

DETECT IAQ

Carbon dioxide and temperature controller



QUICK FACTS

- Carbon dioxide and temperature controller DETECT IAQ is available in three variants:
 - DETECT IAQa CO₂-TEMP-MB: Detects and checks carbon dioxide accumulations and temperature in room areas.
 - DETECT IAQ OCSa CO₂-TEMP-MB: Detects and checks carbon dioxide accumulations and temperature in room areas. Also detects occupancy.
 - DETECT IAQ Da CO₂-TEMP-MB: Detects and checks carbon dioxide accumulations and temperature in ventilation ducts.

Technical description

Version

DETECT IAQ is a controller that has been designed to detect, check, measure and control carbon dioxide accumulations and temperature in room areas or ventilation ducts.

The controller is available in 3 variants:

- DETECT IAQa CO₂-TEMP-MB: Detects and checks carbon dioxide accumulations and temperature in room areas.
- DETECT IAQ OCSa CO₂-TEMP-MB: Detects and checks carbon dioxide accumulations and temperature in room areas. Also detects occupancy.
- DETECT IAQ Da CO₂-TEMP-MB: Detects and checks carbon dioxide accumulations and temperature in ventilation ducts.

The controller can be used for demand-controlled ventilation.

Commissioning

Using an RS-485 connection, it is possible to connect the transmitter to all systems that support the Modbus RTU protocol. DETECT IAQa TOOL is required to adjust Modbus settings during commissioning.

The self-calibrating ABCLogic™ method eliminates drifting of the measurement value in the event of long-term operation. It is possible to switch off the ABCLogic™ function using DETECT IAQa TOOL.

It is possible to regulate the output signal from the controller, either according to a measurement value or according to a maximum number of values. The controller settings are adjusted using DETECT IAQa TOOL. The output signal from the controller can also be set to a static value during commissioning, for example.

Material and surface treatment

The product is made of ABS plastic.

Maintenance

If necessary, use a dry cloth when cleaning. Never use water, detergent, cleaning solvent or a vacuum cleaner.

Environment

The Building Materials Declaration is available from www.swegon.com.



DETECT IAQa CO₂-TEMP-MB, DETECT IAQ OCSa CO₂-TEMP-MB, DETECT IAQ Da CO₂-TEMP-MB



Figure 1. Accessory, DETECT IAQa TOOL.

Technical data

Power supply:	24 VAC/DC (22...28 V) < 2 VA
Output:	0...10 V / 2...10 V / 0...5 V, < 2 mA
Screw terminals:	1.5 mm ²
Cable gland:	M16 (DETECT IAQ Da CO ₂ -TEMP-MB)
Carbon dioxide measurement	
Range of measurement:	0...2000 ppm
Accuracy (25°C):	type ±40 ppm +3% from read value (ABCLogic™)
Long-term stability/year:	< 2% FS (ABCLogic™)
Time constant:	< 2 min
Temperature measurement	
Range of measurement:	0...50 °C
Accuracy (25°C):	±0.5°C
IP class	
DETECT IAQa CO ₂ -TEMP-MB/ DETECT IAQ OCSa CO ₂ -TEMP-MB:	IP20
DETECT IAQ Da CO ₂ -TEMP-MB:	IP54
Operating conditions	
Temperature:	0...+50°C
Humidity:	0...85% RH, non-condensing

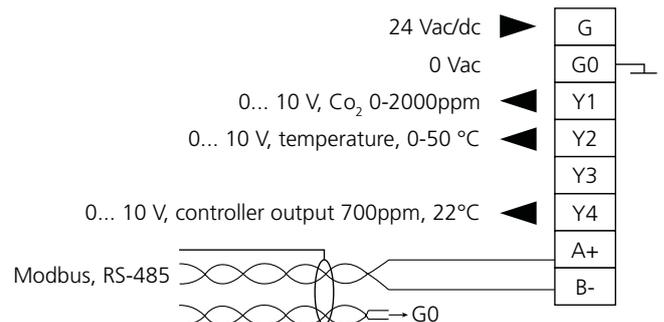


Figure 2. Connection.

