

# ***KKR-AL01***

## ***External camera cover***

Operation manual

*Version 1.02*



AMiT, spol. s r. o. does not provide any warranty concerning the contents of this publication and reserves the right to change the documentation without obligation to inform anyone or any authority about it.

This document can be copied and redistributed under following conditions:

1. The whole text (all pages) must be copied without any changes.
2. All redistributed copies must retain the AMiT, spol. s r. o. copyright notice and any other notices contained in the documentation.
3. This document must not be distributed for purpose of making profit.

The names of products and companies used herein can be trademarks or registered trademarks of their respective owners.

AMiT is a registered trademark.

**Copyright (c) 2019, AMiT, spol. s r. o.  
Producer: AMiT, spol. s r. o.  
Naskové 1100/3, 150 00 Praha  
amit-transportation.com  
Technical support: support@amit.cz**

---

**Contents**

---

	History of revisions .....	4
	Related documentation.....	4
<b>1</b>	<b>Introduction .....</b>	<b>5</b>
<b>2</b>	<b>Technical parameters .....</b>	<b>6</b>
2.1	Dimensions.....	7
2.2	Recommended drawing symbol .....	9
<b>3</b>	<b>Product marking .....</b>	<b>10</b>
<b>4</b>	<b>Conformity assessment .....</b>	<b>11</b>
4.1	Camera cover without heating .....	11
4.1.1	Other tests .....	11
4.2	Camera cover with heating .....	11
4.2.1	Other tests .....	12
<b>5</b>	<b>Power supply.....</b>	<b>13</b>
<b>6</b>	<b>Mounting .....</b>	<b>15</b>
6.1	Location on a vehicle.....	15
6.2	Mounting apertures.....	16
6.3	Mounting preparation.....	17
6.4	Mounting cover .....	18
6.4.1	Mounting of camera cover base .....	18
6.4.2	Camera mounting.....	19
6.4.3	Power supply connection to regulation board .....	21
6.4.4	Mounting the camera cover to base .....	21
<b>7</b>	<b>Ordering information and completion .....</b>	<b>22</b>
7.1	Completion .....	23
7.2	Spare parts.....	23
<b>8</b>	<b>Packing .....</b>	<b>24</b>
<b>9</b>	<b>Storing.....</b>	<b>25</b>
<b>10</b>	<b>Maintenance .....</b>	<b>26</b>
10.1	Cleaning .....	26
<b>11</b>	<b>Waste disposal.....</b>	<b>27</b>
<b>12</b>	<b>Appendix A – camera cover set drawing.....</b>	<b>28</b>

## History of revisions

---

Document name: kkr-al01\_g\_en\_102.pdf

Revision	Date	Author of change	Changes
100	17. 08. 2016	Csörgő V.	New document.
101	05. 06. 2018	Csörgő V.	Change table with ordering information, see chapter 7.
102	12. 09. 2019	Csörgő V.	Change table with ordering information, see chapter 7.

## Related documentation

---

Camera documentation can be found at <http://www.moxa.com>

1. Moxa VPort P06-1MP-M12 – User's manual
2. Moxa VPort P06-1MP-M12 – Datasheet

Camera documentation can be found at <http://www.axis.com>

3. AXIS M31-R – Network Camera Series
4. AXIS M31 – Series User's Manual
5. AXIS M31 – Network Camera Series – Installation Guide
6. AXIS P39-R – Network Camera Series
7. AXIS P39-R Series – User's Manual
8. AXIS P39-R Series – Installation Guide
9. AXIS P39-R Mk II – Network Camera Series
10. AXIS P39-R Mk II Series – User's Manual
11. AXIS P39-R Mk II Series – Installation Guide

# 1 Introduction

---

**KKR-AL01x/xx** is a camera cover intended for mounting on vehicle chassis. Camera cover provide protection and suitable thermal conditions for correct IP camera function.

- Basic features**
- Aluminium cover with aluminium base
  - Front glass without heating or with integrated heating <sup>1)</sup>
  - Heating control unit <sup>1)</sup>
  - Gore-Tex vent for ventilation
  - Power supply voltage 24 V DC <sup>1)</sup>
  - Designed for washing in wash station
  - Design according to EN 50155:2007

*Note* <sup>1)</sup> Only for models with heating, see chapter 7 “Ordering information and completion”.

## 2 Technical parameters

<b>Camera</b>	Description	Moxa VPort P06 AXIS M3114-R AXIS P3905 AXIS P3905 Mk II
	Camera mounting	3× bolt M4×08

<b>Heating <sup>2)</sup></b>	Description	Glass with ITO resistive layer
	Regulation	Independent
	Power	7.8 W for temperatures below -5 °C <sup>3)</sup> 3.9 W for temperature 20 °C <sup>3)</sup> 0 W for temperatures above 65 °C <sup>3)</sup>

<b>Power supply <sup>2)</sup></b>	Nominal power supply voltage	24 V DC
	Power supply voltage range	16.8 V DC to 30 V DC
	Power consumption	Max. 0.65 A at 24 V DC
	Inrush peak current	Max. 290 A / 150 µs
	Galvanic isolation	Yes
	Galvanic isolation strength	500 V AC / 1 minute <sup>4)</sup>
	Connection point	WAGO 231-302/102-000
	Wire cross section	0.5 mm <sup>2</sup> to 1.5 mm <sup>2</sup>

<b>Mechanics</b>	Design	Aluminium cover + aluminium base
	Orientation	See chapter 7 Ordering information and completion
	Cable gland	M25 grommet for one cable or M25 grommet for two cables <sup>2)</sup>
	Cable type / diameter	1× round cable / Ø 6 mm or 2× round cable / Ø 6 mm and Ø 9 mm <sup>2)</sup>
	Colour	See chapter 7 Ordering information and completion
	Mounting	On vehicle body, 3× Ø 6.5 mm
	Ingress protection rate	IP66 <sup>5)</sup>
	Weight – netto	1.26 kg ±5 % / 1.28 kg ±5 % <sup>2)</sup>
	– brutto	1.46 kg ±5 % / 1.48 kg ±5 % <sup>2)</sup>
	Dimensions (w × h × d)	(262 × 132 × 86) mm

<b>Dangerous materials</b>	Camera cover overall mass of plastics	16 g / 35 g <sup>2)</sup>
	Included mass of self-extinguishing plastics	16 g / 35 g <sup>2)</sup>
	Camera cover does not contain	PUR, PVC, Asbestos
	Camera cover meets	2011/65/EU (ROHS) 1907/2006EU (REACH)

<b>Temperatures</b>	Operating temperature range	-40 °C to 70 °C
	Storage temperature range	-40 °C to 70 °C

Note <sup>2)</sup> Only for models with heating, see chapter 7 “Ordering information and completion”.

<sup>3)</sup> The temperatures are given with ±5 °C tolerance.

<sup>4)</sup> Isolation must not be used for dangerous voltages isolation.

<sup>5)</sup> If the mounting rules are met.

<b>Others</b>	Maximum ambient humidity	< 95 % non-condensing
	Expected MTBF	500 000 h
	Expected lifetime	15 years

<b>Claims of EN 50155:2007</b>	Camera cover is intended to operate up to 1 400 m above the sea level.
	Camera cover is designed to meet the Temperature Class TX.
	According to EN 61373:2010 standard, the camera cover equipment is classified in terms of vibrations into Category 1, Class A (mounting to vehicle body).
	Permissible supplying voltage drop-outs duration: max. 10 ms (Class S2 according to Chapter 3.1.1.2 of EN 50155:2007). <sup>6)</sup>
	For supply voltage switching are permissible conditions of C1 and C2 Class. <sup>6)</sup>

*Note* <sup>6)</sup> Only for models with heating, see chapter 7 "Ordering information and completion".

