RoughCam® IPM1137

User Manual

SAMCON
Prozessleittechnik GmbH

Table of contents

Table of Figures and Charts

History of revisions

Product: RoughCam® IPM1137
Title: User Manual for RoughCam® IPM1137
Doc. -Id. 241113-PT10BA-SHe-RoughCam IPM1137_en_rev.00.docx
Author: Sabine Heinz
Created on: 13.11.2024

Rev. Index	Date	Name	Comment	Approved
0	13.11.2024	S.Heinz	Compilation of the document, from the document of the user manual ExCam IPM1137	Digital unterschrieben von Dipl.-Ing. Steffen Seibert DN: cn=Dipl.-Ing. Steffen Seibert, o=SAMCON Prozessleittechnik GmbH, ou=CEO, email=s.seibert@samcon.eu, c=DE Datum: 2025.01.22 07:54:28 +01'00'

1 Introduction

The RoughCam IPM1137 is a cost-effective megapixel network camera for use in hazardous areas. The camera offers **5 MP resolution (2592 x 1944)**,a **powerful remote zoom focus lens** and a **Machine Learning Processing Unit (MLPU).**

The RoughCam series can be used for a wide range of industrial applications. The camera system is ideal for the toughest industrial conditions, both indoor and outdoor areas. The combination of stainless steel housing, optional protective coating and various accessory components, the resistance to extreme environmental conditions (salt water corrosion, highly acidic environments, sunlight radiation, high mechanical stress, …) can be further enhanced. By using high-quality PTFE seals, the housing protection class IP68 (IEC / EN 60529) is guaranteed and chemical resistance is maximized. For further information, visit our page at www.samcon.eu.
During the development of the RoughCam IPM1137, great importance was placed to safety, mechanical precision and high-quality stainless steel.

2 Technical data

2.1 Illustration of the model key

Product name	Model variants				
1)	2) Type	3) Housing-combination	4) Temp.-range	5) Cable length [m]	6) Cable termin.
RoughCam IPM1137	T10-	VA2.1.K1.BOR-	L.H-	005.N-	P
	T10-	VA2.1.K1.BOR-	L.H-	005.N-	T
	T10-	VA2.3.K4.BOR3-	LL.H-	000.X-	X
	T10-	VA2.3.K4.BOR5-	L.H-	000.X-	X
	T10-	VA2.1.K1.BOR-	L.H-	005.A-	P

Table 2-1 Model key

Explanations:

1) RoughCam IP**M1137** Functional camera description of the RoughCam Series (technical data/ specification of the individual camera module)

2) T**10** = SAMCON Production- Type 10 (cameras for safe areas)

3) **VA2**.X.KX.BOR = T11 housing (stainless steel 1.4404) with large diameter $Ø_{VA2}$=113mm)
VA2.**1**.K1.BOR = T11 VA2.1 housing with short body length ($L_{.R}$ = 210mm)
VA2.**3**.K4.BOR = T11 VA2.3 housing with maximum body length ($L_{.R}$ = 310mm)
VA2.1.**K1**.BOR = K1 cable gland flange
VA2.3.**K4**.BORX= K4 flipConnect flange
VA2.X.KX.**BOR/BOR3**= Borosilicate sight glass DIN7080 (standard, for video cameras within visible spectral range: λ = 350…2000 [nm] and photografical infrared range (NIR), not suitable for thermographic applications (MIR/ FIR)
VA2.3.K4.**BOR5** = Profil glass pane for cameras with wiper

4) L.**H**= High temperature (T_{amb} < +50°C)
L.H= Low temperatures (T_{amb} > -30°C)
LL.H= PTC heater installed (T_{amb} > -45°C)

5) **005.**X = Length of the connection line in meter at delivery; 5m is the standard cable length, max. cable length is: 005…100 [m]
005.**N** = Non-armoured cable
005.**A** = Armoured cable
000.**X** = Without connection cable

6) **P** = Plug- termination (*standard*)
CAT6, RJ-45 network plug (heavy duty), AWG 26-22,
contact assignment acc. To specification EIA/TIA-568**B**
T = Terminal Box termination (*optional*)
4 x PoE Mode A connection (camera PoE)
X = Electrical connection via flipConnect

2.2 Electrical parameters of the camera

Power supply of the camera (PoE) without heating, without wiper:

Voltage supply:	PoE+, IEEE 802.3af/802.3at type 1 class 3
Reference voltage:	+48 V DC (44...54 V DC)
Maximum power consumption:	7.2 W
Typical power consumption:	4.5 W

Power supply of the camera (PoE) with heating:

Voltage supply:	PoE++, class 6
Maximum power consumption:	51.0 W
Typical power consumption:	35.5 W

Power supply of the camera (PoE) with wiper:

Voltage supply:	PoE++, class 5
Maximum power consumption:	40.0 W
Typical power consumption:	8.0 W

2.3 Cables and glands

2.3.1 Connection cable for devices with flipConnect

Devices equipped with flipConnect are supplied without a cable tail or a cable gland, only with non-explosion-proof blanking plugs (nylon PA3200, red) for fitting a suitable explosion-proof cable kit.

Quicklink for suitable cables and cable glands:
https://www.samcon.eu/fileadmin/documents/de/60-Montage%26Installation/flipConnect-Compatibility.pdf

2.3.2 Connection cable (SKD01-T/ASKD02-T)

Description:	Data transfer and power supply of the camera module (compliant with DIN EN 60079-14)
Jacket colour:	Green (GN), similar to RAL3001

Systemcable SKD01-T:

Outside diameter:	9.10 ± 0.2 mm
Bending radius:	10x D_a when installed and 5x D_a after relocation
Data line:	4 x 2 x AWG22/1 CAT.6
Properties:	PUR halogen-free, flame-retardant, UV-resistant, chemical resistance, shielded

Figure 2-1 Sectional view of SKD01-T

Systemcable ASKD02-T:

Outside diameter:	12.0 ± 0.4 mm
Bending radius:	20 x D_a when installed and 10 x D_a after relocation
Data line:	4 x 2 x AWG23/1 CAT.6
Properties:	PUR halogen-free, flame-retardant, UV-resistant, chemical resistance, shielded (see www.samcon.eu)

Quicklink:
https://www.samcon.eu/fileadmin/documents/en/60- Assembling%26mounting/ASKD02-T_Datasheet.pdf

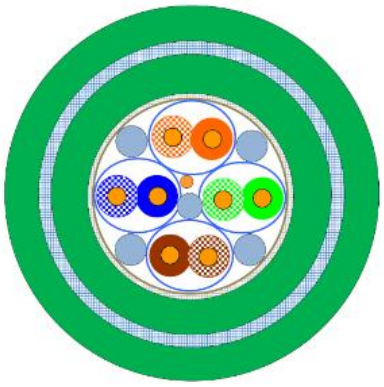


Figure 2-1 Sectional view of ASKD02-T

2.3.3 Cable glands PoE and protection hose

System cable SKD01-T → gland Capri ADE1F2 Cap No.5 (7-12mm)
System cable ASKD02-T → gland Capri ADE4F Cap No.6
Documentation ADE4F, Declaration of Conformity, Instruction Manual, Datasheet

2.4 Video-technical characteristics

We use the AXIS M1137 MkII Box Camera in our enclosure. For details, please refer to the Product Documentation, video-technical data of AXIS®:

https://www.axis.com/products/axis-m1137-mk-ii

2.5 Other technical data

	Camera	Terminal box
Permissible ambient temperature	-30°C … +50°C / -45°C … +50°C (model key …-LL.H-…)	-60°C … +55°C
Protection class as per EN 60529/IEC 529	IP66/68 (Test conditions: 0.5h /8m and 24h/3m water column 5°C)	IP66
Housing material	stainless steel, mat. no. 1.4404	polyester resin
Weight	about 7 kg	about 1 kg
Dimensions	T07 VA2.2 D113mm x 260mm / T07 VA2.3 D113mm x 310mm	145mm x 145mm x 71mm

Table 2-2 Other technical data

3 Safety Instructions

It is absolutely mandatory to adhere to the national safety regulations and regulations for prevention of accidents, as well as to the safety instructions given below in this User Manual!

Attention!
Repairs may only be carried out by using original parts from the manufacturer

Attention!
Prior to installation, take external sources of heat or cold into account! The temperature ranges prescribed for storage, transport and operating must be adhered to!

4 Installation

For commissioning and operating the camera, the relevant national regulations, as well as the generally accepted rules of technology shall prevail. Before mounting the camera, thoroughly check it for any transport damage, especially on the housing and cable. Installation, electrical connection and the first start must only be carried out by qualified specialists.

Work preparation:

Attention!
Prepare your work carefully and in accordance with the relevant regulations.

To ensure the best image quality delivered by the network camera, plan the installation site carefully (consider light conditions, object distance or size, angle and minimum object distance to the focus).

- Use appropriate tools and aids.
- When working, ensure a safe stand.
- Make sure that any static charge is avoided.

Attention!
Please pay attention to the national and local regulations for mounting heavy loads. In case of doubt, take appropriate security measures.

Drawings for drill hole patterns and further information can be viewed on our product page:

Quick link:
https://www.samcon.eu/en/products/roughcam/roughcam-ipm1137/

Optional mounting accessories

Wall bracket WMB-...		**WALL MOUNT BRACKET WMB-VA2.1/2.2** Wall bracket for devices of T10-VA2.1 series Suitable for hanging the camera on walls. Material: stainless steel 1.4404 Load bearing: 25 kg Dimensions: 80 x 100 x 275 mm
Wall bracket WMB-...		**WALL MOUNT BRACKET WMB-VA2.3** Wall bracket for devices of T10-VA2.3 series Suitable for hanging the camera on walls. Material: stainless steel 1.4404 Load bearing: 45 kg Dimensions: 445 x 140 x 185 mm
Weather protection roof WPR-…		**WEATHER PROTECTION ROOF WPR-VA2.1** Weathershield for cameras of the T10-VA2.1-Series
Weather protection roof WPR-…		**WEATHER PROTECTION ROOF WPR-VA2.3** Weathershield for cameras of the T10-VA2.3-Series
Pole adapter PMB-…		**WALL MOUNT BRACKET PMB** Pole adapter for VA wall mount Material: stainless steel 1.4404 Suitable for pole diameters between 50 and 100 mm Load-bearing capacity: 50 kg Dimensions:120 x 180 (x 130 bei Mast Ø 60 mm)

Table 4-1 Mounting accessories

5 Electrical connection

Attention!
The electrical connection of the equipment may only be carried out by qualified and skilled personnel!

Attention!
It is absolutely necessary to ground the RoughCam® series' housing via the PA connection.

Attention!
If possible, carry out initial commissioning when the outside temperature is positive to prevent condensation in the housing.

The RoughCam® IPM1137 is supplied either with flipConnect or an electrical connection cable of the type SKD01-T/ASKD02-T. The maximum transmission range from camera to the next active network interface is 100 meters and can be individually specified by the client. The user is NOT authorised to do electrical connection procedures inside the enclosure.

5.1 Potential equalization

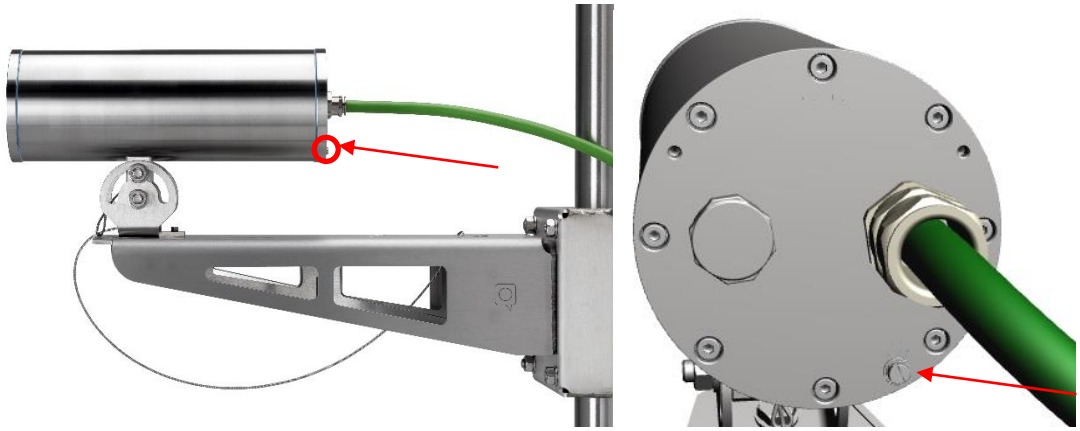


Figure 5-1 RoughCam IPM1137 potential equalization

Potential equalization/grounding of the camera housing is absolutely necessary, in order to avoid static charges and thus the formation of sparks. For this purpose, a screw terminal is provided at the rear side, at the bottom (right) (see Figure 5-1). The cross-section of the potential equalization should comply with the National Ground Rules (at least 4mm^2).

Wiring table:

Potential	Colour (IEC 60757)	Cross-section	Comment
PA	GN/YE	4 mm² (rigid)	Terminal: Slotted screw M4x0.7 (DIN 84) with washer Ø9mm (DIN 125A), Keep 3 Nm tightening torque!

Table 5-1 Potential equalization

5.2 Connection work at the device and fuses

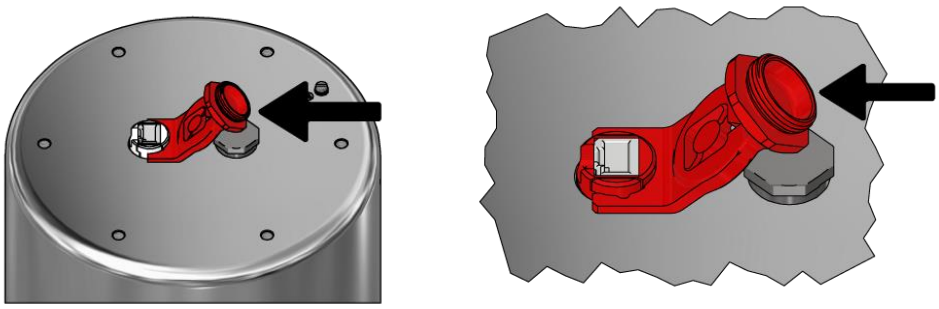
5.2.1 Connection work at the device via flipConnect

We show the procedures of electrical connection via flipConnect in the following video tutorial: “Plug & Play Cable Connection via flipConnect”
https://go.samcon.eu/flipconnect

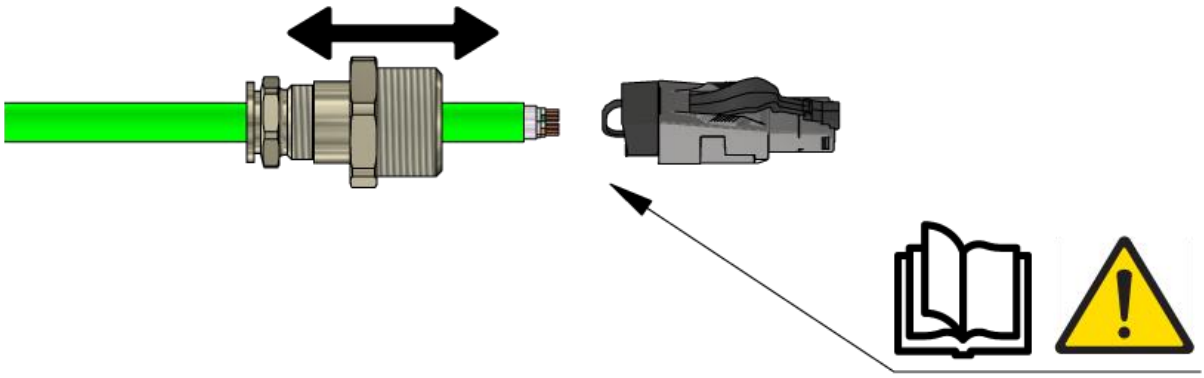
Figure 5-2 Connection via flipConnect

Unscrew the red blind plug (with integrated auxiliary tool) from the housing and **keep it save**.

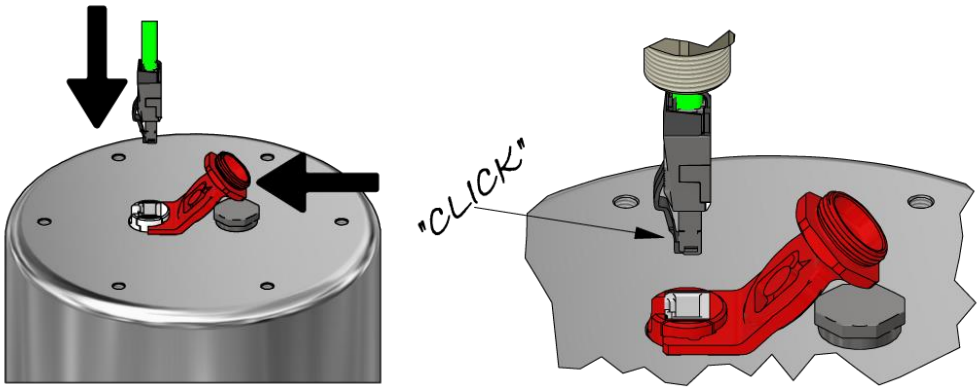
Fixate the RJ45 socket as shown in the figure below.



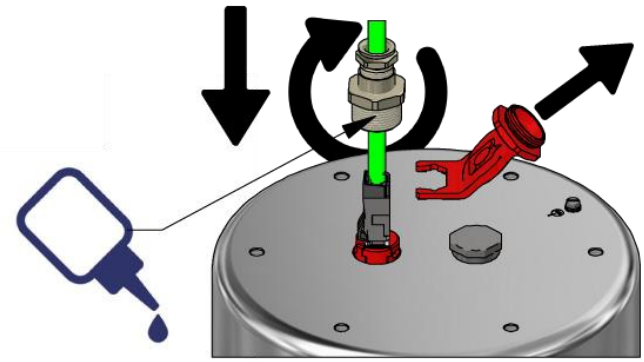
Choose a suitable cable and cable gland (e.g. the provided). Put the gland over the cable. Caution: the selected plug must be of the same length or shorter than the supplied one. Follow the respective instructions of the components.



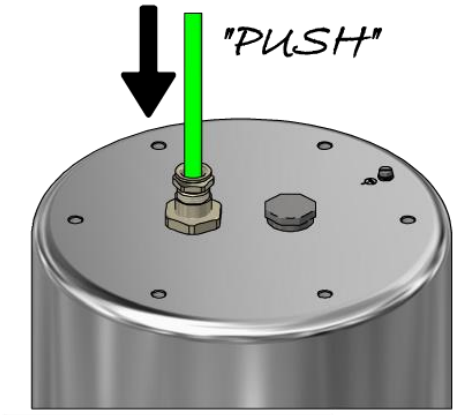
Plug in the RJ45 plug with the cable pigtail into the socket until the lock engages.



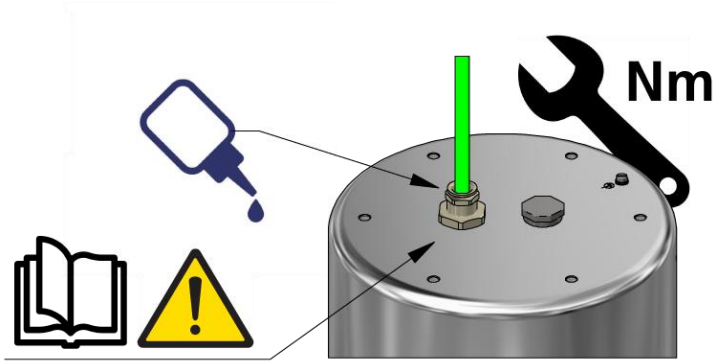
Remove the auxiliary tool and apply glue to the gland’s inner thread. Then screw the gland into the housing. Attention, the cable is still movable and the gland’s outer ring open.



Push the cable down.



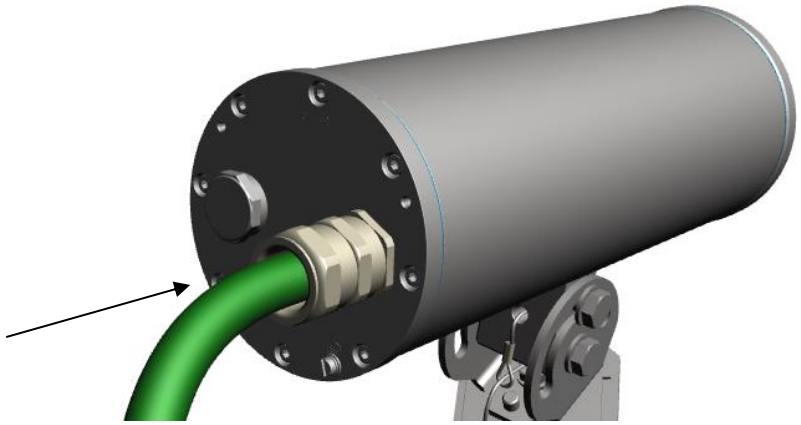
Fasten the cable gland’s outer ring. Use Loctite and refer to the operating instructions of the selected gland in order to observe the appropriate fastening torques.



Done.

Attention!
Use appropriate RJ45 plug! Pay attention to shielding, cross-section and outer diameter of the cable!

5.2.2 Connection work at the device without flipConnect



Cable gland (Capri ADE 1F2) for non-armoured cables
SKD01-T - digital video stream
Control system and power supply (PoE) of the camera module
Cable gland (Capri ADE 4F) for armoured cables

Figure 5-3. Cable gland (KLE) and supply line

The green system cable is intended for communication and data transfer to the connected network devices and, at the same time, for voltage supply (PoE) to the camera. To ensure the power supply of RoughCam IPM1137 (*Powered Device*/ PD), it is necessary to make sure that the power-over-Ethernet provider (*Power Sourcing Equipment*/ PSE) on the connection side (for example PoE Midspan PoE injector, switch, etc.) fulfils the specification IEEE 802.3af and 802.3at type 1 Class 3 *("classification current: 26-30 mA @48VDC, max. feed-in power (power source equipment): 15.4 W, maximum offtake (power device): 6.49 - 12.95 W"*), or Class 6 (models with heater), or Class 5 (models with wiper). Make sure there is sufficient power on the switch (power sourcing equipment) depending on the model variant used.The data transfer of the RoughCam IPM1137 series is done via a 100 Mbit/s Ethernet connection (100BASE-TX).

The figures 5.4 and 5.5 illustrate the potential cable terminations of the RoughCam IPM1137. Possible terminations are: terminal box or plug.

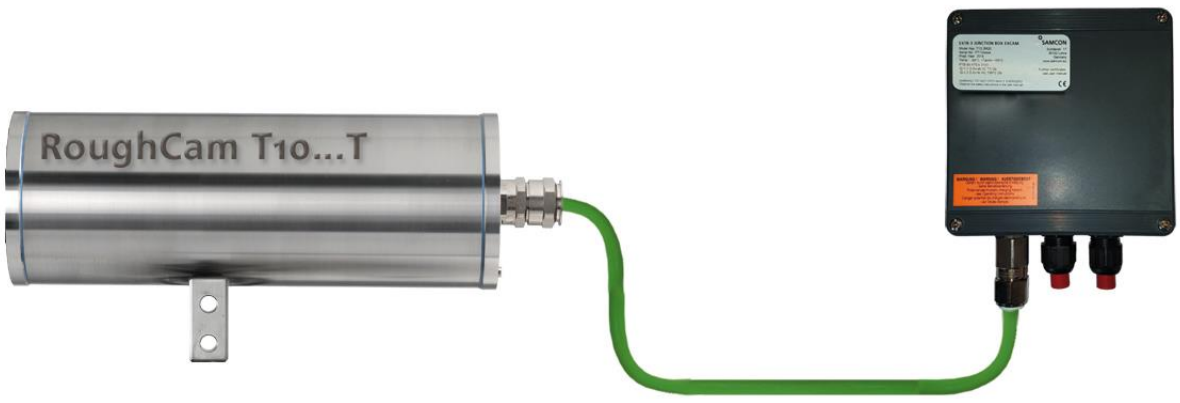


Figure 5-4 RoughCam IPM1137 T10-VA2.X.KX.BORX-X.H-xxx.N-**T**

Figure 5-5. RoughCam IPM1137 T10-VA2.X.KX.BORX-X.H-005.N-**P**

Video Tutorial:

Please view our video tutorial:

“SAMCON 01 Wiring the cable SKDP03-T to the junction box”
https://go.samcon.eu/v01

Figure 5-6 Video Tutorial ExTB-3

The pin assignment of the SKD01-T is executed in accordance with the standard EIA/TIA-568B for 100BaseTX and 24VDC, as follows:

Camera (T568B)	**Colour SKD01-T** (IEC60757)	**Terminal**	**Cross-sectional surface**	**Comment**
Tx+	WH / OG	1	0.32 mm^2	Solid conductor
Tx-	OG	2	0.32 mm^2	Solid conductor
Rx+	WH / GN	3	0.32 mm^2	Solid conductor
Rx-	GN	4	0.32 mm^2	Solid conductor
(PoE +48 VDC)	WH / BU	5	0.32 mm^2	Solid conductor
(PoE +48 VDC)	BU	6	0.32 mm^2	Solid conductor
(PoE GND)	WH / BN	7	0.32 mm^2	Solid conductor
(PoE GND)	BN	8	0.32 mm^2	Solid conductor
GND/SHD	YE / GN	PE	2.5 mm^2	Flex

Table 5-2. Wire assignment of terminal box

The pin assignment of the ASKD02-T is executed in accordance with the standard EIA/TIA-568B for 100BaseTX and 24VDC, as follows:

Camera (T568B)	**Colour ASKD02-T** (IEC60757)	**Terminal**	**Cross-sectional surface**	**Comment**
Reinforcement	YE / GN	PE	2.5 mm^2	Flex
Tx+	WH / OG	1	0.26 mm^2	Solid conductor
Tx-	OG	2	0.26 mm^2	Solid conductor
Rx+	WH / GN	3	0.26 mm^2	Solid conductor
Rx-	GN	4	0.26 mm^2	Solid conductor
(PoE +48 VDC)	WH / BU	5	0.26 mm^2	Solid conductor
(PoE +48 VDC)	BU	6	0.26 mm^2	Solid conductor
(PoE GND)	WH / BN	7	0.26 mm^2	Solid conductor
(PoE GND)	BN	8	0.26 mm^2	Solid conductor
GND/SHD	YE / GN	PE	2.5 mm^2	Flex

Table 5-3 Wire assignment of terminal box

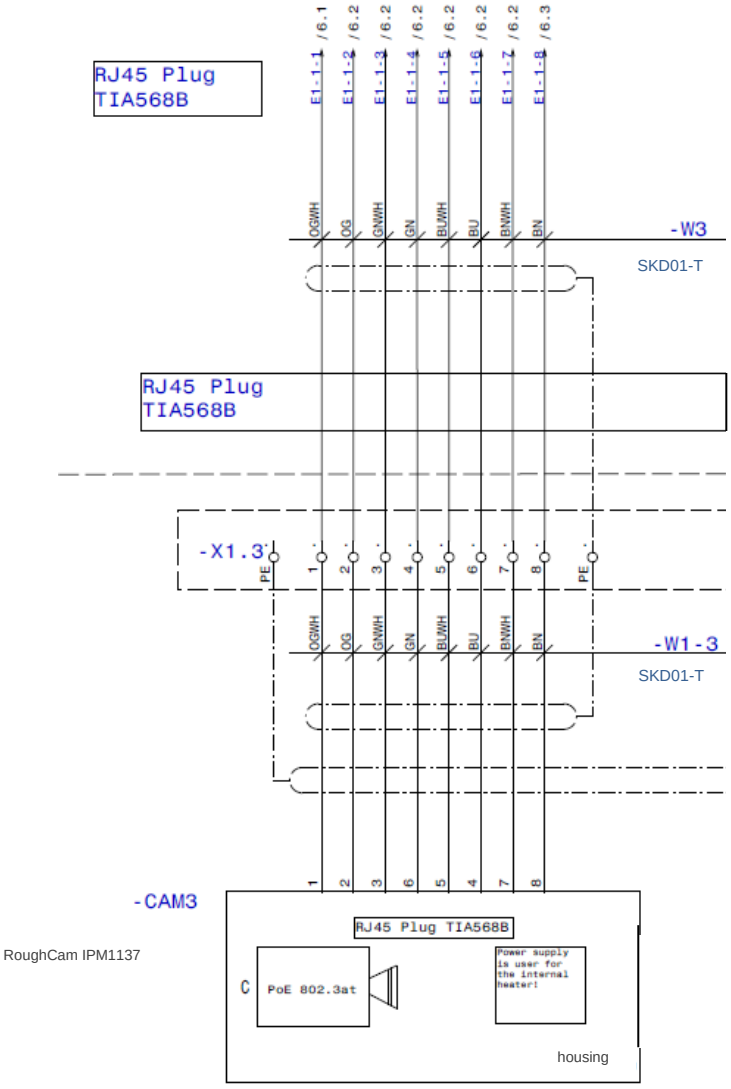


Figure 5-7 Sample circuit of terminal box

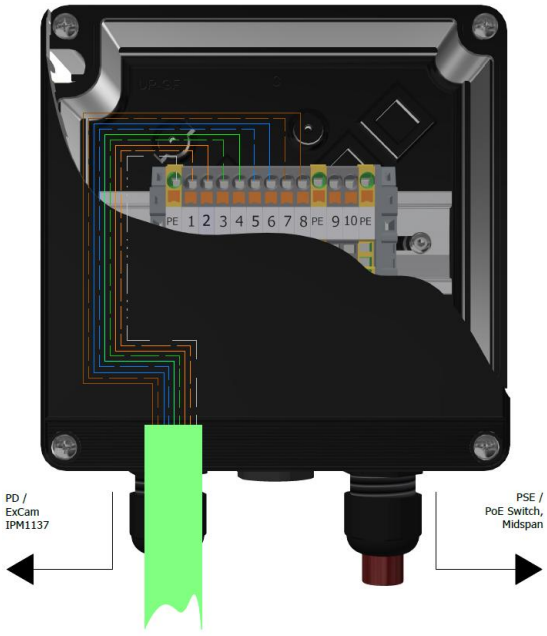


Figure 5-8 Photo of the wired terminal box

Attention!
Introduce the foiling up to about 15 mm close to the terminals, in order to prevent alien crosstalk. Make sure that the foiling cannot cause any short circuit of the data pairs!

Attention!
Bring the twisted pair composite up to about 10 mm close to the terminals, in order to ensure interference immunity.

Attention!
Use only terminals approved by SAMCON.

Attention!
Finally, check your network installation with a Class-D Link Test.

5.2.3 Fusing

PoE power supply requires no fuses.

The power supply fusing depends on the cable cross-section and length.

Attention!
Recommendation for fusing relates to 40W@24VDC at 100 meters 1.5 mm²

Attention!
When the heating switches on, high current peaks occur! Use slow-blow fuses.

Attention!
Please pay attention to the national and international regulations regarding selectivity and line protection.

Potential/ Wire no.	**Colour** (IEC60757)	**Conductor**	**Voltage**	**Maximum power consumption/fusing:**
L+ / 1	BK	1.5mm², stranded wire	+24 V DC	40 W of continuous power Fine-wire fuse (L+) 4000 mA -T- slow-blow (high inrush load!)
L- / 2	BU	1.5mm², stranded wire	0 VDC / GND	
PE	YE/GN	1.5mm², stranded wire	PE	

Table 5-4 Recommendation for fusing

5.2.4 Appropriate cables & cable entries

Devices equipped with flipConnect are supplied without a cable tail or a cable gland, only with blanking plugs (nylon PA3200, red) for fitting a suitable cable kit.
Quicklink for suitable cables and cable glands:
https://www.samcon.eu/fileadmin/documents/de/60-Montage%26Installation/flipConnect-Compatibility.pdf

Attention!
The supply line must have a sufficient cross-section. The cable protection must comply with national and international regulations.

5.2.5 Plug assignments (RJ45)

The data transfer of the RoughCam IPM1137 uses a 100 Mbit/s Ethernet connection (100BASE-TX).

If the cable termination uses a plug, the latter should be plugged into the RJ45 PoE slot of the network device (PSE). Prior to connecting it to the camera, the network device (PSE) can already be supplied with power, hence there is no „power ON“ priority which has to be observed.

Attention!
Use appropriate RJ45 plugs! Check the cable shielding, cross-section and the outside diameter!

Attention!
It is imperative to ensure a correct routing of the individual wires according to the EIA/TIA-568B"

Attention!
Finally, check your network installation with a Class-D Link Test.

Detailed instructions on how to connect a RJ45 plug are available in our video tutorial: “SAMCON 03 Mounting and installing the RJ45 jack to SAMCON cables” https://go.samcon.eu/v03

Figure 5-9 Plug assignment, RJ45

5.2.6 Tests prior to switching on voltage

Attention!
Prior to starting the device, perform all tests as indicated by the national regulations. Furthermore, check the correct function and installation of the device in accordance with this User Manual and other applicable regulations.

Attention!
Incorrect installation or operation of the camera may lead to a loss of warranty!

Attention!
Do not switch on the camera at temperatures below 0°C!

6 Working inside the housings

The customer may open the camera housing only if it is absolutely necessary. Only exchanging the SD memory card or a hardware reset are reasons for this.

6.1 Preparation for work:

Attention!
Prepare your work carefully and in accordance with the relevant regulations.

6.2 Opening the camera housing

If the RoughCam IPM1137 is equipped with a weather protection roof this has to be removed prior to starting your work! To do so, loosen the 4x12mm button head screws M4*0.7 at the front and rear sides of the bracket holders (Figure 6-1).

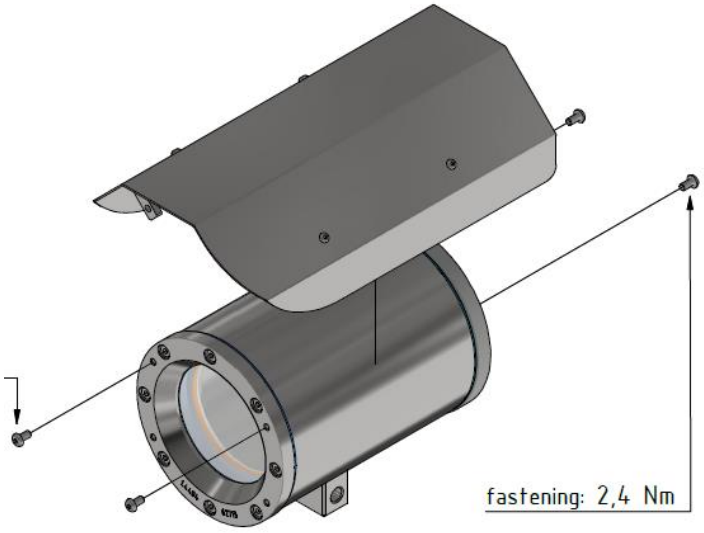


Figure 6-1 Removing the weather protection roof

For variants with wiper:

Attention!
Make sure that the wiper is in the center position!

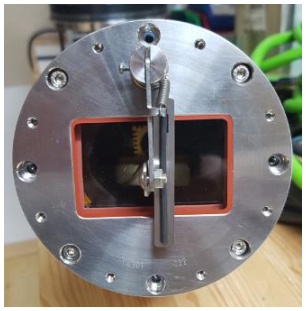


Figure 6-2 Wiper in center position

To open the stainless-steel housing (T11 VA2.X.x.x) of RoughCam IPM1137, loosen the eight cylinder-head hexagon screws (DIN 912/ ISO 4762) together with their spring rings (DIN 127A) on the rear side of the cable and power supply flange (see Figure 6-2). Caution: do not touch the screw threads with your skin or clothes! On the threads, there is LOCTITE® 243™ (chemical basis is dimethacrylate ester) applied to prevent the bolted connection from unintentional loosening because of impacts and vibrations and to seal them tightly. It is not permitted for the customer to open the front-side sight glass flange! There is no need of such an action.

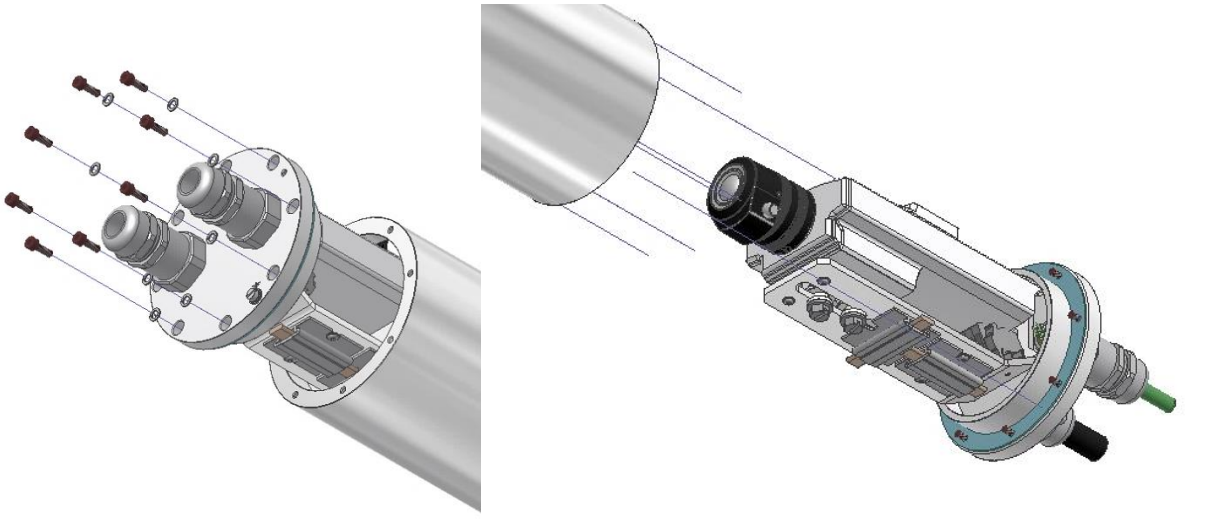


Figure 6-3 Opening the RoughCam IPM1137 (similar illustration)

Carefully pull out the cable and supply flange to the rear, as straight as possible. Because of negative pressure, it may be difficult to remove the flange. The cylindrical clearance fit (H8f7 - DIN ISO 286) of the camera body and flange may not be tilted!
Attention: The mounting adapter with the camera module and optics, as well as the temperature control, and (if applicable) auxiliary relays and terminal block are fixed on the cable and supply flange. Dealing with these components, too, you have to work very carefully and precisely in order to avoid canting and damage to the in-built components! Caution: do not touch the cylindrical fit surface with your skin or clothes! On the surface, there is oil lubricating paste to protect the surface against fretting corrosion and mechanical stresses.

When you open the housing, pay attention that you do not damage the GYLON® flat seal (blue, RAL5012) and do not make it dirty! The flat gasket is loosely attached to the cable and power supply flange. It is fixed only by the bolted connections!

6.3 Removing / inserting a SD memory card

Note:
The RoughCam IPM1137 has a slot for a micro SDHC memory card (card not included). Saved video files can be played and deleted via the web interface. They are also available in a download list. Moreover, the videos available in the memory card can also be accessed via FTP server in the network.
If the memory card has to be replaced by the user, it should be, as far as possible, empty and pre-formatted with an ext4 or vFAT file system.

When touching electrical components, observe potential equalization (grounding of the body): carry electrostatic-discharge clothes, a PE wristband etc.!

