

Physical Technical Testing Institute

Ostrava - Radvanice



EC-Type Examination Certificate

Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

FTZÚ 07 ATEX 0066X

- (4) Equipment or protective system: GasGard XL Wall Mount Controller
- (5) Manufacturer: MSA Auer GmbH
- (6) Address: Thiemannstrasse 1, D-12059 Berlin, Germany
- (7) 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.
- (8) 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°

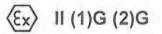
07/0066 dated 29 February 2008

(9) Compliance with Essential Health and safety requirements has been assured by compliance with:

EN 50271:2001; EN 50270:1999; EN 61779-1:2000 + EN 61779-1:2000/A11:2004;

EN 61779-4:2000; EN 61779-5:2000; EN 50104:2002 + EN 50104:2002/A1:2004

- (10) 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.
- (11) 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.
- (12) The marking of the equipment or protective system shall include following:



This EC-Type Examination Certificate is valid till: 4 March 2013

Responsible person:

Dipl. Ing. Šindler Jaroslav

Head of certification body

Date of issue: 4 March 2008

Number of pages: 1/3 Page: 1/3

This certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This certificate may only be reproduced in its entirety and without any change, schedule included.

NB 102

FTZÚ, Pikartská 7. 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



Physical Technical Testing Institute Ostrava-Radvanice

(13)

Schedule

(14) EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

(15) Description of Equipment or Protective System:

The apparatus is a multi-channel Wall Mount Controller for monitoring toxic, oxygen and flammable gases in industrial applications. GasGard XL can be easily configured to accept up to eight remote gas sensors, depending on the number of individual plug-in input cards installed. The apparatus is not intended for use in hazardous area.

(16) Report No.: 07/0066

(17) Special conditions for safe use: X Ambient temperature: $-10^{\circ}C \le t_{amb} \le +50^{\circ}C$

Equipment is classified as II (1)G in connection with intrinsic safety equipments being fed via certified Zener barriers or Galvanic isolators. In any other case II (2)G classification must be assumed.

(18) Essential Health and Safety Requirements:

The essential safety requirements are covered by standards mentioned in clause (9) of this certificate.

The installation and service requirements are given in Operating manual in clause (19) of this certificate.

Responsible person:

Dipl. Ing. Šindler Jaroslav Head of certification body FTZU MG AC 210 NB 1026

Date of issue: 4 March 2008

Page: 2/3

This certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This certificate may only be reproduced in its entirety and without any change, schedule included.



Ostrava-Radvanice

(13)

Schedule

(14) EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

(19)

LIST OF DOCUMENTATION

- [1] Operating Manual GasGard XL Wall Mount Controller, 10081908/00 78 pages
- [2] Label GasGard XL DG 0751720 and mechanical drawings DG 0751100 to 6 8 pages
- [3] EN50271 Safety Discussion FW 0751 100, ver. 1 13 pages
- [4] Code Validation FW 0751 101 1 page
- [5] Channel Board mV, FW code FW 0751 000 56 pages
- [6] Main Board, FW code FW 0751 004 128 pages
- [7] Channel Board Active, FW code FW 0751 001-41 pages
- [8] Display Board, FW code FW 0751 003 61 pages
- [9] Channel Relay Board, FW code FW 0751 002 27 pages
- [10] Channel Board mV, schematic documentation, DG 0751 500, ver. 17A 1 page
- [11] Main Board, schematic documentation, DG 0751 504, ver. 11A 1 page
- [12] Channel Board Active, schematic documentation, DG 0751 501, ver. 20A 1 page
- [13] Display Board, schematic documentation, DG 0751 503, ver. 20A 1 page
- [14] Channel Relay Board, schematic documentation, DG 0751 502, ver.16A 1 page
- [15] Sensor Extension Board, schematic documentation, DG 0751 505, ver.11A 1 page
- [16] PCB Channel Board mV, DG 0751 000 SH1/2, DG 0751 900 and DG 0751 000 SH2/2, ver. 17A - 3 pages
- PCB Main Board, DG 0751 004 SH2/2, DG 0751 904 and DG 0751 004 SH1/2, ver. 11A
 3 pages
- [18] PCB Channel Board Active, DG 0751 901, DG 0751 001 SH 2/2 and DG 0751 001 SH 1/2, ver. 20A - 3 pages
- [19] PCB Display Board, DG 0751 003 SH 2/2, DG 0751 903 SH 1/2, DG 0751 903 SH 2/2, DG 0751 003 SH 1/2, ver. 20A - 4 pages
- [20] PCB Channel Relay Board, DG 0751 002 SH 2/2, DG 0751 002 SH 1/2 and DG 0751 902, ver.16A - 3 pages
- [21] PCB Sensor Extension Board, DG 0751 005 SH1/2, DG 0751 005 SH2/2 and DG 0751 905, ver.11A - 3 pages
- [22] Bill of material Channel Board mV, DG 0751 800 ver. 17A 4 pages
- [23] Bill of material Main Board, DG 0751 804, ver. 11A 10 pages
- [24] Bill of material Channel Board Active, DG 0751 801 ver. 20A 4 pages
- [25] Bill of material Display Board, DG 0751 803 ver. 20A 3 pages
- [26] Bill of material Channel Relay Board, DG 0751 802. ver.16A 3 pages
- [27] Bill of material Sensor Extension Board, DG 0751 805, ver.11A 1 page