<b>Safety classification</b>	The camera cover is not classified according to EN 50129:2003 Railway applications – Communication, signalling and processing systems – Safety related electronic systems for signalling.
------------------------------	---

## 2.1 Dimensions

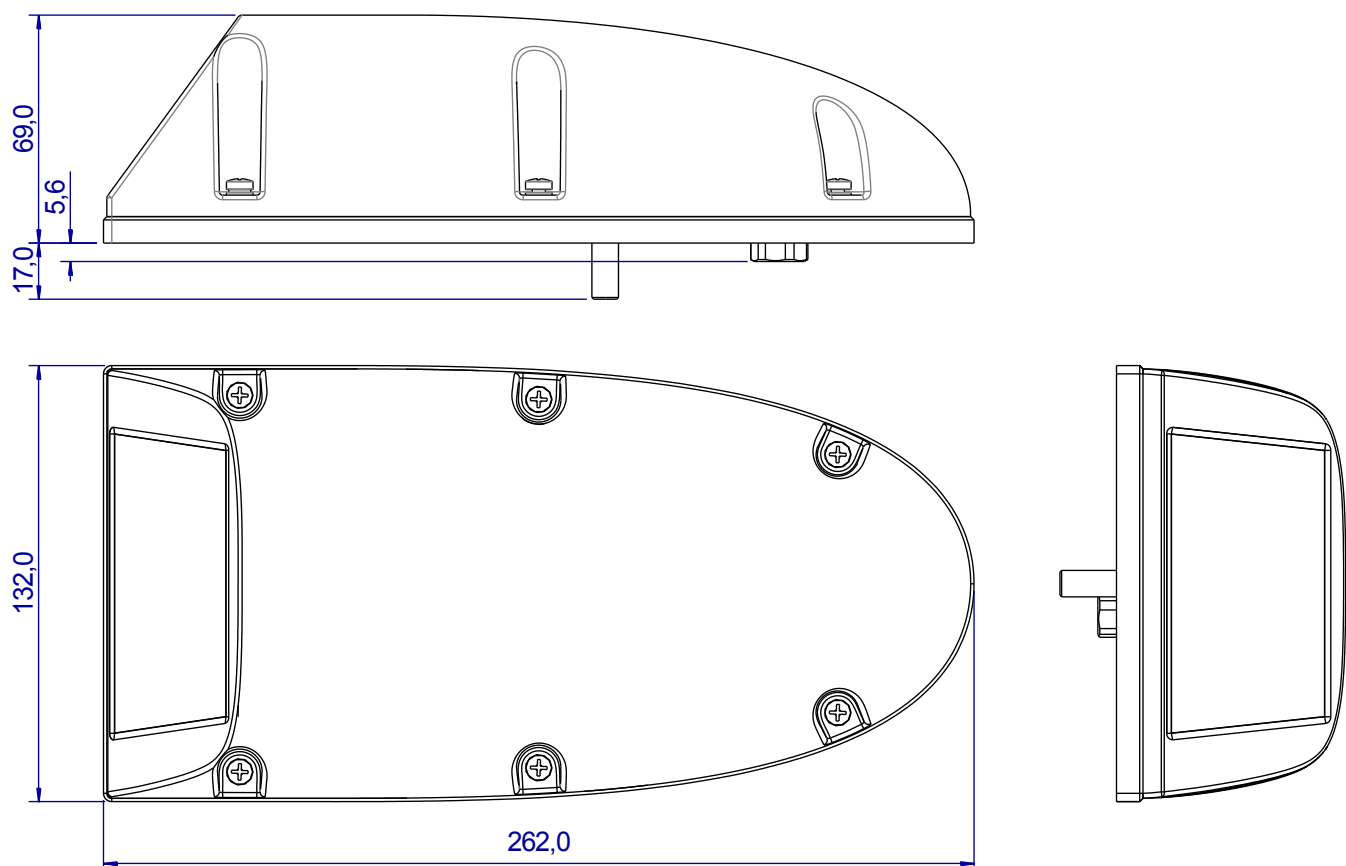


Fig. 1 – **KKR-AL01** dimensions, right version

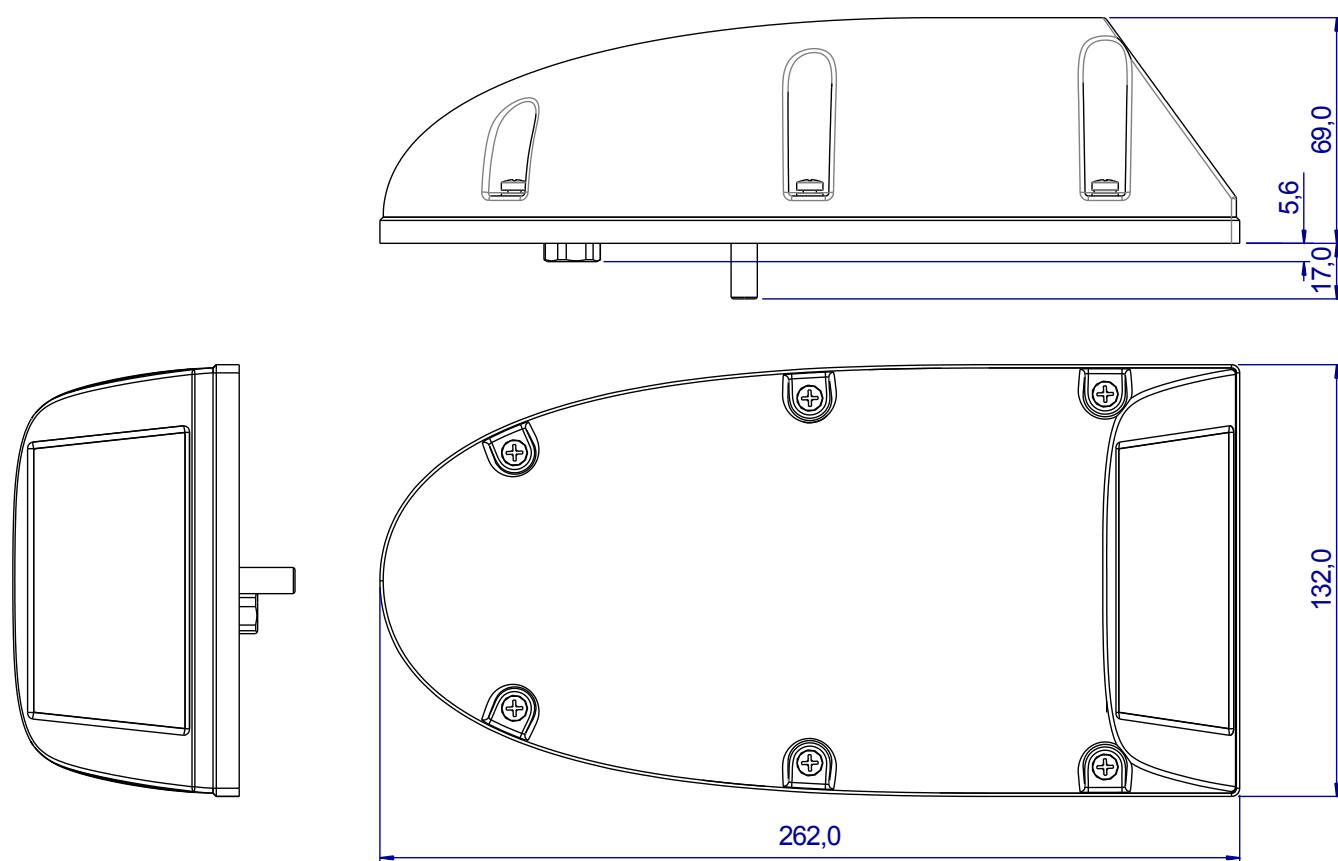


Fig. 2 – **KKR-AL01** dimensions, left version



## 2.2 Recommended drawing symbol

Following drawing symbol is recommended for **KKR-AL01** camera cover. Only part of it will be visible in following examples.



Fig. 3 – Recommended drawing symbol for **KKR-AL01/x**

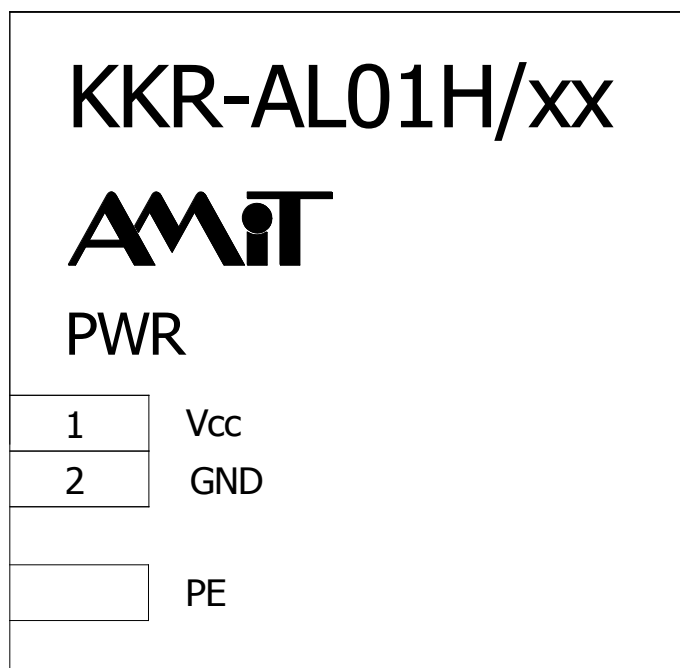


Fig. 4 – Recommended drawing symbol for **KKR-AL01H/xx**

### 3 Product marking

Camera cover **KKR-AL01** is fitted with manufacturer's type plate on the rear side, see following figure.

