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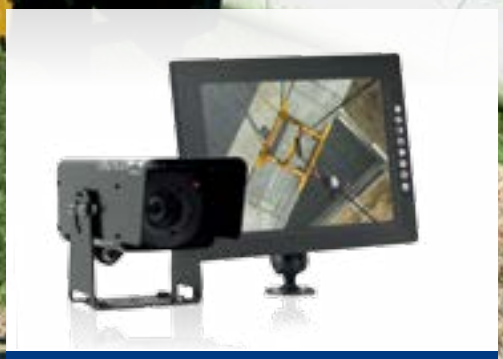
Vision is our mission®



CRANES
VISION SOLUTIONS

ORLACO
Specialised Camera Solutions

+47 63 96 76 00
post@orlaco.no

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Work more

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Select your crane

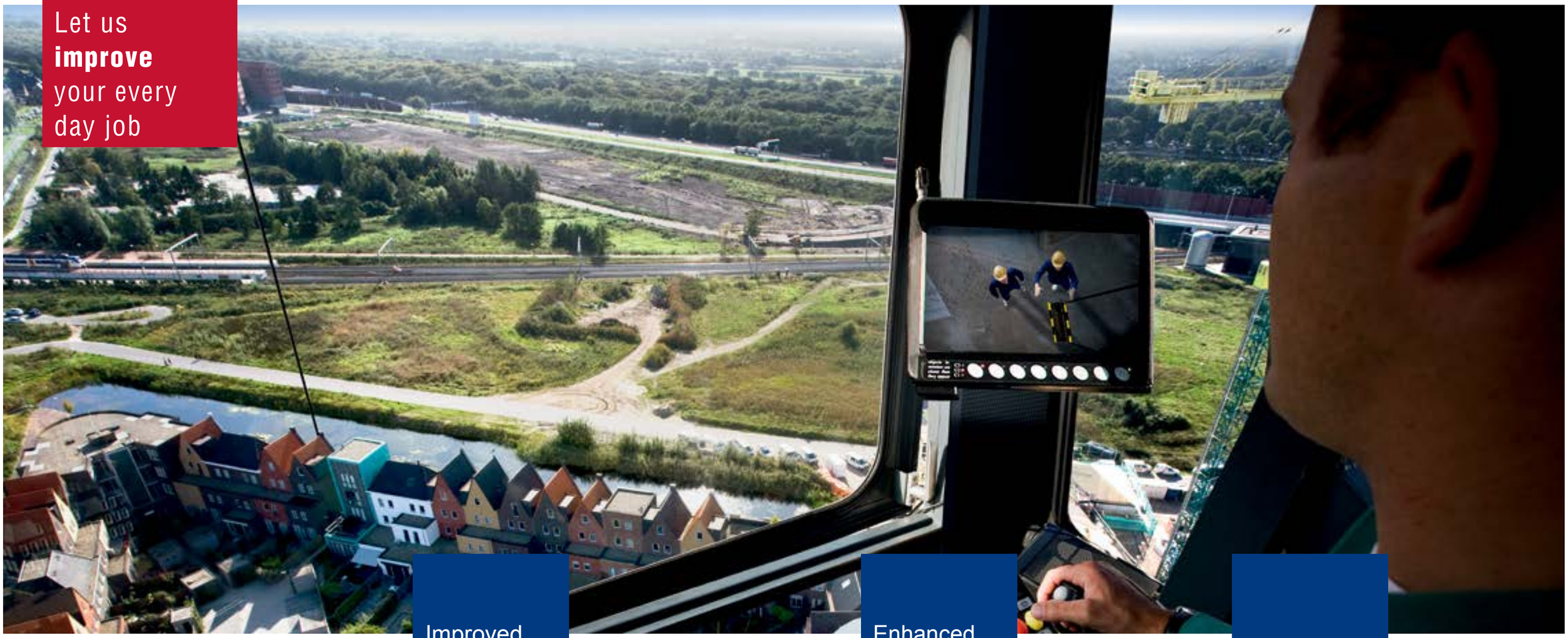
Why Orlaco?

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

A crane camera not only enables its operator to work more efficiently, it could also largely contribute to job site safety. With an Orlaco vision system, a crane operator is more independent and not solely reliant on instructions from the signalman. The Orlaco vision system allows crane operators to verify the instructions received from the signalmen, virtually eliminating the age-old misunderstanding of “your left, or mine?” In fact, a recent study, done by an end-user, shows that tower cranes performing “blind” lifting operations work 21% faster and more efficiently while using an Orlaco vision system than cranes operating without the system. Orlaco solutions help to increase the all-round safety and efficiency of the crane and its operator – both on and off the job site.

Enhanced Ergonomics and Comfort

Modern cranes have become more comfortable. Their cabins are now air-conditioned and have air suspension seats. Even with these extra comforts, crane operators are often left unnaturally twisting and turning to keep track of the job site. This can lead to back and neck injuries, or even force an operator to stop working indefinitely. An Orlaco vision solution could help crane operators to maintain correct posture, to work in more comfort. And because Orlaco systems allow a crane operator to immediately see all around the crane without twisting and turning, damage to objects, people or even the crane itself could be greatly minimized. Prevention, ergonomics and comfort – a triple benefit!

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.

Load moving **sight** solutions

Winchview

WV7200 - **PAGE 29**

On the larger types of mobile telescopic cranes with super lift counter weights or double hooks, direct vision from the cabin on all the winches is very limited. The monitor used for load view purposes can therefore simultaneously be used for observing the Winchview. The operator is able to switch easily from camera to camera by pressing a button on the monitor.

RadarEye setting: Transparent visualization of the radar-zones on the display. (standard preset setting)

Rearview

RV7520 - **PAGE 29**

A Rearcam is positioned on the rear end of the upper carriage (wireless or any free slip rings) or alternatively on the under carriage, which enables the operator to see accurately who or what is behind the crane.

Recommendation: Add RadarEye to increase safety & efficiency. (see page 42-43)

Loadview

LV7010 / LV7015 / LV7020 / LV7025 - **PAGE 22/23**

The operator in the cabin does not always have optimal visibility of the crane`s hook and the load. Especially in situations where he must lift the load over large buildings, machines or installations. Fortunately Orlaco is offering a solution and some relief to the operator with their eyes in the sky. The Loadcam fitted to the tip of the telescopic boom, is looking straight downwards on top of the hook and the load. On the colour monitor in the crane cab, the operator receives at all times, a crystal clear image of the position of the hook. When necessary he can zoom in on the hook for a more detailed image. Everything is possible!