Date of verification of documentation [1] to [27] by FTZÚ: 29 February 2008

Responsible person:

Dipl. Ing. Šindler Jaroslav Head of certification body



Date of issue: 4 March 2008

Number of pages: 3/3

This certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This certificate may only be reproduced in its entirety and without any change, schedule included.



Ostrava-Radvanice



Supplement No. 1 to EC-Type Examination Certificate

Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

FTZÚ 07 ATEX 0066X

- (4) Equipment or protective system: GasGard XL Wall Mount Controller
- (5) Manufacturer:

MSA Auer GmbH

(6) Address:

- Thiemannstrasse 1, D-12059 Berlin
- (7) This supplement of certificate is valid for: verification according to new standards
- (8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.
- (9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains other requirements, which manufacturer shall fulfil before products are place on market or introduce in service.
- (10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 50270:2006

(11) Marking of equipment shall contain symbols:



(12) This type examination certificate is valid till: 4 March 2013

Responsible person:

Dipl. Ing. Šindler Jaroslav Head of certification body



Date of issue: 16 April 2

Number of pages: 2 Page: 1/2

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.



Physical Technical Testing Institute Ostrava-Radvanice

(13)

Schedule

(14) Supplement No. 1 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

(15) Description of Equipment or Protective System:

The apparatus was verificated according to the standard EN 50270:2006. The technical description remains unchanged.

(16) Report No. : 07/0066 - d1 dated 16 April 2008

(17) Special Conditions for Safe Use:

remain unchanged

(18) Essential Health and Safety Requirements:

remain unchanged

(19) List of Documentation:

remain unchanged

Responsible person:

Dipl. Ing. Šindler Jaroslav

Head of certification body

Date of issue: 16 April 2008

Number of pages: 2 Page: 2/2

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced_in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: ftzu@ftzu.cz

(2 pages)



(2)

Physical Technical Testing Institute



Ostrava-Radvanice

Supplement No. 2 to EC-Type Examination Certificate

Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

FTZÚ 07 ATEX 0066X

- (4) Equipment or protective system: GasGard XL Wall Mount Controller
- (5) Manufacturer:

MSA Auer GmbH

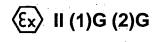
(6) Address:

Thiemannstrasse 1, D-12059 Berlin

- (7) This supplement of certificate is valid for: modification of certified apparatus
- (8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.
- (9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains other requirements, which manufacturer shall fulfil before products are place on market or introduce in service.
- (10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 50271:2001

(11) Marking of equipment shall contain symbols:



(12) This type examination certificate is valid till: 04.03.2013

Responsible person: Dipl. Ing. Šindler Jaroslav Head of certification body

Number of pages: 2 Page: 1/2

Date of issue: 29.07.2008

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



Physical Technical Testing Institute Ostrava-Radvanice

(13)

Schedule

(14) Supplement No. 2 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

(15) Description of variation to the Equipment or Protective System:

Program's source codes were changed to increase safety.

The following sentence is added to the technical description: The following performance tested sensors can be connected to the GasGard XL Wall Mount Controller 47K-ST, 47K-PRP, 47K-HT, D-7100, D-7010, D-715K, D-7152K, D-7711K, 4-20 mA transmitter with their own ATEX performance certification.

