IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx ULD 18.0001X

Issue No: 0

Certificate history:
Issue No. 0 (2018-01-31)

Status: **Current**

Date of Issue: **2018-01-31**

Applicant: **R.STAHL HMI Systems GmbH**
Adolf-Grimme Allee 8, 50829 Köln
Germany

Equipment: **CCTV camera housings - EC-910-AFZ-***
Optional accessory:

Type of Protection: **Flameproof "db" and Dust Ignition Protection by Enclosure "tb"**

Marking:

Ex db IIB T6...T5 Gb

Ex tb IIIC T85°C...T100°C Db

Tamb -40°C to +65°C or +70°C

Approved for issue on behalf of the IECEx Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2018-01-31

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 the Official IECEx Website.

Certificate issued by:

UL International Demko A/S
Borupvang 5A,
DK-2750 Ballerup
Denmark

IECEx Certificate of Conformity

Certificate No:	IECEx ULD 18.0001X	Issue No: 0
Date of Issue:	**2018-01-31**	Page 2 of 3
Manufacturer:	**R.STAHL HMI Systems GmbH** Adolf-Grimme Allee 8, 50829 Köln **Germany**	

Additional Manufacturing location(s):

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

*This Certificate **does not** indicate compliance with electrical 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:

DK/ULD/ExTR18.0001/00

Quality Assessment Report:

DE/BVS/QAR06.0007/09

IECEx Certificate of Conformity

Certificate No: IECEx ULD 18.0001X Issue No: 0

Date of Issue: **2018-01-31**

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The EC-910-AFZ-* explosion-proof housing has been designed for use with cameras operating in industrial environments in which there may be an explosive atmosphere due to gas, vapours, mists, or air powder mixtures.

The EC-910-AFZ-* intend to be fitted with a camera by the end user with a maximum power output of 4.5 W for a camera with video encoder preinstalled by manufacturer or 5.8 W if video encoder is integrated in the camera. It is a fixed CCTV camera housing that can be mounted at any angle. It may be provided with an optional sunshield. The camera housing includes a cover and an enclosure body.

The circular front cover is fitted with a toughened glass window cemented in place and is provided with a spigot portion for securing to the enclosure body.

The enclosure body is fitted with female threaded connection points for connection of the optional sunshield and of the bracket kit.

The enclosure body provides one 1/2” NPT cable entry for end user connection to either cable connectors or a conduit system dependent on application. The internal part of the enclosure is fitted with a gear tray for mounting the intended end user camera. In addition, the gear tray provides all the internal circuitry comprising of supply terminals, heating board and a fan. The heating board and the fan maintain the internal temperature within a minimum and a maximum when the equipment is powered.

Access to the integral terminal compartment for termination of supply or replacement of either of the fitted fuse or inputs and outputs is via the removal of the six M5 screws securing the cover to the body housing.

Externally the equipment, other than the cemented windows, is manufactured from passivated, electropolished AiSi 316L stainless steel.

Please see Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The outside surface of the product must never be covered in more than 5 mm of dust.
- In order to prevent accumulation of electrostatic charges whilst cleaning, the device should be cleaned using a damp cloth.
- Ambient temperature and Surface temperature – see instructions.
- Contact the manufacturer for information on the dimensions of the explosion proof joint.

Annex:

Annex for IECEx ULD 18.0001 issue 0.pdf

IECEx Certificate of Conformity

Certificate No.: IECEx ULD 18.0001X

TYPE DESIGNATION

EC-910-AFZ-* series

Series Configuration Options:
EC-910-AFZ-abb-cdd-e, where:

a	Video output	K	With video encoder integrated in the camera
		I	IP H.264 protocol ONVIF Profile S
bb	Camera	00	Without camera
		**	other than 00 = pre-installed camera
c	Voltage	P	24 Vac/Vdc & PoE+
dd	Connection	00	No cable, no cable gland
		**	Other than 00 = Connection devices
e	Release	*	Empty or Internal use without meanings for safety

PARAMETERS RELATING TO THE SAFETY

Supply Voltage	Electrical rating (comprising the max power dissipation of the installed camera and intermittent internal heaters)			Max power dissipation of installed camera	
				With video encoder integrated in the camera	With video encoder preinstalled by manufacturer
24 Vac	1.32 A	50/60 Hz	21 W	5.8W	4.5W
24 Vdc	0.9 A	-	20 W		
PoE+	0.46 A	-	21 W		

The relation between maximum ambient temperature and the assigned temperature class is as follows:

Maximum ambient temperature range	Temperature class
-40°C to +65°C	T6
-40°C to +70°C	T5

IECEx Certificate of Conformity

Certificate No.: IECEx ULD 18.0001X

MARKING

Marking has to be readable and indelible; it has to include the following indications:

- R. STAHL HMI Systems GmbH
  Adolf-Grimme-Allee 8, 50829 Köln, Germany
- EC-910-AFZ-* (*)
- IECEx ULD 18.0001X
- Serial No.
- Ex db IIB T6…T5 Gb
- Ex tb IIIC T85°C…T100°C Db
- Cable entries size: 1/2” NPT

WARNINGS: DO NOT OPEN WHEN AN EXPLOSIVE ATMOSPHERE IS PRESENT
POTENTIAL ELECTROSTATIC CHARGING HAZARD – SEE INSTRUCTIONS

INFORMATIVE SYMBOL: 

For reference to instructions containing information of ambient temperatures, temperature codes and wiring / wiring accessories temperatures.

(*) Type must be completed in accordance the type designation.

The equipment has also to carry the marking normally stipulated by its construction standards.

ROUTINE EXAMINATIONS AND TESTS

Routine overpressure tests in accordance with IEC 60079-1:2014 clause 16.3 shall be conducted on all units, at a pressure of 13.23 bar for a duration of not less than 10 seconds. There shall be no sign of damage, deformation or rupture that will invalidate the concept of protection.