BUREAU VERITAS

(1) EC-Type Examination Certificate

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres – **Directive 94/9/EC**

(3) EC Type Examination Certificate Number

EPS 11 ATEX 1 329 X

(4) Equipment: Gasanalyser Type GMS820P

(5) Manufacturer: SICK MAIHAK GmbH

(6) Address: Poppenbütteler Bogen 9b
22399 Hamburg

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) Bureau Veritas Consumer Product Services Germany GmbH, Notified Body No. 2004 in accordance with Article 9 of the Council Directive 94/9/EC of March 23rd 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 of the Directive. The examination and test results are recorded in the confidential report 11TH0132.

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

EN 60079-0:2009 **EN 60079-1:2007**

EN 60079-7:2007 **EN 60079-11:2007**

(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 schedule to this certificate.

(11) This EC Type Examination Certificate relates only to the design and the construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.

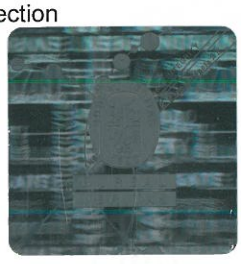
(12) The marking of the equipment shall include the following:

II 2G Ex db eb [ia] IIC T6
II 2G Ex db eb IIC T6

Certification department of explosion protection

A. Hänchen

Türkheim, June 22, 2011



(13) **Annexe**

(14) **EC Type Examination Certificate EPS 11 ATEX 1 329 x**

(15) Description of equipment:

The series GMS820P is a Gas analyser for use in hazardous locations. The GSM820P is modular and can be used with the following Modules: NDIR (UNOR/MULTOR), DEFOR, OXOR-P, OXOR-E, THERMOR, I/O-Modules and Gas-Modules. The device can be equipped with up to 12 Zener-barriers. The pipes for the gas to be measured can be constructed with 3 different materials: Steel-pipe, Viton-tube and PTFE-tube. Maximum overpressure of non-flammable measuring gas is: -500....1000 hPa. For measuring flammable gases the overpressure shall be limited to max. 100 hPa or the enclosure has to be fitted with a breathing device option and gas flow shall be limited to max. 70 l/h.

Electrical data:

Voltage (optional): 93 ... 132 VAC, 186 ... 264 VAC or 210 ... 370 VDC

Power: 50 VA / max. 300 VA

Maximum values for Zener-barrier intrinsic safe analog outputs

Channel 1/Channel 2 (per barrier):		Combined:	
U_0 = 15 V	$L_A \leq$ 1,5 mH	U_0 = 15 V	$L_A \leq$ 0,37 mH
I_0 = 153 mA,	$C_A \leq$ 580 nF	I_0 = 306 mA	$C_A \leq$ 580 nF
P_0 = 0,57 W	$L_A/R_A \leq$ 61 µH/Ω	P_0 = 1,14 W	$L_A/R_A \leq$ 30 µH/Ω

Maximum values for Zener barrier intrinsic safe digital outputs and inputs

U_0 = 28 V	$L_A \leq$ 4,1 mH
I_0 = 93 mA	$C_A \leq$ 83 nF
P_0 = 0,65 W	$L_A/R_A \leq$ 54 µH/Ω

(16) Test report: 11TH0132

(17) Special conditions for safe use:

The equipment must be marked with warning markings according to EN 60079-0 clause 29.11 a) and d).

The use in hazardous locations with potentially explosive carbon disulfide atmosphere (LEL 0,6 Vol%) is excluded.

The maximum ambient temperature range is from +5°C to +45°C.

(18) Essential health and safety requirements:

Met by standards.

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Türkheim, June 22, 2011