



Translation

EC-Type Examination Certificate

- (1) **EC-Type Examination Certificate**
- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 06 ATEX E 086 X**
- (4) Equipment: **Solid flow meter type MFS 3000T**
- (5) Manufacturer: **MüTec Instruments GmbH**
- (6) Address: **21220 Seevetal, Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (8) The certification body of EXAM BBG Prüf- und Zertifizier GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the test and assessment report BVS PP 06.2075 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
 - EN 60079-15 :2003 Type of Protection 'n'**
 - EN 50281-1-1:1998 +A1 Dust explosion protection**
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.
- (11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
- (12) The marking of the equipment shall include the following:

II 3G Ex nA II T4
II 1/2 D IP67 T 130°C

EXAM BBG Prüf- und Zertifizier GmbH
 Bochum, dated 14th July 2006

Signed: Migenda

Signed: Dr. Wittler

 Certification body

 Special services unit

- (13) Appendix to
- (14) **EC-Type Examination Certificate
BVS 06 ATEX E 086 X**
- (15) 15.1 Subject and type

Solid flow meter type MFS 3000T

15.2 Description

The solid flow meter of type MFS 3000T is used for flow measurement of solid bulk goods in metallic pipes of either pneumatic transport or free fall condition.
The flow meter is equipped with a microwave sensor operating at frequencies between 24.00 GHz and 24.25 GHz.

The flow meter consists of an enclosure for the electronics and an enclosure rod with sensor.

The entire flow meter meets the requirements category 3G equipment.
If the equipment is used in atmospheres where explosive dusts are present, the electronics enclosure meets the requirements for category 2D, whereas the sensor meets the requirements for category 1D.

15.3 Parameters

15.3.1	Electrical data				
15.3.1.1	Supply				
	Voltage	DC	16 ... 24	V	
	Current			25	mA
15.3.1.2	RS485-interface circuit				
	Voltage	DC		6	V
	Current			50	mA
15.3.1.3	Heating circuit				
	Voltage	DC		20	V
	Current			500	mA
15.3.2	Thermal data				
15.3.2.1	Category 3G				
	Permitted ambient temperature			-10°C...+70°C	
15.3.2.2	Categories 1/2D				
	Permitted ambient temperature				
	at the electronics enclosure (category 2D)			-10°C...+70°C	
	Permitted ambient temperature				
	at the sensor (category 1D)			-20°C...+90°C	
	Max. surface temperature T				
	limited by temperature fuse to				130 °C
15.3.3	Degrees of protection according to EN 60529				IP67

- (16) Test and assessment report
- BVS PP 06.2075 EG as of 14.07.2006



EG-Konformitätserklärung

EG-certificate of conformity

Mütec Instruments GmbH
Bei den Kämpfen 26
D-21220 Seevetal
Germany

Dokument-Nr.
Document-No.

EG-200326

Produktbezeichnung
Product description

Sonde für Durchflussmessung

Typ
Type

MFS 3000-T

Der Hersteller erklärt hiermit in alleiniger Verantwortung, dass das bezeichnete Produkt mit den Vorschriften folgender Europäischer Richtlinien oder Normen übereinstimmt:

The product specified by „Product description“ and „Type“ fulfils the requirement of the below mentioned EC-Directive. Unauthorised product modification make this declaration invalid.

Explosionsschutzrichtlinie
Explosion protection guideline

94/9/EG

Norm

EN 60079-15:2003
EN 50281-1-1:1998+A1

EMV-Richtlinie
EMV-guideline

89/336/EG

Norm

EN 61326: 1998
EN 61326/A1: 1999
EN 61010-1

Außerdem entspricht es den Vorschriften des Gesetzes über die elektromagnetische Verträglichkeit von Geräten (EMVG) von 1998.

Seevetal, 06.09.2006

Mütec Instruments GmbH

Geschäftsführer