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Select
your
vehicle

Why Orlaco?

Welcome to the Orlaco product catalogue. We are personally committed to bringing you the best camera and monitor solutions possible. To help create safer and more secure workplaces around the world. Our professional team has spent over twenty-five years designing and manufacturing a variety of certified, reliable and complete camera display solutions that effectively eliminate the blind spots around vehicles, machinery and vessels. We are confident that the options offered in this catalogue will not only help you to improve the safety, security and efficiency of your fleet, but also to enhance the ergonomics and comfort for your operators. That is what Orlaco stands for. We invite you to share your ideas and experiences with us.

On behalf of the entire team,
Henrie van Beusekom
Executive Director Orlaco

That's
why!

Let us **improve** your every day job

Improved Safety and Efficiency

Emergency vehicles are complex machines that require clear vision which allows the operation to progress smoothly and safely. Especially when an emergency attracts a large audience and or press, maneuvering into a correct position is not an easy task. Drivers have minimal vision around the vehicle. It is essential to solve large blind spots in a professional matter. This is where Orlaco's camera monitor solutions will help to improve operational efficiency and safety. Together with our zoom and/or thermal imaging cameras on the basket, analyzing the overall situation will go much faster and efficient.

Enhanced Ergonomics and Comfort

A driver of an emergency vehicle is required to follow what is occurring around his vehicle. Frequently he must maneuver into a contorted position. The vehicles are reversing repeatedly. The driver is obliged to turn his body to overview the operation, possibly leading to short or even long term ergonomic injuries. By viewing the Orlaco monitor located on the dashboard, the driver can maintain correct posture and work more comfortably. He feels safe, secure and in control of the vehicles' environment, reducing stress and providing comfort.

Certified Quality

At Orlaco, quality is never taken lightly. We keep a clear and persistent focus on customer satisfaction. A focus that is maintained throughout the manufacturing process of our quality products, which are custom designed in various formats. We are able to uphold our level of quality by providing detailed servicing. To top it all off, we have secured the highest achievable automotive certification: TS16949. At Orlaco, we invest in continuous improvement in order to secure a long term, satisfied customer base. We believe that compatibility in products, systems, and operations is the key element to creating reliable partnerships. All our products are controlled and clearly documented to give our customers a zero-defect product with operation that works right, every time.

Emergency **sight** solutions

Being able to see the people working in the basket cannot be taken for granted, especially if you are working above or behind high buildings or objects where the basket will be out of sight. With the mast camera, you will always be able to see them. That is a prerequisite for wellcoordinated collaboration and maximum safety.

Aerial appliances or ladder trucks are used to provide the most effective location possible for extinguishing fires. This has one disadvantage: It is difficult to follow operations from the ground. The safe and effective use of the aerial appliance or ladder truck therefore depends on the viewing system. Orlaco can help you get the best possible view using a camera system.

The rearview camera helps you get your vehicle into the correct position quickly and safely. Especially when reversing, you enjoy improved visibility. This is more efficient for you and it can improve safety for bystanders. **Recommendation:** Add RadarEye to increase safety & efficiency. (see page 28-29)

The new EU mirror directive came into force in 2006 and was extended in January 2007. It includes frontview mirrors for all new trucks in Europe. Only an approved camera system may replace the front view mirror. The front camera provides a perfect view of the blind spot in front of the cab. This makes it possible to notice cyclists and pedestrians in time.

Fighting a forest fire is a tough job. Accessibility is limited and unclear especially when combined with heavy smoke development. Using a thermal imaging camera on a Pan & Tilt unit on the front of the vehicle, together with a rearview camera, helps you to better overcome these obstacles.

Rearview

Orlaco equips your forest fire engine with a rearview camera. This camera provides you with a view of the area directly behind the vehicle. This allows you to reverse more safely, not only in traffic, but also in forest areas, which are often difficult to access.

Rearview

DEVS SETS - PAGE 16-17

The rearview camera lets you see the area immeditely behind the crash tender. This is safer when you are on the way to the location and ideal when you are moving your vehicle into position.

Runway-cam

DEVS SETS - PAGE 16-17

With the camera system recommended by the Federal Aviation Administration (FAA) (AC No: 150/5210-19A), consisting of a thermal imaging camera and a zoom camera on the roof of the vehicle, you can fight fires more effectively as a result of your improved visibility. In addition, you can record these images digitally with the integrated recorder. That can be an important function when analyzing the disaster. This set is also fitted with rearview and sideview cameras.

[●REC]

Sideview

DEVS SETS - PAGE 16-17

Given the dimensions of the crash tender and your position as the driver, adequate visibility is not something you can take for granted. The side cameras give you greater visibility of the areas to the sides of the vehicle.

ℹ️ Information

Crash tenders are large, cumbersome vehicles. An Orlaco camera system is a welcome addition. You can easily combine this with a thermal imaging camera and a zoom camera. These DEVS (Driver's Enhanced Vision Systems) for ARFF (Aircraft Rescue and Fire Fighting) are recommended by the FAA. Two cameras are positioned on the Pan & Tilt unit. The zoom camera, capable of up to 432X zoom, lets you see the location and brings objects into crystal-clear focus. The thermal imaging camera helps you see through the smoke to localize the seat of the fire. You can view the images from both the zoom and thermal imaging cameras and the side- and rearview cameras on the monitor in the cab.

Rearview

RC1001 - PAGE 18

The rearview camera increases the safety of professional response personnel and bystanders. You can maneuver more easily because you can see the area behind the vehicle. The monitor in the cab automatically switches over to the rearview camera if you select reverse gear.
Recommendation: Add RadarEye to increase safety & efficiency.
(see page 28-29)

RADAREYE

Frontview

FC1001 - PAGE 18

The new EU mirror directive came into force in 2006 and was extended in January 2007. It includes frontview mirrors for all new trucks in Europe. Only an approved camera system may replace the front view mirror. The front camera provides a perfect view of the blind spot in front of the cab. This makes it possible to notice cyclists and pedestrians in time.

International responder

Combination set

Front- and Rearview
FR1001 - PAGE 18

ℹ️ **INFORMATION**
The frontview mirror may be replaced by a front camera provided it meets, among others, the following requirements:
• Mandatory front vision at forward speeds of between 0 and 10km per hour.
• It must be possible to see the class VI field of vision. (2m in front of and 2m across the entire width of the cab)

• The monitor may only display the class VI field of vision at forward speeds of between 0 and 30km per hour.
• The monitor and camera must meet all technical requirements.

The EG*2003/97*2005/27 directive describes the specifications that a truck's mirrors must comply with. Orlaco's front view system meets all these requirements.

