

Translation

EU-Type Examination Certificate Supplement 5

Equipment intended for use in potentially explosive atmospheres
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 05 ATEX E 049**

Product: **Level meter Silopilot Type FMM50-B / Type FMM20-B**

Manufacturer: **Endress+Hauser SE+Co. KG**

Address: **Hauptstr. 1, 79689 Maulburg, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 05 ATEX E 049 to apply to products designed and constructed in accordance with the specification set out in the appendix of the said certificate but having any acceptable variations specified in the appendix to this certificate and the documents referred to therein.

DEKRA Testing and Certification GmbH, Notified Body number 0158, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential Report No. BVS PP 05.2034 EU.

The Essential Health and Safety Requirements are assured in consideration of:

EN IEC 60079-0:2018
EN 60079-31:2014

General requirements
Protection by Enclosure "t"

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Special Conditions for Use specified in the appendix to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

The marking of the product shall include the following:

 **II 1/2D Ex ta/tb IIIC T99°C Da/Db**
II 2D Ex tb IIIC T99°C Db

DEKRA Testing and Certification GmbH
Bochum, 2021-04-16

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**
 14 **EU-Type Examination Certificate**

BVS 05 ATEX E 049
Supplement 5

15 **Product description**

15.1 **Subject and type**

Level meter Silopilot type FMM*¹⁾-B
¹⁾ 20 – equipment type FMM20-B
 50 – equipment type FMM50-

15.2 **Description**

The level meter Silopilot type FMM*-B is used for the detection of the level in containers for powdery or dust generating material. It consists of a 2-part aluminium enclosure (electronics and spool department): The spool department with the mechanical components inside meets Category 1D whereas the electronics department with the electrical components inside meets Category 2D.

Reason for the supplement

- Updating to the current standards
- Modification in the naming of the level meter

15.3 **Parameters**

15.3.1 **Electrical data**

15.3.1.1 **Supply circuit**

Voltage	AC	max.	253	V
	DC	max.	28	V
Frequency (AC)			50 / 60	Hz
Power				
FMM50-B		max.	300	VA
FMM20-B		max.	200	VA
		max.	200	W

15.3.1.2 **Input circuits**

Voltage	DC	max.	28	V
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15.3.1.3 **Output circuits**

Current output		max.	25	mA
Relay output (2 - 6 relays)				
Switching voltage	max. AC		250	V
Switching current	max.		6	A

Serial data bus

Pulse output (optoelectronic coupler FMM50-B)				
Switching voltage	max. DC		35	V
Switching current	max.		80	mA
Switching power	max.		150	mW



15.3.2	Thermal data		
	Maximum surface temperature T limited with thermo fuse		+99 °C
	Permitted ambient temperature		
	Type FMM20-B	without heating	-20 °C ... +60 °C
		with heating	-40 °C ... +60 °C
	Type FMM50-B	without heating	-20 °C ... +70 °C
		with heating	-40 °C ... +70 °C
15.3.3	Process pressure	0.8 bar ... 1.1 bar (FMM20-B)	
		0.8 bar ... 3.0 bar (FMM50-B)	
15.3.4	Degrees of protection according to EN 60529		IP6x

16 Report Number

BVS PP 05.2034 EU, as of 2021-04-16

17 Special Conditions for Use

None

18 Essential Health and Safety Requirements

The Essential Health and Safety Requirements are covered by the standards listed under item 9.

19 Drawings and Documents

Drawings and documents are listed in the confidential report.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA Testing and Certification GmbH
Bochum, 2021-04-16
BVS-Hk/MGR A20210054



Managing Director