




The ABB i-bus® KNX Air Quality Sensor 1.1 is a combined sensor for CO<sub>2</sub>, temperature and humidity measurement (relative humidity).

Three independent thresholds can be set for the CO<sub>2</sub> concentration and the relative humidity in addition to a threshold for the temperature. Exceeding or under-running the thresholds can trigger an action. A separate communication object Lock threshold x CO<sub>2</sub>

(x = 1, 2 or 3) is available for every threshold. Measured values can be transmitted directly on the bus. The communication object Ventilation can be used for speed control or as a position indicator for ventilation flaps.

The parameterization is undertaken via the ETS. The connection to the KNX is established using the bus connection terminals on the interior of the device.

Technical data

<b>Supply</b>	Bus voltage	21...30 V DC
	Current consumption via bus	< 12 mA
<b>CO<sub>2</sub></b>	Measuring range	300...9,999 ppm
	Accuracy in the range	
	300...1,000 ppm	± 120 ppm of actual indicated value
	1,000...2,000 ppm	± 250 ppm of actual indicated value
<b>Humidity</b>	2,000...5,000 ppm	± 300 ppm of actual indicated value
	Measuring range	1...100 %
<b>Temperature</b>	Accuracy	± 5 % of actual indicated value
	Measuring range	0...40 °C
<b>Connections</b>	Accuracy	± 2 % of actual indicated value
	KNX	Via bus connection terminals, 0.8 mm Ø, solid
<b>Operating and display elements</b>	Button <i>Programming</i> in the device interior	for assignment of the physical address
	LED <i>Programming</i> in the device interior	
	LED	Four-colour (green, yellow, red, blue, depending on the parameterization) to indicate the CO <sub>2</sub> concentration
	LED  (relative humidity)	Four-colour (yellow, green, red, blue, depending on the parameterization) to indicate the relative humidity
<b>Enclosure</b>	IP 20	To EN 60 529
<b>Safety class</b>	III	To EN 60 730-1
<b>Isolation category</b>	Overvoltage category	III to EN 60 664-1
	Pollution degree	2 to EN 60 664-1
<b>KNX safety extra low voltage</b>	SELV 24 V DC	
<b>Temperature range</b>	Operation	-5 °C...+45 °C
	Storage	-10 °C...+60 °C
	Transport	-10 °C...+60 °C
<b>Ambient conditions</b>	Maximum air humidity	93%, no condensation allowed
<b>Design</b>	Device for wall mounting	
	Dimensions	74 x 74 x 28 mm (H x W x D)
<b>Weight</b>	in kg	0.1
<b>Mounting</b>	Surface Mounting (SM), screw mounted	To EN 60 715
<b>Mounting</b>	As required	
<b>Housing/colour</b>	Plastic, white (similar to RAL 9010)	
<b>Approvals</b>	KNX to EN 50 090-1, -2	Registered
<b>CE mark</b>	In accordance with the EMC guideline and low voltage guideline	

Device designation	Application program	Maximum number of communication objects	Maximum number of group addresses	Maximum number of associations
LGS/A 1.1	CO <sub>2</sub> , rel. humidity and temperature/1.0	27	128	128

**Note**

For a detailed description of the application program see "Air Quality Sensor LGS/A 1.1" product manual. It is available free-of-charge at [www.ABB.de/KNX](http://www.ABB.de/KNX).  
ETS from version ETS3.0f or higher is required for programming.  
A \*.VD3 or higher type file must be imported.  
The application program is available in the ETS3 at *ABB/Heating, Ventilation, Air conditioning/Air Quality Sensor*.  
The device does not support the closing function of a KNX device in the ETS. If you inhibit access to all devices of the project with a BCU code, it has no effect on this device.  
Reading out data and programming is still possible.

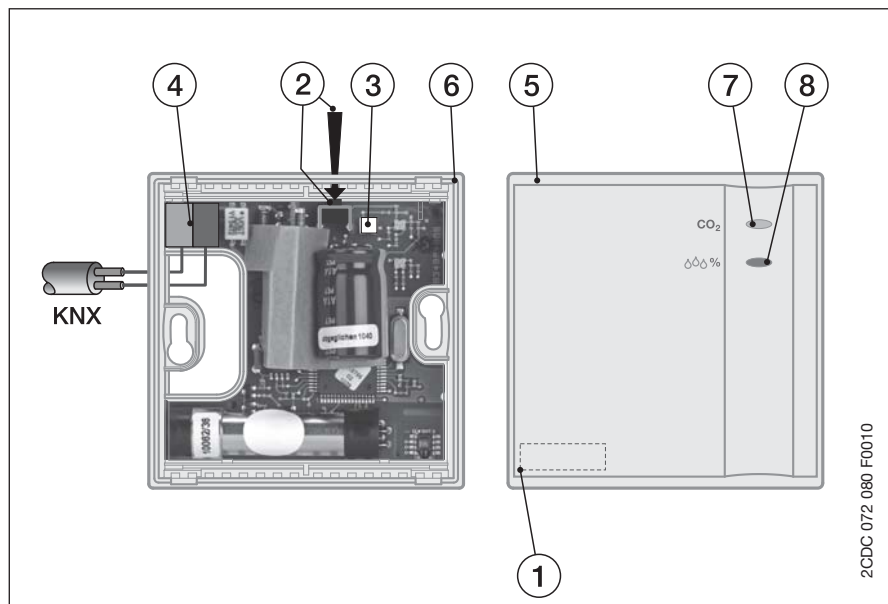
 **Danger**

The Air Quality Sensor is **not** suitable for safety-relevant gas measurements!

**Important**

Safeguard the device against falling. Vibrations can damage the sensor. Damage to the sensor can lead to incorrect measurement results.

Circuit diagram



- 1 Label carrier
- 2 Button *Programming*
- 3 LED *Programming*
- 4 Bus connection terminal
- 5 Housing upper section
- 6 Housing lower section
- 7 LED CO<sub>2</sub> ● (four-colour, CO<sub>2</sub> concentration)
- 8 LED ● (four-colour, relative humidity)

Dimension drawing

