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Lattice harbour crane

Telescopic crane

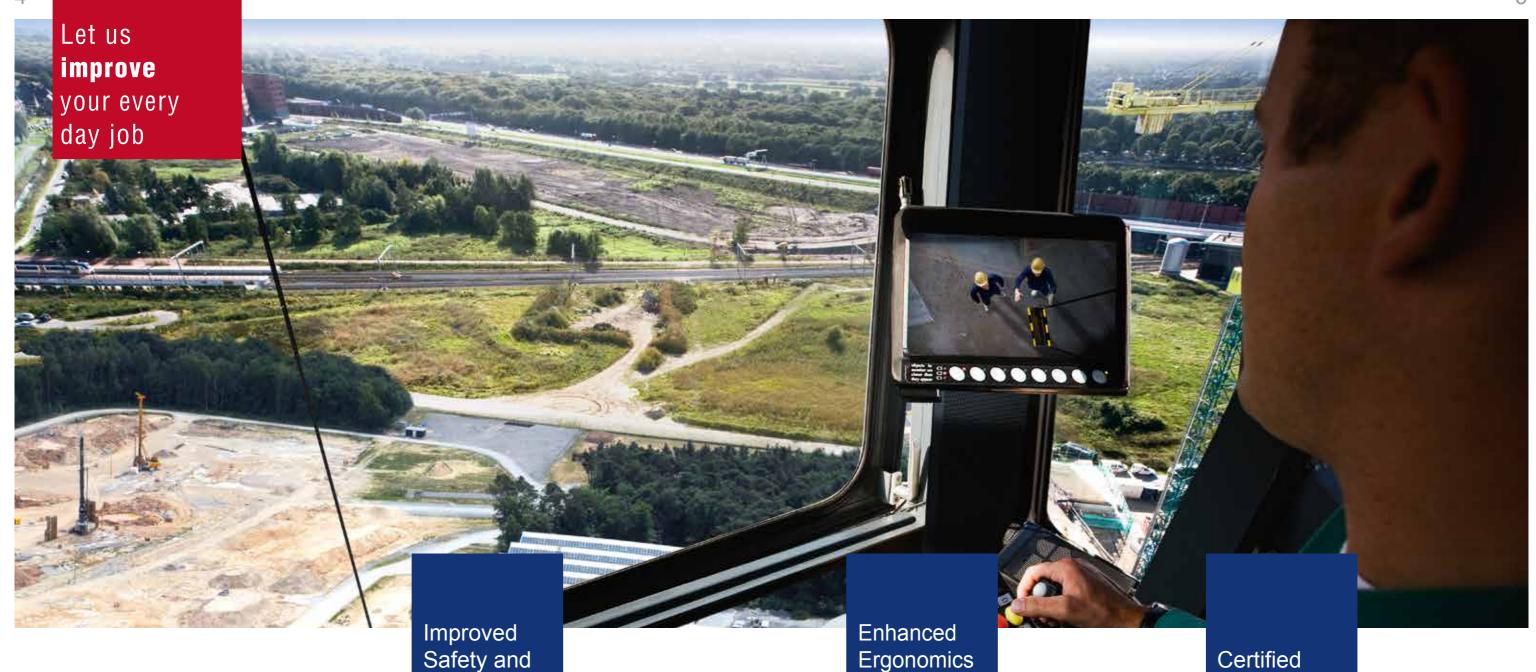
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Why Orlaco?

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







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 allround safety and efficiency of the crane and its operator - both on and off the job site.

Efficiency

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!

and Comfort

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.

Quality

Why Orlaco Why Orlaco

Load moving sight solutions





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

Rearview





RV7520 / HD - PAGE 30

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. Available in analog and digital version.

Recommendation: Add RadarEye to increase safety & efficiency. (see page 50-51)







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 color 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 pin cables in the correct length. For longer jibs (+30m) we recommend using a reel.



CornerEye





CornerEye offers a complete and detailed view of 270° of the area around the cabin. The system delivers HD digital image quality in real time.



10 Rough Terrain Crane Mobile tower crane 11



12 Crawler crane
Overhead Crane 13







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 onto 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.





Loadview .



LV7070 - **PAGE 27**

The crane operator in the cabin does not always have optimal visibility on the cranes hook and the load. Especially when he must lift over machinery into rail cars and behind stacks of plate/coil steel in warehouses. The Orlaco load-view system is offering a solution with a camera fitted to the hoist looking straight down on the hook and the load. The operator receives real-time (analog) image on the monitor.



