



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 16.0005X Issue No: 0 Certificate history:
Issue No. 0 (2016-04-06)

Status: **Current** Page 1 of 3

Date of Issue: **2016-04-06**

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

Electrical Apparatus: **Pan and Tilt CCTV cameras**
Optional accessory:

Type of Protection: **Flameproof "d", Enclosure "tb"**

Marking:
Ex d IIC T6 Gb Ta -40°C to +60°C

Ex tb IIIC T85°C Db Ta -40°C to +60°C

*Approved for issue on behalf of the IECEx
Certification Body:*

Lucy Frieders

Position:

Staff Engineer

*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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

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





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Manufacturer: **R. STAHL Camera 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 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2008 Edition:1	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/ExTR16.0005/00](#)

Quality Assessment Report:

[DE/BVS/QAR12.0012/01](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The EC-940-PTZ-A, EC-940-PTZ and EC-940-DUA series housings contain an integrated fully functional CCTV camera head system handling pre-set, auto pan and patrol functions with an integrated wiper. The housings are comprised of the following compartments: a static terminal compartment base, a main body providing 360° continuous pan movement and either one or two camera housings with +90° to -90° tilt movement. The EC-940-PTZ-A and EC-940-DUA series housings are both fitted with a standard day/night camera. The EC-940-PTZ is fitted with a Full HD day/night camera. The EC-940-DUA series housing is additionally fitted with an infra-red camera.

See Annex for additional information.

CONDITIONS OF CERTIFICATION: YES as shown below:

See Annex for Conditions of Certification.

Annex:

[Annex to IECEx ULD 16.0005X Issue 0.pdf](#)

The terminal compartment provides a 3/4" NPT cable entry to the side of the projecting cylinder welded to its enclosure for end user connection to either cable connectors or a conduit system depended on application. Access to the terminal enclosure for termination of supply or replacement of either of the two fitted fuses or inputs and outputs is via a threaded cover closing off the projected cylinder. The top threaded cover provides a shaft for connection to the main enclosure body, which is fitted with a model type SRC-022-018-ET-031 slip ring constructed from ABS hard plastic and manufactured by SERVOTECNICA, providing cable connection from the terminal compartment into the main body enclosure.

The main body is cylindrical in shape with two externally welded cylindrical spigot arms with female threaded apertures projecting from it 180° apart that can be used for connection of either a camera housing or closed off with a threaded cover. Internal circuitry consists of a thermostat board maintaining a minimum internal temperature when the equipment is powered. With one of two thermostats fitted in series switching off the circuit when the temperature is reached. The base of the main body provides a female thread for connection to the terminal compartment with the top of the main body closed off with a threaded cover.

The camera housing is cylindrical in shape with an externally projecting welded cylindrical spigot arm with a female threaded aperture. The aperture is fitted with a connecting shaft for connection to the main body. The ends of the housing are closed off with threaded covers. The front cover is fitted with a window cemented in place. The day/night camera housing is additionally fitted with an externally fitted window wiper and internally fitted with thermostat circuitry. The circuitry maintains a minimum internal temperature when the equipment is powered with one of two thermostats fitted in series switching off the circuit when the temperature is reached. The top of the housing is fitted with female threaded studs for connection of a sun shield. Internally the camera housing is fitted with an optical zoom: 36X or 28X lens camera system and control electronics.

Externally the equipment, other than the cemented windows, is manufactured from passivated, electro-polished AISi 316L stainless steel.

Series Configuration Options:

Model: EC-940-PTZ-Aaa-bcd-ee

Where:

a	Camera	3P	36x optical zoom, PAL
		2P	28x optical zoom, PAL
		3N	36x optical zoom, NTSC
		2N	28x optical zoom, NTSC
b	Accessory	W	With wiper
c	Voltage	1	230Vac
		2	24Vac
		3	120Vac
d	Video output	0	Analog version
		X	Integrated MPEG4 video server to control all functions via IP
		F	Integrated Single Mode video and data fiber optic transmitter
		G	Integrated Multi Mode video and data fiber optic transmitter
e	Variation	Z	Integrated H264 video server to control all functions via IP
		**	Empty or For internal use

Model: EC-940-PTZ-aab-cdee

Where:

a	Camera	HD	HD Camera day/night, 30x optical Zoom
b	Video output	I	Integrated H264 video server to control all functions via IP
c	Accessory	W	With wiper
d	Voltage	1	230Vac
		2	24Vac
		3	120Vac
e	Variation	**	Empty or For internal use

Model: EC-940-DUA-abb-cdd-eef-ghi-II

Where:

a	Type of camera	A	Analog camera day/night
b	Camera	3P	36x optical zoom, PAL
		2P	28x optical zoom, PAL
		3N	36x optical zoom, NTSC
		2N	28x optical zoom, NTSC
c	Type of camera	A	Analog TIC camera
d	Lens size thermal camera	35	35mm lens
		25	25mm lens
		19	19mm lens
		13	13mm lens
		09	9mm lens
e	Thermal camera	16	Tau 160
		32	Tau 320
		33	Tau 336
		64	Tau 640
f	Wiper	W	With wiper
g	Voltage	1	230Vac
		2	24Vac
		3	120Vac
h	Video output	0	Analog version
		X	Integrated MPEG4 video server to control all functions via IP
		F	Integrated Single Mode video and data fiber optic transmitter
		G	Integrated Multi Mode video and data fiber optic transmitter
		Z	Integrated H264 video server to control all functions via IP
i	Thermal camera frequency	No code	7.5-8.3 Hz
		H	25-30 Hz
l	Variation	**	Empty or For internal use

Conditions of Safe Use

- The maximum constructional gap (i_c) is less than that required by Table 2 of IEC 60079-1:2007 as detailed below:

Flamepath	Maximum Gap	Minimum Width	Comment
1. Between component drawings BRT2MPXALBPAN and	0.249 mm	25.4 mm	Cylindrical joint supported by

	BRT2MPXTAPINF			bearings
2.	Between component drawings BRT2MPXALBTP and BRT2MPXBUT	0.245 mm	26.8 mm	Cylindrical joint supported by bearings
3.	Between component drawings BRT2MPXALBTS and BRT2MPXBUT	0.245 mm	26.8 mm	Cylindrical joint supported by bearings
4.	Between component drawings BRT2MPXALWIP and BRT2MPXBUST	0.249 mm	25.3 mm	Cylindrical joint supported by bearings

- The equipment is suitable for mounting vertically upright or downward orientations only.