Set **Mastcam Wireless** MC1101

1. Camera FAMOS 60°
0171040 - page 22

2. Monitor 7" RLED Serial, including standard bracket
0223100 - page 26

3. Spectrum Scanner RoundMax 150
0004061 - page 30

4. Special cable 5m + Connectors

Set **Cage-cam Zoom PT** CC1000

**1. AF-Zoom Camera PAL Serial**
0103531 - page 23

2. Monitor 7" RLED + Control
0210501 - page 26

3. Pan & Tilt unit 24V/DC
0507061 - page 31

4. Fastening plate
0507100 - page 31

5. Smartbox Stainless steel
0504730 - page 30

6. Multi cable 40m, cable per metre
1220170 - page 24

7. Special cable 3m + Connectors

Set **Cage-cam Zoom TIC PT** CC1500

1. Thermal Imaging Camera TIC 320 9Hz
0103730 - page 23

2. Monitor 7" RLED + Control
0210501 - page 26

3. Pan & Tilt unit 24V/DC
0507061 - page 31

4. Fastening plate
0507100 - page 31

5. Smartbox Stainless steel
0504730 - page 30

6. Multi cable 40m, cable per metre
1220170 - page 24

7. Special cable 3m + Connectors

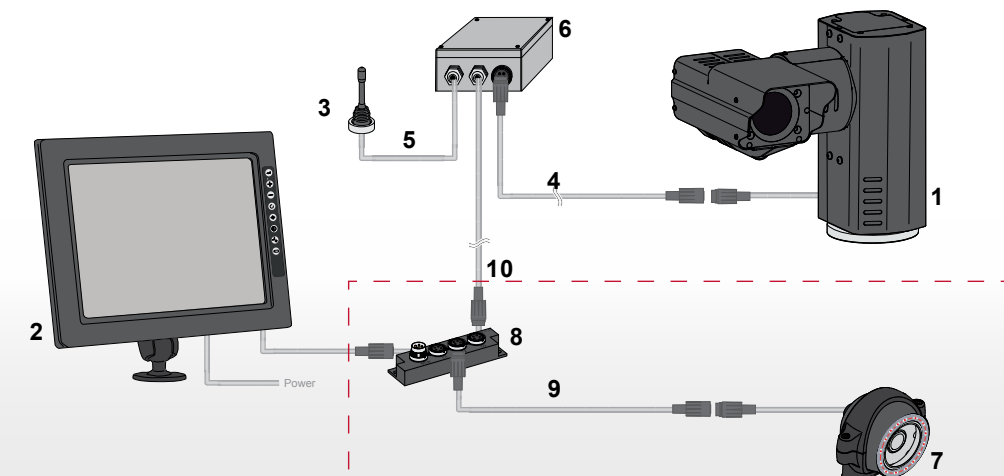## Set **Cage-cam Zoom & TIC PT** CC2000

1. AF-Zoom Camera PAL Serial
0103531 - page 23

2. Thermal Imaging Camera TIC 320 9Hz
0103730 - page 23

3. Monitor 7" RLED + Control
0210501 - page 26

4. Pan & Tilt unit 24V/DC
0507061 - page 31

5. Fastening plate
0507100 - page 31

6. Smartbox Stainless steel
0504730 - page 30

7. Multi cable 40m, cable per metre
1220170 - page 24

8. Special cable 3m + Connectors
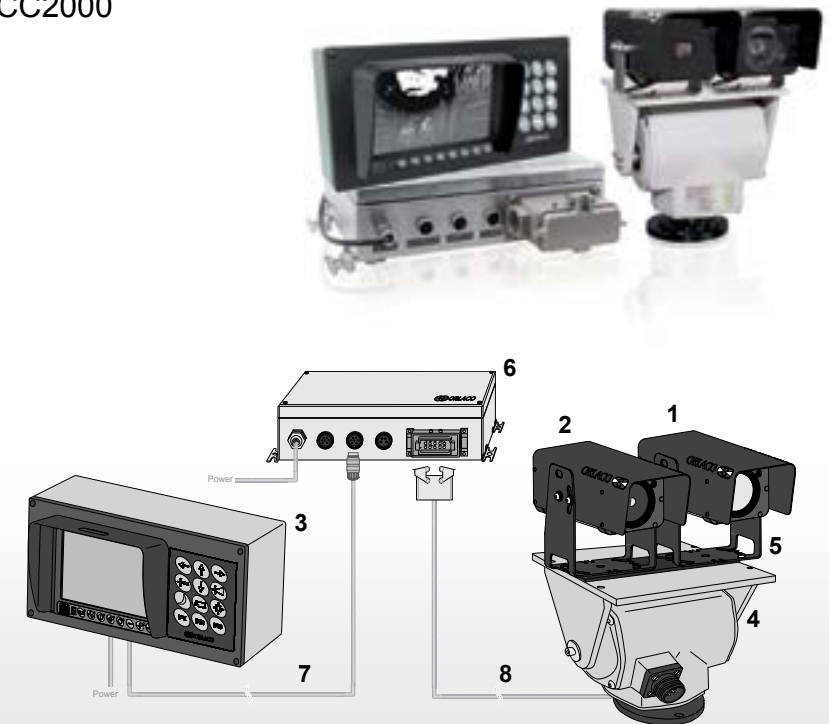
Set **Forest Fire** FF1000

1. Camera PT TIC Aluminium
0506971 - page 23

2. Monitor 12" RLED Serial
0411130 - page 26

3. Joystick
0506500 - page 31

4. Multi cable 6m 7p
0304410 - page 24

5. Power multi cable 5m, cable per metre
1220900 - page 24

6. Junction Box Special

Optional **Rearview**

7. Camera AMOS IR LED 118°
0146210 - page 22

8. Switcher Serial
0404060 - page 27

9. Multi cable 16m
0301920 - page 24

10. Multi cable 6m 7p
0304410 - page 24

Set **Crashtender** DEVS Basic CT1000

1. Thermal Imaging Camera TIC 320 9Hz
0103730 - page 23

2. Monitor 12" RLED Serial
0411130 - page 26

3. Pan & Tilt unit 24V/DC
0507061 - page 31

4. Fastening plate
0507100 - page 31

5. Control unit Pan & Tilt
0503500 - page 31

6. Joystick
0506500 - page 31

7. Power multi cable 5m, cable per metre
1220900 - page 24

Set **Crashtender** DEVS Anti Terrorism CT1200

1. AF-Zoom Camera PAL Serial
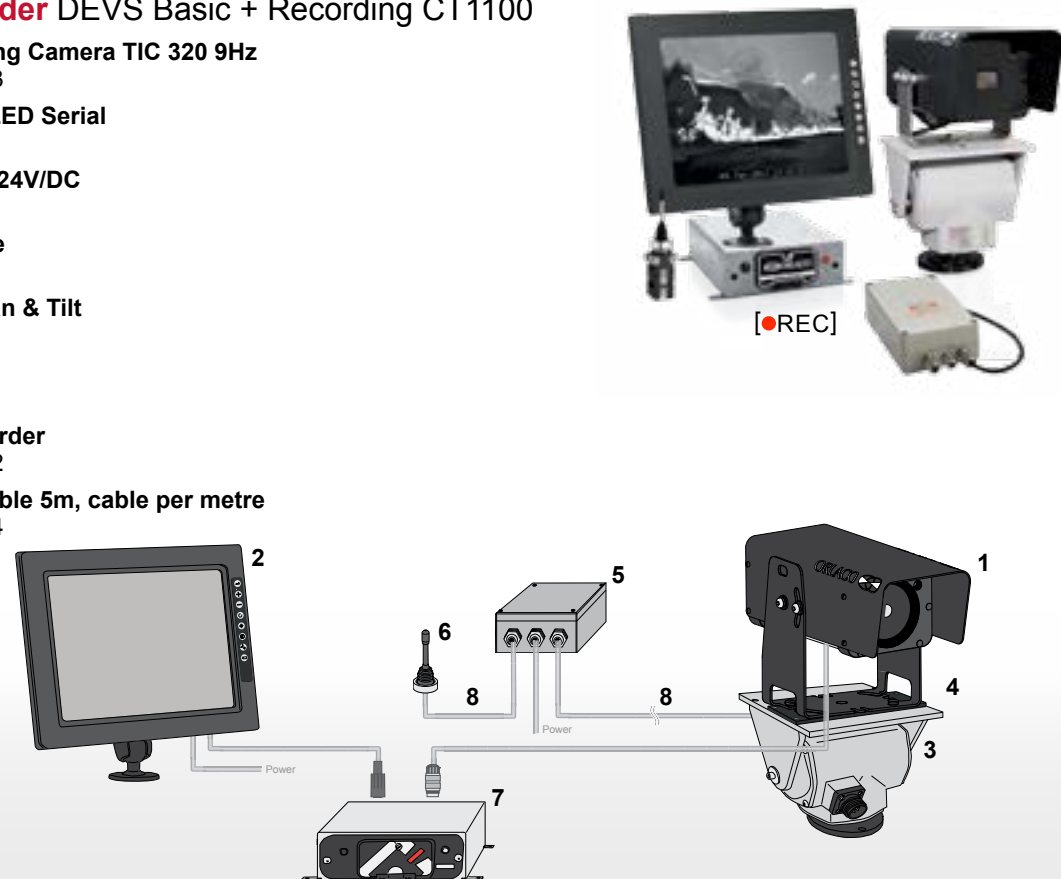0103531 - page 23

2. Thermal Imaging Camera TIC 320 9Hz
0103730 - page 23