6.4 Hardware Reset

To set all the parameters of the RoughCam IPM1137 (including the IP address) to default values, you should run a hardware reset.
The parameters can be reset via the web interface or manually. If the camera placed in the network can no longer be reached or its state is uncontrollable, the reset should be performed manually. To do so, proceed as follows:

1. Disconnect the camera installation module (Axis M1137 MKII) from the power supply.
2. Press and hold the control button (see the illustration below) and, at the same time, connect the system to the voltage supply (PoE).
3. Hold the control button pressed for about 30 seconds.
4. Release the control button. After about a minute, the AXIS M1137 MKII will return to factory defaults. If there is a DHCP server in the network, the IP address will be the following: 192.168.0.90 (subnet masking 255.255.255.0).
5. IP address and password can be redefined. If the hardware reset is not satisfactory or the network camera shows serious conflicts or does not work as usual (errors in the browser visualisation, frozen images, control commands no longer processed, slowing down of the system, etc.), it may be necessary to re-install the current firmware, or to install an update (see Chapter 7).

6.5 Closing the housing

For closing the housing, proceed in reverse order as when opening. Use exclusively original screws included in the supply.
The cable and power-supply flange is fixed by 8 cylinder-head screws M4*0.7 (ISO metric right-turning) with 12 mm thread length (DIN 912/ ISO 4762, grade 6g). Materials of bolted connections are identical to the stainless steel housing (standard material no. 1.4404 AISI316L). Check whether the threaded holes are undamaged and clean.

Attention!
Do not lock-in any foreign objects in the housing.

Dismantled screw locks (spring washers DIN 127A) must be used again.
The GYLON® gasket must be used in undamaged condition, according to the flange hole pattern, and placed between the flange and the hull. The lateral position of the flat surface / contact surface is arbitrary. If, when closing the housing, you see that the surface of the fitting gap is dirty or insufficiently lubricated, clean it with a clean cloth and de-grease it with a suitable cleaning agent. Then re-grease it with lubricant suitable for this specific application (e.g., Molykote® P-40 gel for standard applications or special grease OKS 403 in the event of heavy seawater influence).

The screwed connections of flange and body components must always be tightened *crosswise* to a torque of **3 Nm**! Do not tighten the screw too strongly! It can cause rupture of the cylinder head or over-stretching the threads.

Cylinder-head bolts for connection of the camera body with the flange component must always be tightened at a 3 Nm torque - crosswise and evenly! Use Loctite.

7 Network access and visualization

The most important procedures of the first starting up the camera are described below. The configuration menu of the web surface allows an intuitive navigation and offers several configuration possibilities. For detailed documentation and information how to use the web Interface, please see the User Manual for Axis or visit the following website:

https://help.axis.com/axis-m1137-mk-ii

The delivered RoughCam IPM1137 is set to the applicable net frequency (50Hz or 60Hz). If the camera is used at a location with a differing net frequency, the image might start to flicker, particularly in surroundings with fluorescent tubes. In such a case, the applicable settings have to be carried out inside the menu “System Options>Advanced>Plain Config”.

User: root
Password: root

7.1 Browser Support

A list of the currently supported web browsers, operating systems, required add-ons, etc. can be viewed at:

https://help.axis.com/access-your-device
https://www.axis.com/support

7.2 Assigning the IP address

The RoughCam IPM1137 is intended for use in an Ethernet network and requires an IP address to access and control it. In the most today’s networks, a DHCP server is integrated. This server automatically assigns an IP address.

If there is no DHCP server available in the network, the IP default address of RoughCam IPM1137 is “**192.168.0.90” (subnet masking 255.255.255.0)**.
With the “AXIS IP Utility”, it is possible to determine the IP address under Windows; the included USB stick contains this application.

https://www.axis.com/support/tools/axis-ip-utility

If it is not possible to assign the IP address, it might be necessary to change the firewall settings!

The “AXIS IP Utility“ tool automatically recognizes all RoughCam devices and visualises them in the device list. It can also be used to manually assign a static IP address. For this purpose, the RoughCam IPM1137 network camera has to be installed in the same physical network segment (physical subnet) as the computer on which the AXIS IP Utility is running. The network signature of RoughCam IPM1137 is "AXIS M1137 MkII" (see Figure 7-1). MAC address and serial number for clear device identification are also detected and displayed.

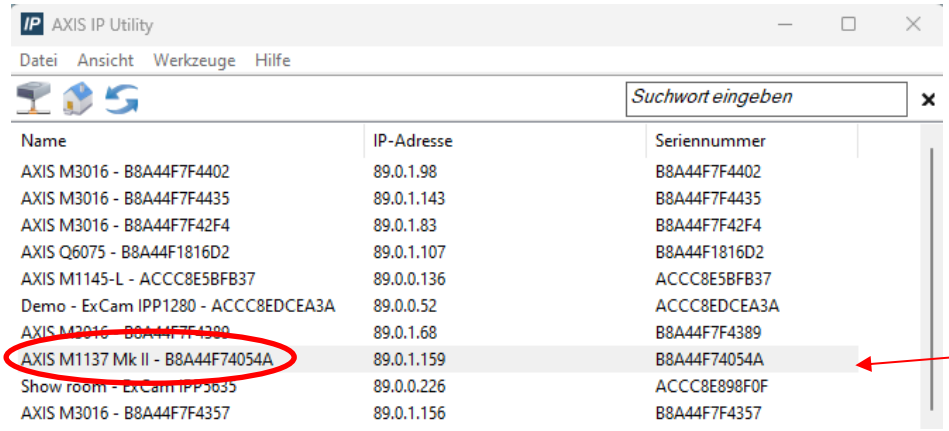


Figure 7-1 Axis IP Utility

7.3 Password/ Identification

The following user name is set at the factory: **root**
The following password is set at the factory: **root**

7.4 How to start the wiper

The RoughCam IPM1137 is equipped with a wiper. The wiper can be started via a button in the lower right corner of the web interface (see Figure 7-2).

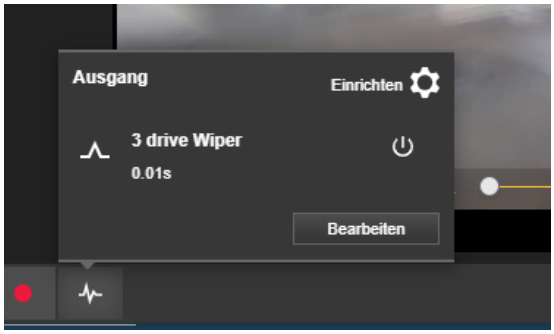


Figure 7-2 User interface to operate the wiper

The factory settings of the wiper are pre-set to wipe 3 times in a row. To repeat the cleaning cycle, press the wiper button again. If for any reason the wiper does not function properly, an error warning appears in the upper-left corner of the interface and the wiper automatically attemps to restart every 30 seconds.
The start button for the wiper can be activated or deactivated.