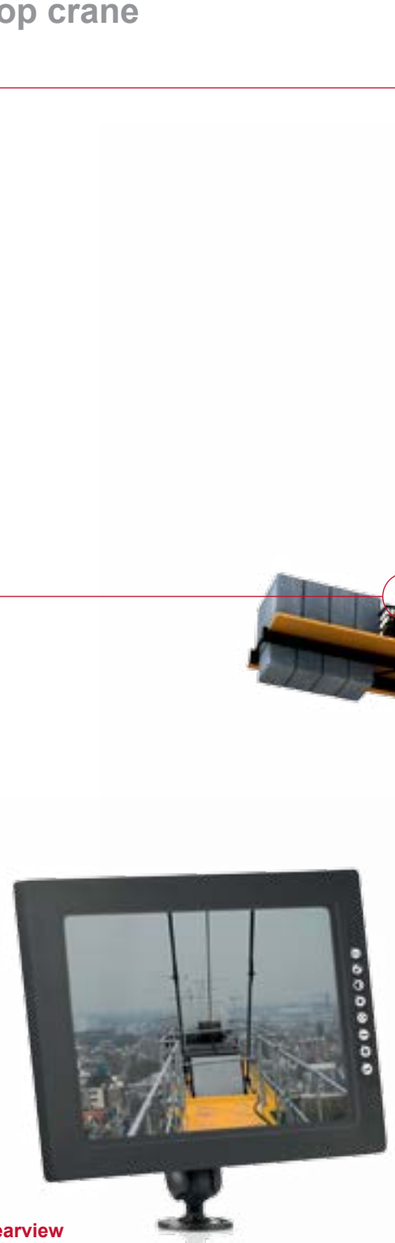
The Zoom Camera can also be moved to the end of a jib. Required is an additional mounting pipe and 7 pins cables in the correct length. For longer jibs (+30m) we recommend using a reel.

Sideview

SV7510 - **PAGE 29**

A Sidecam positioned on front of the cabin helps the operator when he is making a turn.

Vision solutions



Rearview

RV7520 - **PAGE 29**

Visibility on the rear boom is becoming increasingly necessary on large building sites that have various types of cranes working together. The load view monitor can be used simultaneously with a Rearcam. With just one button, the operator is able to switch between both cameras.

Loadview

LV7080 / LV7085 - **PAGE 28**

Loadview

LV7030 / LV7035 - **PAGE 24**

The crane operator can see immediately on his monitor when a lifting operation could possibly become dangerous. The operator is no longer dependent on information from other persons by means of a portable radios. He can make the right decisions without delay and thus prevent accidents on site. There is also a far lesser chance of any misunderstandings occurring as the Loadcam system makes it possible for the operator to verify the instructions from the signalman.

Loadview

LV7010 / LV7025 - **PAGE 22 / 23**

A Loadcam provides images of the working area and is fitted on the boom. It is positioned in such a way that it looks vertically downwards on to the top of the hook and load. The monitor in the cabin ensures that the operator has continuous visibility while hoisting, regardless of the position of the hook and load.

Rearview

RV7520 - **PAGE 29**

Not only safe reversing, but also knowing what is happening behind the crane. The chance of an accident is greatly reduced by a Rearcam.

Loadview

LV7040 - **PAGE 25**

A Loadcam provides images of the working area and is fitted on the boom tip; it is positioned in such a way that it looks vertically downwards on to the top of the hook and the load. The monitor in the cabin ensures that the crane operator can continuously see the hook and load while hoisting.

Sideview

SV7510 - **PAGE 29**

A Sidecam positioned on the front of the cabin helps the operator when he is making a turn.

Winchview

WV7200 - **PAGE 29**

It is also possible to connect the Winchcam to the monitor. The crane operator is able to switch between the cameras by simply pushing on a button. On the larger types of crawler cranes, it is possible to extend the winch view system with additional cameras. Up to 4 cameras on the same monitor. Improve it with a Multiview box and the operator has continuously up to 4 cameras displayed at the same time on the screen.

Rearview

RV7520 - **PAGE 29**

Not only safe reversing, but also knowing what is happening behind the crane. The chance of an accident is greatly reduced by a Rearcam.

Loadview

LV7050 / LV7055 - **PAGE 25-26**

A Loadcam provides images of the working area and is fitted on the boom. It is positioned in such a way that it looks vertically downwards on to the top of the hook and load. The monitor in the cabin ensures that the operator has continuous visibility while hoisting, regardless of the position of the hook and load.

Rearview

RV7520 - **PAGE 29**

Not only safe reversing, but also better vision when turning the crane. The chance of an accident is greatly reduced by a Rearcam. It can also used in combination with a Side-cam.

Loadview

LV7025 - **PAGE 23**

The crane operator in the cabin does not always have optimal visibility on the cranes hook and the load. Especially in situations where he must lift the load over large buildings, machines or installations. Fortunately Orlaco is offering a solution and some relief to the operator with their eyes in the sky. The Loadcam fitted to the tip of the telescopic boom, is looking straight downwards on top of the hook and the load. On the waterproof colour monitor in the crane cab, the operator receives at all times, a crystal clear image of the position of the hook. When necessary he can zoom in on the load for a more detailed image with a Zoom Camera. Everything is possible!

Sideview

SV7510 - **PAGE 29**

If you are continually turning backwards and forwards, you cannot always see what is happening next to or be-hind the crane. A Sidecam is then the solution, certainly when the turning space is limited. It can also be used in combination with a Rearcam.

Loadview

LV7070 - **PAGE 27**

The camera that is fitted onto the grasping arm ensures optimum visibility of the grasper at all times. A Loadcam provides improved accuracy for the crane operator as well as increases safety in the workplace. The operator can always see if there are persons or a wheel loader in the hold while unloading ships.

Sideview

SV7510 - **PAGE 29**

If you are continually turning backwards and forwards, you cannot always see what is happening next to or behind the crane. A Sidecam is the solution, certainly when the turning space is limited. It can also be used in combination with a Rearcam.

Rearview

RV7520 - **PAGE 29**

Not only safe reversing, but also better vision when turning the crane. The chance of an accident is greatly reduced by a Rearcam. It can also used in combination with a Sidecam.

Winchview

WV7200 - **PAGE 29**

It is possible to connect a Winchcam to the monitor. The crane operator is able to switch between the cameras by pressing a single button. On the larger types of lattice harbour cranes, it is possible to extend the winch view system with additional cameras.

Loadview

LV7060 / LV7065 - **PAGE 26-27**

A Loadcam provides images of the working area and is fitted on the boom tip. It is positioned in such a way that it looks vertically downwards on to the top of the hook. The monitor in the cabin ensures that the operator always has visibility while hoisting, regardless of the position of the hook and load. The camera gives the operator a complete overview of the ships hull and dock area.

Side-Rearview

Not only safe reversing, but also knowing what is happening behind and near the crane. The chance of an accident is greatly reduced by a Sidecam. Another possible application is a camera for the positioning of containers. Time loss is thus reduced to the minimum.

Positioning System

This Positioning System for Straddle Carriers works independently from the STS Crane and enables a straddle carrier driver to position the container exactly in the middle of the crane by using two cameras mounted in the middle of the spreader and two monitors in the cabin.

Loadview

Good visibility when moving the containers. You have a good view of the operations behind and under the crane. How and where the Loadcam is placed depends on your needs.

Driven-Direction-View

Positioning compact cameras on the crane legs ensures that the crane operator always has a good view while moving to the left or right. The four cameras can be switched to a quad view when the vehicle is stationary and the views from the two required cameras can be shown in a split screen when moving to the left or the right. This considerably reduces the chances of an accident. Ask your dealer for further information.

INFORMATION

Are you looking for something else? All kinds of configurations are possible! The systems described here can be combined to suit customers` requirements and can be expanded with additional cameras and monitors. Find out about the various options and configurations that are already in use and benefit from Orlaco`s 25 years of experience!

For more information about our vision solutions for port cranes and container handlers: check our website and download our other brochures (pdf).

Latchview

The boom is raised when the crane is not operational. A Latchcam is fitted at the top near the locking point, allowing the operator to monitor the locking function at all times.

Loadview

Good visibility during unloading of the containers. You have a good view of the operations behind and under the crane. How and where the Load-cam is placed depends on your needs.

Driven-Direction-View

Backreachview

The backreach cam is a camera that is mounted on the backreach platform. This camera cannot be accessed by the operator; it is used by the logistics and operations teams via a network application to view the work area under the crane. A remote-controlled pan & tilt camera provides them with a view of the entire working space.

Rearview

The Rearcam ensures that the operator can see behind the STS on the working space at all times. A quick look at the monitor gives the operator an instant view of the area in which the container should be positioned.

INFORMATION

Are you looking for something else? All kinds of configurations are possible! The systems described here can be combined to suit customers` requirements and can be expanded with additional cameras and monitors. Find out about the various options and configurations that are already in use and benefit from Orlaco`s 25 years of experience!

For more information about our vision solutions for port cranes and container handlers: check our website and download our other brochures (pdf).

Set **Loadview** Telescopic crane / RT-Crane (7” RLED - wireless) **LV7010** (0402910)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

2. Monitor 7” RLED Serial, including bracket
0208632 - page 34

3. Spectrum Scanner LineMax 300
0004091 - page 41

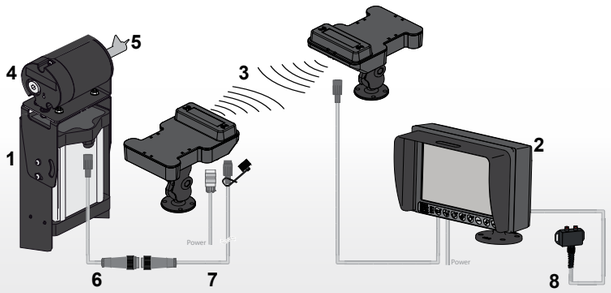
4. Oil damped camera bracket
0701200 - page 46

5. Quick release set Weld
0910240 - page 46

6. Multi cable p7M-m7F 1m
0305040 - page 37

7. Multi cable m7M - p7F 1m
0305050 - page 37

8. Zoom Control box
0702100 - page 40



Optional: Foot switch
0502630 - page 40

Set **Loadview** Telescopic crane (12” RLED - wireless) **LV7015** (0406700)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

2. Monitor 12” RLED Serial, including bracket
0411130 - page 34

3. Spectrum Scanner LineMax 300
0004091 - page 41

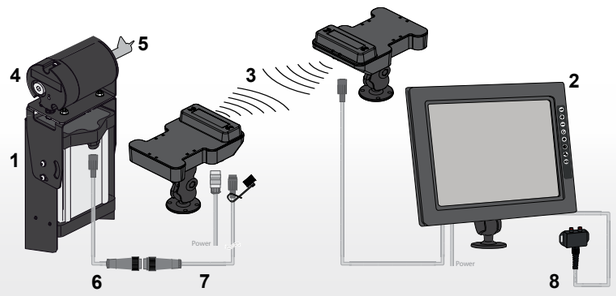
4. Oil damped camera bracket
0701200 - page 46

5. Quick release set Weld
0910240 - page 46

6. Multi cable p7M-m7F 1m
0305040 - page 37

7. Multi cable m7M - p7F 1m
0305050 - page 37

8. Zoom Control box
0702100 - page 40



Optional: Foot switch
0502630 - page 40

Set **Loadview** Telescopic crane **LV7020** (0402920)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

2. Monitor 7” RLED Serial, including bracket
0208632 - page 34

3. Spring driven cable reel 50m
0710270 - page 36

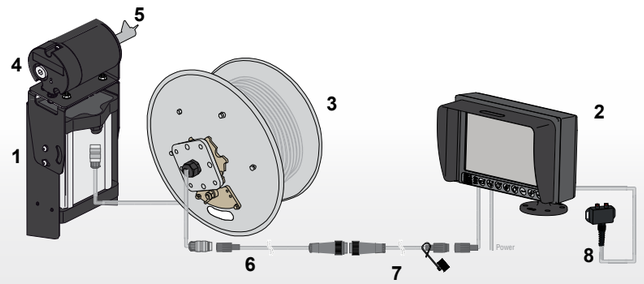
4. Oil damped camera bracket
0701200 - page 46

5. Quick release set Weld
0910240 - page 46

6. Multi cable p7M-m7F 1m
0305040 - page 37

7. Multi cable m7M - p7F 1m
0305050 - page 37

8. Zoom Control box
0702100 - page 40



Optional: Foot switch
0502630 - page 40

Set **Loadview** Crane truck / RT-Crane (wireless) **LV7025**

1. Camera FAMOS 80°
0171030 - page 30

2. Monitor 7” RLED Serial, including bracket
0208672 - page 34

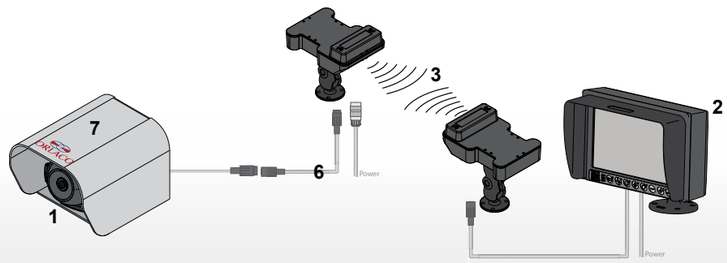
3. Spectrum Scanner LineMax 300
0004091 - page 41

4. Oil damped camera bracket
0701200 - page 46

5. Quick release set Weld
0910240 - page 46

6. Adapter cable 4pF - 7pM
0304210 - page 37

7. Protection cover
0402320 - page 44



Note:
Accu pack and charger are not included.