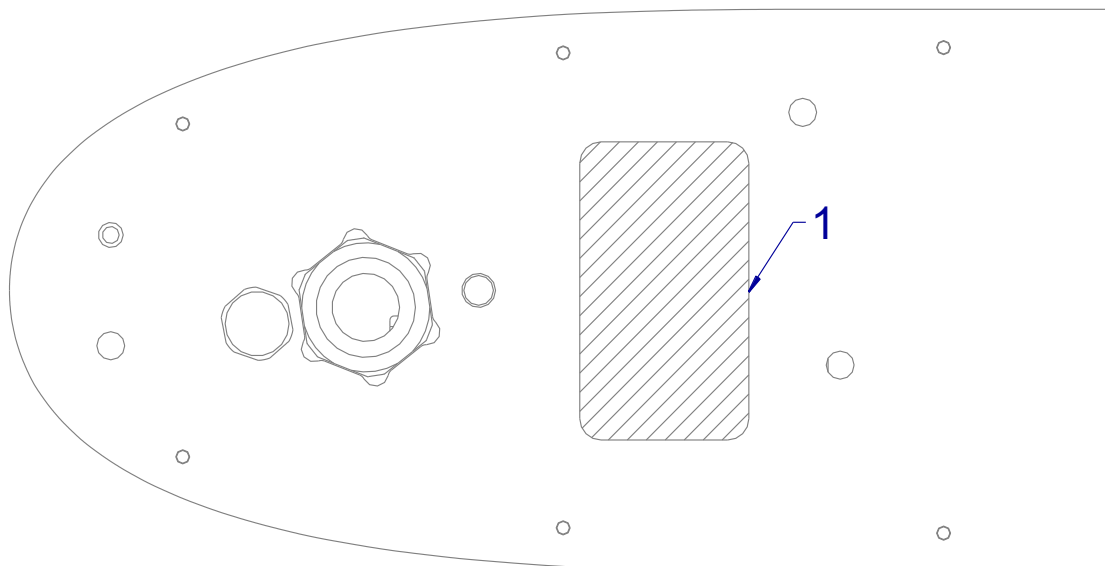


Fig. 5 – Location of the type plate on unit's cover

Legend

Number	Description
1	Location of type label





 	
TYPE:	<b>KKR-AL01/C</b>
S/N:	xxxxxxx
WEIGHT:	1.26 kg
TEST:	OK-XX
DATE:	19.08.2016
 	

Fig. 6 – KKR-AL01/x type plate





 	
TYPE:	<b>KKR-AL01H/C1</b>
S/N:	xxxxxxx
POWER:	24 V DC / 0.65 A
WEIGHT:	1.28 kg
TEST:	OK-XX
HiPot:	HiPot - OK
DATE:	19.08.2016
 	

Fig. 7 – KKR-AL01H/xx type plate

## 4 Conformity assessment

### 4.1 Camera cover without heating

The device complies with conditions stated in §1 article 2 letter d) Czech governmental decree 117/2016 Sb. Therefore, it is not specified within the meaning of the Act 90/2016 Sb. Conformity assessment was therefore not performed.

#### 4.1.1 Other tests

Camera cover has been assessed and approved for use in railway applications according to standards:

Tested in accordance with standard	Type of test	Classification
EN 50155:2007	Railway applications – Electronic equipment used on rolling stock	Complies
EN 61373:2010	Railway applications – Rolling stock equipment – Shock and vibration tests	Complies
EN 60068-2-1:2007	Environmental testing – Part 2-1: Tests – Test A: Cold	Complies
EN 60068-2-2:2007	Environmental testing – Part 2-2: Tests – Test B: Dry heat	Complies
EN 45545-2:2013	Railway applications – Fire protection on railway vehicles – Part 2: Requirements for fire behaviour of materials and components	Complies
EN 60529	Degrees of protection provided by enclosures	Complies

### 4.2 Camera cover with heating

Camera cover complies with requirements of Czech government NV117/2016. The compliance assessment with NV117/2006 has been performed in accordance with harmonized standard EN 50121-3-2:2006.

Tested in accordance with standard	Type of test	Classification
EN 55011:2009	Industrial, scientific and medical equipment – Radio-frequency disturbance characteristics – Limits and methods of measurement	Complies
EN 61000-4-2:2009	Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test	Complies
EN 61000-4-4:2012	Electromagnetic compatibility (EMC) – Part 4-4: Testing and measurement techniques – Electrical fast transient/burst immunity test	Complies

EN 61000-4-5:2006	Electromagnetic compatibility (EMC) – Part 4-5: Testing and measurement techniques – Surge immunity test	Complies
-------------------	--	----------

#### 4.2.1 Other tests

Camera cover has been assessed and approved for use in railway applications according to standards:

Tested in accordance with standard	Type of test	Classification
EN 61000-4-29:2000	Electromagnetic compatibility (EMC) – Part 4-29: Testing and measurement techniques – Voltage dips, short interruptions and voltage variations on DC input power port – Immunity test	Complies
EN 50155:2007	Railway applications – Electronic equipment used on rolling stock	Complies
EN 50121-3-2:2006	Railway applications – Electromagnetic compatibility – Part 3-2: Rolling stock – Apparatus	Complies
EN 61373:2010	Railway applications – Rolling stock equipment – Shock and vibration tests	Complies
EN 60068-2-1:2007	Environmental testing – Part 2-1: Tests – Test A: Cold	Complies
EN 60068-2-2:2007	Environmental testing – Part 2-2: Tests – Test B: Dry heat	Complies
EN 45545-2:2013	Railway applications – Fire protection on railway vehicles – Part 2: Requirements for fire behaviour of materials and components	Complies
EN 60529	Degrees of protection provided by enclosures	Complies

## 5 Power supply

This chapter applies only to camera covers with heating, see chapter 7 “Ordering information and completion”.

Camera cover can be powered only by a DC power supply.

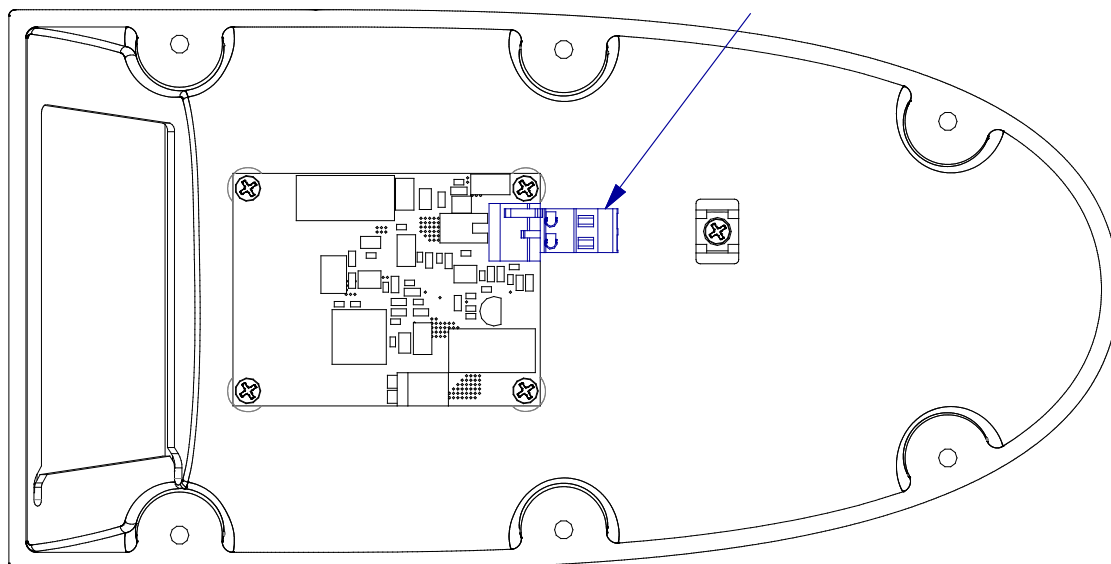


Fig. 8 – Power supply connector location

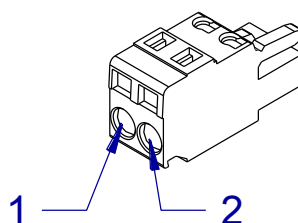


Fig. 9 – Power supply connector

Power connector numbering	PIN	Signal	Description
	1	Vcc	Power supply, +24 V DC
	2	GND	Power supply, ground

*Note* Two terminals are available for grounding the camera cover M4×10 and M8×17, see Fig. 10.

