CE

GMTRB005D-H-xx

TRIBOELECTRIC PROBE 4–20 mA
FOR MEASURING DUST CONCENTRATIONS
– TEMPERATURE LESS THAN 220°C

Resolution 0.1 mg/m³
2 alarm thresholds: • 5 mg/m³
                     • 10 mg/m³
Minimum air flow speed: 4 m/s
Minimum particle size: 0.3 µm
Ambient temperature for electronics: –20°C – +65°C
3 opto-isolated outputs with solid state relays + RS485 serial output
Analog output 4–20mA: 4mA @ 0mg/m³, 20mA @ 10mg/m³
Power: 24Vdc
Protection: IP65
Die-cast aluminium enclosure painted RAL 3000 DIN A
Measurement stylus in AISI 304 steel – Ø = 8 mm – L = 250 mm from point 'A' *
[the stylus can be lengthened with extensions]
Attachment: ¾" male gas stub pipe

GMTRB005D-H-EX
Complies with **ATEX Directive 2014/34/EU – Category 3D**
Maximum stylus operating temperature: 220°C

Ex ATEX

GMTRB005D-H-EX-FM
Complies with **ATEX Directive 2014/34/EU – Category 3D/3G**
Maximum stylus operating temperature: 220°C
FM APPROVED Certified

Ex ATEX   FM APPROVED

* To calculate the correct stylus
measurement (with possible extensions),
start from point 'A'.

Ⓐ   Ø 8 mm

L = 250 mm   L = xxx mm
              (GMPRLxxx - optional)
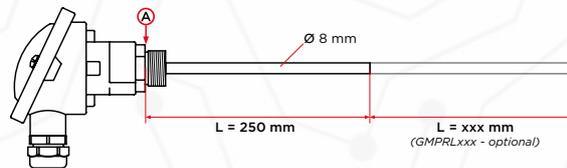
Table

MODEL	RESOLUTION	THRESHOLD 1	THRESHOLD 2	OUTPUT 4-20mA	LOWER END OF SCALE@20mA	SELF-ACQUISITION	RS485
GMTRB005D	0.1 mg/m³	5 mg/m³	10 mg/m³	YES	10/50 mg/m³	NO	YES

DIMENSIONS:

90mm

22mm

250mm

8mm

90mm

95mm

The Technical and Commercial offices are at full disposal for any other inquiry.

Industrial measurements: TRIBOELECTRIC PROBES
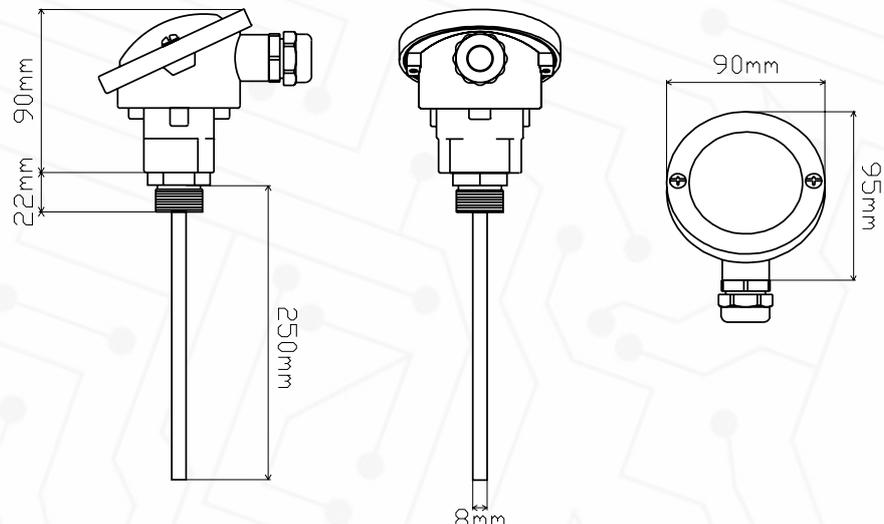
TECHNICAL SPECIFICATIONS

Power supply	24Vdc ± 10%
Maximum absorbed power	1 W
Resolution	0.1 mg/m³ *(See table)*
Range setting	Automatic/manual
Dust particle size	> 0.3 μm
Type of measurable products	Dust particles in gaseous fluid
Flow speed	> 4 m/s
Measurement principle	Charge displacement
Alarm threshold 3 (Fault)	Automatically activated by the test function
Alarm outputs	2 opto-isolated outputs with solid state relay, protected with resettable fuses
Maximum output current	100mA
Maximum voltage applicable to the outputs	48V
Output functions	Set normally closed or normally open Common to negative or positive
Probe operating temperature	< 220°C
Probe operating pressure	< 2 bar
Electrode material	AISI 304 stainless steel
Stylus diameter	Standard 8 mm
Die-cast	Aluminium enclosure
Humidity	< 95% non-condensing.
Ambient temperature for electronics	–20°C – +65°C
Dimensions	DIN A
Measurable elements	All non-aggressive gases
Electrical connection	One 3-pole terminal block + one 6-pole terminal block
Mechanical connection	3/4" G
Protection rating	IP 65
Display	4 LED
Output 4–20 mA	Opto-isolated Max load 500Ω
Serial output	RS485 with two wires
Certifications	CE/ATEX ZONE 22 D

ACCESSORIES:

EXTENSION FOR TRIBOELECTRIC PROBE STYLUS:
GMPRL001-I - Length: 100mm Ø = 8 mm
GMPRL002-I - Length: 200mm Ø = 8 mm
GMPRL004-I - Length: 400mm Ø = 8 mm

GMTRB-F3-34
Joint to attach the triboelectric probe

GMTRB-FX1-34
MOUNTING KIT for all versions of triboelectric probes. Suitable for installation in zones **classified ATEX: Category 2D/2G**

ATEX

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