Set **Loadview** Tower crane (7” RLED) **LV7030** (0402930)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

2. Monitor 7” RLED Serial, including bracket
0208622 - page 34

3. Spectrum Scanner LineMax 300
0004091 - page 41

4. Quick-fit set
0402801 - page 44

5. Battery pack set
0049040 - page 35

6. Foot switch
0502630 - page 40

7. Power supply
0503810 - page 39

8. Spider cable crane
0403880 - page 37

9. Multicable 11m
0304610 - page 33

Optional: Autocontact
0405950 / 0405951 - page 35

Optional: Solar panel
0049500 - page 35

Set **Loadview** Tower crane (12” RLED) **LV7035** (0403000)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

2. Monitor 12” RLED Serial, including bracket
0411160 - page 34

3. Spectrum Scanner LineMax 300
0004091 - page 41

4. Quick-fit set
0402801 - page 44

5. Battery pack
0049040 - page 35

6. Foot switch
0502630 - page 40

7. Power supply
0503810 - page 39

8. Spider cable crane
0403880 - page 37

9. Multicable 11m
0304610 - page 33

Optional: Autocontact
0405950 / 0405951 - page 35

Optional: Solar panel
0049500 - page 35

Set **Loadview** Mobile tower crane (wireless) **LV7040** (0402940)

1. AFI Camera
0103610 - page 31

2. Monitor 7” RLED Serial, including bracket
0208632 - page 34

3. Spectrum Scanner LineMax 300
0004091 - page 41

4. Battery pack set (side connection)
0049610 - page 35

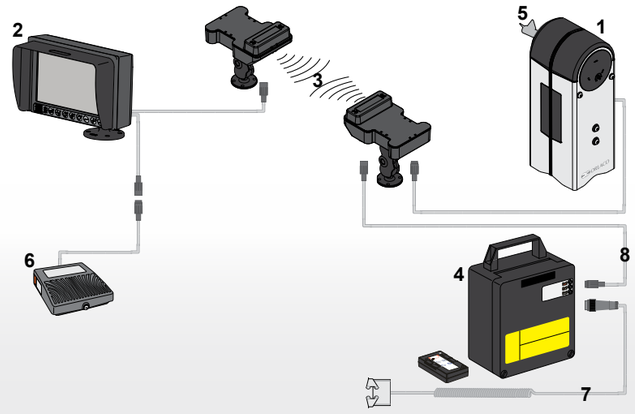
5. Quick release set Weld
0910240 - page 46

6. Foot switch
0502630 - page 40

7. Spiral cable for battery
0303670 - page 37

8. Multicable 6m
0304410 - page 33

Including vacuum mounting set.



Note:
Can only be ordered by/through OEM.

Set **Loadview** Crawler crane (7” RLED) **LV7050** (0402950)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

2. Monitor 7” RLED Serial, including bracket
0208632 - page 34

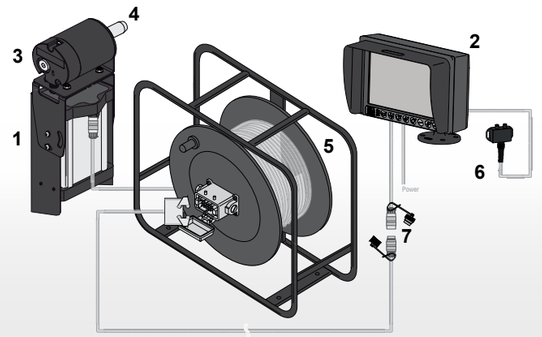
3. Oil damped camera bracket
0701200 - page 46

4. Quick release set Bolt
0910250 - page 46

5. Cable reel with 150m + 15m cable
0712040 - page 36

6. Zoom control box
0702100 - page 40

7. Protection caps (F/M)
1350200 & 1350300



Optional: Foot switch
0502630 - page 40

Set **Loadview** Crawler crane (12” RLED) **LV7055** (0403010)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

2. Monitor 12” RLED Serial, including bracket
0411130 - page 34

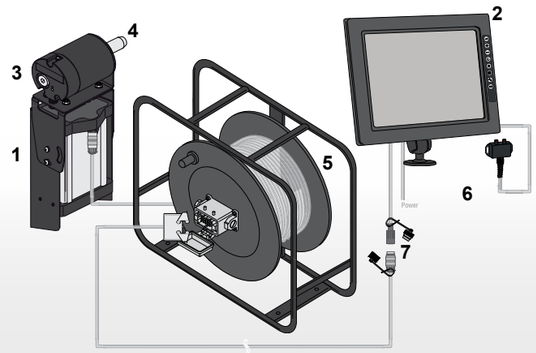
3. Oil damped camera bracket
0701200 - page 46

4. Quick release set Bolt
0910250 - page 46

5. Cable reel with 150m + 15m cable
0712040 - page 36

6. Zoom control box
0702100 - page 40

7. Protection caps (F/M)
1350200 & 1350300



Optional: Foot switch
0502630 - page 40

Set **Loadview** Lattice harbour crane (7” RLED) **LV7060** (0402960)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

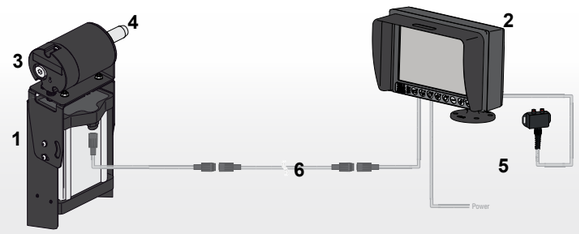
2. Monitor 7” RLED Serial, including bracket
0208632 - page 34

3. Oil damped camera bracket
0701200 - page 46

4. Quick release set Bolt
0910250 - page 46

5. Zoom Control box
0702100 - page 40

6. Multicable 85m
0304400 - page 33



Optional: Foot switch
0502630 - page 40

Set **Loadview** Lattice harbour crane (12” RLED) **LV7065** (0406710)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