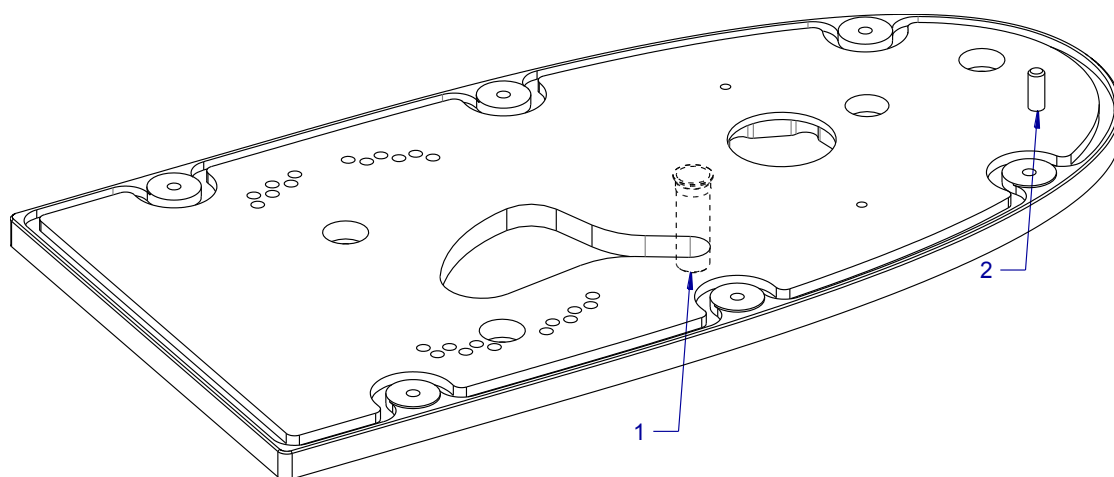


Fig. 10 – Grounding terminals position

Grounding pins	Position	Camera cover type
	1	Terminal M8×17, threading from the outer side of camera cover
	2	Terminal M4×10, threading from the inner side of camera cover

## 6 Mounting

Camera cover is intended for mounting on vehicle's body.

### 6.1 Location on a vehicle

Camera cover is manufactured in two variants: Left and right. Difference between two variants is in location of mounting holes.