(16) Report No. : 07/0066 – d2 dated 29.07.2008

(2 pages)

(17) Special Conditions for Safe Use:

remain unchanged

(18) Essential Health and Safety Requirements:

remain unchanged

(19) List of Documentation: is added

- [1] FW Code upgrade FW 0751 102 3 pages
- [2] Channel Relay Board, FW code FW 0751 002, FW version 01.02.01 27 pages
- [3] Channel Board Active, FW code FW 0751 001, FW version 01.04.01 41 pages
- [4] Channel Board mV, FW code FW 0751 000, FW version 01.04.01 56 pages
- [5] Display Board, FW code FW 0751 003, FW version 01.04.01 61 pages
- [6] Main Board, FW code FW 0751 004, FW version 01.05.01 132 pages

Date of verification of documentation [1] to [6] by FTZÚ: 29.07.2008

Responsible person:	WICAL TESA	Date of issue: 29.07.2008
· · · · · · · / · · · · · · ·	Letter Children 1	a an
hudle	FTZUE	
Dipl. Ing. Šindler Jaroslav		Number of pages: 2
Head-of-certification-body		Page: 2/2
This supplement to certificate is granted su	ubject to the general conditions of	the Physical Technical Testing Institute.

This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



(2)

Physical Technical Testing Institute

Ostrava-Radvanice



Supplement No. 3 to EC-Type Examination Certificate

Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

FTZÚ 07 ATEX 0066X

(4) Equipment or protective system: GasGard XL Wall Mount Controller

(5) Manufacturer:

MSA Auer GmbH

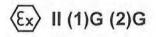
Thiemannstrasse 1, D-12059 Berlin

(6) Address:

- (7) This supplement of certificate is valid for: verification according to new standards
- (8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.
- (9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 (Paragraph 6) of Directive No. 94/9/EC. The Directive contains other requirements, which manufacturer shall fulfil before products are place on market or introduce in service.
- (10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 50402:2005 EN 50402:2005/A1:2008

(11) Marking of equipment shall contain symbols:



(12) This type examination certificate is valid till: 04.03.2013

Responsible person:

Dipl. Ing. Sindler Jaroslav

Head of certification body



Date of issue: 19 11.2008

Number of pages: 3 Page: 1/3

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7. 716 07 Ostrava Radvanice. tel +420 596 232 715. fax +420 596 232 672. e-mail: ftzu@ftzu.cz



Ostrava-Radvanice

(13)

Schedule

(14) Supplement No. 3 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

(15) Description of variation to the Equipment or Protective System:

The apparatus was verificated according to standards EN 50402:2005 and EN 50402:2005/A1:2008. The technical description remains unchanged.

The GasGard XL is suitable for low demand safety related applications up to SIL2 capability.

Parameters:

MTTR = 72 h Type B HFT = 0 Structure 1001 MTBF \geq 33572 h

$$\begin{split} \lambda_{tot} &\leq 29786 \ 10^{-9} \ h^{-1} \\ PFD_{avg} &\leq 4,86^{\circ} 10^{-3} \\ SFF &\geq 94,8 \ \% \end{split}$$

(16) Report No.: 07/0066 - d3 (dated 14.11.2008) is an integral part of this supplement

Responsible person:

V. J. Ule of Dipl. Ing. Šindler Jaroslav Head of certification body



Date of issue: 19.11.2008

Number of pages: 3 Page: 2/3

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ. Pikartská 7. 716 07 Ostrava Radvanice. tel +420 596 232 715, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



Ostrava-Radvanice

(13)

Schedule

(14)

Supplement No. 3 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

(17) Special Conditions for Safe Use:

Additional conditions for safety related applications:

- 1. The test interval for alarm and fault relais has to done once per year.
- 2. The alarm conditions of the Gasgard XL must be periodically checked together with the typical gas calibration checks.
- 3. The relays must be energized under normal conditions.
- 4. The relay contacts must be protected with a fuse rated at 0,6 of the nominal specified relay contact current.
- 5. The system fail relay contacts must be safety related processed for warning purposes.
- 6. In case of failure of any component the repair or replacement must be completed within 72 hours.
- 7. Only modules with the HW and SW versions specified in Operating Manual clause 8.3 (listed in point 19 of this supplement) may be used.
- 8. An inside temperature of GasGard XL above 50°C is to be avoided.
- 9. External power supplies must fulfil, as a minimum, the requirements accordace to directive 2006/95/EC.

