
 TI2410en	Product Information	
GRW1- Series (PM)	Air Quality (Fine Dust, PM2.5) Room Sensor with Active Output	

The GRW1- Series (PM) is designed to measure fine dust concentrations (PM2.5)

in rooms or areas

Available with or without display

The Sensor outputs are 0...10V and 4...20mA

The sensor operates with low power supply

The sensor outputs are active



Use	<p>Compatible to all common HVAC, DDC and Analog Controls systems, with/without Building Automation System</p> <p>Air quality (PM2.5) measurements in rooms or areas</p> <p>Used in all common HVAC applications</p> <p>Used in Commercial and Industrial Buildings</p>
------------	---

Features	<p>Sensor with active outputs</p> <p>Sensor Outputs 0...10V and 4...20mA</p> <p>Professional and practical product design, withstands rough environmental conditions</p> <p>Easy to use, install and maintain</p>
-----------------	---

Product Range	<table border="1" style="width: 100%; text-align: center;"> <thead> <tr> <th data-bbox="167 1467 336 1709">Order Code</th> <th data-bbox="336 1467 590 1709">Power Supply</th> <th data-bbox="590 1467 801 1709">Measuring Range</th> <th data-bbox="801 1467 1011 1709">Sensor Output</th> <th data-bbox="1011 1467 1222 1709">Display</th> <th data-bbox="1222 1467 1433 1709">Protection</th> </tr> </thead> <tbody> <tr> <td data-bbox="167 1709 336 1870">GRW1.RB</td> <td data-bbox="336 1709 590 2033" rowspan="2">AC/DC 24V (±10%)</td> <td data-bbox="590 1709 801 2033" rowspan="2">0...500 µg/m³</td> <td data-bbox="801 1709 1011 2033" rowspan="2">0...10V and 4...20mA</td> <td data-bbox="1011 1709 1222 1870">n/a</td> <td data-bbox="1222 1709 1433 2033" rowspan="2">IP20 to IEC60529</td> </tr> <tr> <td data-bbox="167 1870 336 2033">GRW1.SB</td> <td data-bbox="1011 1870 1222 2033">LCD Display</td> </tr> </tbody> </table>						Order Code	Power Supply	Measuring Range	Sensor Output	Display	Protection	GRW1.RB	AC/DC 24V (±10%)	0...500 µg/m ³	0...10V and 4...20mA	n/a	IP20 to IEC60529	GRW1.SB	LCD Display
Order Code	Power Supply	Measuring Range	Sensor Output	Display	Protection															
GRW1.RB	AC/DC 24V (±10%)	0...500 µg/m ³	0...10V and 4...20mA	n/a	IP20 to IEC60529															
GRW1.SB				LCD Display																

All Information and technical data are subject to alternation

Sensor Specification	Sensor Specification	Measured	PM2.5	
		Sensor Characteristics	Active	
		Sensor Output (s)	0...10V and 4...20mA	
		Resolution	1 µg	
		Response time	<10sec.	
		Accuracy	±10% of reading	
		Measuring Range (s)	0..500µg/m3	
Technical Information	Electrical Information	Power Supply	AC/DC 24V (±10%)	
		Frequency	50 / 60 Hz at AC 24V	
		Load Resistance	≤500Ω, (4...20mA output)	
		Load Resistance	≥2000Ω,(0...10Output)	
		Terminal Clamp	Screw terminal, max. 1.5mm ²	
		Power Consumption	24V; 1.2W / 2.2VA	
	Mechanical Information	Cable Entry	ø23mm on the backside	
		Sensing Element Position	Inside the housing	
	Color and Materials	Housing Cover	White ABS	
		Housing Bottom	White ABS	
		Display GRW1.SB	LCD display with backlight	
	Environmental Conditions	Operation Temperature	0°C...+50°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	IP20 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	
	Miscellanies	Accessories	n/a	n/a
		Shipping & Handling	Minimum Order	1 box with 1 piece
Product Dimension (L x W x H) / Weight			115mm x 83mm x 30mm / 123gr.	
Transport and Storage dimension (L x W x H) / Weight			125mm x 100mm x 45mm / 157gr.	
		Package Material	Rigid Cardboards Packaging	
Order Notes		Order Code	e.g. GRW1.SB	

All information and technical data are subject to alternation

Installation Notes Observe the following general regulation for engineering and implementation:



All relevant national and heavy power regulation

Other country specific regulations

Country-specific regulations

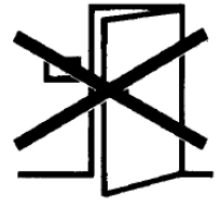
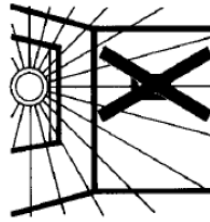
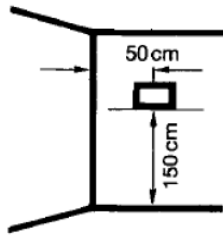
Local electrical supply authority regulation

Schematics, cable listings, dispositions, specification and arrangements from the customer or engineering office in charge

Third party specifications, e.g. general contractors or constructors

Advices

Mounting Advices



Disposal Notes



The device is considered an electronic device for disposal in terms of the EUROPEAN DIRECTIVE 2012/19/EU.

The Device may not be disposed as domestic garbage.

The device must be disposed through channels provided for this purpose.

It is mandatory to complying with local currently applying laws and regulations.

Connection

Power Supply		Sensor Outputs	
UB+	24V AC/DC	0...10V (PM2.5)	4...20mA (PM2.5)
T1	T2	T3	T4

Connections