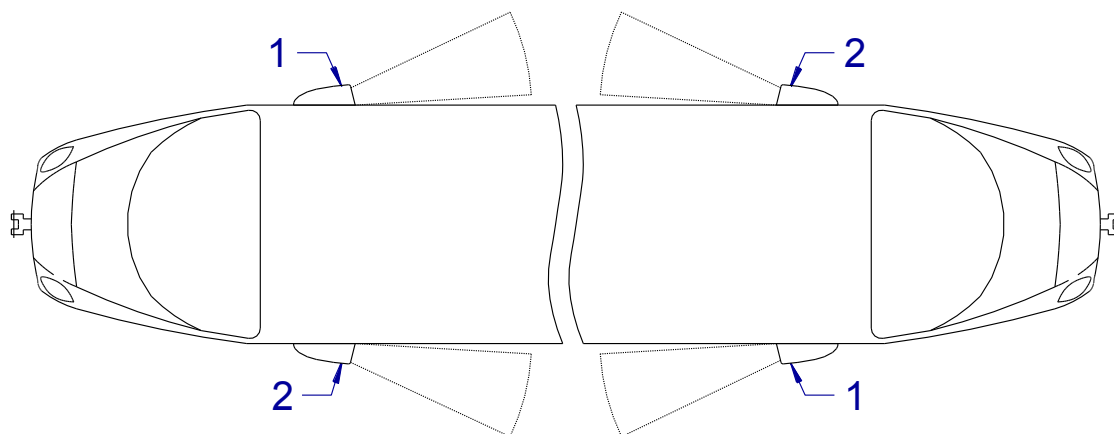


Fig. 11 – Vehicle with camera covers, top view

Camera cover location	Position	Camera cover type
	1	Right
	2	Left

## 6.2 Mounting apertures

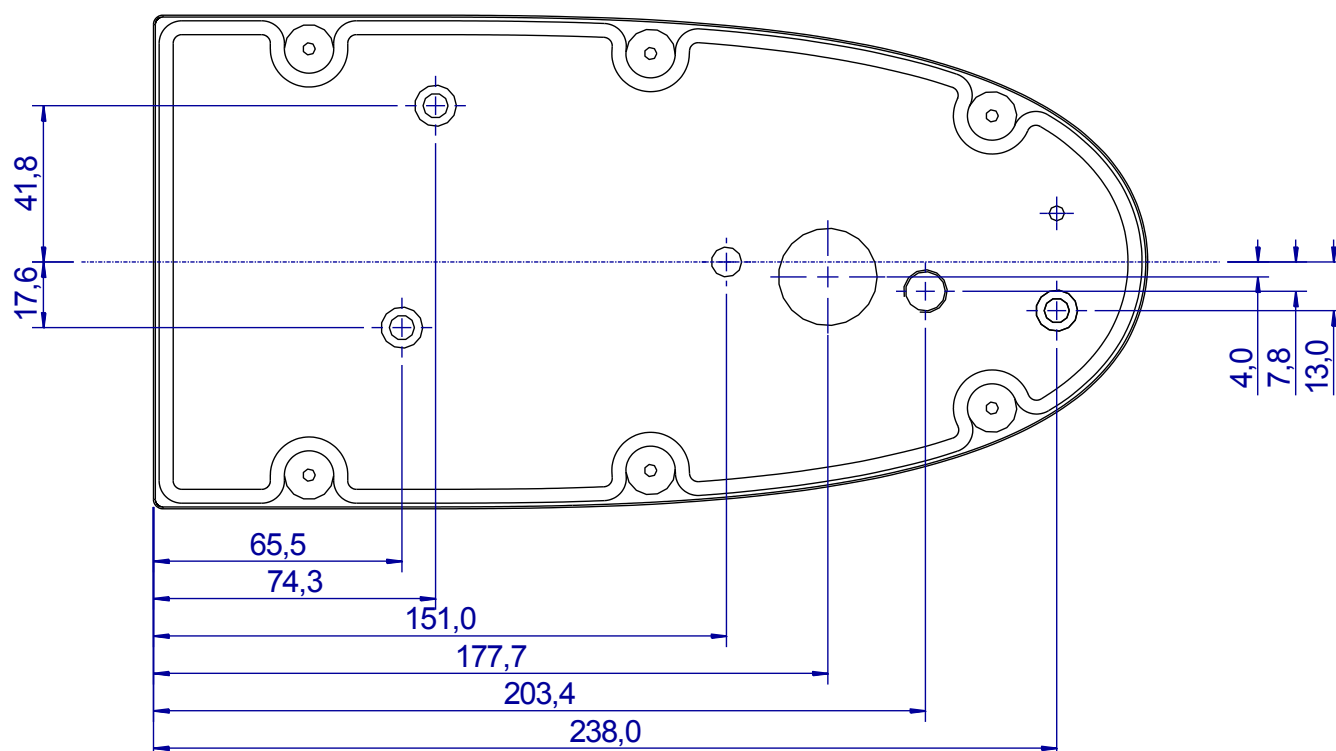


Fig. 12 – Mounting apertures, right camera cover

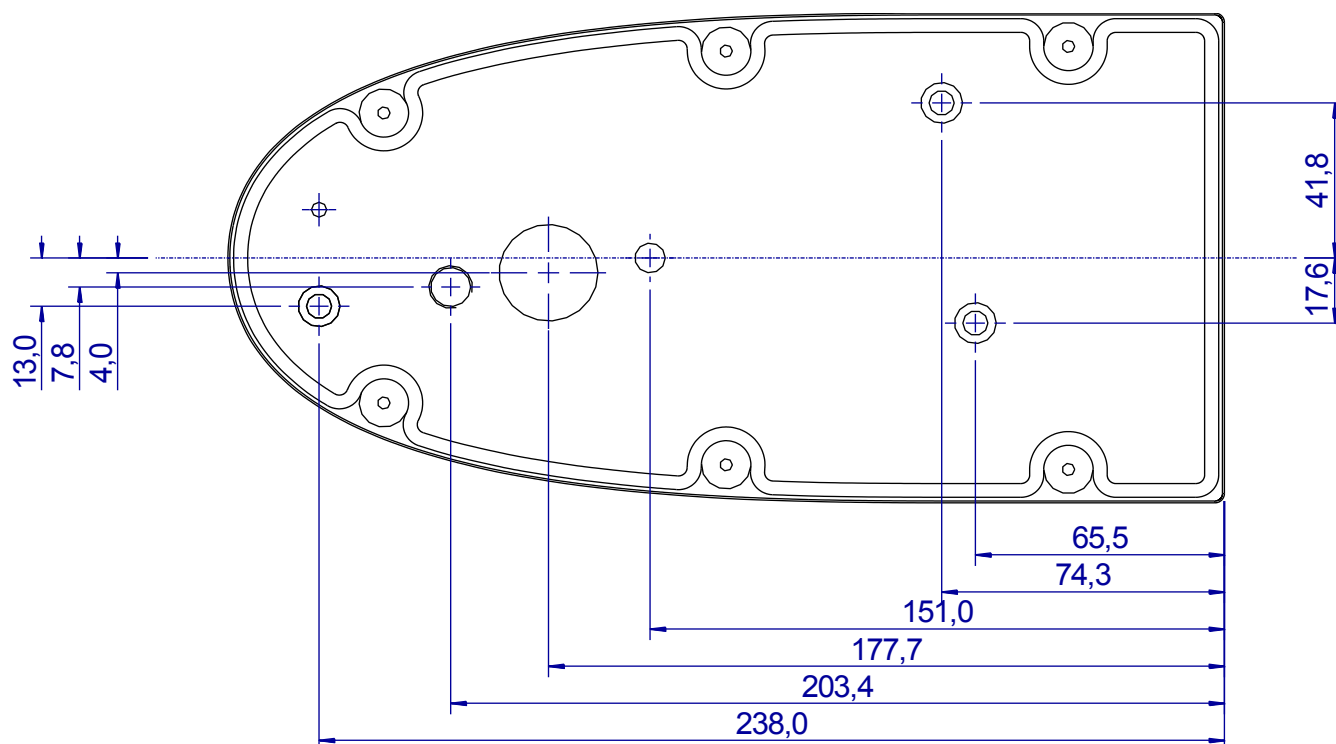


Fig. 13 – Mounting apertures, left camera cover



## 6.3 Mounting preparation

Surface onto which the camera cover will be mounted must be fitted with mounting apertures, cabling apertures, grounding terminal and Gore-Tex vent.

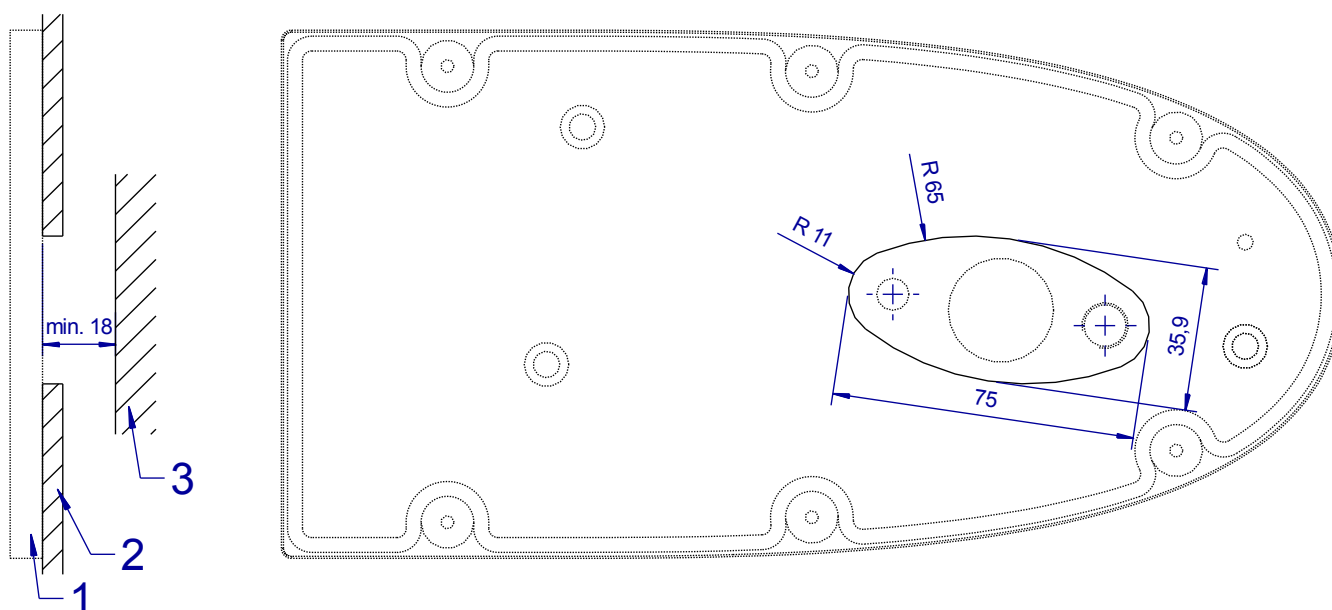


Fig. 14 – Recommended aperture for right camera cover version

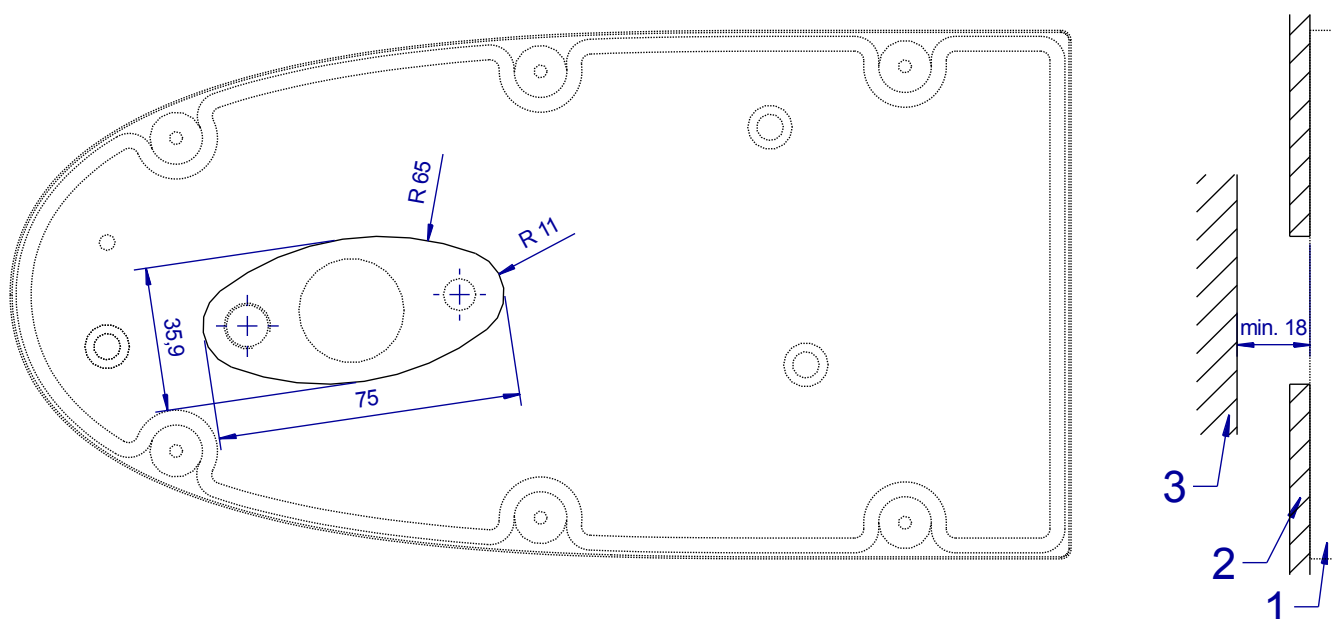


Fig. 15 – Recommended aperture for left camera cover version

Legend

Number	Description
1	Camera base set
2	Vehicle's side plate
3	Obstacle inside the vehicle

Aperture orientation must correspond with camera cover orientation. There must be no obstacle present under the camera cover at the aperture location within at least 18 mm.

## 6.4 Mounting cover

Camera cover set is delivered fully assembled. Sealing gasket is attached to camera cover set.

Before mounting on vehicle body, it is necessary to disassemble the set by unscrewing six M4 bolts located at camera cover circumference.

Mounting consists of following steps:

- Mounting of camera cover base
- Camera mounting
- Power supply connection to regulation board.
- Mounting the camera cover to base

### 6.4.1 Mounting of camera cover base

Contact area between vehicle body and camera cover base must be sealed up to prevent the moisture penetration through mounting apertures. For sealing between vehicle body and camera cover base must be used gasket, alternatively the whole contact area must be covered by sealant.

