

RFID Transponder Typ 9713



Operating Instruction

## Content RFID Tag

<b>1</b>	<b>Safety instructions</b> .....	<b>3</b>
<b>2</b>	<b>Conformity to standards</b> .....	<b>3</b>
<b>3</b>	<b>Function</b> .....	<b>4</b>
<b>4</b>	<b>Marking and technical data</b> .....	<b>4</b>
	4.1 Type codes .....	5
<b>5</b>	<b>Arrangement and fitting</b> .....	<b>6</b>
	5.1 Dimensions .....	6
	5.2 Mounting and dismounting .....	6
	5.3 Installation .....	6
	5.4 Settings .....	7
<b>6</b>	<b>Operation</b> .....	<b>7</b>
<b>7</b>	<b>Maintenance and repair</b> .....	<b>8</b>
<b>8</b>	<b>Disposal</b> .....	<b>8</b>
	8.1 ROHS directive 2002/95/EC .....	8

## 1 Safety instructions

The most important safety instructions are summarised in this chapter. It is intended to supplement the relevant regulations which must be studied by the personnel responsible.

When working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations. Assembly and maintenance staff working on installations therefore have a particular responsibility. The precondition for this is an accurate knowledge of the applicable regulations and provisions.

**When installing and operating the Tag, the following are to be observed:**

- The national installation and assembly regulations (e.g. EN 60079-14) apply.
- The device may be used in hazardous locations Zone 0, 1, 2 and Zone 20, 21, 22.
- This device is designed to satisfy clause 1.2.7 of the Essential Health and Safety Requirement ANNEX II of directive 94/9/EC and it is in conformance to the essential requirements of the R&TTE directive 99/5/EC.
- Attention should be paid to the Temperature Class of the area which the asset or person could be entering. Restrictions on the ambient temperature apply to the certification of the device. Please read the label and the ATEX certificate at the back of the manual for detail on the maximum ambient temperature permitted for the device.
- The safety values of the device must match those of the device or asset on which it is mounted.
- The earthing of the device is not necessary.
- Operation of the device inside of a metal housing may reduce the reading and writing range of the transponder.
- The safe maximum values of the connected field device(s) must correspond to the values of the data sheet or the EC-type examination certificate.
- National safety and accident prevention regulations.
- Generally recognised technical regulations.
- Safety guidelines in these operating instructions.
- Any damage can compromise and even neutralise the explosion protection.

Use the device **in accordance with the regulations** and for its intended purpose only (see "Function").

Incorrect or non-permissible deployment and/or non-compliance with the instructions of this operating manual shall invalidate any warranty by R. STAHL.

No changes to the devices or components impairing their explosion protection are permitted. Further, the device may only be fitted if it is undamaged, dry and clean.

## 2 Conformity to standards

The information about the conformity to standards can be found in the manufacturer's declaration of conformity in the appendix of this document.

The current EC-Type Examination Certificate can be downloaded from the Internet [www.r-stahl.com](http://www.r-stahl.com).

### 3 Function




The intended use of the RFID Tag type 9713 is the localization and identification of assets, containers, vehicles and individuals in hazardous locations even in extreme environments and climatic conditions.


The RFID Tag type 9713 is an active wireless RFID device with built-in not rechargeable battery. This explosion-protected equipment that is allowed to be carried on people or mounted on assets and vehicles in hazardous areas and Ex protected zones 0, 1, 2, 20, 21 and 22. The 2.45 GHz active transponder is used to identify and/or locate assets, containers or individuals. It is rugged to be used indoors and outdoors in extreme environments and climatic conditions.

The RFID Controller (not part of this instruction manual) localizes the RFID Tag and is reading and writing the RFID Tag in a range of up to 160 m in line of sight. The Controller manages also the configuration of the transmission mode of the RFID Tag.

The RFID Tags have multifunction features which allow for read & write operations to the user data memory, to mute and un-mute the RFID Tags, and to modify the signalization rate. The mute function is particularly well suited to air transport. Muting, un-muting, and programming can be done remotely at 2.45 GHz. These service functions have to be done by instructed persons with optional equipment.

