



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEX DEK 12.0054X** Page 1 of 4 [Certificate history:](#)
Issue 0 (2012-10-16)

Status: **Current** Issue No: 1

Date of Issue: 2020-05-19

Applicant: **R. STAHL Schaltgeräte GmbH**
Am Bahnhof 30
74638 Waldenburg
Germany

Equipment: **Analog Universal Module HART(AUMH) Type 9468/3*-08-1***

Optional accessory:

Type of Protection: **Ex ia, Ex ec**

Marking: Type 9468/32-08-1*:
Ex ia [ia Ga] IIC T4 Gb
[Ex ia Da] IIIC
Type 9468/33-08-1*:
Ex ec ia [ia Ga] IIC T4 Gc
[Ex ia Da] IIIC

Approved for issue on behalf of the IECEx
Certification Body:

R. Schuller

Position:

Certification Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
Netherlands





IECEX Certificate of Conformity

Certificate No.: **IECEX DEK 12.0054X**

Page 2 of 4

Date of issue: 2020-05-19

Issue No: 1

Manufacturer: **R. STAHL Schaltgeräte GmbH**
Am Bahnhof 30
74638 Waldenburg
Germany

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Report:

[NL/DEK/ExTR12.0054/01](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/15](#)



IECEx Certificate of Conformity

Certificate No.: **IECEx DEK 12.0054X**

Page 3 of 4

Date of issue: 2020-05-19

Issue No: 1

EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Analog Universal Module HART (AUMH) Type 9468/3*-08-1*, for operation in the Remote I/O Systems IS1 and IS1+.

The module is connected to the system via a Bus Rail and it provides up to eight intrinsically safe 0/4 to 20 mA (configurable) analog input and/or output signals. Each input channel can be used as input for galvanically isolated 2- 3- or 4-wire measurement transducers. In 3- or 4-wire connection only 4 measurement transducers are connectable.

Each channel can also be used as output channel for connection of actuators, or display equipment. The intrinsically safe input/output circuits are infallibly galvanically isolated from the IS1 and IS1+ bus supply and data circuits up to a peak voltage of 60 V.

Module type 9468/32-08-1* is intrinsically safe and may be installed in an explosive gas atmosphere requiring equipment of Equipment Protection Level (EPL) Gb.

Module type 9468/33-08-1* is in type of protection Ex ec and may be installed in an explosive gas atmosphere suitable for EPL Gc. Both types of modules may be installed in an explosive dust atmosphere requiring equipment of of EPL Db or EPL Dc if mounted in a suitable enclosure that meets the requirements of an appropriate, recognized type of protection in accordance with IEC 60079-0.

The AUMH has a degree of protection of IP20 according to IEC 60529.

Refer to Annex 1 for electrical data and temperature data.

SPECIFIC CONDITIONS OF USE: YES as shown below:

When installed in an explosive gas atmosphere:

The Analog Universal Module HART (AUMH) Type 9468/3*-08-1* shall be placed in an enclosure that meets the requirements of an appropriate, recognized type of protection in accordance with IEC 60079-0.

It shall be used in an area of not more than pollution degree 2, as defined in IEC 60664-1.



IECEX Certificate of Conformity

Certificate No.: **IECEX DEK 12.0054X**

Page 4 of 4

Date of issue: 2020-05-19

Issue No: 1

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Assessed per IEC 60079-0 : 2017 (Ed. 7) and IEC 60079-7 : 2017 (Ed. 5.1)

Annex:

[224190000-Annex-1.DEK.ExTR12.0054.01_1.pdf](#)

Annex 1

To IECEx DEK 12.0054X and NL/DEK/ExTR12.0054/01
Analog Universal Module HART (AUMH) Type 9468/3*-08-1*

Electrical and thermal data:

Ambient temperature range:

-40 °C to +75 °C;

-40 °C to +65 °C (upside down installation).

Circuit connecting to the IS1 or IS1+ System:

Power supply (input); Plug to BusRail V101/ Pin 7, 8, 9, 10 (+), Pin 27, 28, 29, 30 (-):
in type of protection intrinsic safety Ex ia IIC, with the following maximum values:

$U_i = 26.2 \text{ V}$.