Dimensions

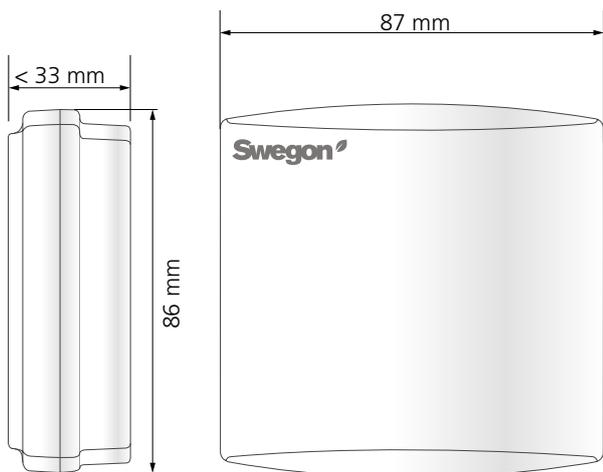


Figure 3. Dimensions, DETECT IAQa CO₂-TEMP-MB and DETECT IAQ OCSa CO₂-TEMP-MB.

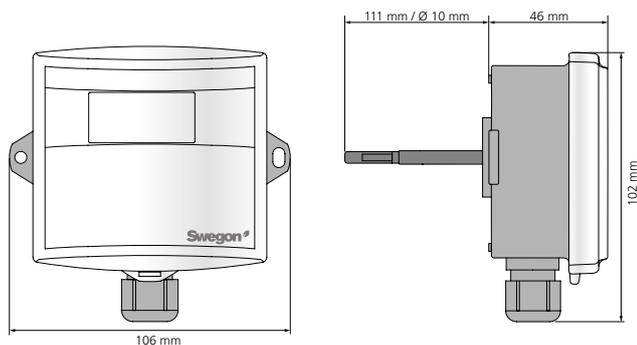


Figure 4. Dimensions, DETECT IAQ Da CO₂-TEMP-MB.

Ordering key

Product

Carbon dioxide and temperature controller for room area DETECT IAQa CO₂-TEMP-MB a

Version:

Carbon dioxide and temperature controller with PIR for room area DETECT IAQ OCSa CO₂-TEMP-MB a

Version:

Carbon dioxide and temperature controller for ventilation duct DETECT IAQ Da CO₂-TEMP-MB a

Version:

Commissioning tool for controller DETECT IAQa TOOL a

Version:

Specification text

Carbon dioxide and temperature controller with the following functions:

- The controller is available in 3 variants:
 - DETECT IAQa CO₂-TEMP-MB: Detects and checks carbon dioxide accumulations and temperature in room areas.
 - DETECT IAQ OCSa CO₂-TEMP-MB: Detects and checks carbon dioxide accumulations and temperature in room areas. Also detects occupancy.
 - DETECT IAQ Da CO₂-TEMP-MB: Detects and checks carbon dioxide accumulations and temperature in ventilation ducts.
- Can be used for demand-controlled ventilation.

Specification

Measurement range, temperature:	0...50 °C
Measurement range, CO ₂ :	0...2000 ppm
Controller output:	22°C, 700 ppm
Power supply:	24 VAC/DC (22...28 V) < 2 VA
IP class	
DETECT IAQa CO ₂ -TEMP-MB/	IP20
DETECT IAQ OCSa CO ₂ -TEMP-MB:	
DETECT IAQ Da CO ₂ -TEMP-MB:	IP54

Type:	DETECT IAQa CO ₂ -TEMP-MB	xx pcs
	DETECT IAQ OCSa CO ₂ -TEMP-MB	xx pcs
	DETECT IAQ Da CO ₂ -TEMP-MB	xx pcs