

Translation

EU-Type Examination Certificate

Device with a measuring function for explosion protection
Directive 2014/34/EU

EU-Type Examination Certificate Number: **BVS 16 ATEX G 001 X**

Product: **Control Units 9010 SIL and 9020 SIL**

Manufacturer: **MSA Europe GmbH**

Address: **Schlüsselstr.12, 8645 Rapperswil-Jona, Switzerland**

This product and any acceptable variation thereto are specified in the annex to this certificate and the documents therein referred to.

DEKRA EXAM 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 test report PFG-no. 41300116P.

Compliance with the Essential Health and Safety Requirements with respect to the measuring function for explosion protection has been assured by compliance with:

EN 60079-29-1:2007

EN 50104:2010

EN 50271:2010

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 annex 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:

Ex II (2) G (1) G

DEKRA EXAM GmbH
Bochum, 2016-11-07

Signed: Siebrecht
Certifier

Signed: Kiesewetter
Approver

13 Annex

14 EU-Type Examination Certificate

BVS 16 ATEX G 001 X

15 Product description

15.1 Subject and type

Control units 9010 SIL and 9020 SIL

15.2 Description

The control units 9010 SIL und 9020 SIL, when operated with remote sensors of types series 47K-ST, 47K-PRP, 47K-HT or 47K-HT-PRP or with transmitters with 4-20 mA interface, are fixed systems for the measurement of flammable gases or vapours mixed with air or of oxygen. The control units are not suitable for use in potentially explosive atmospheres. The control units are available as 19" rack modules for use in 19"-racks for 2, 5 or 10 modules or as wall-mounted version.

15.3 Parameters

not applicable

15.4 Measuring function for explosion protection

This EU-type examination certificate covers:

- control units 9010 SIL and 9020 SIL with software version 1.02.1000 when operated in "ATEX-mode" in 19"-racks with part-no. 10164881, 10164882 or 10164883 or as wall-mounted version
- when operated with remote sensor series 47K-ST the measurement of methane, propane, 2-butanone, acetone, acetylene, ammonia, 1,3-butadiene, diethyl ether, acetic acid, acetic anhydride, ethane, ethanol, ethylene, ethyl acetate, ethylene oxide, special boiling point spirit 65/95, i-butyl acetate, n-butyl acetate, n-butane, n-hexane, n-nonane, n-pentane, 2-propanol, propylene, propylene oxide, toluene, hydrogen, xylene (mixed isomers), cyclopentane, allyl alcohol, i-butylene, i-butane, methanol and cyclohexane mixed with air in the measuring range 0 % LEL to 100 % LEL
- when operated with remote sensor series 47K-PRP the measurement of methane, propane, 2-butanone, acetone, ethanol, ethyl acetate, special boiling point spirit 65/95, 1-propanol, 2-propanol, propylene, toluene, hydrogen and 1-ethoxy-2-propanol mixed with air in the measuring range 0 % LEL to 100 % LEL
- when operated with remote sensor series 47K-PRP with remote calibration adaptor CalGard the measurement of methane, propane and hydrogen mixed with air in the measuring range 0 % LEL to 100 % LEL
- when operated with remote sensor series 47K-HT the measurement of methane, propane, 2-butanone, acetone, ethanol, ethyl acetate and toluene mixed with air in the measuring range 0 % LEL to 100 % LEL
- when operated with remote sensor series 47K-HT-PRP the measurement of methane mixed with air in the measuring range 0 % LEL to 100 % LEL
- when operated with transmitters with 4-20 mA interface (2-wire or 3-wire) the measurement of the flammable gases and vapours which are listed in the EC- or EU-type examination certificate of the transmitter
- when operated with transmitters with 4-20 mA interface (2-wire or 3-wire) the measurement of oxygen (measurement of inertisation) according to the EC- or EU-type examination certificate of the transmitter
- use of the following outputs for safety relevant purposes:
 - display
 - relays ("warning", "alarm", "horn" and "fault") , optocoupler "caution"

- use of the following accessories:
 - not applicable

The EU-type examination includes the following deviations from the operating conditions required by EN 60079-29-1 or EN 50104:

- Extended range of temperature at operation: -10 °C to +55 °C

16 **Test report**

PFG-no. 41300116P of 2016-11-02

17 **Special Conditions for Use**

- When operated with transmitters with 4 - 20 mA interface the specification of the 4 - 20 mA interface as well as the behaviour below 4 mA and above 20 mA have to be taken into account.
- see section "Application, advice and restrictions" in the instruction manual of the remote sensor series 47K
- The description in the instruction manual of the remote sensor series 47K on the effects of the remote calibration adaptor CalGard on the characteristics of the remote sensor series 47K-PRP has to be considered.

18 **Essential Health and Safety Requirements**

The Essential Health and Safety Requirements with respect to the measuring function for explosion protection are covered by the standards listed under item 9.

19 **Drawings and Documents**

Drawings and documents are listed in the confidential test 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 EXAM GmbH
Bochum, dated 2016-11-07



Certifier



Approver