Vision solutions

Vision solutions

14 Drilling-Pilling crane Crane truck 15



Vision solutions

Vision solutions

16 Hydraulic port crane Lattice harbour crane 17

Loadview V7070 - **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** ORLACO SV7510 / HD - PAGE 31 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. Available in analog version and digital version. Digital version cannot be combined with rearview. Rearview RV7520 / HD - PAGE 30 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. Available in analog version and digital version. 0000000 Digital version cannot be combined with sideview.



Vision solutions Vision solutions

18 Straddle carrier RTG crane 19

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.



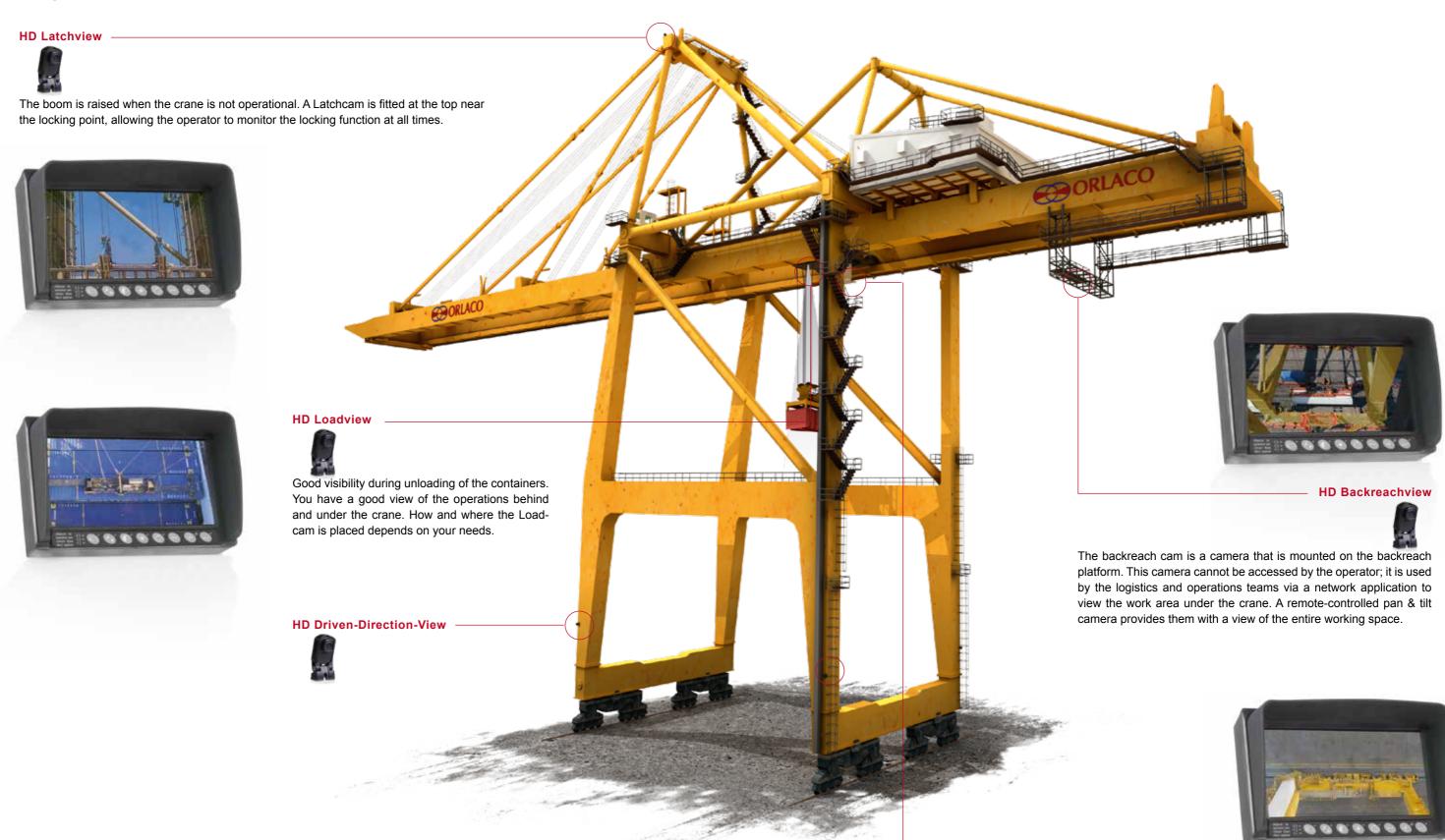
HD-IP SMARTVIEW SOLUTIONS

Orlaco also offers HD-IP cameras that support the TCP/IP protocol. This enables streaming of high resolution video images via digital networks. With this technology you have the flexibility to connect the HD IP cameras to any location in your network and PC-monitors. Through a single network cable you have access to all camera images. Together with the Orlaco Smartview software, you have a complete view on operations. The cameras are compatible with other IP devices that also hold an Onvif protocol, for example Network Video Recorders.