3. Monitor 12" RLED Serial
0411130 - page 26

4. Pan & Tilt unit 24V/DC
0507061 - page 31

5. Fastening plate
0507100 - page 31

6. Smartbox Stainless steel
0504730 - page 30

7. Keyboard handheld AF
0502610 - page 31

8. Easysolid recorder
0000200 - page 32

9. Multi cable 6m 7p
0304410 - page 24

10. Special cable 5m + Connectors

Set **Crashtender** DEVS Basic + Recording CT1100

1. Thermal Imaging Camera TIC 320 9Hz
0103730 - page 23

2. Monitor 12" RLED Serial
0411130 - page 26

3. Pan & Tilt unit 24V/DC
0507061 - page 31

4. Fastening plate
0507100 - page 31

5. Control unit Pan & Tilt
0503500 - page 31

6. Joystick
0506500 - page 31

7. Easysolid recorder
0000200 - page 32

8. Power multi cable 5m, cable per metre
1220900 - page 24

Set **Crashtender** DEVS Safety CT1301

1. AF-Zoom Camera PAL Serial
0103531 - page 23

2. Thermal Imaging Camera TIC 320 9Hz
0103730 - page 23

3. Camera AMOS IR LED 118˚
0146210 - page 22

4. Monitor 12" RLED Serial
0411130 - page 26

5. Pan & Tilt unit 24V/DC
0507061 - page 31

6. Fastening plate
0507100 - page 31

7. Smartbox Stainless steel
0504730 - page 30

8. Keyboard handheld AF
0502610 - page 31

9. Easysolid recorder
0000200 - page 32

10. Multi cable 6m 7p
0304410 - page 24

11. Multi cable 16m
0301920 - page 24

12. Special cable 5m + Connectors
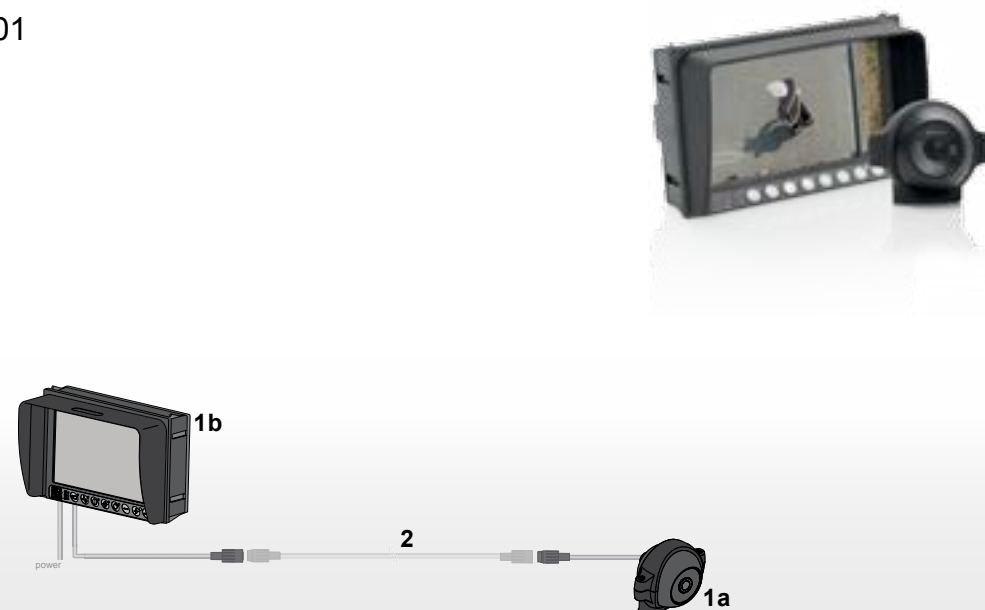
Set **Frontview** FC1001 / FC1011

1. Frontview set
0400511 / 0400521

   **a. Camera FAMOS 118° / 129º**
       0171010 / 0171000 - page 22

    b. Monitor 7" LEDD
       0221000 - page 26

    c. Multi cable 5m
       0301880 - page 24

Set **Rearview** RC1001

**1. Rearview set**
0401861

    a. Camera AMOS 102°
       0171020 - page 22

    b. Monitor 7" LEDD
       0221000 - page 26

2. Multi cable 16m
0301920 - page 24

Set **Frontview-Rearview** FR1001 / FR1011

1. Front- and Rearview set
0401971 / 0401981

    a. Camera FAMOS 118° / 129º
       0171010 / 0171000 - page 22

    b. Camera FAMOS 102°
       0171020 - page 22

    c. Monitor 7" LEDD
       0221000 - page 26

    d. Switcher UNI
       0404040 - page 27

    e. Multi cable 5m
       0301880 - page 24

2. Multi cable 16m
0301920 - page 24
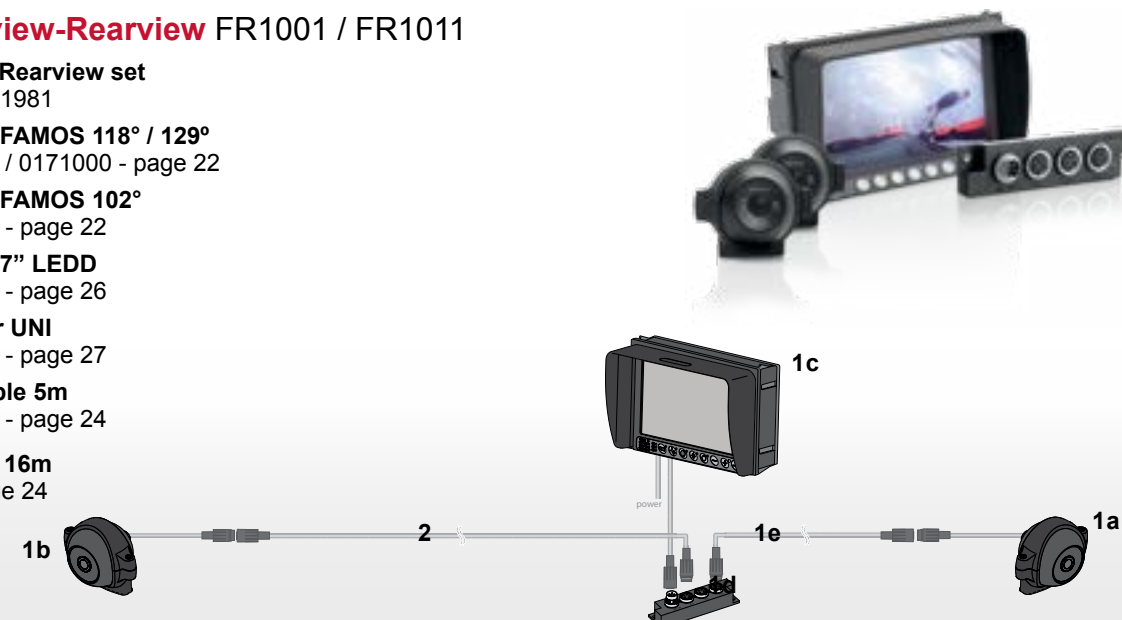
Set **Rearview + RadarEye**

1. Camera FAMOS 102°
0171020 - page 22

2. Monitor 7" LEDD CAN SRD
0208371 - page 26

3. RadarEye set corner rear
0403120 - page 28

    a. SRD sensors (2x)

    b. RadarEye corner brackets (2x)