The base is attached by three M6 bolts to vehicle body. Bolts are not included in the delivery. Bolt heads must be sealed during mounting, or bolts with sealing gasket must be used. Other unused mounting apertures must be sealed as well.

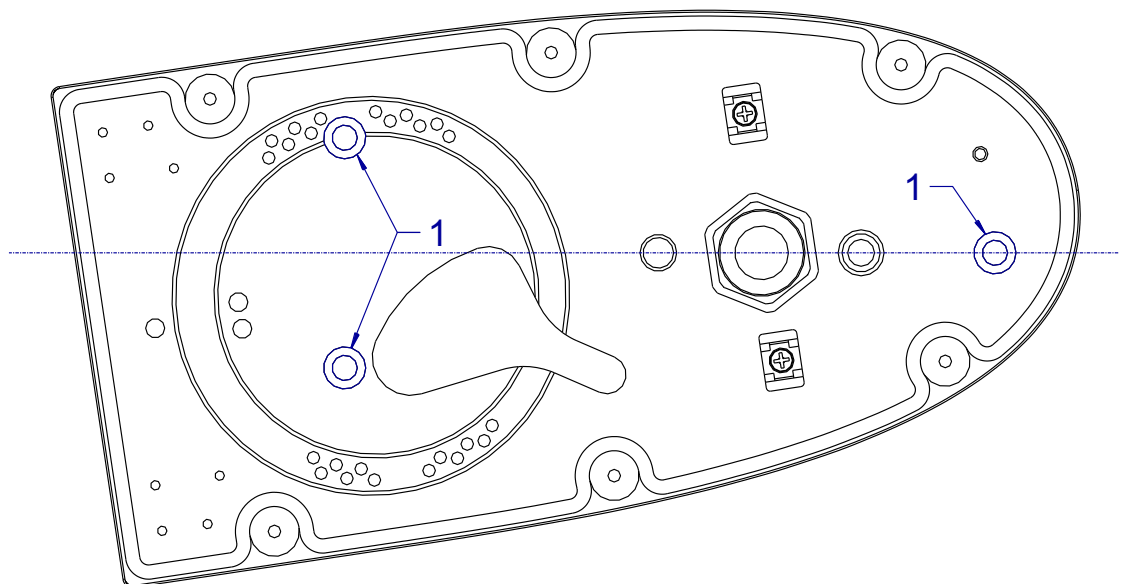


Fig. 16 – Example of mounting orientation, apertures and sealing spots, right camera cover

Legend

Number	Description
1	Spots for sealing

*Note* After mounting camera cover base, the marked spots (Fig. 16) must be sealed.

Two terminals are available for grounding the camera cover M4×10 and M8×17.

M25 cable gland is used for feeding the cabling into cover, see Fig. 17 – rubber gasket for one cable (with diameter of 6 mm) or two cables (with diameter of 6 mm and 9 mm) are available.

For camera cover without heating – one round cable with diameter of 6 mm must be always pulled through the cable gland. For camera cover with heating – two round cables with diameter of 6 mm and 9 mm must be always pulled through the cable gland. The cable gland nut must be tightened properly to ensure sealing between the insert and passed through cabling.

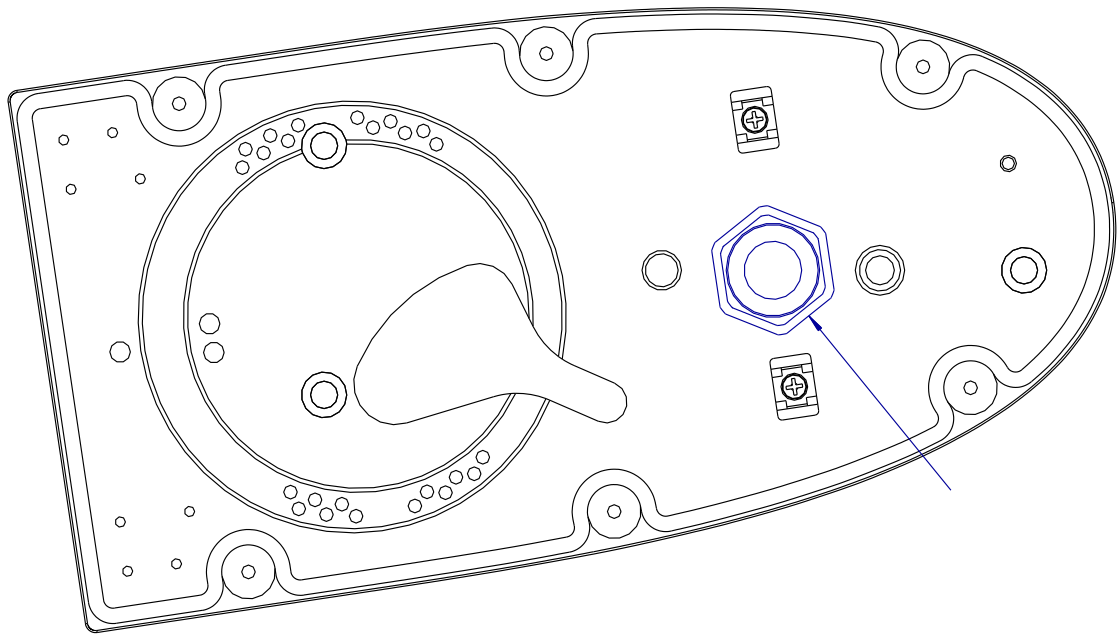


Fig. 17 – Bushing for cable feed, right camera cover

Camera cover is equipped with Gore-Tex vent, which allows ventilation and prevents the water ingress into camera cover. It is necessary to have enough space around vent to ensure proper ventilating function.

#### 6.4.2 Camera mounting

Camera must be attached by three M4×08 stainless bolts with stainless spring washer as well as with flat washer. Bolts and washers are included. The mounting apertures are to be chosen with regard to camera orientation.

The interconnecting cable must be first passed through cable gland into the camera cover and only then can be fitted with connector. Redundant camera cable can be twisted into camera cover rear part. Fixing of twisted cable to pair of brackets located on base must be performed by cable ties.

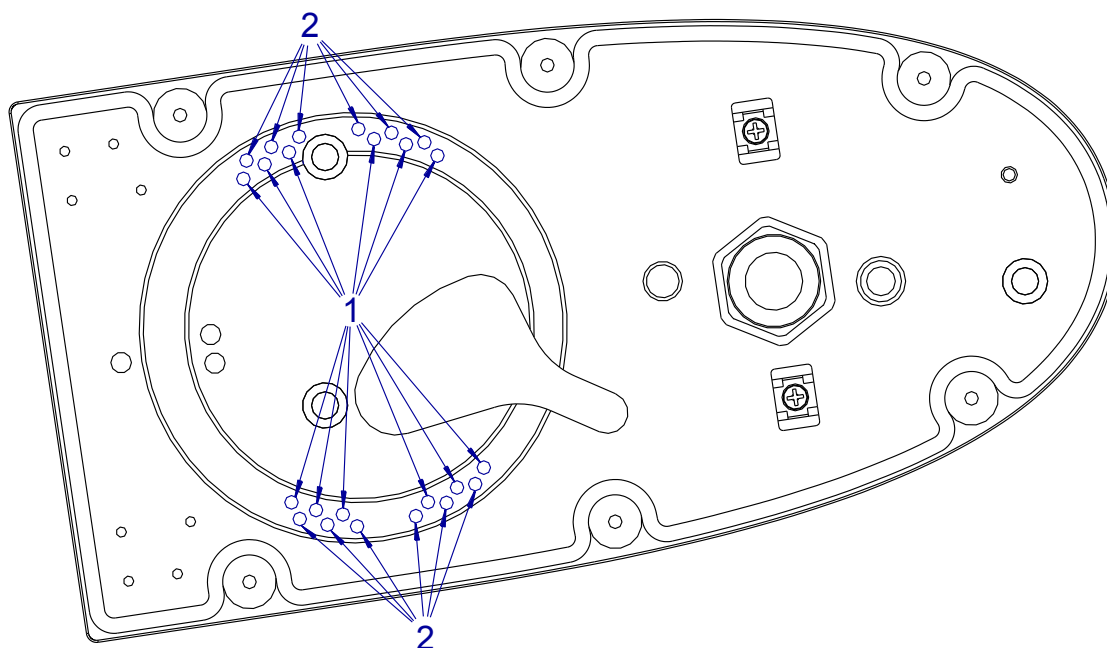


Fig. 18 – Places indicated for mounting the camera

Legend

Number	Description
1	Holes for mounting <b>AXIS M3114</b> or <b>AXIS P3905 (Mk II)</b> cameras
2	Holes for mounting <b>Moxa VPort P06</b> camera

