

Translation

(1) EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 10 ATEX E 133 X**
- (4) Equipment: **Process photometer type MCS300P-Ex**
- (5) Manufacturer: **Sick Maihak GmbH**
- (6) Address: **79278 Reute, Germany**
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment 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 the test and assessment report BVS PP 11.2011 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2009 General requirements**
EN 60079-2:2007 Pressurisation 'p'
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.
- (11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.
- (12) The marking of the equipment shall include the following:

 **II 2G Ex px IIC T4 Gb**

DEKRA EXAM GmbH
Bochum, dated 07.01.2011

Signed: Dr. Eickhoff

Certification body

Signed: Ruhnau

Special services unit

- (13) Appendix to
- (14) **EC-Type Examination Certificate**
BVS 10 ATEX E 133 X
- (15) 15.1 Subject and type

Process photometer type MCS300P-Ex

15.2 Description

The process photometer of type MCS300P-Ex measures IR-active and VIS-active components in gases and liquid concentrations in conjunction with process cuvettes for either gas or liquid (e.g. type PGK.. Ex, BVS 10 ATEX E 087 U).

The process photometer consists of two modules, i.e. the receiver and transmitter, between which the cuvette is located. Receiver and transmitter are interconnected by a tube and manufactured to meet the requirements of the type of protection Pressurisation with a compensating effect for leakage. The monitoring of the overpressure and the pre-purging process is provided by system F 850 S (BVS 06 ATEX E 088) in conjunction with auxiliary devices (proportional valve, interface relay).

For temperature control and monitoring of the heatable process cuvette type PGK.Ex the process photometer is equipped with appropriate monitoring electronics.

15.3 Parameters

15.3.1 Electrical parameters

Supply voltage	115/230	VAC
Power input		
Analyser	max. 230	VA
- with heatable cuvette	max. 805	VA
- with second heatable cuvette	max. 1450	VA

15.3.2 Pneumatic parameters

Free volume	40	dm ³
Min. pre-purge volume	200	dm ³
Min. volume flow	66	dm ³ /min
Min. overpressure	0.8	mbar
Max. overpressure	12	mbar

(16) Test and assessment report

BVS PP 11.2011 EG as of 07.01.2011

(17) Special conditions for safe use

A measuring function with regard to explosion protection is not subject of the type examination.

The setting of the overpressure monitoring device has to comply with the parameters stated in 4.2.

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
44809 Bochum, 15.03.2011
BVS-Wit/Ar E 0349/11



Certification body



Special services unit