The GRW1-Series (VOC) is designed to measure the air quality in rooms or areas. The air quality is measured based on VOC levels (VOC= volatile organic compounds= mixed gases). The air quality sensor output is active.

Use

Compatible to all common HVAC DDC and Analog Controls systems, with/without Building Automation System

Air quality (VOC) measurements in rooms or a

Used in all common HVAC applications

Used in Commercial and Industrial Buildings

Features

Sensor with active output

On-site calibration possibility for air quality output

Professional and practical product design, withstands rough environmental conditions

Easy to use, install and maintain

Product Range

Model	Sensor Output	Sensor Type
	0-10V	VOC
GRW1.AA	•	•

Sensor Specification	Sensor Specification	Measured	Gases VOC
		Sensor Characteristics	Active
		Sensor Output (s)	See Product Range, Page 1
		Output Load	Min. load 10kΩ @ AC/DC 24V
		Measuring Range (s)	0...100% VOC
		Max. Over Pressure	0...100% VOC
Technical Information	Electrical Information	Power Supply	AC 15-24V (±10%) or DC 24V (±10%)
		Frequency	50 / 60 Hz at AC 24V
		Terminal Clamp	Screw terminal, max. 1.5mm²
		Power Consumption	24V; 1.2W / 2.2VA
	Mechanical Information	Cable Entry	~30mm x 10mm on the backside
		Sensing Element Position	Inside the housing, top of the housing
	User Interface	Set Point Adjustments	Calibration point reset
		Display	Red LED illuminated = Adjust calibration point
	Color and Materials	Housing Cover	White ASA, RAL 9010 (Pure White)
		Housing Bottom	White ASA, RAL 9010 (Pure White)
	Environmental Condition	Operation Temperature	-25°C...+70°C
		Operation Humidity	<85% r.h., no condensation
		Transport Temperature	-35°C...+70°C
		Transport Humidity	< 90% r.h.
		Storage Temperature	-10°C...+70°C
		Storage Humidity	< 85% r.h., no condensation
	Norms and Directives	IP- Rating	IP30 to IEC60529
		Safety Class	III to EN 60 730
		Product Standard 1	Automatic Electric. Controls for household and similar use
		Product Standard 2	2009/EN 60 730-1
		CE Conformities to	2004/108/EG Electromagnetic Compatibility EMV
		CE Electromagnetic Compatibility Emitted Interference	2000/EN60730-1 Emitted Interference
		CE Electromagnetic Compatibility Interference resistance	2000/EN60730-1 Interference Resistance
		RoHS Compatibility	RoHS 2011/65/EC
		Operation Climatic Condition	IEC 60 721-3-3
		Operation Mechanical Condition	IEC 60 721-3-2 to class2M2
		Transport to Climatic Condition	IEC 60 721-3-2
		Transport Mechanical Condition	IEC 60 721-3-2 to class2M2
		Storage Climatic Condition	IEC 60 721-3-1
		Storage Mechanical Condition	IEC 60 721-3-1 to class2M2

Connection

Terminal Connection

1	2	3
VOC Out 0...10V	24V AC/DC	GND

GDI1.AA

Miscellanies

Accessories	None	
Shipping & Handling	Minimum Order	1 box with 1 piece
	Product Dimension (L x W x H) / Weight	85mm x 85mm x 26mm / 65gr.
	Transport and Storage dimension (L x W x H) / Weight	90mm x 90mm x 35mm / 85gr.
	Package Material	Rigid Cardboards Packaging
Order Notes	Order Code	See Product Range, Page 1, e.g. GRW1.AA

Advices

Security Advice

⚠ Caution

The installation and assembly of electrical equipment may only be performed by a skilled electrician.

The products must not be used in any relation with equipment that supports, directly or indirectly, human health, life or with applications that can result in danger for people, animals or real value.

Mounting Advices

⚠ Caution

Mounted with screws and wall plugs onto a smooth wall surface.

For wiring, the Snap-On lid must be separated from the base plate.

The end of the installation tube in the flush box must be sealed, if the device is mounted on standard flush box.

Installation Notes

⚠ Caution

The product must be installed at a suitable place and within the range of validity of the local electrical installation laws and regulations.

Installation place must be made on representative places to measure VOC concentration, to avoid a falsification of the measuring result.

Solar radiation and draught should be avoided.

Commissioning Notes

⚠ Caution

Sensing devices with transducers should in principle be operated in the middle of the measuring range.

The ambient temperature of the transducer electronics should be kept constant.

When switching the supply voltage on/off, power surges must be avoided on site.

Dimensional Drawing