Industrial measurements: TRIBOELECTRIC PROBES

GMTRB006D-EX-ISxx

HIGH RESOLUTION TRIBOELECTRIC PROBE 4-20mA FOR MEASURING DUST CONCENTRATIONS WITH STYLUS COMPLETELY COATED IN PTFE

FOR DAMP AND/OR AGGRESSIVE ENVIRONMENTS

Resolution 0.01 mg/m³

2 alarm thresholds: • 1 mg/m³

• 2 mg/m³

Minimum air flow speed: 4 m/s Minimum particle size: 0.3 µm

Maximum operating temperature: 220°C

3 opto-isolated outputs with solid state relays + RS485 serial output +

Analog output 4-20mA: 4mA @ Omg/m³, 20mA @ 2mg/m³

Power: 24Vdc **Protection: IP65**

Die-cast aluminium enclosure painted RAL 3000

Measurement stylus in AISI 304 steel completely coated in PTFE - \emptyset = 21 mm Maximum length of isolated stylus L = 1950 mm as measured from point 'A' *

Attachment: 3/4" male gas stub pipe

Complies with ATEX Directive 2014/34/EU - Category 3D/3G

specify the pipe diameter when ordering

GMTRB006D-EX-IS01 - For pipes up to Ø=250 mm

GMTRB006D-EX-IS02 - For pipes from Ø=280 mm to Ø=600 mm

GMTRB006D-EX-IS03 - For pipes from Ø=650 mm to Ø=900 mm

GMTRB006D-EX-IS04 - For pipes from Ø=950 mm to Ø=2000 mm

Complies with ATEX Directive 2014/34/EU - Category 3D/3G FM APPROVED Certified

specify the pipe diameter when ordering

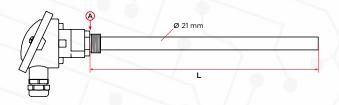
GMTRB006D-EX-IS01-FM - For pipes up to Ø=250 mm

GMTRB006D-EX-IS02-FM - For pipes from Ø=280 mm to Ø=600 mm

GMTRB006D-EX-IS03-FM - For pipes from Ø=650 mm to Ø=900 mm

GMTRB006D-EX-IS04-FM - For pipes from Ø=950 mm to Ø=2000 mm

* To calculate the correct isolated stylus length, start from point 'A'.

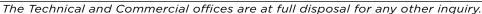


Table

MODEL	RESOLUTION	THRESHOLD 1	THRESHOLD 2	OUTPUT 4-20mA	LOWER END OF SCALE@20mA	SELF-ACQUISITION	RS485
GMTRB006D	0.01 mg/m ³	1 mg/m ³	2 mg/m ³	YES	2/10 mg/m ³	NO	YES



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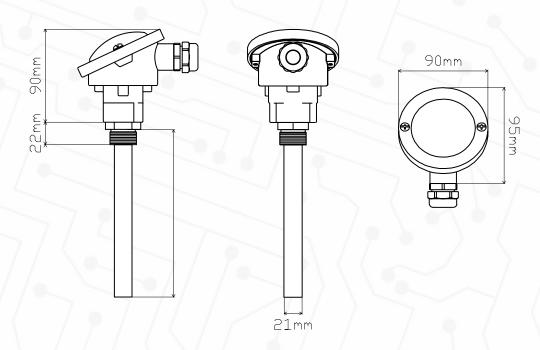


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TECHNICAL SPECIFICATIONS

Power supply	24Vdc ± 10%		
Maximum absorbed power	1 W		
Resolution	0.01 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 21 mm		
Die-cast	Aluminium enclosure		
Humidity	100% condensing, only on the stylus.		
Ambient temperature for electronics	-20°C - +65°C		
Dimensions	DIN A		
Measurable elements	All non-aggressive and or moist 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		

DIMENSIONS:





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