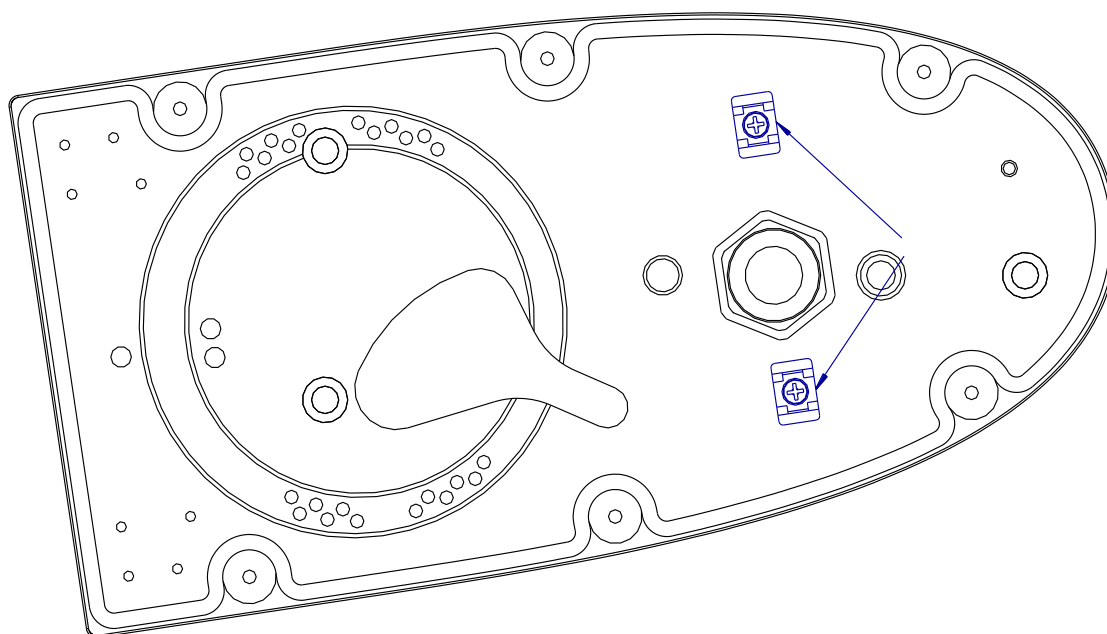


Fig. 19 – Indicated spots for attaching base cable ties

### 6.4.3 Power supply connection to regulation board

---

Relates only to camera cover with heating.

Powering of control unit must be performed by round cable with 0.5 mm<sup>2</sup> to 1.5 mm<sup>2</sup> cross-section wires. Wire ends must be connected into connector counterpart. The connector counterpart is inserted into control unit connector, see chapter 5 "Power supply". Cable must be secured by cable tie and holder on cover.

### 6.4.4 Mounting the camera cover to base

---

The included sealing gasket must be used between base and camera cover. Be careful when putting gasket into channel around base circumference. The whole groove area must be filled evenly, without twisting and bumps. Don't stretch the rubber sealing or it might tear.

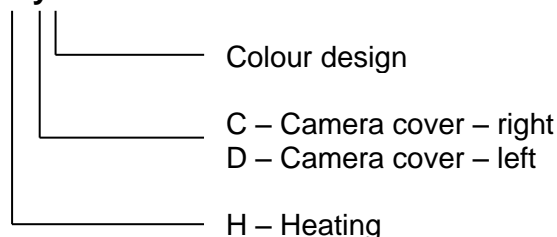
**Sealing must be checked after mounting the cover to base – it must not be broken, torn, or otherwise damaged. New sealing must be used otherwise!**

Camera cover with sealing gasket must be tightened to base by six attached bolts. Tighten the bolts step by step crosswise around the whole circumference (not individually at full force).

Recommended final tightening torque is 3 Nm.

## 7 Ordering information and completion

KKR-AL01x/yz



**Camera  
housing**

	Heating	Orientation	Colour design – base – cover
KKR-AL01/C	No	Right	Powder coating RAL 9005, semi-matte Powder coating RAL 9005, semi-matte
KKR-AL01/D	No	Left	Powder coating RAL 9005, semi-matte Powder coating RAL 9005, semi-matte
KKR-AL01H/C	Yes	Right	Powder coating RAL 9005, semi-matte Powder coating RAL 9005, semi-matte
KKR-AL01H/D	Yes	Left	Powder coating RAL 9005, semi-matte Powder coating RAL 9005, semi-matte
KKR-AL01H/C1	Yes	Right	Powder coating RAL 9005, semi-matte Powder coating RAL 7035, semi-matte
KKR-AL01H/D1	Yes	Left	Powder coating RAL 9005, semi-matte Powder coating RAL 7035, semi-matte
KKR-AL01H/C2	Yes	Right	Wet painting RAL 3020, gloss 90% Wet painting RAL 3020, gloss 90%
KKR-AL01H/D2	Yes	Left	Wet painting RAL 3020, gloss 90% Wet painting RAL 3020, gloss 90%
KKR-AL01H/C3	Yes	Right	Powder coating RAL 3002, semi-matte Powder coating RAL 3002, semi-matte
KKR-AL01H/D3	Yes	Left	Powder coating RAL 3002, semi-matte Powder coating RAL 3002, semi-matte
KKR-AL01H/C4	Yes	Right	Powder coating RAL 9010, semi-matte Powder coating RAL 9010, semi-matte
KKR-AL01H/D4	Yes	Left	Powder coating RAL 9010, semi-matte Powder coating RAL 9010, semi-matte
KKR-AL01H/C5	Yes	Right	Wet painting RAL 9010, gloss 80% Wet painting RAL 9010, gloss 80%
KKR-AL01H/D5	Yes	Left	Wet painting RAL 9010, gloss 80% Wet painting RAL 9010, gloss 80%
KKR-AL01H/C6	Yes	Right	Powder coating RAL 1013, semi-matte Powder coating RAL 1013, semi-matte
KKR-AL01H/D6	Yes	Left	Powder coating RAL 1013, semi-matte Powder coating RAL 1013, semi-matte

*Note* See following chapter 7.1 “Completion” for separate parts list.

## 7.1 Completion

<b>KKR-AL01/yz</b>	Part	Quantity
	Aluminium cover with glass	1
	Aluminium base	1
	Cable gland with grommet for cable with 6 mm diameter	1
	Gore-Tex vent	1
	Fixtures for inlet cable binding	2
	Gasket	1
	M4×08 bolt	3
	Spring washer M4 for camera mounting	3
	Flat washer M4 for camera mounting	3
	M4×14 bolt	6
	Spring washer M4 for cover mounting	6
	Flat washer M4 for cover mounting	6
	Routine testing protocol	1
	Certificate of product quality and completeness	1

<b>KKR-AL01H/yz</b>	Part	Quantity
	Aluminium cover with heated glass	1
	Aluminium base	1
	Cable gland with grommet for cables with 6 mm and 9 mm diameter	1
	Gore-Tex vent	1
	Heating control unit	1
	WAGO 231 connector counterpart	1
	Fixtures for inlet cable binding	3
	Gasket	1
	M4×08 bolt	3
	Spring washer M4 for camera mounting	3
	Flat washer M4 for camera mounting	3
	M4×14 bolt	6
	Spring washer M4 for cover mounting	6
	Flat washer M4 for cover mounting	6
	Routine testing protocol	1
	Insulation testing protocol	1
	Certificate of product quality and completeness	1

## 7.2 Spare parts

<b>Spare parts</b>	<b>KKRPWA10</b>	Heating control unit
	<b>TES KKRAL01</b>	Spare gasket for camera cover set

*Note* Cover and base of the camera cover can be ordered as a spare part.

## 8 Packing

**Front panel protection** View-through including the front panel is covered with a foil that protects the surface from scratches and dirt. It is recommended to leave the foil on place during mounting, although it must be removed prior to usage.

**Box** The cover is stored in a paper box and is protected against impacts with special pads. Package dimensions are listed in chapter 2 “Technical parameters”.

**Label** Sticker on the box contains following information:

Item	Description
TYPE	KKR-AL01x/yz
NETTO	1.26 kg $\pm 5\%$ / 1.28 kg $\pm 5\%$ <sup>7)</sup>
BRUTTO	1.46 kg $\pm 5\%$ / 1.48 kg $\pm 5\%$ <sup>7)</sup>
QTY	1 pc
S/N	Serial number
AMiT logo	—
QR code	—
CE sign	—

<sup>7)</sup> Only for models with heating, see chapter 7 “Ordering information and completion”.

