

Translation

EU-Type Examination Certificate Supplement 1

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

EU-Type Examination Certificate Number: **BVS 17 ATEX E 041**

Product: **Trägerfrequenz-Impulsverstärker type FOP70 -**-****

Manufacturer: **KEM Küppers Elektromechanik GmbH**

Address: **Liebigstr. 5, 85757 Karlsfeld, Germany**

This supplementary certificate extends EU-Type Examination Certificate No. BVS 17 ATEX E 041 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 17.2075 EU.

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

EN IEC 60079-0:2018 **General requirements**
EN 60079-11:2012 **Intrinsic Safety "i"**

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 2G Ex ia IIC T4 Gb**

DEKRA Testing and Certification GmbH
Bochum, 2022-05-10

Signed: Jörg-Timm Kilisch

Managing Director

13 **Appendix**

14 **EU-Type Examination Certificate**

**BVS 17 ATEX E 041
Supplement 1**

15 **Product description**

15.1 **Subject and type**

Carrier frequency Pulse Amplifier type FOP70 - ** - **

FOP70 -	**	-	*	*
	ab	-	c	d

ab	Code numbers of pluggable pick up	c	Code letters of threaded pick up
	01 = for ZHM01		KG = short for turbines and ZHM02-ZHM04
	02 = for ZHM02, ZHM02/1		LG = long for turbines and ZHM02-ZHM07
	11 = for ZHM01/1, ZHM01/2		RG = short for ZHM01 to ZHM01/3
	13 = for ZHM01/3		SG = long for ZHM01 to ZHM01/3
	xx = for other ZHM devices		xx = for other types of thread
		d	Ex = ATEX approval
ZHM** = type of magnetic gear-wheel flow meter, the Carrier frequency Pulse Amplifier is attached to. The magnetic gear-wheel flow meters listed above are not subject to this Certificate			

15.2 **Description**

The Carrier frequency Pulse Amplifier Type FOP70 - ** - ** is a battery supplied intrinsically safe apparatus receiving r.p.m./ flow measuring signals of magnetic gear-wheel flow meters without contacting the measured medium.

The Carrier frequency Pulse Amplifier comprises of a light alloy or stainless steel enclosure mountable to mechanical flow meters. The enclosure contains a printed circuit board fitted with electronic components, a pulse pickup inductor and a replaceable power supply battery Type BG.BATT-FOP-07 (primary cell).

The Carrier frequency Pulse Amplifier does not provide any connection facilities for external circuits. The measuring signal is transmitted optically (optical fibres).

Listing of all components used referring to older standards: not applicable.

Reason for the supplement:

Updating of the applied standard EN IEC 60079-0:2018

15.3 **Parameters**

15.3.1 Internal battery power supply (primary cell)

Voltage	DC	3.67 V
Nominal capacity		8.5 Ah

15.3.2 Optical measuring signal

Wave length of radiation	660 nm / 890 nm
Density of radiation	1.8 mW / mm ²

15.3.3 Ambient temperature range:

Temperature class T4 -40 °C ≤ T_a ≤ +70 °C

16 **Report Number**

BVS PP 17.2075 EU, as of 2022-05-10

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, 2022-05-10
BVS-Fro/MGR A20211043



Managing Director