### 4 Marking and technical data

Manufacturer Type CE marking Ex marking ATEX application area Explosion protection marking  ATEX Testing authority and certificate number IECEx Testing authority and certificate number Ambient temperature range	R. STAHL 9713/11-15.   II 1GD Ex ia IIC T5 Ga and Ex ia IIIC T70°C Da SEV 10 ATEX 0151 IECEx SEV 10.0005 -40 °C ... +50 °C
See EC-type examination certificate for further information	
Wireless interface	
R&TTE Directive 99/5/EC	Detailed list of standards see in the EC Declaration of conformity at the back of this manual
Equipment class identifier (according to 99/5/EC) In the countries Croatia, Italy, Russian Federation and Slovak Republic contact the local administration before operating a System with Controllers and Tags. Find all time actual information at <a href="http://www.efis.dk">www.efis.dk</a>	
Transmit/Receive frequency	2.400 GHz ... 2.483 GHz worldwide unlicensed ISM band
Maximum transmit power	1 mW at 2.400 ... 2.483 GHz
Weight 9713/11-15	120 g

Electrical data Lifetime Power supply  battery status	6 ... 10 years via Lithium Thionyl Chloride integrated battery (not rechargeable) Automatic Signaling of low charge state
Ambient conditions Operating temperature Storage temperature Relative humidity (no condensation)	-40...+50 °C -40...+70 °C No restrictions
Vibration & shock	IEC/EN 61373 Cat. 1, Class B; swinging at 0.8 g; shock at 5 g
Type of protection (dust, liquids)	IP66, IP67
Additional technical data can be found in the current data sheet.	
	Please consult with the manufacturer before operating under conditions which deviate from the standard operating conditions.

#### 4.1 Type codes

Order number	Description
9713/11-15	Identification Tag equipped with an additional plastic lid mounted to the Tag with 4 screws.

## 5 Arrangement and fitting

### 5.1 Dimensions

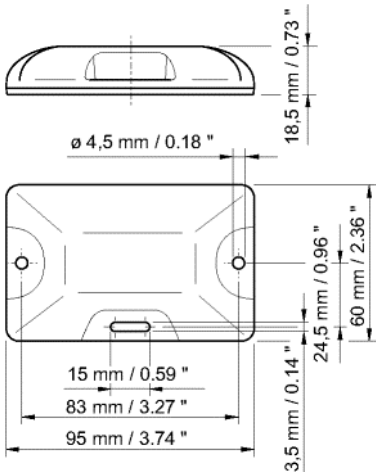


Figure 5.1 9713/11-15 RFID Tag

### 5.2 Mounting and dismounting

If the RFID Tag type 9713 has **NOT** been mounted by the manufacturer, the following actions need to be done by a skilled person

- Drill 2 holes of a diameter of 4.0 mm with a horizontal distance of 83 mm according to the dimensional drawing.
- Mount the RFID Tag on the surface of the object or into a non-shielding housing.
- Alternatively tighten the RFID Tag by using a double-faced adhesive tape or a Velcro strip to the objects surface
- No sealing is needed
- No earth connection is needed

### 5.3 Installation

The RFID Tag type 9713 is intended for mounting on assets or objects, into non-shielded housings or for carrying on people. It may be installed in any position. Dimensions and drawings see 5.1.

- The national regulations for installation and assembly apply (e.g. IEC/EN 60079-14 and IEC/EN 61241-14).
- Operation of the RFID Tag inside of a metal housing may reduce the reading and writing range of the transponder.
- If the RFID Tag is mounted inside a suitable housing with protection type Ex-e, its mechanical protection regarding impact and IP code protection up to IP 67 is maintained even after the transponder has been installed. The internal separation requirements and the temperature assessment of the Ex-e housing must be in accordance with the applicable standards.
- Safety instructions contained in these operation instructions are important.

## 5.4 Settings

There are no accessible operator interfaces on the RFID Tag. Programming, un-muting or muting can only be done with wireless remote operation and must be done by instructed personnel only.

## 6 Operation

During operation of the RFID Tag type 9713, particular care shall be taken that:

- The RFID Tag has been properly installed according to instructions
- The RFID Tag is not damaged
- The mounting screws or mounting tape are tightened firmly

<b>Important !    The RFID Tag should only be cleaned with a damp cloth to avoid excessive electrostatic surface.</b>
---

The RFID Tag type 9713 contains no replaceable parts and is sealed. It is therefore not necessary to carry out regular adjustments or to clean the device excessively.

Associated equipment is subject to maintenance, service and testing according to guidelines 1999/92/EC, IEC/EN 60079-14 and IEC/EN 60079-19 and occupational health and safety guidelines.

Before the battery is low, a signal will be transmitted that indicates that the RFID Tag must be replaced. If not replaced the RFID Tag stops sending the ID's. All other functions are stopped as well.

The Tag's service life of 6 to 10 years, depending on usage, is extremely long. The devices are stand-alone equipment with non-replaceable built-in batteries. The unique battery lifetime of 6 to 10 years, depending on usage, is achieved without sacrificing the reading and writing range. This makes the RFID Tag 's service life extremely long and economical.

It is the responsibility of the operator of an electrical plant in a hazardous environment to have the plant serviced. Please also note the appropriate national rules and regulations.