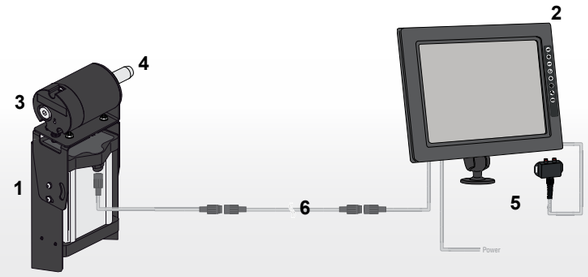
2. Monitor 12” RLED Serial, including bracket
0411130 - page 34

3. Oil damped camera bracket
0701200 - page 46

4. Quick release set Bolt
0910250 - page 46

5. Zoom Control box
0702100 - page 40

6. Multicable 85m
0304400 - page 33



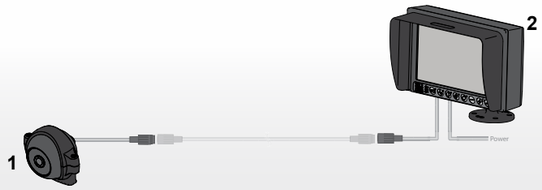
Optional: Foot switch
0502630 - page 40

Set **Loadview** Hydraulic port crane **LV7070** (0402301)

1. Camera FAMOS 80°
0171030 - page 30

2. Monitor 7” RLED, including bracket
0208672 - page 34

Cables 4p
To be ordered separately, see page 33.



Optional: Protection cover
0402320 - page 44

Set **Loadview** Top crane (7” RLED) **LV7080** (0402980)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

2. Monitor 7” RLED Serial, including bracket
0208622 - page 34

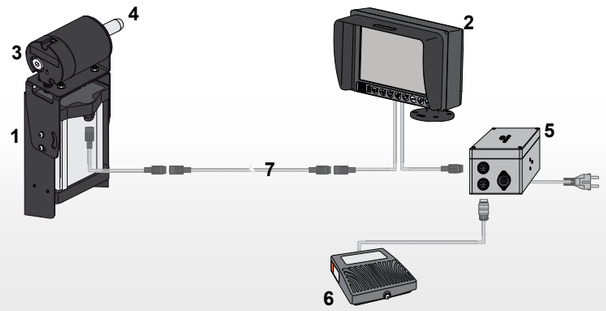
3. Oil damped camera bracket
0701200 - page 46

4. Quick release set Weld
0910240 - page 46

5. Power supply
0503810 - page 39

6. Foot switch
0502630 - page 40

7. Multicable 85m
0304400 - page 33



Optional: Suction cup mounting bracket
0401310 - page 44

Optional: Compact Joystick
0702000 - page 40

Optional: Zoom Control box
0702100 - page 40

Set **Loadview** Top crane (12” RLED) **LV7085** (0406720)

1. AF-Zoom Camera PAL Serial
0103531 - page 31

2. Monitor 12” RLED Serial, including bracket
0411160 - page 34

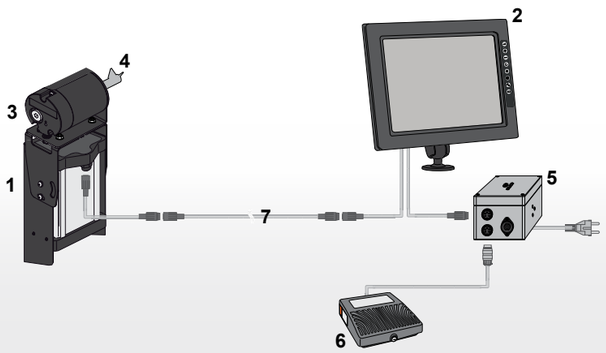
3. Oil damped camera bracket
0701200 - page 46

4. Quick release set Weld
0910240 - page 46

5. Power supply
0503810 - page 39

6. Foot switch
0502630 - page 40

7. Multicable 85m
0304400 - page 33



Optional: Suction cup mounting bracket
0401310 - page 44

Optional: Compact Joystick
0702000 - page 40

Optional: Zoom Control box
0702100 - page 40

Set **Rearview RV7520** (0402101)

1. Camera FAMOS 118°
0171010 - page 30

2. Monitor 7” RLED, including bracket
0208603 - page 34

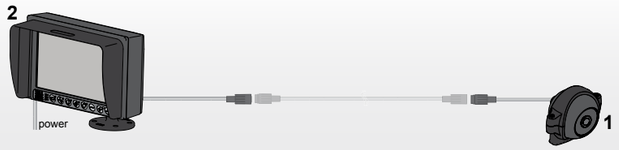
Cables 4p
To be ordered separately, see page 33.

Set **Sideview SV7510** (0402201)

1. Camera FAMOS 118°
0171010 - page 30

2. Monitor 7” RLED, including bracket
0208672 - page 34

Cables 4p
To be ordered separately, see page 33.



Set **Winchview WV7200** (0402211)

1. Camera FAMOS 60°
0171040 - page 30

2. Monitor 7” RLED, including bracket
0208603 - page 34

Cables 4p
To be ordered separately, see page 33.

Optional: MultiView box
0404110 - page 39

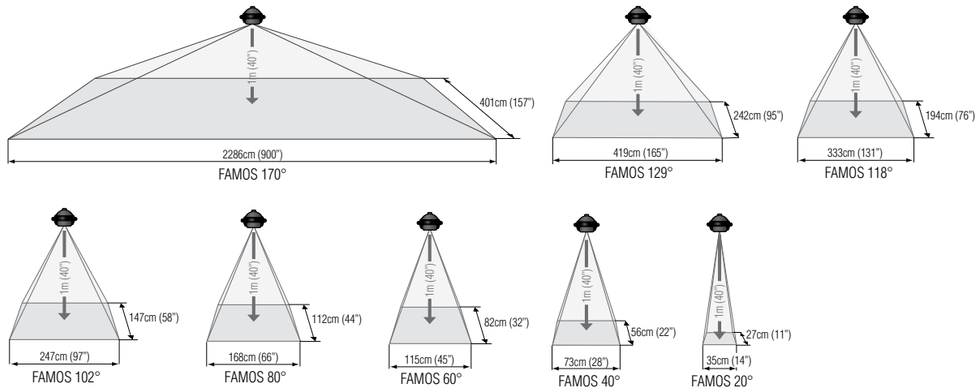
Or design your system yourself

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



Cameras FAMOS

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

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

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

- Chemically hardened glass
- Nitrogen-filled housing, watertight IP69K according to DIN 40050-9

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: digital zoom, zone graticule, fisheye correction, mirror/flip settings and text features.

