-S215	QVE3100.010
DN 15	G $\frac{3}{4}$	3.5...50	S55720-S216	QVE3100.015
DN 20	G1	5.0...85	S55720-S217	QVE3100.020
DN 25	G1 $\frac{1}{4}$	9.0...150	S55720-S218	QVE3100.025

QVE1900



Flow switch for use in hydraulic systems, PN10, DN32...200

For monitoring operation of systems using liquids or gases.

Data sheet	N1592
Digital output, switching voltage	250 VAC
Digital output, switching current	15 (8) A
Connection, electrical	Screw terminals
Nominal size, piping	DN32 - DN200
Connecting thread	R 1 " thread
Digital outputs	1-pin
	Potential-free
	Changeover contact
Medium temperature	-20...120 °C
PN class	PN 10
Ambient temperature, operation	-20...85 °C
Material, valve body	Brass
Degree of protection	IP65
Dimensions (W x H x D)	108 x 70 x 132 mm

Stock no.

Product no.

BPZ:QVE1900

QVE1900

QVE1901



Flow switch for use in hydraulic systems, PN25, DN20...200

For monitoring operation of systems using liquids or gases.

Maximum switching capacity AC 26 VA, DC 20 W

Data sheet	N1594
Digital output, switching voltage	230 VAC, 48 VDC
Digital output, switching current	1 A
Connection, electrical	Screw terminals
Type of fixing	Thread G ½ "
Nominal size, piping	DN20 - DN200
Connecting thread	G ½ " thread
Digital outputs	1-pin
	Potential-free
	On / Off
Medium temperature	-20...110 °C
PN class	PN 25
Ambient temperature, operation	-20...80 °C
Material, valve body	Brass
Degree of protection	IP65
Dimensions (W x H x D)	120 x 38 x 92 mm

Stock no.

Product no.

BPZ:QVE1901

QVE1901

Flow switch for liquids in piping DN 10...25

QVE1902.0..

For monitoring the flow of liquid medium in HVAC plants

Maximum switching capacity AC 26 VA, DC 20 W

Data sheet	N1596
Digital output, switching voltage	AC 230 V, DC 48 V
Digital output, switching current	1 A
Type of fixing	Thread
Digital outputs	1-pin
	Potential-free
	reed contact
Medium temperature	-20...100 °C
Ambient temperature, operation	0...70 °C
Material	Piping: Brass,
	Switching unit: Polyamid,
	Housing and paddle system: PPO Noryl GFN3



Range overview QVE1902.0..

Nominal size, piping	Con- nect. thread ["]	Qmax [l/min]	Stock no.	Product no.
DN 10	G $\frac{3}{8}$	20	S55720-S199	QVE1902.010
DN 15	G $\frac{1}{2}$	30	S55720-S200	QVE1902.015
DN 20	G $\frac{3}{4}$	80	S55720-S201	QVE1902.020
DN 25	G1	130	S55720-S202	QVE1902.025

QVM62.1



Duct sensor for air velocity

For measuring air velocities or volumetric flow in air ducts. Suited for primary plant (presetting the volumetric flow).

Sensor detached, ready wired, including pipe extension for different immersion lengths and mounting flange.

Data sheet	N1932
Operating voltage	AC / DC 24 V
Power consumption	5 VA
Measuring range	0...10 m/s 0...15 m/s 0...5 m/s
Measurement accuracy	At 20 °C, 45 % r.h., 1013 hPa: ±0.65 m/s
Connection, electrical	Screw terminals
Cable length	1 m
Immersion length	30...300 mm
Analog output, signal	DC 0...10 V DC 4...20 mA
Degree of protection	IP42
Dimensions (W x H x D)	86 x 43 x 117 mm

Stock no.

Product no.

BPZ:QVM62.1

QVM62.1

Solar sensor

QLS60

- For measuring the solar radiation intensity.

Data sheet	N1943
Operating voltage	AC 24 V DC 18...30 V
Power consumption	2.5 VA
Measuring range	0...1000 W/m ²
Time constant	≤2 s
Connection, electrical	Screw terminals
Analog output, signal	DC 0...10 V DC 4...20 mA
Degree of protection	IP65
Dimensions (W x H x D)	51 x 92 x 46 mm



	Stock no.	Product no.
	BPZ:QLS60	QLS60