    c. RadarEye Terminator

4. RaderEye interface box
0256010 - page 29

5. Multi cable 16m
0301920 - page 24

6. RadarEye cable M12 Green 20m
0301120 - page 29

7. RadarEye cable M12 Master-Slave Red 4m
0301030 - page 29

Set **General Multiview system**

1. Camera FAMOS
Make your choice - page 22

2. Monitor 7" LEDD Serial
0208232 - page 26

3. MultiView box
0404110 - page 27

4. Multi cable
Make your choice - page 24
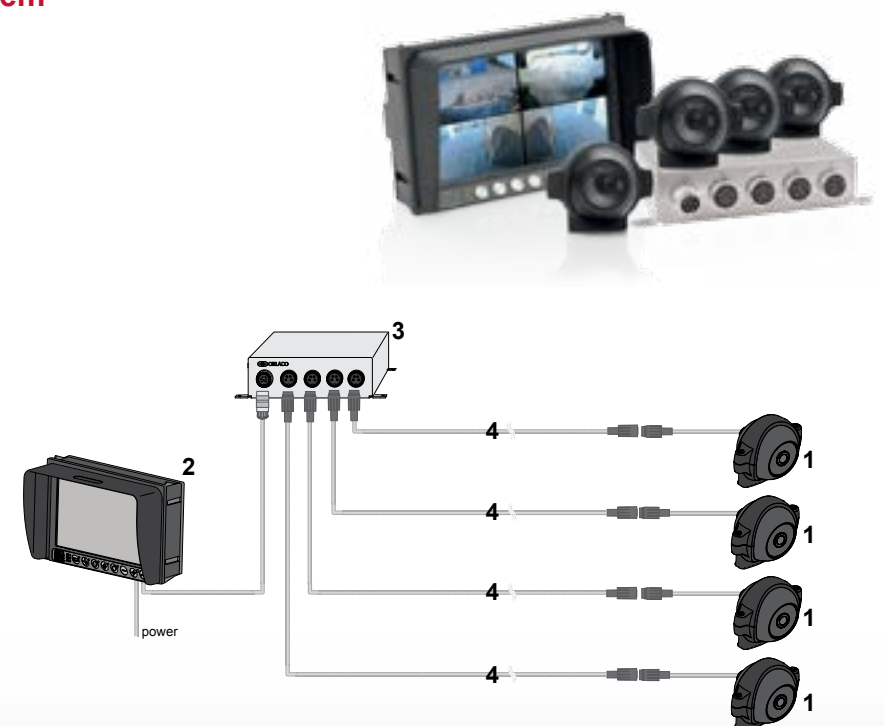
Note: The front camera may not replace the front mirror!

Set **Surround view**

1. Camera FAMOS 129º (4x)
0171000 - page 22

2. Monitor 7" LEDD Serial
0208232 - page 26

3. Multiview box
0404110 - page 27

4. Multi cable 16m
0301920 - page 24

1

4

1   4   4   1

2

3

4

Power
24V
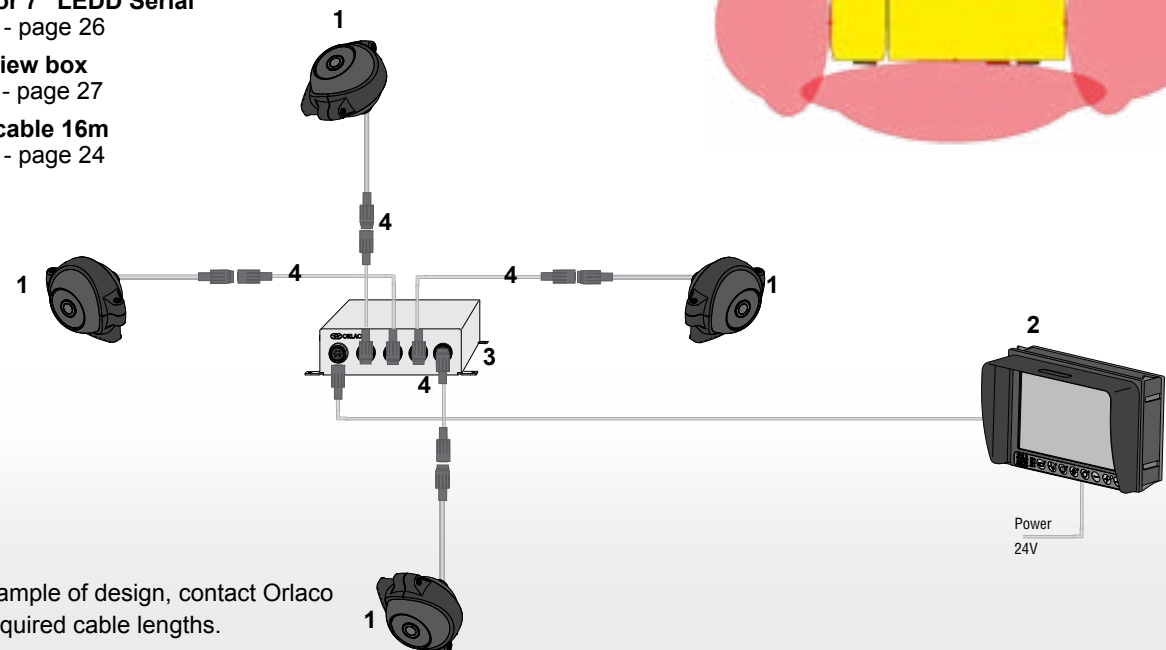
Note: Example of design, contact Orlaco
for the required cable lengths.

Surround view

• Surround view can be applied on any type of vehicle.
• Increased visibility when manoeuvring in narrow spaces and
  crowded areas.
• Images available: 180°, 270° or 360°.
• Surround view offers an overview of objects and people
  around a vehicle. They are always visible, thanks to overlap-
  ping camera images.
• Suitable for both 7" and 12" Orlaco monitors.
• Operating temperature between -40° and +85°C.
• A maximum of four different overviews can be programmed.
• No time-consuming calibration of cameras.
• Surround view can be designed and programmed in
  accordance with the customer's wishes.
• Contact Orlaco for more information and advice.

The dimensions and design of emergency vehicles make it difficult for a driver to have a complete overview of the situation. Surround View gives a three hundred and sixty degrees visibility around the vehicle, enabling the driver to maneuver safely under the most difficult and hectic circumstances. The positioning of the vehicle is often essential in order to attend to emergency situations on time in a safe and efficient way. The system shows a maximum visibility of all four sides of the vehicle on one monitor. The camera images overlap, allowing the driver to have a complete overview at all times, without missing any obstacles. By providing the driver an immediate clear overview of the situation, Surround View significantly increases safety and efficiency.

Forward manoeuvring

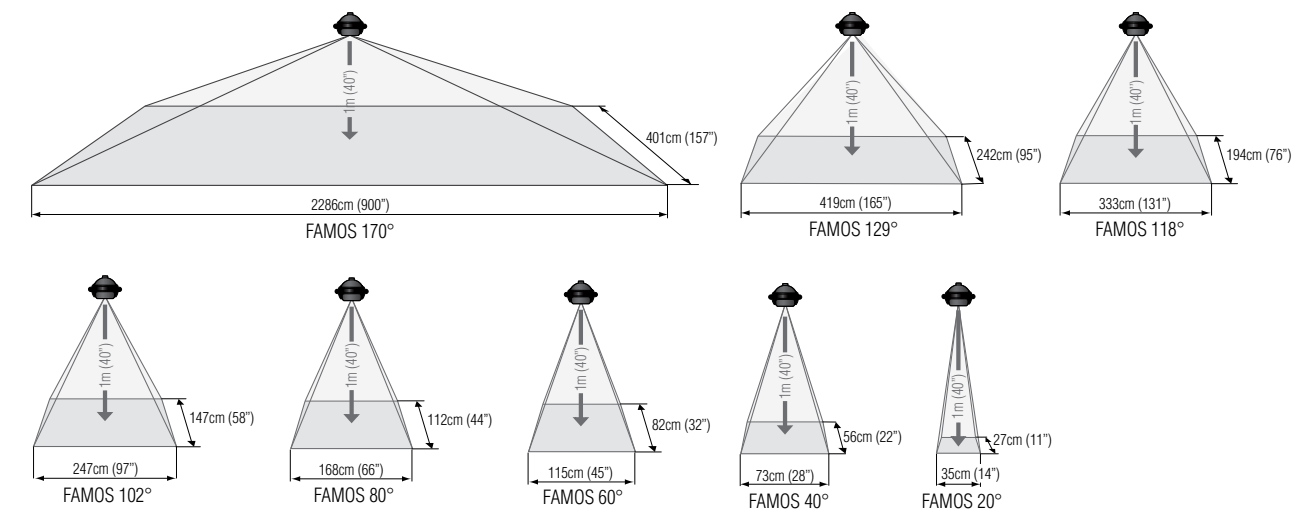Reverse mode

Or design your system yourself

Step 1: Select your camera
Step 2: Select your desired cable
Step 3: Select your monitor
Step 4: Select the required options
It is also possible to configure your system online
on our website: www.orlaco.com