Vision solutions

Vision solutions

20 Ship to shore crane



ETHERNET VISION SOLUTIONS

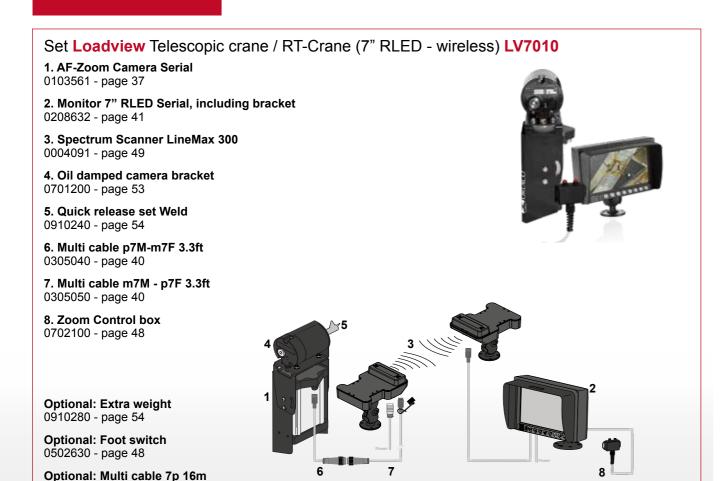
Our compact Ethernet camera EMOS gives you the best HD quality video images and withstand the toughest working conditions. Thanks to the Ethernet technology, this camera is ideal for integration into onboard computer systems. The camera is able to stream practically real-time in MJPEG or H.264 to any type of monitor.

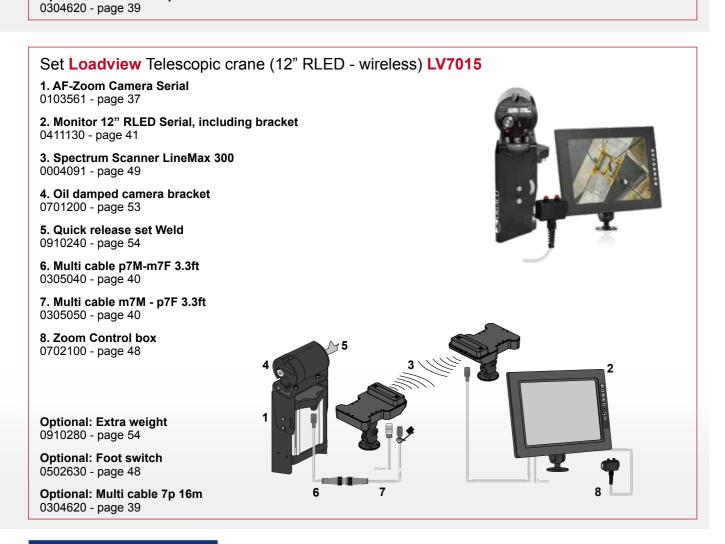
The Rearcam ensures that the operator can see behind the STS on the working space at all times. A quick look at the monitor gives the operator an instant view of the area in which the container should be positioned.

