TI2420en	**Product Information**	thermokon asia pacific
GDI1- Series (PM)	**Fine Dust (PM2.5 or PM10) Sensor with Active Output**	

The GDI1-Series (PM) is designed to measure fine dust concentrations (PM2.5 or PM10) in

Air- Duct Systems

The sensor has 0…10V and 4…20mA outputs on board

The sensor operates with low power supply

The sensor output is active

USE

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

Air quality (PM) measurements in duct systems

Used in all common HVAC applications

Used in Commercial and Industrial Buildings

Features

Sensor with active output

Sensor outputs 0….10V and 4…20mA on board

Professional and practical product design, withstands rough environmental conditions

Easy to use, install and maintain

Product Range

Order Code	Power Supply	Measured	Measuring Range	Accuracy	Sensor Output	Immersion Pocket	Protection
GDI1.RE	AC/DC 24V	Dust Particle ≤2.5 micron	PM 2.5 0…500 µg/m3	±10µg/m3 +10% of reading	0…10V and 4…20mA	Ø17mm x125mm	IP54 to IEC60529
GDI1.TE		Dust Particle ≤10 micron	PM 10 0…600 µg/m3				

Sensor Specification	Sensor Specification	Measured	Particle PM2.5 (Dust Particle ≤2.5 micron) Particle PM10 (Dust Particle ≤10micron)
		Sensor Characteristics	Active
		Sensor Output (s)	0…10V / 4…20mA
		Accuracy	±10µg/m3 +10% of reading
		Resolution	1µg/m3
		Response Time	<10sec.
		Measuring Range (s)	500µg/m3 or 600µg/m3
Technical Information	Electrical Information	Power Supply	AC/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	M10
		Sensor Pipe Diameter	Ø17mm
		Sensor Pipe Length	125mm
		Sensing Element Position	Inside the housing
	Color and Materials	Housing Cover	White ABS
		Housing Bottom	Grey ABS
		Immersion Pocket	Grey PC
	Environmental Conditions	Operation Temperat	-25ºC...+70ºC
		Operation Humidity	<85% r.h., no condensation
		Transport Temperat	-35ºC...+70ºC
		Transport Humidity	< 90% r.h.
		Storage Temperature	-10ºC...+70ºC
		Storage Humidity	< 85% r.h., no condensation
	Norms and Directives	IP- Rating	IP54 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 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
Miscellaneous	Accessories	None	
	Shipping & Handling	Minimum Order	1 box with 1 piece
		Package Material	Rigid Cardboards Packaging
	Order Notes	Order Code	GDI1.RE

Advices

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

Caution

All relevant national and heavy power regulation

Other country specific regulations

Country-specific regulations

Local electrical supply authority regulation

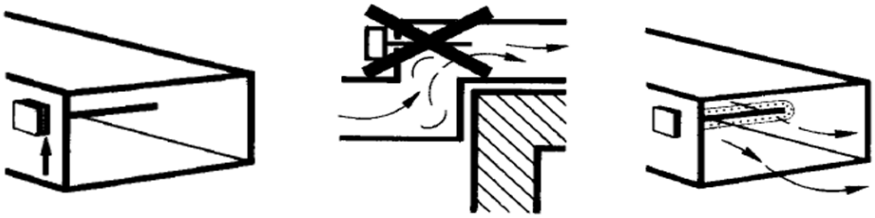
Schematics, cable listings, dispositions, specification and arrangements

from the customer or engineering office in charge

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

Mounting Advices

Caution



Disposal Notes

The device is considered an electronic device for disposal in terms of the

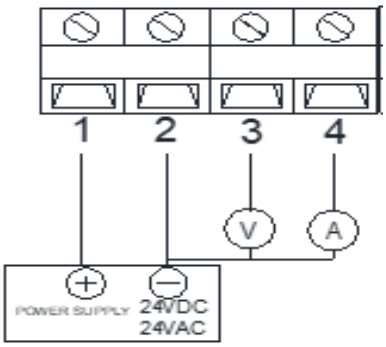
EUROPEAN DIRECTIVE 2012/19/EU.

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