Whatever you select, the system can be easily installed and is plug-and-play.
Note: For two or more cameras a switcher, 4Cam RLED Monitor or MultiView Box and additional cables are required. Contact us for support.
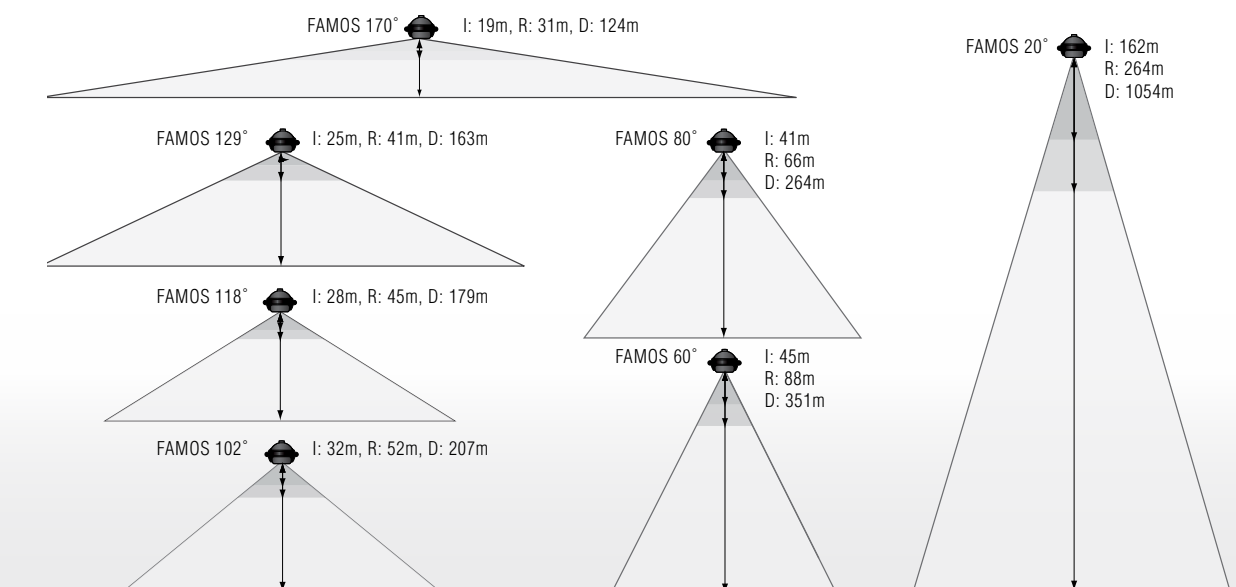
The qualifications of our AMOS and FAMOS Compact Cameras

• Next generation CMOS sensor
• Light sensitivity 0.05 lux
• Integrated *Safety ticker* to show that camera is running and active
• Impact and vibration proof

• Operating temperature between -40°C to +85°C
• Heated lens glass, therefore no problems with condensation or frost
• Fixed lens

• IP68 dust- and waterproof according to IEC 60529
• The camera has a 0,5m cable including a waterproof molded 4p connector male

1m (40")
401cm (157")
2286cm (900")
FAMOS 170°

1m (40")
242cm (95")
419cm (165")
FAMOS 129°

1m (40")
194cm (76")
333cm (131")
FAMOS 118°

1m (40")
147cm (58")
247cm (97")
FAMOS 102°

1m (40")
112cm (44")
168cm (66")
FAMOS 80°

1m (40")
82cm (32")
115cm (45")
FAMOS 60°

1m (40")
56cm (22")
73cm (28")
FAMOS 40°

1m (40")
27cm (11")
35cm (14")
FAMOS 20°

Johnson's Criteria

The Johnson's criteria defines what is meant by "seeing a target". The minimum required resolution according to Johnson's criteria are expressed in terms of image resolution across a target, in terms of several tasks: Detection (4px), Recognition (16px) and Identification (26px). The measurements are based on optimal conditions with an object size of 2.3m x 2.3m and are theoretical. Practical situations may deviate.

FAMOS 170°   I: 19m, R: 31m, D: 124m

FAMOS 20°   I: 162m
R: 264m
D: 1054m

FAMOS 129°   I: 25m, R: 41m, D: 163m

FAMOS 80°   I: 41m
R: 66m
D: 264m

FAMOS 118°   I: 28m, R: 45m, D: 179m

FAMOS 60°   I: 45m
R: 88m
D: 351m

FAMOS 102°   I: 32m, R: 52m, D: 207m

Cameras FAMOS

Type	Art. no. PAL	Art. no. NTSC
20°	0171060	0171160
40°	0171050	0171150
60°	0171040	0171140
80°	0171030	0171130
102°	0171020	0171120
102° MIRROR	0171220	0171240
118°	0171010	0171110
118° MIRROR	0171210	0171230
129°	0171000	0171100
170°	0171070	0171170

• Chemically hardened lens
• Automotive molding-filled housing, watertight IP69K according to DIN 40050-9
• Improved EMC-standards
• Optimized impact- and vibration-resistance

Camera FAMOS MIRROR SW1

Camera with mirrored image and guiding lines.

Type	Art. no. PAL	Art. no. NTSC
102° MIRROR	0171250	-

Cameras AMOS Communicator

Camera with additional features: PAL / NTSC setting, digital zoom, guiding lines, fisheye correction, mirror/flip settings and text features.

Type	Art. no. PAL / NTSC
69°	0135830
118°	0135810
129°	0135800

Cameras AMOS IR LED

Day/Night camera including 15 High Power Infrared LEDs 850nm.

Type	Art. no. PAL	Art. no. NTSC
69°	0146200	0146220
118°	0146210	0146230

Cameras AMOS IR LED Communicator

Camera with additional features: PAL / NTSC setting, digital zoom, guiding lines, fisheye correction, mirror/flip settings and text features.

Type	Art. no. PAL/NTSC
69°	0146800
118°	0146810

Cameras AMOS ATVC Set (All Time Vision Camera)

Self cleaning camera system by a rotating glass tube and fluid.

Type	Art. no. PAL	Art. no. NTSC
118° MIRROR	0400160	0400260

• Including control unit for Input/Output ATVC
• Excluding water pump with 6 liter reservoir (3500810)
• Excluding water hose (2270140)
• Excluding extension cable camera to Input/Output ATVC

The qualifications of our zoom cameras

• Operating temperature between -40°C to +85°C
• Built-in brightness function to ensure better visibility on dark areas
• 432x zoom, 1,7° to 48° horizontal opening angle
• Built-in night vision function (0 lux mode)
• Nitrogen-filled housing, 100% watertight (IP 69K)
• Heated lens glass, therefore no problems with condensation or frost
• Shock and vibration resistant

Zoom tele
l: 2.280m
R: 3.706m
D: 14.825m
Scale: 1:20

Zoom wide
l: 76m
R: 123m
D: 494m

AF Zoom 1,7° - 48°
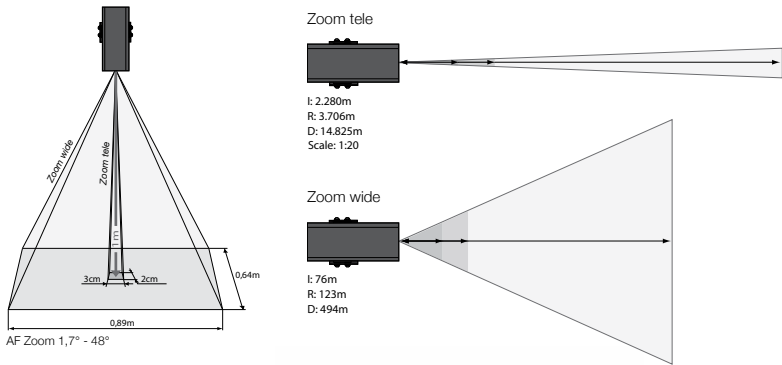
AF-Zoom Cameras

• Power supply 12V - 24V/DC when cable is <50m
  Power supply 18V - 24V/DC when cable is >50m
• 2,6kg
• Dimensions: 260x140x122mm (without bracket)

