

Micro Motion® Model 4200 Transmitter

ATEX Zone 2/22 Installation Instructions
II 3 G EPL Gc & II 3 D/EPL Dc





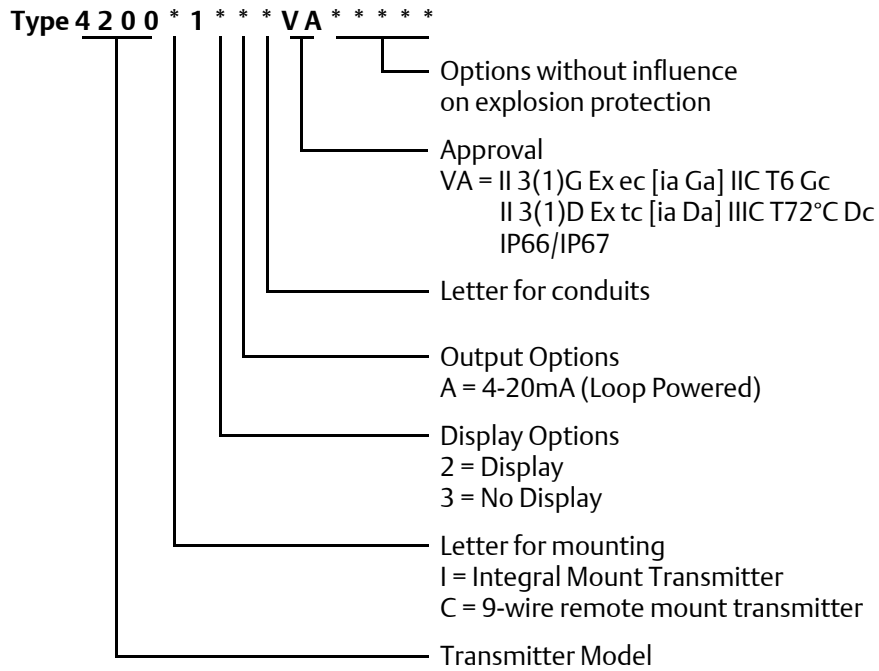
Subject:	Equipment type	Transmitter type 4200*****VA*****		
Manufactured and submitted for examination		Micro Motion, Inc.		
Address		7070 Winchester Circle Boulder, Co. 80301, USA		
Basis for examination		Annex II of Directive 2014/34/EU		
Standard basis		EN IEC 60079-0:2018	General requirements	
		EN IEC 60079-7:2015/A1:2018	Increased Safety	'ec'
		EN-60079-31:2014	Dust Enclosure	't'
		EN 61010-1:2010	Electrical Safety	
Code for type of protection		II 3(1)G Ex ec[ia Ga] IIC T6 Gc II 3(1)D Ex tc [ia Da] IIIC T72°C Dc IP66/IP67		
Type Examination Certificate		SIRA 19 ATEX 3009 X		

THIS COMPONENT MUST COMPLY WITH REGULATORY AGENCY REQUIREMENTS. NO CHANGES ARE ALLOWED WITHOUT PRIOR AUTHORIZATION FROM MICRO MOTION APPROVALS ENGINEERING

Model Designation

1) Transmitter type 4200 * * * * VA * * * * *

Instead of the * * * in the complete denomination letters and numerals will be inserted which characterize the following variations:



2) Description

- The transmitter is, in combination with a sensor, used for measurement of mass flow and data transmission.
- The electrical circuitry of the transmitters is mounted inside a metal enclosure which is divided into three compartments.
- The terminal compartment is equipped with terminals for the connection of I/O signals and power.
- The enclosure can be constructed with a terminal compartment for the connection of remotely operating non-sparking “nA, nC” safe sensors (type 4200C***VA****).
- Alternatively, the enclosure can be mounted directly to the sensor via a transition compartment (type 4200I***VA****). This type of mounting has to be certified separately.
- The transmitter is intended to be used in a hazardous dust environment without change to any of the electronics aspects of the design.