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

Cameras AMOS ATVC Set (All Time Vision Camera)

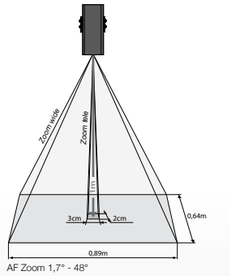
Self cleaning camera system by a rotating glass tube and fluid.

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



AF Zoom 1,7° - 48°

AF-Zoom Cameras

0103531 AF-Zoom Camera Serial

- Including 6m multicable fitted with 7p connector (female)
- Power supply 12V - 24V/DC when cable is <50m
  Power supply 18V - 24V/DC when cable is >50m
- 2,6kg
- Dimensions: 260x140x122mm (without bracket)

0103610 AFI Auto Focus Insulated

Designed for usage on cranes to have a camera pointed downwards perpendicular.

- Power supply 12V - 24V/DC when cable is <50m
  Power supply 18V - 24V/DC when cable is >50m
- Damper absorbs sudden movements and procure stability
- Stainless steel mounting hardware
- Including 6m multicable fitted with 7p connector (female)

0103620 AFI Auto Focus Insulated Arctic

- Operating temperature -50°C to +85°C

Thermal Imaging Camera

0103730 TIC-camera 320 9Hz
- Thermal Imager Uncooled VOx microbolometer
- Including 6m multicable fitted with 7p connector (female)
- 25° lens (up to 450m detection)
- Nitrogen-filled housing, 100% waterproof IP69
- Operating temperature between -40°C to +80°C
- 12-30V/DC max 8W
- Shock- and vibration resistant
- 2x and 4x zoom

Pan & Tilt Zoom Camera
- Pan angle 360° (180° to left, 180° to the right) tilt angle 180° (90° up, 90° down)
- Pan & tilt speed 12,5°/sec
- 6 presets for camera positions
- Watertight IP69K
- Operating temperature -40°C to +85°C

0506911 PTZ Camera Stainless steel
- Stainless steel housing
- Weight: 16,6kg (including 5m cable)

0506952 PTZ Camera Aluminium
- Aluminium housing
- Weight: 5kg (including 5m cable)

Washer Wiper
- Reservoir 8L with 6m rubber hose
- Wall mount reservoir housing h647 x w436 x d250mm
- Electrical pump activated
- Controlled by Orlaco SmartView or VCU System (not included)

0405810 Washer Wiper Installation PTZ Camera
- Including mounting plate, nozzle and wiper stainless steel 316
- Only in combination with the stainless steel PTZ (0506911)

Cameras AMOS CPH & CFMC
Robust small camera for mounting on a vulnerable position.
- Next generation CMOS sensor
- Operating temperature -40°C to +85°C
- Waterproof camera IP69K according to DIN 40050-9
- Heated lens glass, therefore no problems with condensation or frost
- Fixed lens, angle of aperture: 51°
- Impact and vibration proof

0198710 Camera AMOS CFMC 51° (PAL)
- Including 1m multicable 4p connectors

0199700 Camera AMOS CPH 5100P (PAL)
0199730 Camera AMOS CPH 5100N (NTSC)
- The camera has a 0,6m cable including a waterproof 4p connector male

Infrared illuminator

0507300 IR-CIV870 Lamp
- 870nm IR light
- Max. 15W
- IP67
- Maximum range 80m

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

Armored cable especially for severe off-road conditions
This cable offers good protection against severe conditions. This is due to the additional internal galvanised braided steel wire armor. Attention: if cable is constantly moving as on a boom or hinged construction, please use the dynamic cable.
- For EMC 100V/m

Including 4p molded connectors:

0303342	1,5m	0303352	3m
0303472	5m	0303362	7,5m
0303372	9m	0303482	11m
0303492	16m	0305021	20m
0305011	28m		

Dynamic cable
Designed for dynamic use.
- 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	11m	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

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

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
- Power protected against:
  - Induction voltages
  - Load dumps
  - Over- and undervoltage
- Mirror image setting
- High resolution pixel WVGA 800xRGBx480
- Brightness automatically adjusts to the ambient light
- Option of a marker line per camera on the screen for the optimum determination of distance
- Integrated sun visor
- IP67 according to IEC 60529
- Full On-Screen-Display (OSD) in 12 languages
- Input Voltage 12...60V/DC +/-10%
- Watertight molded connectors

Monitor 7” RLED (Incl. 132mm bracket)

Monitor 12” RLED (Incl. 190mm bracket)

Monitors RLED

Type	Video cable / connector	Power cable	Bracket	Art. no.
7”	2m / 4p female	2m open wired	132mm	0208603
7” 4Cam	2m Y-split / 4p female	2m open wired	132mm	0208612
7” Serial	6m / 7p female	6m / 8p male	132mm	0208622
7” Serial	6m / 7p female	6m open wired	132mm	0208632
7”	4m / 4p female	4m open wired	132mm	0208672
7” CAN SRD	6m / 7p female	6m open wired	132mm	0208871
12”	4m / 4p female	4m open wired	190mm	0411000
12” 4Cam	2m Y-split / 4p female	2m open wired	190mm	0411040
12” 4Cam Serial	2m Y-split / 4p female	2m open wired	190mm	0411170
12” Serial	6m / 7p female	6m open wired	190mm	0411130
12” Serial	6m / 7p female	6m / 8p male	190mm	0411160
12” CAN SRD	6m / 7p female	6m open wired	190mm	0411300

4Cam — Cable can be used to easily extend your system to display two cameras on one monitor or up to four cameras per monitor in combination with a Switcher.

CAN SRD — Specially designed for RadarEye systems. (see page 42-43)

Serial — For serial connection (Zoom cameras, PTZ-Cameras and MultiView box).