0103531   AF-Zoom Camera Serial
• Including 6m multi cable fitted with 7p connector (female)

0103511   AF-Zoom Camera Hard wired
• Including 5,1m multi cable (1220250)

Thermal Imaging Camera

• Thermal Imager Uncooled VOx microbolometer
• 25° lens (up to 450m detection)
• 12-30V/DC max 8W
• 2x and 4x zoom

0103730   TIC-camera 320 9Hz
• Including 6m multi cable fitted with 7p connector (female)

0103740   TIC-camera SSt
• Including 5,1m multi cable

The qualifications of our Pan & Tilt Zoom Cameras (PTZ)

• Operating temperature between -40°C to +85°C
• Built-in brightness function to ensure better visibility on dark areas
• 36x optical zoom, 1,7° to 48° horizontal opening angle
• Built-in night vision function (0 lux mode)
• Nitrogen-filled camera housing, 100% watertight (IP 69K)
• Heated lens glass, therefore no problems with condensation or frost
• Shock and vibration resistant
• Dimensions: HxWxD 284x307x141mm
• Including 5m cable with 7p connector
• 6 presets for camera positions
• Pan angle 360° (180° to left, 180° to the right) tilt angle 180° (90° up, 90° down)
• Pan & tilt speed 12,5°/sec
• Power supply 18V to 30V/DC

Pan & Tilt Zoom Camera

0506952   PTZ Camera Aluminium PAL

0506961   PTZ Camera Aluminium NTSC
• Aluminium housing
• Weight: 5kg (including 5m cable)

Pan & Tilt Thermal Image Camera

0506971   PT TIC Camera Aluminium

0506981   PT TIC Camera SSt
• Weight: 6,8kg (including 5m cable)

The advantages of Orlaco cables

- All cables are specially developed by Orlaco
- Special cables are available for various circumstances such as severe off-road conditions
- Resistant to oil and petrol
- Watertight cable connectors
- Operating temperature -40°C to +85°C

Multi cable standard

This standard cable can be used if no special requirements like mechanical protection or dynamic movement of the cable is needed.

Including 4p molded connectors:

0301960	1m	0301870	2m
0301890	3m	0301880	5m
0301910	7,5m	0301930	8m
0301950	9m	0301900	11m
0301920	16m	0301940	21m
0301990	40m		

Including 7p molded connectors:

0304420	0,5m	0304260	2m
0304410	6m	0304610	11m
0304620	16m	0305030	21m

Dynamic cable

Suitable for dynamic use, for instance for a Toolcam mounted on an arm or dipper stick, an excavator boom or in the between the moving part of an articulated dumptruck.
- Soft cover with small bend radius

Including 4p molded connectors:

0304371	0,5m	0304281	1m
0305341	3,5m	0304341	5m
0304381	6m	0304391	8m
0304431	9m	0304441	10m
0301811	11,2m	0304451	12m
0301731	15m	0301831	20m

Including 7p molded connectors:

0304460	3m	0304470	4m
0304480	5m	0304490	8m
0304560	9m	0304570	10m
0304580	11m	0304590	17m

Cable per metre (connectors not included)

1220170	Multi cable 1x coax + 5x wire
1220250	Multi cable 1x coax, 12x wires PUR
1220280	Multi cable armored 1x coax, 5x wire
1220350	Multi cable 2x coax + 5x wire PUR
1220600	Dynamic cable 1x coax 5x wire PUR
1220900	Power Multi cable 7x wire AWG20
1222000	Coaxcable 75 Ohm RG50

Any required connectors can be ordered separately (page 25).
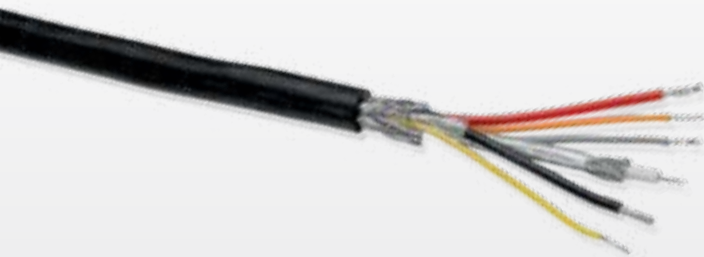
Connectors

1310841   Connector 4p female Gold
• Recommended for multi cable

1312001   Connector 4p male Gold
• Recommended for multi cable

1310850   Connector 4p female PG9 Gold
• Recommended for dynamic and armored cable

1312050   Connector 4p male PG9 Gold
• Recommended for dynamic and armored cable

1311201   Connector 7p female Gold
• Recommended for multi cable

1322401   Connector 7p male Gold
• Recommended for multi cable

1311250   Connector 7p female PG9 Gold
• Recommended for dynamic and armored cable

1322450   Connector 7p male PG9 Gold
• Recommended for dynamic and armored cable

1310861   Connector 8p female Gold
• Recommended for dynamic and armored cable

Adapter cables

0304000	Adapter cable 4p female - 4p female
0304050	Adapter cable 4p male - 4p male
0304210	Adapter cable 4p female - 7p male
0304220	Adapter cable 4p male - 7p female

Interface cables

To connect an Orlaco Compact Camera to a third party monitor.

0303860	Interface cable 4p female - BNC
0303770	Adapter cable 4p female - Cinch
0303810	Adapter cable 4pF - Volvo ECU Uni
0303830	Adapter cable 4pF - Scania Interactor
0303090	Adapter cable 4pF - Bosch (MAN/DAF/SCANIA) radio
0304660	Adapter cable 4pF - Mercedes-Benz radio/navigation
0304990	Adapter cable m4F - VOLVO FH4
0304870	Adapter cable m4F - r4M MAN Monitor

The possibilities offered by Orlaco LED monitors

- Automotive 7inch TFT liquid crystal display module, LED backlight
- Operating temperature between -40°C to +85°C
- Impact and vibration resistance meet the stringent requirements
- High resolution pixel WVGA 800xRGBx480

- Power protected against:
  - Induction voltages
  - Load dumps
  - Over- and undervoltage
- Mirror image setting
- Brightness automatically adjusts to the ambient light
- Integrated sun visor

- Option of a marker line per camera on the screen for the optimum determination of distance
- IP67 according to IEC 60529
- Full On-Screen-Display (OSD) in 12 languages
- Watertight molded connectors

Monitor 7" RLED (Incl. 132mm bracket) *Standard bracket* *Monitor 12" RLED (Incl. 190mm bracket)*

Monitors RLED
- Input Voltage 12...60V/DC +/-10%

Type	Video cable / connector	Power cable	Bracket	Art. no.
7"	2m / 4p female	2m open wired	132mm	0208603
7" Serial	6m / 7p female	6m open wired	132mm	0208632
7" Serial	6m / 7p female	6m open wired	standard	0208691
7" CAN SRD	6m / 7p female	6m open wired	132mm	0208871
12"	4m / 4p female	4m open wired	190mm	0411000
12" Serial	6m / 7p female	6m open wired	190mm	0411130
12" CAN SRD	6m / 7p female	6m open wired	190mm	0411300

- Input Voltage 18...30V/DC +/-10%

Type	Video cable / connector	Power cable	Bracket	Art. no.
7"	2m / 4p female	2m open wired	132mm	0223000
7"	4m / 4p female	4m open wired	standard	0223100

Monitors LLED
- For double DIN slide opening in the dashboard
- Input Voltage 12...60V/DC +/-10%

Type	Video cable / connector	Power cable	Bracket	Art. no.
7"	2m / 4p female	2m open wired	-	0208203
7" Serial	6m / 7p female	6m open wired	-	0208232
7" CAN SRD	6m / 7p female	6m open wired	-	0208371

- Input Voltage 18...30V/DC +/-10%

Type	Video cable / connector	Power cable	Bracket	Art. no.
7"	2m / 4p female	2m open wired	-	0221000

Serial For serial connection (Zoom- & TIC cameras or MultiView box)

CAN SRD Specially designed for RadarEye systems. (see page 28-29)

0210501 Monitor 7" LEDD Serial + Keyboard
- Aluminium/stainless steel housing
- 10p Harting connection

Switchers

Input and power supply for three cameras and in combination with a Y-split cable: four cameras.