## 7 Maintenance and repair

The RFID Tag type 9713 cannot be repaired. In addition, the following applies: Devices operated in hazardous areas must not be modified. Repairs may only be carried out by qualified, authorized staff specially trained for this purpose. (e.g. the manufacturer)

**Important ! Repairs may only be carried out by specially trained staff that are familiar with all basic conditions of the applicable user regulations and – if necessary – have been authorized by the manufacturer.**

Maintenance should focus on the following:

- Status of the battery and quality of the reading or writing
- Tightness of the mounting screws or tapes
- Damaged housing

Upon a malfunction of a device please contact your local R. STAHL sales and service representative. Please fill in the R. STAHL service return form. The information on this form will help us to troubleshoot the device quickly.

The cleaning, maintenance and service intervals depend on the environment where the equipment is installed.

In order to quickly process your request, please provide us with the following information:

- Type and serial number,
- Purchase date(s),
- Description of the error,
- Application description (particularly the configuration of the input/output circuitry)

## 8 Disposal

Disposal of packaging and used parts is subject to regulations valid in whichever country the device has been installed. The disposal of devices sold after August 13th, 2005, and installed in countries under the jurisdiction of the EU is governed by directive 2002/96/EC on waste electrical and electronic equipment (WEEE). Under this directive, the devices are listed in category 9 (monitoring and control instruments). We shall take back our devices according to our General Terms and Conditions.

### 8.1 ROHS directive 2002/95/EC

The prohibition of hazardous substances as detailed in directive 2002/95/EC (ROHS) does not apply to electronic equipment of categories 8 and 9, and is therefore not applicable to the equipment described in these operation instructions.

Nevertheless the Tag meets the 2002/95/EC (ROHS) limits for hazardous substances.

# EC-Declaration of Conformity of Tag 9713

**EG-Konformitätserklärung**  
*EC-Declaration of Conformity*  
*Déclaration de Conformité CE*



**R. STAHL Schaltgeräte GmbH • Am Bahnhof 30 • 74638 Waldenburg, Germany**  
erklärt in alleiniger Verantwortung, *declares in its sole responsibility, déclare sous sa seule responsabilité,*



dass das Produkt  
*that the product*  
*que le produit*

RFID Tag  
*RFID Tag*  
*RFID Tag (étiquette électronique)*

Typ, type, type:

9713/11-15e  
e = 0, 1

Kennzeichnung, marking, marquage:

 II 1G Ex ia IIC T5 Ga      
II 1D Ex ia IIC T70°C Da

mit der EG-Baumusterprüfbescheinigung:  
*under EC-Type Examination Certificate:*  
*avec Attestation d'examen CE de type:*

SEV 10 ATEX 0151  
*(Electrosuisse*  
*Luppmenstrasse 1, CH-8320 Fehraltorf)*

auf das sich diese Erklärung bezieht, mit den folgenden Normen oder normativen Dokumenten übereinstimmt  
*which is the subject of this declaration, is in conformity with the following standards or normative documents*  
*auquel cette déclaration se rapporte, est conforme aux normes ou aux documents normatifs suivants*

Bestimmungen der Richtlinie <i>Terms of the directive</i> <i>Prescription de la directive</i>	Nummer sowie Ausgabedatum der Norm <i>Number and date of issue of the standard</i> <i>Numero ainsi que date d'émission de la norme</i>
<b>1994/9/EG: ATEX-Richtlinie</b> <i>94/9/EC: ATEX Directive</i> <i>94/9/CE: Directive ATEX</i>	EN 1127-1: 2007 EN 60079-0: 2009 EN 60079-11: 2007 EN 60079-26: 2007 EN 61241-11: 2006
<b>1999/5/EG: R&amp;TTE-Richtlinie</b> <i>1999/5/EC: R&amp;TTE Directive</i> <i>1999/5/CE: Directive R&amp;TTE</i>	EN 50371: 2002 EN 300440-2 V1.3.1: 2009 EN 301489-1 V1.8.1: 2008 EN 301489-3 V1.4.1: 2002
<b>Allgemeine Normen ohne Bezug auf eine Richtlinie</b> <i>General standards without reference to a directive</i> <i>Normes générales sans référence à une directive</i>	EN 60950-1: 2006 + A11: 2009

Waldenburg, 15.03.2011

Ort und Datum  
*Place and date*  
*Lieu et date*

  
J.-P. Rückgauer  
Leiter Entwicklung und Technik  
*Director Design and Technology*  
*Directeur Développement et Technique*

  
Dr. S. Jung  
Leiter Qualitätsmanagement  
*Director Quality Management Dept.*  
*Directeur Dép. Assurance de Qualité*







**R. STAHL Schaltgeräte GmbH**

Am Bahnhof 30, D-74638 Waldenburg, Germany

Telefon +49 7942 943-0

Telefax +49 7942 943-4333

E-Mail: [info.ex@stahl.de](mailto:info.ex@stahl.de)

Internet: <http://www.r.stahl.de>