The circuit is equipped with an internal current limitation that limits the current to 450 mA.

Address- and Databus (communication); Plug to BusRail V101/ Pin: 4 (Bus Red.); 5 (Bus Prim.);
14, 15, 16, 24 (Bank 1-4):

in type of protection intrinsic safety Ex ia IIC, only for connection to the internal Address- and
Databus of the IS1/IS1+ System with the following maximum values:

$U_o = 6.6 \text{ V}$; $I_o = 102 \text{ mA}$; $P_o = 168 \text{ mW}$

$U_i = 6.6 \text{ V}$; $C_i = 0 \text{ nF}$; $L_i = 0 \text{ mH}$

Electronic switch control (input); Plug to BusRail V101/ Pin: 18, 19:

in type of protection intrinsic safety Ex ia IIC, with the following maximum values:

$U_o = 26.2 \text{ V}$; $I_o = 5.4 \text{ mA}$.

Intrinsically safe field circuits:

The L_o and C_o values in the following tables are the maximum combined connectable inductance and capacitance. The pair of values for L_o and C_o acc. to IEC 60079-11 / Annex A are marked in grey. These grey marked values may be used for assessment as per IEC 60079-14 – Verification of intrinsically safe circuits for the following connections:

2-Wire input/output circuits:

Connector X1 – Channel 0 (1+/2-); Channel 1 (3+/4-); up to Channel 7 (15+/16-)

For connection of up to 8 passive, galvanically isolated and ungrounded circuits in type of protection
intrinsic safety Ex ia IIB/IIC, Ex ia IIC, with the following maximum values:

$U_o = 24.4 \text{ V}$; $I_o = 80 \text{ mA}$; $P_o = 488 \text{ mW}$; linear source; C_o and L_o per tables below,

L_o [mH]	-	-	-	3.8	2	1	0.5	0.2
C_o [nF]	-	-	-	53	59	71	88	119

L_o [mH]	23	10	2	1	0.5	0.2	0.1	0.05
C_o [nF]	370	430	430	470	550	700	860	890

Annex 1

To IECEx DEK 12.0054X and NL/DEK/ExTR12.0054/01

Analog Universal Module HART (AUMH) Type 9468/3*-08-1*

3-Wire input circuits:

Connector X1 – Channel 0 (supply 1(+), signal 2(+), common 4(-));
 Channel 2 (supply 5(+), signal 6(+), common 8(-));
 Channel 4 (supply 9(+), signal 10(+), common 12(-));
 Channel 6 (supply 13(+), signal 14(+), common 16(-));

For connection of up to 4 passive, galvanically isolated and ungrounded circuits in type of protection intrinsic safety Ex ia IIB/IIC, Ex ia IIIC, with the following maximum values:

$U_o = 24.4$ V; $I_o = 81.8$ mA; $P_o = 499$ mW; linear source; C_o and L_o per tables below,

Table for IIC, 3-Wire Input circuits								
L_o [mH]	-	-	-	3.6	2	1	0.5	0.2
C_o [nF]	-	-	-	53	58	70	87	119

Table for IIB / IIIC, 3-Wire Input circuits								
L_o [mH]	21	10	2	1	0.5	0.2	0.1	0.05
C_o [nF]	380	420	420	470	550	700	860	890

4-Wire input circuits:

Connector X1 – Channel 0 (2+/4-); Channel 2 (6+/8-); Channel 4 (10+/12-); Channel 6 (14+/16-)

For connection of up to 4 intrinsically safe active 0/4-20 mA measurement transducers, with following maximum values:

$U_o =$ negligibly small; $I_o =$ negligibly small; $P_o =$ negligibly small; linear source.

$U_i = 28$ V; $C_i =$ negligibly small; $L_i =$ negligibly small;

I_i depends on the maximum ambient temperature as listed in the following table:

T_{amb} [°C]	I_i [mA]
≤ 55	150
≤ 60	140
≤ 65	130
≤ 70	115
≤ 75	105

(reduced by 10K for upside down installation).

Installation instructions

The instructions provided with the equipment shall be followed in detail to assure safe operation.