- Cameras can be switched over automatically or manually

0404040 Switcher UNI
- Waterproof IP54 according to IEC 60529
- 4p output for monitor

0404060 Switcher Serial
- Waterproof IP67 according to IEC 60529
- 7p output for monitor
- Only in combination with a Serial monitor
- Possibility to connect 1 serial Orlaco camera (AF Zoom)

0404080 Switcher UNI IP67
- Waterproof IP67 according to IEC 60529
- 4p output for monitor

0404070   Switcher 4Cam
This video switcher for third party monitors has 4 video inputs and 1 video output
- Connect up to 4 cameras (PAL or NTSC) to a third party monitor
- Including 3,85m power cable

Multiview split

The Multiview box is an advanced video imaging system for up to 4 cameras. There are many possibilities of different split views in 5 selectable video channels.

Through the menu of the Orlaco Serial monitor, the Multiview box can be programmed to show any desired lay-out of views from the connected cameras. Once programmed, the Multiview box will retain these settings even when power is completely disconnected. Different views can be shown on the screen using the standard switching features without the need for further programming.
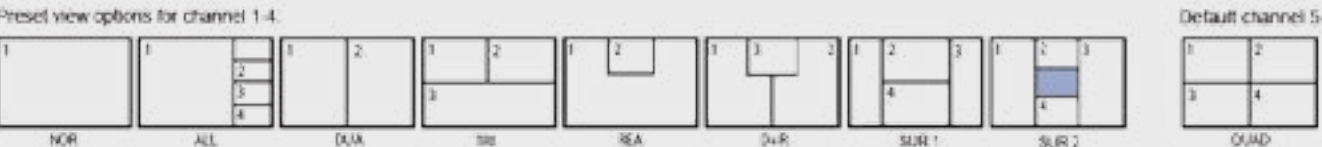
- Stainless steel housing
- Serial Orlaco Monitor needed (A regular non Serial Orlaco monitor can be connected to the Multiview box via a 7-to-4-pin adapter cable (0304220), please contact your dealer for futher advice)

0404110   MultiView box
- 4 camera inputs (4x Compact Camera)

0404120   MultiView box
- 4 camera inputs (3x Compact Camera 1x AF-Zoom Camera)

Preset view options for channel 1-4:

NOR ALL DUA TRI REA D+R SUR 1 SUR 2 QUAD
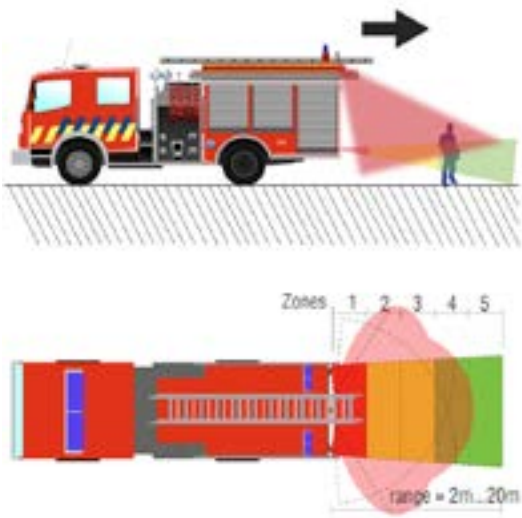
Default channel 5:

RadarEye unites visibility and active detection

Orlaco has developed this radar unit in addition to the camera-monitor systems. By combining the vision solution with an active signaling system, RadarEye offers additional safety and efficiency.
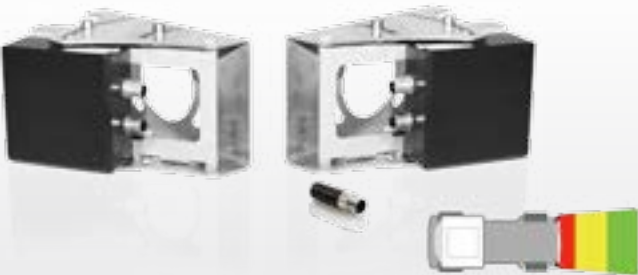
RadarEye is an integrated active view system designed to detect and see objects in zones obscured from the operator's view. The radar system detects stationary as well as moving objects in a designated coverage area. With this view system the operator is actively warned with audible tones that increase in rate as objects come closer. When an object is detected it can be seen on the monitor and the operator can respond immediately. This prevents damage to the operators machine and any other equipment he may reverse into. The radar units have a rugged design, are shockproof, waterproof and is not influenced by the environment, such as snow, rain, mud and or temperature changes.

Check our demo RadarEye videos on the Orlaco YouTube channel.

- RadarEye can be used on various trucks
- RadarEye is capable of visualizing the radar-zones on the display, as soon as a person enters the zone it will activate colored dots (default setting) or a transparent visualization (standard/custom preset settings) to make the driver aware of the potential danger
- 2...20m detection area, divided in 5 equally sizes segments
- Separation distance: 1-4m (configurable)
- Antenna beam horizontal: 70°(typ.), vertical: 11°(typ.)
- Operating temperature between -40°C to +85°C
- Obstacle reaction delay 50ms
- Orlaco Monitor CAN SRD is required
- RadarEye can be extended with multiple sensor and camera units for all around detection and visibility
- Please contact Orlaco for advice and installation

RadarEye Sets

0403120   Set SRD Corner Rear
Active Rearview system for corner mounting.

- Including SRD sensors, brackets and terminator
- Interface Box CAN/SRD/camera is required (0256010 or 0504820)
- Cables, camera and monitor CAN SRD are not included

0403100   Set SRD Center Rear
Active Rearview system for center mounting.

- Including SRD sensors, bracket, cable master-slave (0301080) and terminator
- Interface Box CAN/SRD/camera is required (0256010 or 0504820)
- Cables, camera and monitor CAN SRD are not included

RadarEye Interface boxes

0256010   Interface Box CAN/SRD/camera
The Interface Box is designed to connect SRD sensors to camera and CAN SRD monitor.

0504820   Interface Box with Ext. speaker CAN/SRD/camera
The Interface Box is designed to connect SRD sensors to a camera, CAN SRD monitor and external speaker.

- Set consists of: External speaker and Interface Box
- Sound pressure speaker: 85dB (+/-3dB) distance 1m

RadarEye Cables

Cable M12 Green
Connection cable between Interface box and master SRD sensor or connection cable between slave SRD sensor and next SRD sensor.

0301050	5m	0301060	10m
0301070	15m	0301120	20m
0301130	25m	0301140	30m

Cable M12 Master-Slave Red
Connection cable between master SRD sensor and slave SRD sensor.

0301080	0,25m	0301020	1m
0301030	4m	0301040	8m
0301090	16m		

RadarEye Brackets

0401330   Bracket SRD Sensor Corner Rear
Mounting bracket for SRD Sensor for corner mounting.
- Stainless steel
- SRD sensor not included

0401320   Bracket SRD Sensor Center Rear
Mounting bracket for SRD Sensor for center mounting.
- Stainless steel
- SRD sensors not included

RadarEye Parts
Please contact Orlaco for advice.

