



EUROPEAN UNION RECOGNISED ORGANISATION (EU RO) MUTUAL RECOGNITION TYPE APPROVAL CERTIFICATE

Certificate No:
MRA000000V
Revision No:
2

In accordance with Article 10.1 of EU Regulation 391/2009

This Certificate is issued to

R. STAHL Schaltgeräte GmbH
Waldenburg, Germany

for
Computers and Programmable Logic Controllers

with type designation(s)
I.S. Isolators ISpac

The product is found to comply with
EU RO Mutual Recognition Technical Requirements for Computers and Programmable Logic Controllers

Intended service

Programmable Logic Controllers and I/O devices for control, monitoring, alarm, and safety functions subject to classification requirements.

System context

Application of the control, monitoring, alarm, and safety systems are subject for approval of the individual RO classing the vessel.

Temperature [°C]: -25 and +70
Vibration: ±1.6mm / 4.0g (±1mm / 0.7g for pac-Carrier 9195)
EMC: All locations including bridge and open deck
IP Code: 20

This is to certify:

that the Product referred to herein has been inspected for the Manufacturer, pursuant to the relevant requirements of the European Union Recognised Organisation Mutual Recognition procedure, required by Article 10.1 of EU Regulation 391/2009, and has been found in accordance with those requirements.

This Certificate is valid until **2027-06-06**.

Issued at **Hamburg** on **2022-06-07**

DNV local station: **Augsburg**

for **DNV**

Approval Engineer: **Dariusz Lesniewski**

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Joannis Papanuskas
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid. The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

LEGAL DISCLAIMER: Unless otherwise stated in the applicable contract with the holder of this document, or following from mandatory law, the liability of DNV AS, its parent companies and their subsidiaries as well as their officers, directors and employees ("DNV") arising from or in connection with the services rendered for the purpose of the issuance of this document or reliance thereon, whether in contract or in tort (including negligence), shall be limited to direct losses and under any circumstance be limited to 300,000 USD.



Form code: MRTA 201

Revision: 2021-03

www.dnv.com

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Product description

ISpac 91** and ISpac System 919* as follows:

ISpac Isolators	
I.S. Power Supply	9143/10-***-***-*0
Frequency Transmitter	9146/*0-1*-1*
Vibration Transducer Supply Unit	9147/*0-99-10
Transmitter Supply Unit	9160/**-**-**
Transmitter Supply Unit with Limit values	9162/13-11-**
Isolating Repeater HART Input	9163/**-**-**
mA Isolating Repeater	9164/13-20-**
Isolating Repeater	9165/**-11-**
Isolation Repeater Loop Powered	9167/**-11-00
Switching Repeater	9170/**-**-**
I.S. Relay Module	9172/**-11-*0
Digital Output	9175/*0-1*-1*
Digital Output Loop Powered	9176/*0-1*-00
Resistance Isolator	9180/**-77-11
Temperature Transmitter	9182/*0-5*-**
Fieldbus Isolating Repeater	9185/1*-**-10
Fibre Optic Isolating Repeater	9186/12-*1-1*
Fibre Optic Isolating Repeater	9186/*5-12-11
ISpac System	
Termination Module	9191/20-00-50
HART-Multiplexer	9192/32-10-10
Supply Module	9193/*0-11-1*
Supply Module	9193/21-11-11
pac-Bus	9194/31-**
pac-Carrier	9195/**-**-**
Connection board	9196/**H-**-**

Manufactured by

R. STAHL Schaltgeräte GmbH
 Am Bahnhof 30, 74638 Waldenburg
 Germany.

Application/Limitation

Fieldbus Isolating Repeater must be installed in RF shielded cabinet.

Required protection according to the Recognised Organisation’s Rules shall be provided upon installation on board.

Ex-certification is not covered by this certificate. Application in hazardous area to be approved in each case according to the Rules and Ex-Certification/ Special Condition for Safe Use listed in valid Ex-certificate issued by a notified/recognized Certification Body

Type Approval documentation

Marking of product

Manufacturer’s name: R. STAHL Schaltgeräte GmbH
 Type No.: refer to product description
 Unique serial No.
 Date of manufacture:
 Power supply ratings

Other Conditions

The units have been verified for compliance with EU Mutual Recognition Technical Requirements for Computers and programmable logic controllers (PLCs) version 0.6.

Environmental test parameters

Temperature: -25°C and 70°C
 Vibration: ±1.6mm / 4.0g
 ±1mm / 0.7g for pac-Carrier 9195.
 EMC: All locations including bridge and open deck



Job Id: **262.4-000050-3**
Certificate No: **MRA000000V**
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Enclosure: IP20

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the type are complied with, and that no alterations are made to the product design or choice of systems, software versions, components and/or materials.

The main elements of the assessment are:

- Ensure that type approved documentation is available
- Inspection of factory samples, selected at random from the production line (where practicable)
- Review of production and inspection routines, including test records from product sample tests and control routines
- Ensuring that systems, software versions, components and/or materials used comply with type approved documents and/or referenced system, software, component and material specifications
- Review of possible changes in design of systems, software versions, components, materials and/or performance, and make sure that such changes do not affect the type approval given
- Ensuring traceability between manufacturer's product type marking and the type approval certificate

Periodical assessment is to be performed annually and at renewal of this certificate.

END OF CERTIFICATE

Generic Statement for EU RO MR Type Approval Certificate

When a product is presented with this EU RO MR Type Approval Certificate for given application, its acceptability with regards to the limitations stated in the certificate conditions defined in 1b, 1c and 1d of the applied Technical Requirement will be evaluated by the EU RO in charge of classing the ship or being in charge of the unit/system certification.

In accordance with Article 10 of Regulation (EC) No 391/2009 of the European Parliament and of the Council of 23 April 2009 "on common rules and standards for ship inspection and survey organizations", the following organizations, recognized by the EU on this date, have agreed on the technical and procedural conditions under which they will mutually recognize this certificate:

- American Bureau of Shipping (ABS);
- Bureau Veritas (BV);
- China Classification Society (CCS);
- Croatian Register of Shipping (CRS);
- DNV;
- Indian Register of Shipping (IRS);
- Korean Register (KR);
- Lloyd's Register Group Ltd. (LR);
- Nippon Kaiji Kyokai General Incorporated Foundation (ClassNK);
- Polish Register of Shipping (PRS);
- RINA Services S.p.A. (RINA);
- Russian Maritime Register of Shipping (RS).

The scheme for the mutual recognition of class certificates for materials, equipment and components laid down by Article 10(1) of Regulation (EC) No 391/2009 is only enforceable within the Union in respect of ships flying the flag of a Member State. As far as foreign vessels are concerned, the acceptance of relevant certificates remains at the discretion of relevant non-EU flag States in the exercise of their exclusive jurisdiction, notably under the United Nations Convention on the Law of the Sea (UNCLOS). (In accordance with COMMISSION IMPLEMENTING REGULATION (EU) No 1355/2014 amending Regulation (EC) No 391/2009 - recital (25)).