(18) Essential Health and Safety Requirements:

remain unchanged

(19) List of Documentation:

[1] Operating Manual GasGard XL Wall Mount Controller, dated 14.11.2008

Date of verification of documentation by FTZÚ: 14.11.2008

Responsible person

Dipl./Ing. Sindler Jaroslav Head of certification body



Date of issue: 19.11.2008

Number of pages: 3 Page: 3/3

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ. Pikartská 7. 716 07 Ostrava Radvanice. tel +420 596 232 715. fax +420 596 232 672. e-mail: ftzu@ftzu.cz.



(2)

Physical Technical Testing Institute

Ostrava-Radvanice



Supplement No. 4 to EC-Type Examination Certificate

Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

FTZÚ 07 ATEX 0066X

(4) Equipment or protective system: GasGard XL Wall Mount Controller

(5) Manufacturer:

MSA Auer GmbH

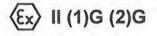
(6) Address:

Thiemannstrasse 1, D-12059 Berlin

- (7) This supplement of certificate is valid for: modification of certified equipment
- (8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.
- (9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 (Paragraph 6) of Directive No. 94/9/EC. The Directive contains other requirements, which manufacturer shall fulfil before products are place on market or introduce in service.
- (10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 50402:2005 EN 50402:2005/A1:2008

(11) Marking of equipment shall contain symbols:



(12) This type examination certificate is valid till: 04.03.2013

Responsible person:

Dipl. Ing. Šindler Jaroslav Head of certification body



This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

Date of issue: 31 07.2009

Annexes: 1 (2 pages)

Page: 1/2

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: fizu@ftzu.cz



Ostrava-Radvanice

(13)

Schedule

(14) Supplement No. 4 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

(15) Description of variation to the Equipment or Protective System:

Variation four, to permit minor changes in schematics documentation. The changes do not affect the safety of the equipment. The technical description remains unchanged.

The additional information for safety related applications:

The certification according to standards mentioned in clause (10) of this supplement is based on the standards EN 61508-1:2001, EN 61508-2:2001 and EN 61508-3:2001.

The parameters according to the inside configuration of this equipment are listed in the Table No.1 and Table No.2 in the Annex No.1 of this supplement.

(16) Report No.: 07/0066 - d4 (dated 31.07.2009) is an integral part of this supplement

- (17) Special Conditions for Safe Use: remain unchanged
- (18) Essential Health and Safety Requirements: remain unchanged

(19) List of Documentation:

- [1] Drawing No. DG 0751 101, rev 01, 1 page, Dated: 29.05.2009
- [2] Drawing No. DG 0751 102, rev 01, 1 page, Dated: 29.05.2009
- [3] Bill of Materials No. DG 0751 804, rev 02, 10 pages, Dated: 29.05.2009
- [4] Schematic No. DG 0751 504, rev 01, 1 page, Dated: 05.05.2009
- [5] Placement No. DG 0751 904, rev 01, 1 page, Dated: 05.05.2009

Date of verification of documentation by FTZÚ: 31.07.2009

Responsible person:

Dipl. Ing. Šindler Jaroslav Head of certification body



Date of issue: 31.07.2009

Page: 2/2 Annexes: 1 (2 pages)

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: fizu@fizu.cz



Ostrava-Radvanice

(13)

Annex No. 1

(14)

Supplement No. 4 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

Table No. 1:

Cor	figuration	n \ inside	temperat	lure	1.0	0	°C		25°C				40°C				50°C			
MBO	DBO	CBA	SEB	CRB	MTBF	λ_{tot}	PFDavg	SFF	MTBF	λ_{tot}	PFDavg	SFF	MTBF	λ_{tot}	PFDavg	SFF	MTBF	λ_{tot}	PFDavg	SF
No.	No.	No.	No.	No.	[10 ³ h]	[fit]	[10-4]	[%]	[10 ³ h]	(fit)	[10-4]	[%]	[10 ³ h]	[fit]	[104]	[%]	[10 ³ h]	[fit]	[10-4]	[%
1	1	1	0	Q	1144.5	874	1.17	97.0	326.1	3066	3.35	97.6	156.1	6406	6.99	97.6	95.3	10497	9.30	98.
1	1	2	0	0	960.7	1041	1.80	96.1	280.2	3568	5.09	96.8	134.1	7454	10.64	96.8	83.6	11959	14.27	97
1	1	3	0	0	827.8	1208	2,44	95.5	245.7	4070	6.84	96.2	117.6	8503	14.29	96.2	74.5	13421	19.24	96
1	1	4	0	0	727.2	1375	3.07	95.0	218.7	4572	8.59	95.8	104.7	9551	17.94	95.8	67.2	14883	24.21	96
1	1	1	0	1	1039.1	962	1.17	97.3	301.3	3319	3.35	97.7	144.2	6934	6.99	97.7	89.1	11227	9.30	98
1	1	2	0	1	885.3	1130	1.80	96.4	261.7	3821	5.09	97.0	125.3	7982	10.64	97.0	78.8	12689	14.27	97
1	1	3	0	1	771.2	1297	2.44	95.8	231.3	4323	6.84	96.4	110.7	9031	14.29	96.4	70.7	14151	19.24	96
1	1	4	0	1	683.2	1464	3.07	95.3	207.3	4825	8.59	96.0	99.2	10079	17.94	96.0	64.1	15613	24.21	96
1	1	1	1	0	1130.7	884	1.20	97.0	322.3	3103	3.42	97.5	154.3	6482	7.15	97.5	94.3	10602	9.52	98
1	1_	2	1	0	951.0	1052	1.83	96.1	277.4	3605	5.17	96.8	132.8	7530	10.80	96.8	82.9	12064	14.48	97
1	1	3	1	0	820.6	1219	2.46	95.5	243.5	4107	6.92	96.2	116.6	8579	14.45	96.2	73,9	13526	19.45	96
1	1	4	1	0	721.6	1386	3.09	95.0	217.0	4609	8.66	95.8	103.9	9627	18.10	95.8	66.7	14987	24.42	96
1	1	5	1	0	643.9	1553	3.72	94.6	195.7	5110	10.41	95.4	93.7	10676	21.75	95.4	60.8	16449	29.39	96
1	1	6	1	0	581.4	1720	4.36	94.3	178.2	5612	12.16	95.1	85.3	11724	25.40	95.1	55.8	17911	34.35	95
1	1	7	1	0	529.9	1887	4.99	94.1	163.6	6114	13.91	94.9	78.3	12773	29.05	94.9	51.6	19373	39.32	95
1	1	8	1	0	486.8	2054	5.62	93.9	151.1	6616	15.65	94.7	72.4	13821	32.70	94.7	48.0	20835	44.29	95
1	1	1	1	1	1027.7	973	1.20	97.2	298.0	3356	3.42	97.7	142.7	7010	7.15	97.7	88.2	11332	9.52	98
1	1	2	1	1	877.1	1140	1.83	96.4	259.2	3858	5.17	97.0	124.1	8058	10.80	97.0	78.2	12793	14.48	97
1	1	3	1	1	764.9	1307	2.46	95.8	229.4	4359	6.92	96.4	109.8	9107	14.45	96.4	70.1	14255	19.45	96
1	1	4	1	1	678.2	1474	3.09	95.3	205.7	4861	8.66	96.0	98.5	10155	18.10	96.0	63.6	15717	24.42	96
1	1	5	1	2	578.0	1730	3.72	95.2	178.1	5616	10.41	95.8	85.2	11732	21.75	95.8	55.8	17909	29,39	96
1	1	6	1	2	527.0	1897	4.36	94.8	163.5	6118	12.16	95.5	78.2	12780	25.40	95.5	51.6	19371	34.35	96
1	1	7	1	2	484.4	2065	4.99	94.6	151.1	6620	13.91	95.3	72.3	13829	29.05	95.3	48.0	20832	39.32	95
1	1	8	1	2	448.1	2232	5.62	94.3	140.4	7122	15.65	95.1	67.2	14877	32.70	95.1	44.9	22294	44.29	95

Responsible person:

·m 12 N

Dipl. Ing. Šindler Jaroslav Head of certification body



Date of issue: 31.07.2009

Page: 1/2

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: fizu@fizu.cz



Ostrava-Radvanice

(13)

Annex No. 1

(14)

Supplement No. 4 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

Table No.2:

Con	figuration	n \ inside	tempera	ature	0°C				25°C					4()°C	50°C				
MBO	DBO	CBV	SEB	CRB	MTBF	λ _{tot}	PFDavg	SFF	MTBF	λ _{tol}	PFDavg	SFF	MTBF	λ _{iot}	PFDavg	SFF	MTBF	λ _{tot}	PFDavg	SF
No.	No.	No.	No.	No.	[10 ³ h]	[fit]	[10 ⁻⁴]	[%]	[10 ³ h]	[fit]	[10-4]	[%]	[10 ³ h]	[fit]	[104]	[%]	[10 ³ h]	(fit)	[10-4]	[%
1	1	1	0	0	1049.1	953	1.30	97.0	306.8	3260	3.61	97.5	146.8	6810	7.55	97.5	91.3	10954	9.84	98
1	1	2	0	0	833.4	1200	2.05	96.2	252.8	3955	5.62	96.8	121.0	8263	11.75	96.8	77.7	12874	15.35	97
1	1	3	0	0	691.3	1447	2.81	95.7	215.0	4651	7.64	96.3	102.9	9715	15.96	96.3	67.6	14793	20.85	96
1	1	4	0	0	590.6	1693	3.56	95.3	187.1	5346	9.65	96.0	89.5	11168	20.16	96.0	59.8	16712	26.36	96
1	1	1	0	1	959.8	1042	1.30	97.2	284.7	3513	3.61	97.7	136.3	7338	7.55	97.7	85.6	11684	9.84	98
1	1	2	0	1	776.1	1289	2.05	96.4	237.6	4208	5.62	97.0	113.8	8791	11.75	97.0	73.5	13603	15.35	97
1	1	3	0	1	651.4	1535	2.81	95.9	203.9	4903	7.64	96.5	97.6	10243	15.96	96.5	64.4	15522	20.85	97
1	1	4	0	1	561.2	1782	3.56	95.5	178.6	5599	9.65	96.1	85.5	11696	20.16	96.1	57.3	17441	26.36	96
1	1	1	1	0	1037.5	964	1.32	96.9	303.4	3296	3.69	97.5	145.2	6886	7.71	97.5	90.4	11059	10.05	98
1	1	2	1	0	826.1	1211	2.08	96.2	250.5	3992	5.70	96.8	119.9	8339	11.91	96.8	77.1	12978	15.56	97
1	1	3	1	0	686.3	1457	2.83	95.6	213.4	4687	7.72	96.3	102.1	9791	16.12	96.3	67.1	14897	21.06	96
1	1	4	1	0	586.9	1704	3.59	95.3	185.8	5382	9.73	96.0	88.9	11244	20.32	96.0	59.5	16816	26.57	96
1	1	5	1	0	512.7	1950	4.34	95.0	164.5	6078	11.74	95.7	78.8	12696	24.53	95.7	53.4	18735	32.07	96
1	1	6	1	0	455.1	2197	5.10	94.8	147.6	6773	13.75	95.5	70.7	14149	28.73	95.5	48.4	20654	37.58	95
1	1	7	1	0	409.2	2444	5.86	94.6	133.9	7468	15.77	95.3	64.1	15602	32.94	95.3	44.3	22574	43.08	95
1	1	8	1	0	371.7	2690	6.61	94.5	122.5	8164	17.78	95.1	58.6	17054	37.14	95.1	40.8	24493	48.59	95
1	1	1	1	1	950.1	1053	1.32	97.2	281.8	3549	3.69	97.7	134.9	7414	7.71	97.7	84.8	11789	10.05	98
1	1	2	1	1	769.7	1299	2.08	96.4	235.6	4244	5.70	97.0	112.8	8867	11.91	97.0	73.0	13708	15.56	97
1	1	3	1	1	646.9	1546	2.83	95.9	202.4	4940	7.72	96.5	96.9	10319	16.12	96.5	64.0	15627	21.06	97
1	1	4	1	1	557.9	1792	3.59	95.5	177.5	5635	9.73	96.1	84.9	11772	20.32	96.1	57.0	17546	26.57	96
1	1	5	1	2	470.0	2128	4.34	95.4	151.9	6583	11.74	96.0	72.7	13752	24.53	96.0	49.5	20195	32.07	96
1	1	6	1	2	421.2	2374	5.10	95.2	137.4	7279	13.75	95.8	65.8	15205	28.73	95.8	45.2	22114	37.58	96
1	1	7	1	2	381.5	2621	5.86	95.0	125.4	7974	15.77	95.6	60.0	16657	32.94	95.6	41.6	24033	43.08	96
1	1	8	1	2	348.7	2868	6.61	94.8	115.4	8669	17.78	95.4	55.2	18110	37.14	95.4	38.5	25952	48.59	95