0004310   SRD sensor CAN Horizontal
Short Range Detection (SRD) sensor for integration in active view system (RadarEye).
- Connectors position: Side

0004320   SRD sensor CAN Vertical
Short Range Detection (SRD) sensor for integration in active view system (RadarEye).
- Connectors position: Top / Bottom

0350110   M12 Terminator 120 Ohm
120 Ohm resistor for terminating CAN bus.

Spectrum Scanner wireless video transmitter & receiver

• Including powercable and two adjustable brackets for transmitter and receiver
• 8 video channels
• Full On Screen Display (OSD) functionality for system settings
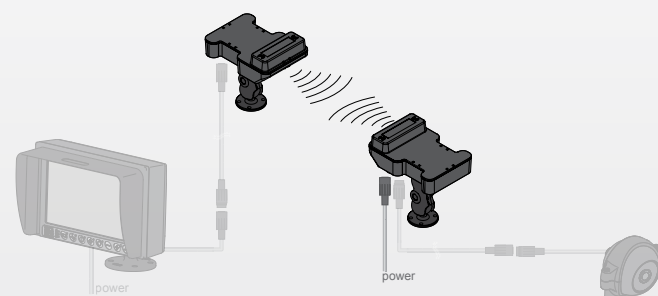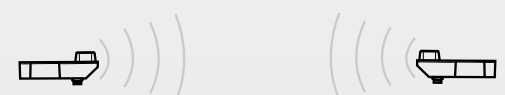• Please contact your dealer for further advice

0004061   RoundMax 150

• Omnidirectional antenna with horizontal orientation
• Maximum range 150m (dependent on surroundings)
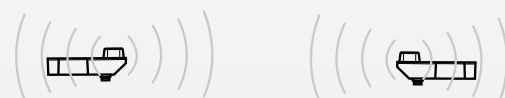
0004091   LineMax 300

• Directional antenna with vertical orientation
• Maximum range 300m (dependent on surroundings)

Video control unit

0504730   Orlaco Smartbox

For connect and control the Orlaco AF-Zoom camera, Pan & Tilt and TIC camera.

• IP67
• Stainless steel housing

Video distributors

0407000   Orlaco video distributor

For connecting a second and third Orlaco monitor.

• 12V/DC
• Cables and connectors are not included

0407330   Video distributor 4 channel

• Cables and connectors are not included

Power supply

0004600   Power supply 9-36V

• Maximum cable length 200m
• Power input 9-36V/DC
• Power output 12V/DC

Pan & Tilt

0507061   Pan & Tilt max 6kg

• IP68
• Aluminium housing
• 24V/DC
• Weight 2,3kg
• Pan speed 30° per sec, tilt speed 10° per sec

0507040 Pan & Tilt max 12kg

• IP68
• Aluminium housing
• 24V/DC
• Weight 6,5kg
• Pan speed 32° per sec, tilt speed 12° per sec

0507100 Fastening plate

For quick mounting of camera on Pan & Tilt unit.

Control

0503500   Control unit Pan & Tilt

Power supply and control for Pan & Tilt unit (0507061).

• Joystick (0506500) is required
• Power input 24V/DC
• Aluminium housing

0502610   Handheld control AF (serial)

For activating of the Pan & Tilt / AF-Zoom / TIC camera.

• Zoom function
• Including 5m power supply cable

0502620   Control panel mount

Built-in keyboard for activating of the Pan & Tilt / AF-Zoom / TIC camera.

• Joystick (0506500) are not included
• Power input 24V/DC
• Dimensions: 140x116x80mm

0506500   Joystick

• Built-in
• Operatng temperature between -30°C to +75°C
• IP40
• Telemanique

Digital MPEG2 video recorder

0000200   Easysolid Recorder

- CompactFlash storage
- Compact stainless steel housing
- Video loop function
- 10-36V/DC
- Automatic timestamp
- Including 32GB CF-card for max 72 hours of storage and
  CF-card reader

0407100   DVR 4 Channel

- Total resources: 4 channels D1 at real time (100fpa / 120fps)
- Supports 2.5" 1 TB hard disk storage and SD card for mirror
  recording
- Built-in GPS, WIFI and 3G

Cable disconnection sets

0351070 7p
0351130 13p

- Watertight
- With caps

0351100 10p harting

- Watertight
- With caps

Interconnection cables

0304020 Cab cable

- 1 x coax + 5 x wire PVC Ex
- Including 4p molded male connector & 10p harting female
- Operatng temperature between -40°C to +85°C

0303630 Spiral interconnection

3,5m spiral cable between tyre carrier and adjustable bumper.

- Oil and petrol resistant
- With double coax
- Including 10p harting plugs

0303740 Cable trailer

- 25m multi cable
- Including 4p molded female connector
- Including 10p harting male

Mounting means - LEDD monitor

Brand	Model	DDIN slot	Necessary mounting brackets
DAF	Euro 5 CF/XF	Yes	None
DAF	Euro 6 CF/XF/LF	Yes	None
Iveco	*All models*	No	0400610 or 0400600
MAN	*All models*	No	0400610 or 0400600
Mercedes-Benz	Actros Euro 5	Yes	0400610 or 0400600
Mercedes-Benz	Actros Euro 6	No	0400610 or 0400600
Mercedes-Benz	*Other models*	No	0400610 or 0400600
Renault	Euro 5 Premium / Euro 6 Renault T	Yes	0400610 or 0400600
Renault	Magnum	Yes	0400630
Renault	*Other models*	No	0400610 or 0400600
Scania	Long dashboard: Euro 5 / Euro 6	Yes	None
Volvo	Euro 5 FM / FE	Yes	None
Volvo	Euro 5 FH	No	0400680
Volvo	Euro 6 FM	Yes	None
Volvo	FL	No	0400610 or 0400600

0400610   Monitor mounting bracket
For assembly of the Monitor 7" LEDD.

- ABS + aluminium

0400600   Monitor mounting bracket flexible
For flexible assembly of the Monitor 7" LEDD.

- ABS + aluminium

0400680   DDIN Adapter
For fitting the monitor to a Volvo dashboard (FH/FM /FE).

- ABS

0400630   DDIN Adapter
For fitting the monitor to the dashboard of a Renault Magnum.

- ABS

Mounting means

0402320   Protective cover
Cover specially designed for the Compact Camera.
• Stainless steel housing

Camera extension brackets
Specially designed for the Compact Camera. Matches the hole pattern of the Compact Camera bracket.
• Stainless steel

0402250   Camera extension 155mm

0402270   Camera extension 250mm

0401270   Camera bracket
Compact bracket specially designed for the Compact Camera.
• Cap can be resprayed in the color of the vehicle
• Including mounting kit
• Compact Camera is not included

0403310   Shock-absorbers for Compact Camera
In situations where shock absorption plays a major role, we recommend that the specially developed shock absorbers are used when installing the Compact Camera.

0403400   Magnet Bracket Compact Camera
For quick mounting of Compact Camera on steel profiles.

2015500   Adjustable mounting bracket
• Length 132mm

2015600   Adjustable mounting bracket
• Length 190mm

ISO Certifications

All Orlaco products are manufactured according to the latest Quality Management System Standards:

ISO/TS 16949 : 2009
ISO 9001 : 2008

Additionally, all Orlaco products are manufactured according to the latest *Environmental Management System Standard*:

ISO 14001 : 2004

Type-Approval Certifications

Regulations 10 and 46 are used to determine the Type-Approval for **EMC** and **Indirect Vision** (Mirror Directive). **R46** describes mirror specifications for truck compliancy. Orlaco Frontview systems meet all these requirements. **R10** describes the **EMC** behavior of the Orlaco Camera and Monitor systems.

TÜV Automotive Certifications

The European Agreement concerning the International Carriage of Dangerous Goods by Road (**ADR**) demands additional equipment. Orlaco Camera and Monitor systems and connection cables comply with these regulations.

Compliance

Our Camera and Monitor systems are produced entirely in line with the **CE-marking** and the most recent applicable directives and product standards (e.g. **EMC**, **FCC**, **Machinery**, **R&TTE**). Orlaco products are compliant with **RoHS** and **REACH**.

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dealer:

It is Orlaco's viewpoint that optimal vision around every vehicle and vessel should be the norm. It provides safety, less damage, comfort and efficiency. *Vision is our mission®*. A revealing mission. We develop professional vision solutions for every situation:

HEAVY EQUIPMENT

ON ROAD TRUCKS

CRANES

FORKLIFTS

MARITIME

EMERGENCY VEHICLES

DEFENSE

Check our website for all our brochures (pdf).

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Specialised Camera Solutions

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