



TI2307en

**Product Information****thermokon**  
asia pacific**GRW1- Series  
(CO&T)****Air Quality (Carbon Monoxide- CO) and Temperature Sensor  
with Active Output**

The GRW1- Series (CO&amp;T) is designed to measure Carbon Monoxide (CO)

concentrations and temperatures in rooms or areas

Available with or without display

The sensor outputs are 0...10V or 4...20mA

The sensor operates with low power supply

The sensor outputs are active

**Use**

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

Air quality (CO) measurements in rooms or areas

Used in all common HVAC applications

Used in Commercial and Industrial Buildings

**Features**

Sensor with active outputs

Sensor Output 0...10V and 4...20mA

Professional and practical product design, withstands rough environmental conditions

Easy to use, install and maintain

**Product Range**

Order Code	Power Supply	Measuring Range	Sensor Element	Air Quality and Temperature	Temperature Range / Accuracy	Display	IP Rating
GRW1.MB	AC/DC 24V ±10%	0...100 PPM	Electro Chemical Gas Detection	0...10V* or 4...20mA	0...50°C / ±0.5°C	n/a	IP20
GRW1.OB						LCD	
GRW1.NB		0...400 PPM				n/a	
GRW1.PB						LCD	

\*default

All Information and technical data are subject to alternation

<b>Sensor Specification</b>	Sensor Specification	Measured	Gases CO and Temperature
		Sensor Characteristics	Active
		Sensor Output (CO/Temp)	0...10V ; 4...20mA
		Sensor Element Co	Electro Chemical Gas Detection
		Accuracy CO	±5% Full Scale at 25°C
		Accuracy TEMP	±5% Full Scale at 25°C
		Response Time (t63) CO	<1 min.
		Reputability CO	±3% Full Scale
		Measuring Range (s) (CO/Temp)	0...100 or 0...400PPM CO / 0...50°C
<b>Technical Information</b>	Electrical Information	Power Supply	AC/DC 24V (±10%)
		Frequency	50 / 60 Hz at AC 24V
		Terminal Clamp	Screw terminal, max. 1.5mm <sup>2</sup>
		Power Consumption	24V; 1.2W / 2.2VA (LCD)
	Mechanical Information	Cable Entry	~30mm x 10mm on the backside
		Sensing Element Position	Inside the housing
	Color and Materials	Housing Cover	White ASA, RAL 9010 (Pure White)
		Housing Bottom	White ASA, RAL 9010 (Pure White)
	Environmental Conditions	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	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
		0...400 PPM	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 3, Directive 2015/863
		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		
<b>Miscellaneous</b>	Accessories	n/a	n/a
	Shipping & Handling	Minimum Order	1 box with 1 piece
		Package Material	Rigid Cardboards Packaging
	Order Notes	Order Code	e.g. GRW1.MB

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### Installation Note



Observe the following general regulation for engineering and implementation:

All relevant national and heavy power regulations

Other country specific regulations

Country-specific regulations

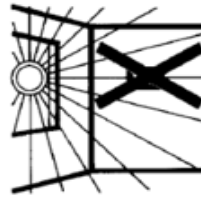
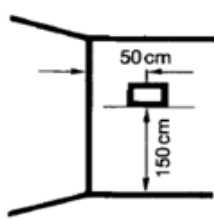
Local electrical supply authority regulation

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 Advice



### Disposal Notes



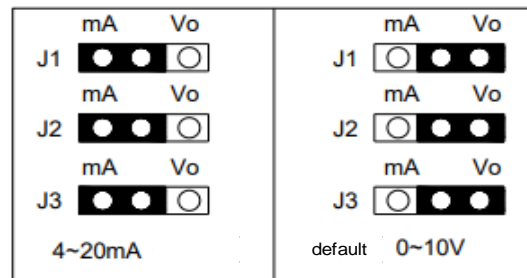
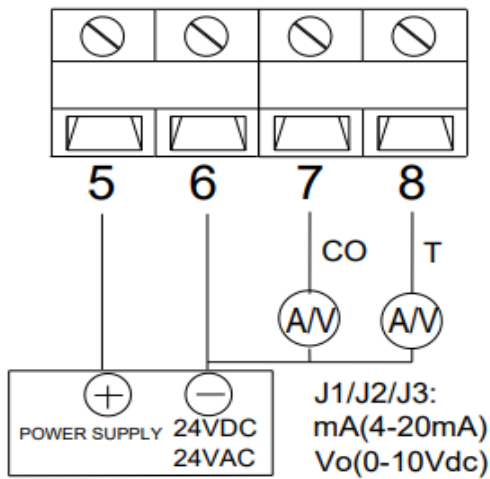
The device is considered an electronic device for disposal in terms of the EUROPEAN DIRECTIVE 2012/19/EU

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



Dimensional Drawing