2291230 Sunmask 12” Monitor Horizontal
ABS Sunmask specially designed for the 12” RLED Monitor.

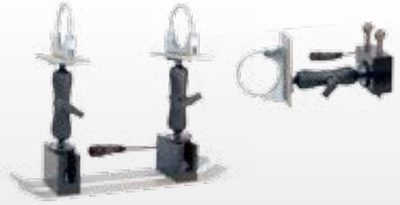
Battery packs

0049050 Camera Control Unit + Battery
- Battery, 12V, 18Ah
- Including spiral cable (length 8m) for charging the battery manually (0303670)
- Battery pack is IP 65 watertight
- Including data antenna
- Including cable package to video transmitter / zoom camera/ auto- contact/ solar panel
- Including remote control to operate the camera
- Can be charged using a solar panel/ Auto-contact or charging cable
- Battery charge indicator line can be seen on monitor in the cabin
- Excluding Spider cable crane (0403880)

0049600 Camera Control Unit + Battery pack side connection
- Battery, 12V, 18Ah
- Battery pack is IP 65 watertight
- Including remote control to operate the camera
- Can be charged using a solar panel/ auto-contact
- Battery charge indicator line can be seen on monitor in the cabin
- Suitable for charging - solar panel/car jack
- Excluding cable set for spectrum scanner (0403860)

Charging systems

0405951 Auto-contact (sliding contact)
- Tower crane battery loading system
- Operating temperature between -40°C and +85°C



0049500 Solar Cell Panel
- Monocrystalline silicon cells
- Capacity 4,1A (nominal 3,75A)
- Dimensions 777 x 657mm
- Weight 6,7kg
- Including mounting frame

Battery cables

0403880 Spider cable crane
Specially designed to connect the Battery pack to the Spectrum Scanner.
- 3,8m multicable including 8p female connector
- Two extra 1,4m charging cables (7p male)
- 10p Harting male connector

Cable per metre (without connectors)

1220110 Multi cable 1x coax, 2x power, 1x data
1220170 Multi cable 1x coax, 5x wires
1220280 Multi cable armored 1x coax, 5x wires
1220350 Multi cable 2x coax, 5x wire
1220600 Dynamic cable 1x coax, 5x wire
1220900 Power cable 7x wire
1222000 Coax cable 75 OHM RG59

Any required connectors can be ordered separately. (page 38)

Cable reels

0712020 Cable reel

- Maximum capacity 150m cable 1220150
- Including 10p harting connectors

0712040 Cable reel with 150m + 15m cable

- Including 150m multicable with 7p female connector
- Including 15m multicable with 10p female Harting connector
- Including mounting strips and pipe clamps

0710270 Spring driven cable reel

- Including 55m cable 1220250 on reel with 7p female connector and 5m monitor cable with 7p male connector
- Holds the cable tight

0712010 Cable reel

- Capacity up to 100m cable on reel with 10p male connector
- Holds the cable tight

0710240 Cable reel spring driven

- Holds the cable tight
- 7m cable (1220150) and 12m cable (1220600)
- Watertight connector straight (1310850 & 1312001)
- Operating temperature 0°C to +75°C

0710280 Cable reel spring driven

- Specification identical to 0710240 except for: operating temperature -40°C to +75°C

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
0303860 Adapter cable 4p female - BNC
0303770 Adapter cable 4p female - Cinch (if OEM monitor is used)

Extension cables

0305040	Multi cable p7M - m7F	1m
0305050	Multi cable m7M - p7F	1m
0305060	Multi cable p7M - p7F	2m
0305070	Multi cable p7M - p7F	11m
0305080	Multi cable p7M - p7F	16m

Split cable (2m)

0303781 Y-Split cable RLCD/RLED

- With two 4p female connectors (video) and open wire cable (power)
- For connections 2 to 4 cameras (with Switcher)

0304860 Y-Split cable 12” RLED

- With 4p and 7p female connectors (video) and open wire cable (power)
- For connections 2 to 4 cameras (with Switcher)

0304840 Y-split cable 12” RLED

- With two 4p female connectors (video) and open wire cable (power)
- For connections 2 to 4 cameras (with Switcher)

Video distributor

0407000 Orlaco video distributor

For connecting a second and third Orlaco monitor.

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

Connectors

1310841 Connector 4p female Gold
Recommended for multicable (1220170)

1312001 Connector 4p male Gold
Recommended for multicable (1220170)

1310850 Connector 4p female PG9 Gold
Recommended for dynamic cable (1220600)

1312050 Connector 4p male PG9 Gold
Recommended for dynamic cable (1220600)

1311201 Connector 7p female Gold
Recommended for Multi cable (1220170)

1322401 Connector 7p male Gold
Recommended for Multi cable (1220170)

1311250 Connector 7p female PG9 Gold
Recommended for Dynamic cable (1220600)

1322450 Connector 7p male PG9 Gold
Recommended for Dynamic cable (1220600)

1312021 Connector 8p male Gold
Recommended for Dynamic cable (1220600)

0357010 Bulkhead connector 4p
Suitable for lead-through on bodywork

0357050 Bulkhead connector 7p
Suitable for lead-through on bodywork

Cable disconnection sets

0351070 7p
0351130 13p

- Watertight
- With caps

0351100 10p Harting

- Watertight
- With caps

Interfaces

0050000 Glass fibre transmitter / receiver

- NTSC and PAL
- Input voltage 12-16VA and 12-16V/DC
- Operating temperature between -40° and +75°
- Glass fibre 62,5 µm

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

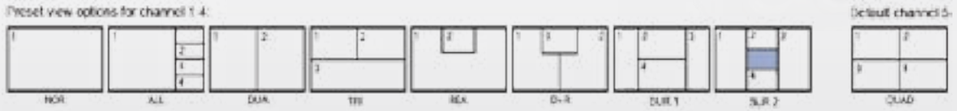
- Connect up to 4 cameras (PAL or NTSC) to a third party monitor
- Including 3,85m power cable

Multiview split

- Stainless steel housing
- Serial Orlaco Monitor needed

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

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



Power supplies

0004600 Power supply 9-36V
- Maximum cable length 200m
- Power input 9-36V/DC
- Power output 12V/DC

0504031 AC/DC unit
Power supply for the Compact Camera.

- Power input 110-230V/AC
- Power output 12V/DC
- Dimensions 100mm(d) x 100mm(w) x 27mm(h)

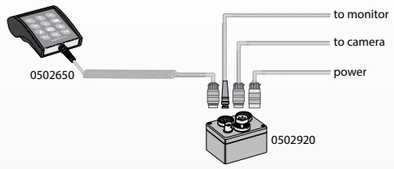
0503810 Power supply 115-230V/24V
- 2 outputs: for loading battery and power supply for monitor
- Built in a IP65 watertight box
- Including connector 1312021 (8p)

Interface Control panel

0502920 Interface Control panel Serial 2x7p

This interface is designed to connect the Handheld control AF to a Camera AF-Zoom or PTZ.

