



Physical Technical Testing Institute
Ostrava – Radvanice



EC-Type Examination Certificate

(1)

(2)

Equipment or Protective Systems Intended for Use
in Potentially Explosive Atmospheres
(Directive 94/9/EC)

(3) EC-Type Examination Certificate Number:

FTZÚ 14 ATEX 0138X

(1) Equipment or protective system: **An AMRflexM GPRS Communicator**

(2) Manufacturer: **Metreg Technologies GmbH**

(3) Address: **Tränkeweg 9, 15517 Fürstenwalde, Germany**

(4) This equipment or protective system and any of acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(5) The Physical Technical Testing Institute, notified body number 1026 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this equipment or protective system 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 confidential Report N°:

14/0138 dated 08.08.2014

(6) Compliance with Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2009, EN 60079-11:2012

(7) If the sign "X" is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

(8) This EC-Type Examination Certificate relates only to the design, examination and testing of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

(9) The marking of the equipment or protective system shall include following:

 **II 2G Ex ib IIA T3 Gb**

This EC-Type Examination Certificate is valid till: **18.08.2017**

Responsible person:


Dipl. Ing. Lukáš Martinák
Head of Certification Body



Date of issue: 08.08.2014

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Physical Technical Testing Institute
Ostrava – Radvanice

(13)

Schedule

(14) **EC-Type Examination Certificate N° FTZÚ 14 ATEX 0138X**

(15) Description of Equipment or Protective System:

An AMRflexM GPRS Communicator is designed to provide communication among gas volume correctors in GSM/GPRS nets. The connection to a gas corrector is realized via a serial line, the device provides possibility of digital signal inputs, and accepts signals from digital pressure or temperature transmitters via an RS485 communication line. One digital output is available.

Read data can be stored in an internal memory.

All electronic parts are housed in a plastic enclosure.

Input/output parameters:

Power supply: Battery pack LP-04

Back-up battery: Lithium cell type SAFT LS14250

Digital inputs (terminals DI1 to DI6):

$U_o = 7,4 \text{ V}$; $I_o = 10 \text{ mA}$; $P_o = 30 \text{ mW}$; $C_o = 10 \text{ }\mu\text{F}$; $L_o = 100 \text{ mH}$

Digital output (terminals DO1):

$U_i = 30 \text{ V}$; $P_i = 1 \text{ W}$; $C_i = 300 \text{ nF}$; $L_i = 0 \text{ H}$

AMR-RS232 interface ver. A (terminals GND, TXD, RXD, U+, DCR):

- only for connection to ELCOR-94 or ELCOR-2.

AMR-RS485 interface ver. A (terminals GND, U+, D-, D+):

$U_o = 9,6 \text{ V}$; $I_o = 190 \text{ mA}$; $P_o = 330 \text{ mW}$; $\Sigma C_o = 60 \text{ }\mu\text{F}$; $\Sigma L_o = 3 \text{ mH}$

AMR-Uniwire interface (terminals A, B):

$U_o = \pm 13 \text{ V}$; $I_o = 190 \text{ mA}$; $P_o = 330 \text{ mW}$; $\Sigma C_o = 500 \text{ nF}$; $\Sigma L_o = 3 \text{ mH}$

AMR-RS232 interface ver. B (terminals GND, TXD, RXD, CTS):

$U_o = \pm 11 \text{ V}$; $I_o = 190 \text{ mA}$; $P_o = 330 \text{ mW}$; $\Sigma C_o = 3 \text{ }\mu\text{F}$; $\Sigma L_o = 3 \text{ mH}$

Ambient temperature: $T_a = -20^\circ\text{C}$ to $+60^\circ$

(16) Report No.: 14/0138

(17) Special conditions for safe use:

17.1 Under certain extreme circumstances, the plastic enclosure may store an ignition-capable level of electrostatic charge. Therefore the device shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge. Additionally, the equipment shall only be cleaned with a damp cloth

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(18) Essential Health and Safety Requirements:

Essential health and safety requirement of Directive 94/9/EC are covered by the standard mentioned in (9), according which the product was verified and in the manufacturer's instruction for use.

(19) List of Documentation:

<i>Document/Drawings:</i>	<i>Type of doc.:</i>	<i>Rev.:</i>	<i>Date:</i>	<i>Nr. of pages:</i>
KP 063 28 Mod A	01/1	-	27.05.2014	1
KP 063 29 Mod B	01/1	-	27.05.2014	1
Technical description / Manual		Rev. 0	06.2014	88

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