Responsible person:

nau

Dipl. Ing. Šindler Jaroslav Head of certification body



Date of issue: 31.07.2009

Page: 2/2

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 232 715, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



(2)

Physical Technical Testing Institute

Ostrava-Radvanice



Supplement No. 5 to EC-Type Examination Certificate

Equipment or Protective Systems Intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

(3) EC-Type Examination Certificate Number:

FTZÚ 07 ATEX 0066X

(4) Equipment or protective system: GasGard XL Wall Mount Controller

(5) Manufacturer:

(6) Address:

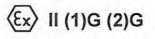
MSA Auer GmbH

Thiemannstrasse 1, D-12059 Berlin

- (7) This supplement of certificate is valid for: verification according to new standards
- (8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.
- (9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 (Paragraph 6) of Directive No. 94/9/EC. The Directive contains other requirements, which manufacturer shall fulfil before products are place on market or introduce in service.
- (10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 60079-29-1:2007

(11) Marking of equipment shall contain symbols:



(12) This type examination certificate is valid till: 04.03.2013

Responsible person:

na

Dipl. Ing. Šindler Jaroslav Head of certification body



Date of issue: 04.06.2010

Page: 1/2

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 223 111, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



Ostrava-Radvanice

(13)

Schedule

(14) Supplement No. 5 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

 (15) Description of variation to the Equipment or Protective System: Variation five, to permit: The equipment was verificated according to the new standard EN 60079-29-1:2007. There are no changes of the equipment and there is no affect to the safety of the equipment. The technical description remains unchanged.

(16) Report No.: 07/0066 - d5 (dated 04.06.2010)

- (17) Special Conditions for Safe Use: remain unchanged
- (18) Essential Health and Safety Requirements: remain unchanged
- (19) List of Documentation:[1] Operating Manual GasGard XL Wall Mount Controller, No. 10081908, Rev. 02, 82 pages

Date of verification of documentation by FTZÚ: 04.06.2010

Responsible person:

Dipl. Ing. Šindler Jaroslav Head of certification body



Date of issue: 04.06.2010

Page: 1/2

This supplement to certificate is granted subject to the general conditions of the Physical Technical Testing Institute. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.

FTZÚ, Pikartská 7, 716 07 Ostrava Radvanice, tel +420 596 223 111, fax +420 596 232 672, e-mail: ftzu@ftzu.cz



(2)

Physical Technical Testing Institute

Ostrava - Radvanice



Supplement No. 6 to EC-Type Examination Certificate

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

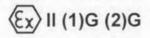
(3) EC-Type Examination Certificate Number:

FTZÚ 07 ATEX 0066X

- (4) Equipment or protective system: GasGard XL Wall Mount Controller
- (5) Manufacturer: MSA Auer GmbH
- (6) Address: Thiemannstrasse 1, D-12059 Berlin, Germany
- (7) This supplement of certificate is valid for: modification of certified equipment
- (8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.
- (9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains other requirements, which manufacturer shall fulfil before products are place on market or introduce in service.
- (10) Safety requirements of modified parts were fulfilled by satisfying the following standards:

EN 60079-29-1:2007, EN 50271:2001

(11) Marking of equipment shall contain symbols:



(12) This type examination certificate is valid till: 04.03.2013

Responsible person:

Dipl. Ing. Lukáš Martinák Head of Certification Body



Date of issue: 10.10 2012

Page: 1/2

This supplement to certificate is granted subject to the general conditions of the FTZÚ, s.p. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.



Physical Technical Testing Institute Ostrava – Radvanice

Schedule

(13)

Supplement No. 6 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

(15) Description of Equipment or Protective System:

This supplement verifies the following modifications:

- a) Bill of Material documents upgrade.
- b) Minor hardware upgrade.
- c) Firmware upgrade.

There are changes of the equipment with no affect to the safety. The technical description remains unchanged.

- (16) Report No.: 07/0066/6
- (17) Special conditions for safe use:

Remain unchanged.

(18) Essential Health and Safety Requirements:

Are covered by the standards mentioned in point (10) of this supplement.