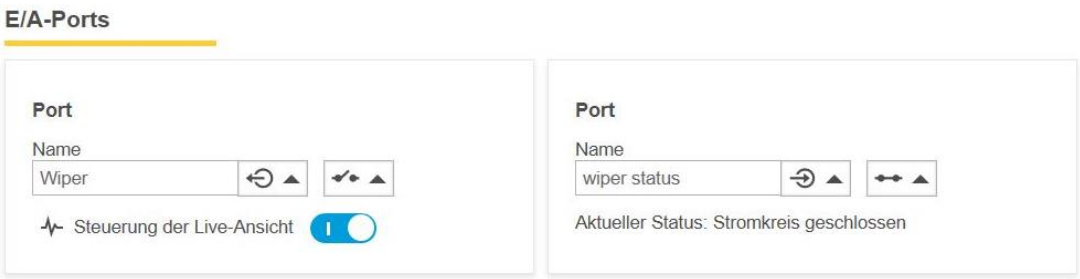


Figure 7-3 Turning the wiper on

Intermittent wiper controls can be configured via CGI command by the video management system. If you have any questions, please write to support@samcon.eu.

8 Maintenance / Modification

The required maintenance intervals are specific to the individual devices. The operating company has to determine these intervals depending on the application parameters. If maintenance measures are necessary they have to be initiated and/or executed.

8.1 Repair and correction

Repairs may only be carried out with original parts of SAMCON Prozessleittechnik GmbH. In case of doubt, send the part in question back to SAMCON Prozessleittechnik GmbH. Rebuilding of or alterations to the devices are not permitted.

8.2 Replacement of the wiper lip

In the scope of the camera delivery, 2 spare lips are included. When the wiper lip becomes worn, it must be replaced by a new one. For this purpose, it is necessary to remove the wiper. Simply pull out the wiper lip upwards and insert the new one.

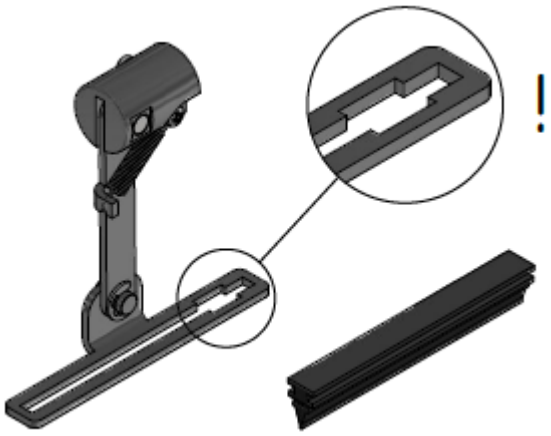


Figure 8-1 How to replace the wiper lip

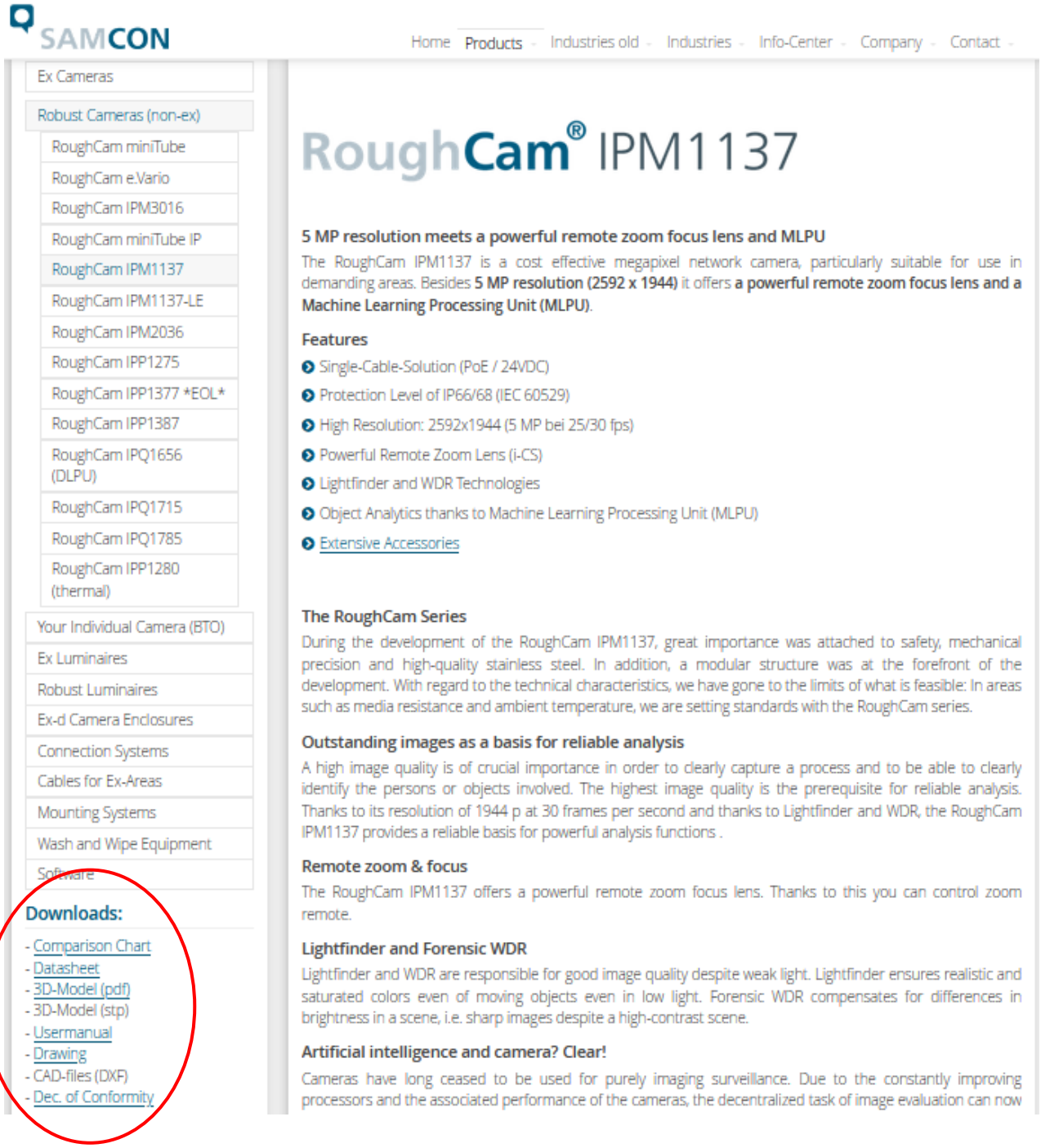
9 Disposal / Recycling

When disposing of the device, nationally applicable regulations must be observed.
This Document is subject to alterations and additions.

10 Drawings, 3D models, certificates and further documentation

All drawings, 3D models, certificates and other information are available in the download area of the product page on our website:

https://www.samcon.eu/en/products/roughcam/roughcam-ipm1137/



If you wish additional technical information, please contact us at: support@samcon.eu

11 Notizen

SAMCON

Schillerstrasse 17, 35102 Lohra-Altenvers,
Germany
www.samcon.eu, info@samcon.eu
Phone: +49 6426 9231-0, fax: - 31