- Including 3,85m 8p power supply cable and connectors
- Can be connected to each type of third-party monitor



Control

0502620 Control panel mount

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

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

0502650 Handheld control AF 7p (serial)

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

- Zoom function
- Including 6,3m power supply cable

0502610 Handheld control AF (serial)

- Open wired

0506500 Joystick

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

0702000 Compact joystick

- Operating temperature between -30°C and +75°C
- To assemble on control column
- IP40
- 12V/24V

0502630 Foot switch 5m

- Zoom in and out

0502660 Foot switch 10m

- Zoom in and out

0702100 Zoom control box

Operating zoom in and out function of the camera AF-Zoom on a crane.

- Including hardware, tyrap and locktape
- IP54

8975760 Push button yellow

For manually switching between cameras.

Orlaco Battery packs parts

2108990 Remote control

Suitable for Battery packs 0049040 and 0049610.

2130780 Accu

Suitable for Battery packs 0049040 and 0049610.

- 12V / 18A

2109350 Antenna with BNC

Suitable for Battery packs 0049040 and 0049610.

- CB Antenna, lenght 330mm
- Power: 15 watt
- Frequency 26-28MHz
- Cable length: 4m
- Connector BNC RG58, 50 OHM

Spectrum Scanner wireless video transmitter & receiver

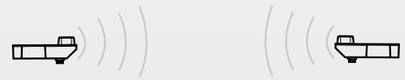
- Including powercable and two adjustable brackets for transmitter and receiver
- 8 video channels
- Full On Screen Display (OSD) functionality for system settings
- Please contact your dealer for further advice

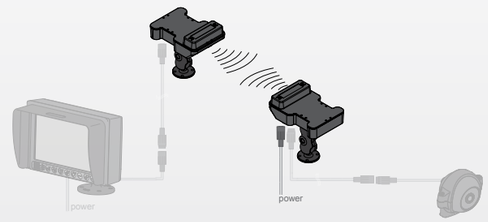
0004061 RoundMax 150

- 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)



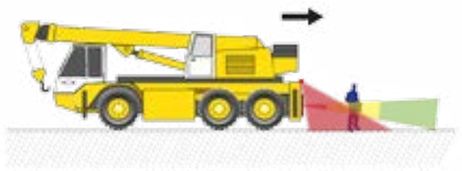


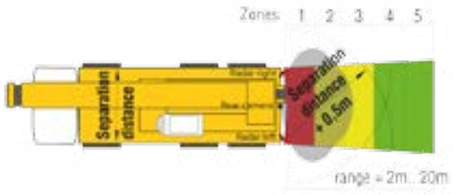
RadarEye unites visibility and active detection

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 driver's view. The radar system detects stationary as well as moving objects in a designated coverage area. With this view system the driver 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 driver can respond immediately. This prevents damage to the drivers truck 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.

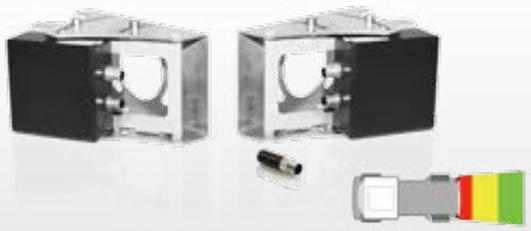
- RadarEye can be used on various machines
- RadarEye is capable of visualizing the radar-zones on the display. As soon as an object enters the zone it will activate colored dots (default setting) or a transparent visualization (standard/custom preset settings) to make the driver aware of the potential danger
- 2...20m detection area, divided in 5 equally sized 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 (see page 34)
- RadarEye can be extended with multiple sensors and camera units for all around detection and visibility
- Please contact Orlaco for advice and installation





YouTube

Check our demo RadarEye videos on the Orlaco YouTube channel.



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.

Orlaco IP SmartView

0060310 Licence Smartview software

View and control of cameras over TCP/IP or a local computer network.

- Support H.264 digital video codec
- Multiple display settings (full, split, quadviews, 8 and 16 cams on 1 screen)
- Individual camera presets and master presets for controlling multiple PTZ simultaneously
- Sequential camera switcher
- Motion detection
- Supplied on USB memory stick

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

Mounting means

0402801 Quick-fit set Tower crane

- Including adjustable suction cup for quick mounting of the monitor on the cab window, magnet (with ball joint) for quick mounting of the monitor to the cab and 2x safety chains and mounting materials
- Stainless steel holder
- Operating temperature between -40°C to +85°C

0401310 Suction cup with ball joint

For mounting the Orlaco monitor on the cab window.

0402320 Protective cover

Cover specially designed for the Compact Camera.

- Stainless steel housing

0401260 Quick coupling Compact Camera

For moving the Compact Camera between various objects.

- Including two attachment plates
- Stainless steel
- Compact Camera is not included

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 are not included

0403400 Compact Camera magnet bracket

For quick mounting of Compact Camera on steel profiles.

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.

0402450 Camera Housing Dome

Ceiling mount for Compact Camera.

- Aluminum housing
- Including mounting hardware
- Compact Camera is not included

2015700 Adjustable mounting bracket 3/8” UNC

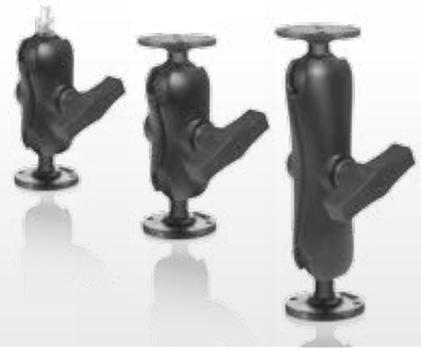
- Length 131mm

2015500 Adjustable mounting bracket

- Length 132mm

2015600 Adjustable mounting bracket

- Length 190mm



0701200 Oil damped camera bracket

Designed for usage on cranes to have a camera permanently pointed verticaly downwards. The damper absorbs sudden movements and procures stability to all Orlaco cameras. Others have to be checked to determine the position of their centre of gravity.

- Adjustable damping
- Made entirely from Stainless Steel

If cranes have a tilting angle of >130° (e.g. Knuckle boom cranes) it is possible to connect 2 pieces 0701200 to achieve a tilting angle up to 260°.

0910280 Extra Weight for Zoomcam

- Stainless steel
- 1.09kg

0910270 Suspension Tube Complete

- Stainless steel
- Including sketch plate
- Including lock pin

2013280 Adapter Pin for Release Set

- Stainless steel

0910260 Mounting Bracket Set Additional

- Stainless steel

0910240 Quick release set weld version

- Stainless steel

0910250 Quick release set bolt version

- Stainless steel

5200500 Magnet 80x18 M10

For quick mounting video receiver on steel profiles.

- Including safety chain

5200600 Magnet 100x22 M10

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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