(19) List of Documentation:

	Number:	Version:	Revision:	Date:	Pages:	Title:
1	DG 0751 100		01	04.09.2012	1	Assembly
2	DG 0751 800	17A	1	18.01.2011	4	Bill of Material CBV
3	DG 0751 801	20A	1	18.01.2011	3	Bill of Material CBA
4	DG 0751 802	16A	1	18.01.2011	3	Bill of Material CRB
5	DG 0751 803	20A	1	18.01.2011	4	Bill of Material DBO
6	DG 0751 804	12A	3	18.01.2009	10	Bill of Material MBO
7	DG 0751 805	11A	1	18.01.2011	1	Bill of Material SEB
8	FW 0751 001	01.05.04	-	30.08.2012	48	FW code CBA
9	FW 0751 003	01.04.05	7	30.08.2012	65	FW code DBO
10	FW 0751 004	01.05.02	-	23.06.2010	133	FW code MBO
11	FW 0751 004	02.00.08	-	30.08.2012	144	FW code MBO
12	FW 0751 102	01	1	30.08.2012	4	FW code upgrade

Responsible person:

Dipl. Ing. Lukáš Martinák Head of Certification Body



Date of issue: 10.10.2012

Page: 2/2

This supplement to certificate is granted subject to the general conditions of the FTZÚ, s.p. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.



(2)

Physical Technical Testing Institute Ostrava – Radvanice



Supplement No. 7 to EC-Type Examination Certificate

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

(3) EC-Type Examination Certificate Number:

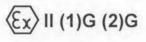
FTZÚ 07 ATEX 0066X

- (4) Equipment or protective system: GasGard XL Wall Mount Controller
- (5) Manufacturer: MSA Auer GmbH
- (6) Address: Thiemannstrasse 1, D-12059 Berlin, Germany
- (7) This supplement of certificate is valid for. prolongation of validity

verification according to new standards

- modification of certified equipment

- (8) Modification of certified apparatus (protective system) and any of its approved variants are specified in documentation, list of which is mentioned in schedule of this certificate.
- (9) This supplement to type examination certificate is valid only for type examination of design and construction of product sample in accordance with Annex 3 Paragraph 6) of Directive No. 94/9/EC. The Directive contains other requirements, which manufacturer shall fulfil before products are place on market or introduce in service.
- (10) Safety requirements of modified parts were fulfilled by satisfying the following standards:
 EN 60079-29-1:2007, EN 50271:2010, EN 50104:2010, EN 50270:2006, EN 50402:2005 + A1/2008
- (11) Marking of equipment shall contain symbols:



(12) This type examination certificate is valid till: 04.03.2018

Responsible person:

Dipl. Ing. Lukáš Martinák Head of Certification Body



Date of issue: 04.03 2013

Page: 1/2

This supplement to certificate is granted subject to the general conditions of the FTZÚ, s.p. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.



Ostrava – Radvanice

(13)

Schedule

(14) Supplement No. 7 to EC-Type Examination Certificate N° FTZÚ 07 ATEX 0066X

- (15) Description of Equipment or Protective System:
 - This supplement verifies the following changes:
 - a) Prolongation of the certificate for next five years.
 - b) Verification according to the new standards EN 50104:2010 and EN 50271:2010.
 - c) Firmware upgrade.

There are changes of the equipment with no affect to the safety. The technical description remains unchanged. The evaluation according to standards EN 60079-29-1:2007, EN 50402:2005 + A1/2008 and EN 50270:2006 has not been affected.

- (16) Report No.: 07/0066/7 dated 04.03.2013
- (17) Special conditions for safe use: Remain unchanged.
- (18) Essential Health and Safety Requirements:

Are covered by the standards mentioned in point (10) of this supplement.

(19) List of Documentation:

Number:	Version:	Revision:	Date:	Pages:	Title:
FW 0751 100	-	1	25.02.2013	18	EN 50271 Safety Discussion
FW 0751 004	02.00.09	-	04.02.2013	144	FW code MBO
10081908/02	-	2	14.02.2013	1	Updated page to chapter 8.2
					of Operating Manual

Responsible person:

Dipl. Ing. Lukáš Martinák Head of Certification Body



Date of issue: 04.03.2013

Page: 2/2

This supplement to certificate is granted subject to the general conditions of the FTZÚ, s.p. This supplement to certificate may only be reproduced in its entirety and without any change, schedule included.