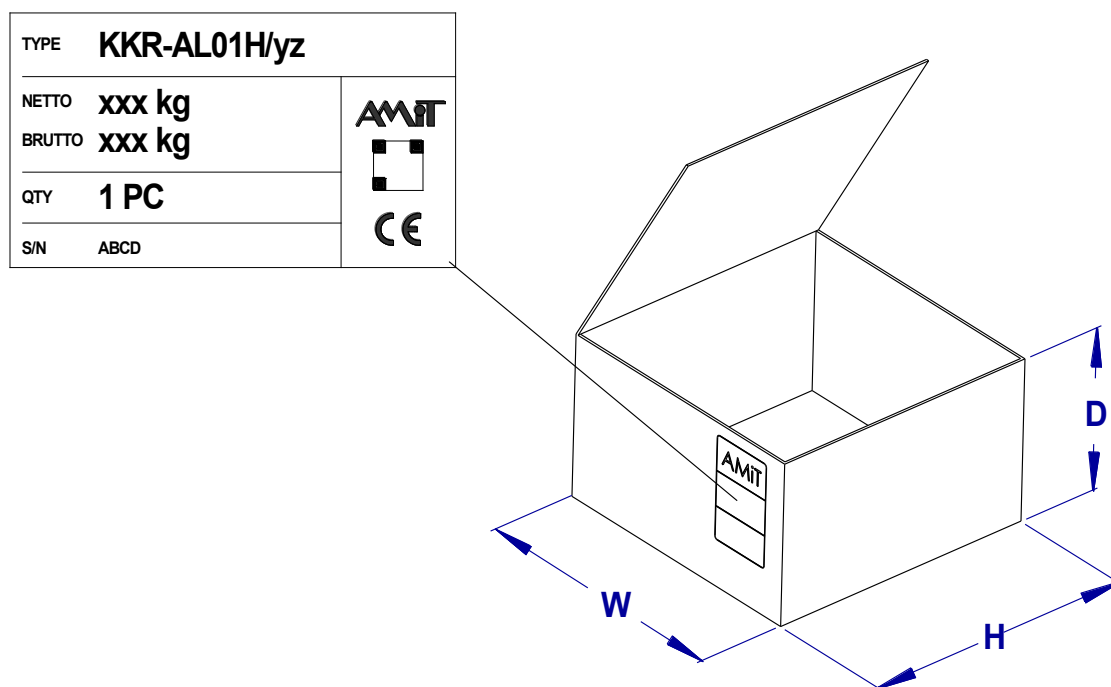


Fig. 20 – Box dimensions and label design



## 9 Storing

---

**To prevent damage of the device, follow these rules.**

***Product in a package*** Product in original packaging must be stored under the conditions specified in chapter 2 “Technical parameters”. Product must not come into contact with water, oil or any other liquids, that can damage the packaging.

Box with the device can be stored in any position. If boxes are stockpiled, weight acting on the top side of the box must not exceed 10 kg. All load must be evenly spread over the entire upper side of the box.

***Product without package*** Unpacked product must be stored only under the conditions specified in chapter 2 “Technical parameters”. Product may not come into contact with water or any other liquids, and must be placed in a clean environment without excessive dust, sawdust, etc.

The product can be placed only on surface that will not cause damage to its electronics or surface (for example soft fabrics, bubble wrap, soft protective rubber pad, etc.).

Product connectors or its display area must not rely on anything.

**If storing rules are not respected, the warranty might be lost.**

## 10 Maintenance

---

**Gasket** Gasket lifetime is 6 years. Every 6 years, gasket must be changed.

**Visual check**

Check all housings, whether they are dirty, misted, mechanically damaged or not.

**Gasket replacement**

When replacing gasket, it is necessary to remove dust from the inside of cover.

### 10.1 Cleaning

---

From outer side is housing cleaned during vehicle washing.

Depending on the way of the camera cover usage, it is necessary to clean the dust from the inside of the equipment from time to time.

Camera cover is dismounted, camera is cleaned in switched off state by dry paintbrush or soft brush, alternatively with vacuum cleaner.

The backward mounting of camera cover needs to be performed in accordance with procedure described in chapter 6.4.4 "Mounting the camera cover to base".

**Warning** The maintenance mentioned above can be performed by manufacturer or authorized service only!

## 11 Waste disposal

---

**Electronics disposal** The disposal of housings is subject to the regulations on handling electrical waste. Housings must not be disposed of in common public waste. They must be delivered to places specified for that purpose and recycled.

## 12 Appendix A – camera cover set drawing

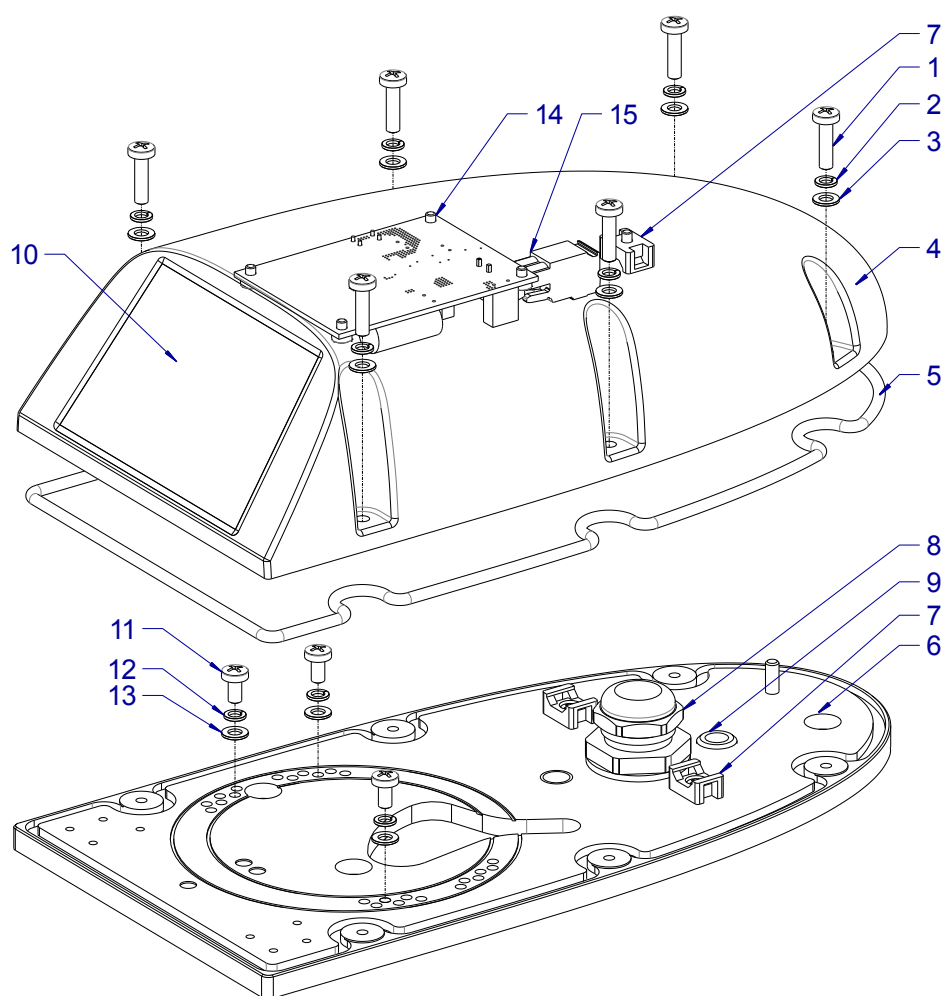


Fig. 21 – Individual parts of camera cover

Description of parts	Number	Quantity	Description
	1	6	M4×14 bolt
	2	6	Spring washer 4.1 mm for cover mounting
	3	6	Washer 4.3 mm for cover mounting
	4	1	Aluminium cover
	5	1	Gasket
	6	1	Aluminium base
	7	2 / 3 <sup>8)</sup>	Fixtures for inlet cable binding
	8	1	Cable gland with grommet
	9	1	Gore-Tex vent
	10	1	Glass resp. heating glass <sup>8)</sup>
	11	3	M4×08 bolt
	12	3	Spring washer 4.1 mm for camera mounting
	13	3	Washer 4.3 mm for camera mounting
	14	1	Heating control unit <sup>8)</sup>
	15	1	Power supply connector counterpart <sup>8)</sup>

Note <sup>8)</sup> Only for models with heating, see chapter 7 “Ordering information and completion”.