3) Parameters

3.1 I/O circuits:

3.1.1	for type 4200*****VA***** (J2, terminal 1 - 4)				
	nom. voltage		DC	30	V
	max. voltage	Um		250	V

3.2 Sensor circuits for type 4200*****VA*****:

3.2.1	Drive circuit; (J2 in J-box, DR+ BRN; DR- RED)				
	voltage	Uo	DC	6,51	V
	current; steady state	Io		136	mA


3.2.2	Pick-off circuits (J1 in J-box, LPO+ GRN; LPO- WHT; RPO+ BLU; RPO- GRY)				
	voltage	Uo	DC	6,51	V
	current	Io		2,63	mA

3.2.3	Temperature circuit (J1 in J-box, RTD+ VIO; RTD- ORA; RTD-SIG YEL)				
	voltage	Uo	DC	6,51	V
	current	Io		12,3	mA

3.3 Ambient temperature range

Type 4200*1*****	Ta				-40°C to +65°C
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4) Marking

type	type of protection
4200*****VA*****	 II 3(1)G Ex ec [ia Ga] IIC T6 Gc II 3(1)D Ex tc [ia Da] IIIC T72°C Dc IP66/IP67

5) Special conditions for safe use / Installation instructions

- 5.1 For hazardous area installations, refer to EN 60079-14 or other required national standards.
- 5.2 For the application of the transmitter in an ambient temperature of less than -20°C suitable cable and cable entries or conduit entries certified for this condition shall be used.
- 5.3 Enclosure entries can be used for double compression Ex-d IIC Gb/Ex tb IIIC Db cable glands such as but not limited to Hawke 501/453 intended for use with effective filled and circular armored or braided cable; volume of the Ex-d enclosure is less than 2 liters
- 5.4 If certified conduit entries are used for the connection of the transmitter enclosure, the associated stopping boxes shall be installed immediately at the enclosure.
- 5.5 To maintain IP Rating of the Transmitter all cable entries, blanking elements or thread adapters must be rated IP66/IP67 minimum.
- 5.6 The window covers forms one unit and cannot be taken apart without destroying the cover parts. If a cover is damaged it must be replaced by a new cover.
- 5.7 The dimensions of the flameproof joints are in parts other than the relevant minimum or maximum values of EN 60079-1:2014. For information on the dimensions of the flameproof joints contact the manufacturer.
- 5.8 For model 4200*1*****: wiring to the Ex-e terminals shall be in compliance with the applicable Ex-e installation instructions attached below:



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- 5.9 For J2 Screw terminal connections 1-4:
 - Conductors: Solid or Stranded
 - Wire Strip Length: 0.28" (7mm)
 - Screw Torque: 0.37 - 0.44 lb ft (0.5 - 0.6 Nm)
 - One wire: 26 - 14 AWG (0.129 - 2.08 mm²)
 - Two wires: 26 - 17 AWG (0.129 - 1.04 mm²)

- 5.10 Per EN 61010 clause 5.4.2d:
 - 5.10.1 Pollution degree 4;
 - 5.10.2 Installation category I;
 - 5.10.3 Altitude 6562 feet (2000m);
 - 5.10.4 The humidity limits are 5 to 95% relative humidity, non-condensing between -40 °F (-40 °C) to 149 °F (65 °C).
 - 5.10.5 Electrical supply 30V (Loop powered)
 - 5.10.6 Suitable for use outdoors within the limits and rating described herein
 - 5.10.7 Temperature Range -40 °F (-40 °C) to +149 °F (+65 °C);
 - 5.10.8 Supply voltage fluctuations are not to exceed $\pm 10\%$ of the nominal supply voltage
 - 5.10.9 Use of this equipment in a manner not specified by the manufacturer, the protection provided by equipment may be impaired.

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