

1. **EU-TYPE EXAMINATION CERTIFICATE**
2. **Equipment or Protective System Intended for use in Potentially explosive atmospheres
Directive 2014/34/EU**
3. EU-Type Examination Certificate Number: **EESF 18 ATEX 071X**
4. Product: **Multifunction Calibrator**
Certified types: **MC6-Ex**
5. Manufacturer: **Beamex Oy**
6. Address: **Ristisuonraitti 10, FI-68600 Pietarsaari, Finland**
7. This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.
8. Eurofins Expert Services Oy, Notified Body number 0537, 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 confidential report No. EUFI29-19003411-T1.
9. Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0:2018 **EN 60079-11:2012**
10. If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.
11. 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.
12. The marking of the product shall include the following:


II 1 G Ex ia IIC T4 Ga
Tamb -10 °C ... +50 °C

 Espoo, 28.6.2019
Eurofins Expert Services Oy

 Ilkka Riihimäki
 Expert

 Kari Koskela
 Expert

This document is digitally signed.



13. **Schedule**

14. **EU-Type Examination Certificate EESF 18 ATEX 071X**

15. **Description of Product**

Beamex MC6-Ex Intrinsically Safe Advanced Field Calibrator and Communicator features five different operational modes: Meter, Calibrator, Documenting Calibrator, Data Logger and Fieldbus Communicator. The calibrator is powered by a detachable Beamex RB-796-Ex battery pack exclusively when operated in hazardous area.

Electrical data:

Maximum input parameters.

Function	Terminals	U _i /V	I _i /mA	P _i /mW ⁽¹⁾	C _i /nF ⁽¹⁾	L _i /mH ⁽¹⁾
Thermocouples (TC1, TC2)	1 to 4	30	215	500	26,2	0
RTD and Resistor connector (R1)	5 to 8	30	215	500	26,2	0
Voltage, Current and Frequency output (OUT)	9, 10	30	215	1000	31,3	0
Voltage, Frequency, Switch input (IN: V/Hz, Com)	11, 12	30	215	1000	3,7	0
Current Measurement (IN: mA, COM)	12, 14					
HART® and Fieldbus (HART/FF/PA, COM)	12, 13	24	215	1000	7,3	0
Current Measurement with loop supply (SUPPLY, mA)	13, 14					
RTD and Resistor connector (R2)	15	30	215	500	5,2	0

(1) Maximum total value for all terminals combined.

Maximum output parameters.

Function	Terminals	U _o /V	I _o /mA	P _o /mW	C _o /nF	L _o /mH
Thermocouples (TC1, TC2)	1 to 4	2,58	47,9	30,8	39,8	15
RTD and Resistor connector (R1)	5 to 8	5,36	82,2	102	39,8	5
Voltage, Current and Frequency output (OUT)	9, 10	18,3 5,36	338,3 348,2	482	34,7	0,1
Voltage, Frequency, Switch input (IN: V/Hz, Com),	11, 12	5,36	13,8	18,1	62,3	100
Current Measurement (IN: mA, COM)	12, 14					
HART® and Fieldbus (HART/FF/PA, COM)	12, 13	23,1 4,72	179,5 192,2	1025	53,7	2
Current Measurement with loop supply (SUPPLY, mA)	13, 14					
RTD and Resistor connector (R2)	15	2,58	17,1	11,0	60,8	100

Allowed Accessories:

- External pressure modules EXT-IS and EXT-s-IS
- Pressure Hose Set
- Adapter cables for R2 connector
- Cable for Pressure and Temperature Controllers
- Soft Carrying Case of antistatic material, type BX3723
- Hand held mechanical pressure calibrator pump Beamex PGM

16. Report Number

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17. Specific Conditions of Use

1. The maximum allowed ambient temperature range is $-10\text{ °C} \leq T_a \leq +50\text{ °C}$.
2. The calibrator shall only be used with rechargeable battery pack type RB-796-Ex.
3. The battery pack shall not be charged in a hazardous location.
4. Recharging shall be done in non-hazardous area by using Beamex BC15-Ex type charger only.
5. Auxiliary USB devices shall not be connected to MC6-Ex when used in hazardous area.
6. The hand strap shall not be adjusted in hazardous areas due to risk of electrostatic discharge.
7. The PX connector shall only be connected with the EXT-IS or EXT-s-IS external pressure calibration module in a hazardous area.
8. Any stickers with surface are larger than 400 mm^2 shall not be affixed to the calibrator.
9. Capacitance of the metallic parts is 110 pF . This shall be taken into account in handling the device.
10. The non-conductive film protecting the display during shipment shall be removed before entering a hazardous area.
11. The aluminium parts of the external pressure modules and calibrator pump shall not be subjected to impacts or friction due to risk of sparking.

18. Essential Health and Safety Requirements

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

19. Drawings and Documents

MC6-Ex Approval documents, Version: 18.0* MC6-Ex Approval documents.docx 14.02.2019

20. Certificate History

Issue	Date	Report No.	Comment
VTT 16 ATEX 041X	23.10.2017	VTT-S-03551-16	Prime certificate.
VTT 16 ATEX 041X Issue 1	21.03.2018	VTT-S-01414-18	Minor I.S. related changes.
EESF 18 ATEX 071X	28.6.2019	EUFI29-19003411-T1	NB name changed from VTT Expert Services to Eurofins Expert Services. Minor I.S. related changes. *) Approval documents list revised. Addition of The External Pressure Module.