



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

Ex COMPONENT CERTIFICATE

Certificate No.: **IECEX PTB 08.0028U** Page 1 of 4 Certificate history:
Status: **Current** Issue No: 2 Issue 1 (2011-04-18)
Date of Issue: 2020-02-10 Issue 0 (2008-06-26)
Applicant: **R. STAHL Schaltgeräte GmbH**
Am Bahnhof 30
74638 Waldenburg
Germany
Ex Component: Empty Enclosure type 9490/11-**

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **Flameproof Enclosure, Increased Safety**

Marking: Ex db eb IIC Gb

Approved for issue on behalf of the IECEx
Certification Body:

Dr.-Ing. Detlev Markus

Position:

**Head of Department "Explosion Protection in Energy
Technology"**

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:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany





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Date of issue: 2020-02-10

Issue No: 2

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 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

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:

[DE/PTB/ExTR08.0033/01](#)

Quality Assessment Report:

[DE/BVS/QAR10.0002/14](#)



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Issue No: 2

Ex Component(s) covered by this certificate is described below:

The empty enclosure type 9490/11-** is an Ex component for the installation of PCB assemblies that serve as switching and control devices. The empty enclosure consists essentially of the Ex d unit (flameproof enclosure) with the electrical bushings and the socket. The Ex d unit (flameproof enclosure) and the socket are mechanically latched together.

For nomenclature and technical data see annex.

SCHEDULE OF LIMITATIONS:

- 1) The empty enclosure type 9490/11-** shall be mounted in an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0, section 1.
- 2) For technical data of the electrical connections only in the type of protection "increased safety", see technical data in the certificate.
- 3) The use of this component requires a further assessment by an ExCB.



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Date of issue: 2020-02-10

Issue No: 2

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

- 1) New test according to IEC 60079-0:2017, IEC 60079-1:2014 and IEC 60079-7:2017
- 2) New marking

Annex:

[COCA080028U-02_1.pdf](#)



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

Electrical Apparatus: Empty enclosure type 9490/11-**

Description:

The empty enclosure type 9490/11-** is an Ex component for the installation of PCB assemblies that serve as switching and control devices. The empty enclosure consists essentially of the Ex d unit (flameproof enclosure) with the electrical bushings and the socket. The Ex d unit (flameproof enclosure) and the socket are mechanically latched together.

The empty enclosure type 9490/11-** shall be mounted in an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0:2017, section 1 and has an ingress protection of at least IP54 according to IEC 60079-0:2017 and IEC 60079-7:2017.

The connection of the power supply is made via terminals integrated in the socket in the type of protection "eb".

Type designation:

9490	/	1	1	-	*	*
a		b	c		d	e

- a. Series
- b. Design
1 = Design 1
- c. Ex zone of the installation
1 = Zone 1
- d. Ex d unit
1 = Standard
3 = With LED display
- e. Socket
1 = CPM, 9440, RS 485-Ex
2 = CPM, 9440, RS 485-IS
3 = DOM-R, 9477, 8 Kanal
4 = DOM-R, 9477, 6 Kana

Electrical data:

Rated voltage: 250 V DC/AC (50 ... 60 Hz)
Rated current: max. 5 A
Rated frequency: 50 Hz / 60 Hz
Rated isolation voltage: max. 250 V AC or DC
Rated power: See table below
Connection cross section: 0.75...2.5 mm², one solid or stranded wire
Tightening torque for the terminals: 0.5 – 0.6 Nm



The electrical data may be reduced according to the limitations of the installed equipment and components used for the empty enclosure.

Note: Stranded wires are suitable with or without wire end ferrules.

Service temperature:

For type 9490/11-3* (with LED display): $-40\text{ °C} \leq T_s \leq +100\text{ °C}$
For type 9490/11-1* (standard): $-40\text{ °C} \leq T_s \leq +115\text{ °C}$

Dimensions:

Type	Length [mm]	Width [mm]	Height [mm]
9490/11-*1 and 9490/11-*2	approx. 253	approx. 96.5	approx. 165.5
9490/11-*3 and 9490/11-*4	approx. 208	approx. 96.5	approx. 165.5

Notes for installation and operation:

- 1) The empty enclosure type 9490/11-** shall be mounted in an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0, section 1.
- 2) When installing the empty enclosure type 9490/11-** in an enclosure designed to Increased Safety "e" type of protection in compliance with IEC 60079-7, the clearance and creepage distances shall be maintained.
- 3) The connecting cables of the control device type 9490/11-** shall be fixed and routed so that it will be adequately protected against mechanical damage.
- 4) Only the terminals and the connection in the type of protection "increased safety" between terminals and flameproof enclosure and the enclosure in the type of protection "flameproof enclosure" have been examined, tested and approved. The connection between flameproof enclosure and socket in type of protection "intrinsic safety" as well as the parts of the empty enclosure like LCD display, buttons, switch, SUB-D jacks, etc. of the socket in the type of protection "intrinsic safety" were not considered here.

This information must accompany each device in an adequate form.

Schedule of Limitations:

- 1) The empty enclosure type 9490/11-** shall be mounted in an enclosure that meets the requirements of an approved type of protection as specified in IEC 60079-0, section 1.
- 2) For technical data of the electrical connections only in the type of protection "increased safety", see technical data in the certificate.
- 3) The use of this component requires a further assessment by an ExCB.