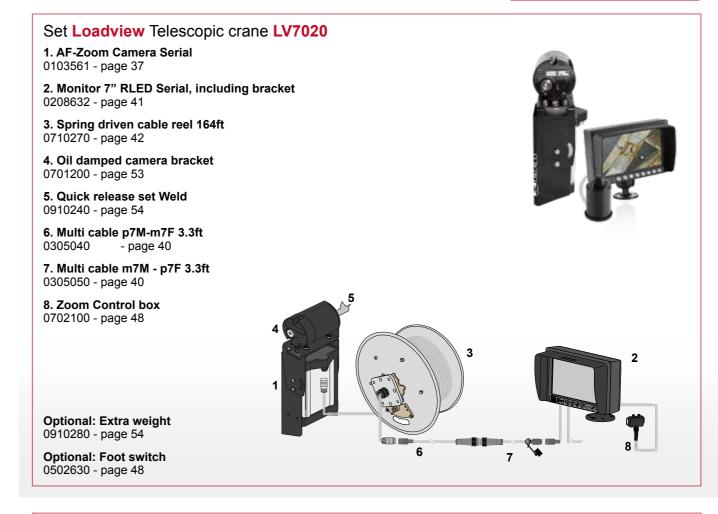
HD Rearview

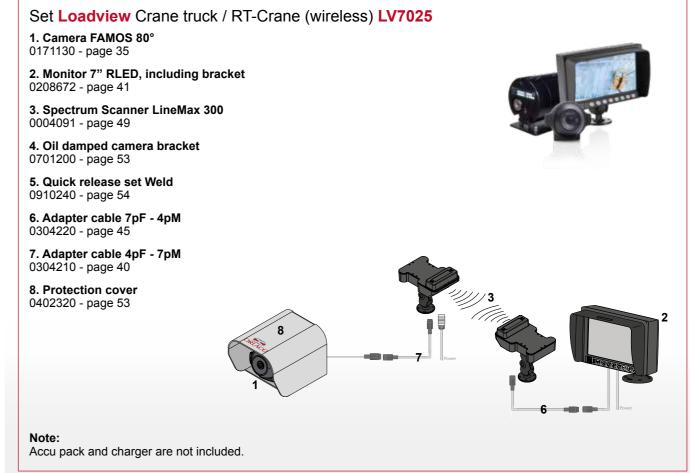
Vision solutions

Vision solutions



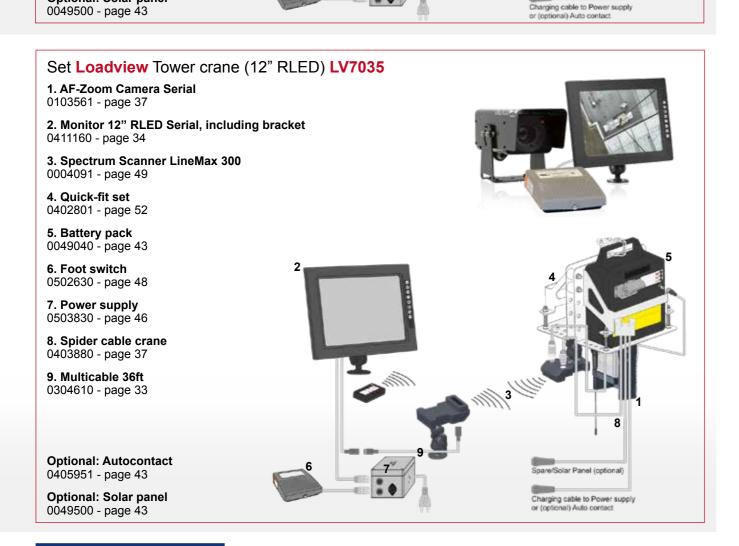


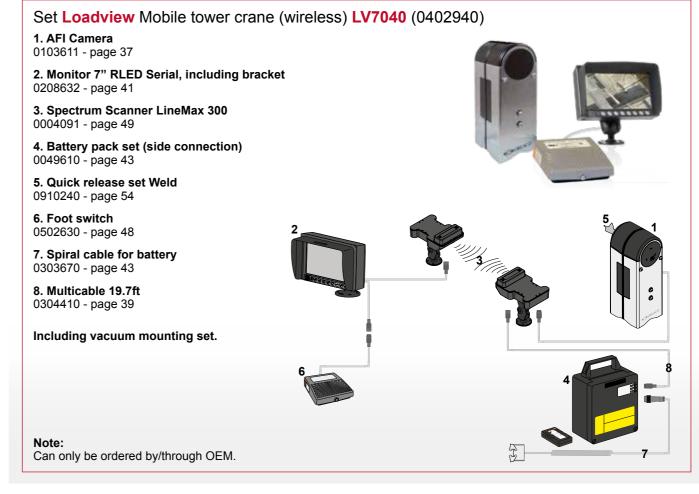


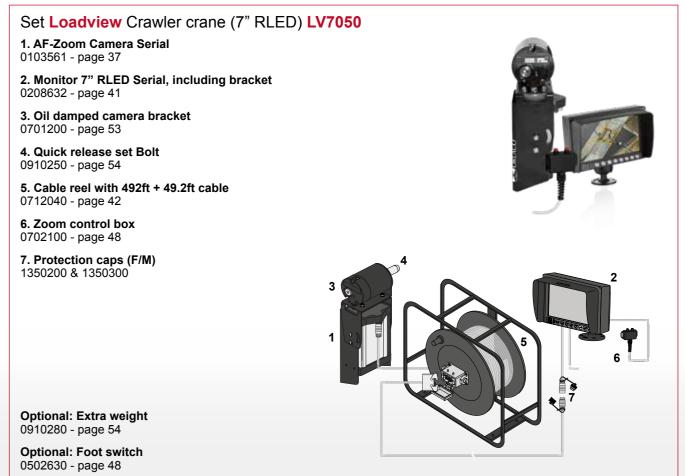


Optional: Solar panel









Set Loadview Crawler crane (12" RLED) LV7055

1. AF-Zoom Camera Serial

0103561 - page 37

2. Monitor 12" RLED Serial, including bracket

0411130 - page 41

3. Oil damped camera bracket

0701200 - page 53

4. Quick release set Bolt

0910250 - page 54

5. