

EU-TYPE EXAMINATION CERTIFICATE



[1]

[2]

**Equipment or Protective System intended for use
in Potentially Explosive Atmospheres
Directive 2014/34/EU**

[3]

EU-Type Examination Certificate Number: **DEMKO 18 ATEX 2001X Rev. 0**

[4]

Product: **EC-910-AFZ-*, CCTV camera housing**

[5]

Manufacturer: **R.STAHL HMI Systems GmbH**

[6]

Address: **Adolf-Grimme Allee 8, 50829 Köln, Germany**

[7]

This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.
The examination and test results are recorded in confidential report no. **4788316944**

[9]

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0:2012+A11:2013

EN 60079-1:2014

EN 60079-31:2014

[10] If the sign "X" is placed after the certificate number, it indicates that the product is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by the certificate.

[12] The marking of the product shall include the following:

 **II 2 G Ex db IIB T6...T5 Gb**

 **II 2 D Ex tb IIIC T85°C...T100°C Db**

Certification Manager
Jan-Erik Storgaard

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the product sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2018-01-31



Notified Body

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[14]

Schedule

EU-TYPE EXAMINATION CERTIFICATE No.

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[15] Description of Product

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.

Installation instruction:

- The cameras to be installed shall not be electromagnetic or contain lasers, continuous wave sources or ultrasonic energy radiating equipment.
- The cameras to be installed shall not contain cells or batteries.
- The cameras to be installed shall dimensionally be no greater than 52 mm wide x 52 mm high x 78 mm long and be of a basic geometric form.
- Cable entries and field wiring must be suitable for an operating temperature as specified in the following table:

Maximum ambient temperature range	Cable entry temperature
-40 °C to +65 °C	+83.2 °C
-40 °C to +70 °C	+88.2 °C

Nomenclature:

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

Temperature range

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

Electrical data

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		

[13]

Schedule

[14]

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Routine tests

Routine overpressure tests in accordance with EN 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.

[16]

Descriptive Documents

The scheduled drawings are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17]

Specific conditions of use:

- 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.

[18]


Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The product has in addition passed the tests for Ingress Protection to IP 66 in accordance with EN60529:1991+A1:2000+A2:2013 for Unclassified applications.



The  will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.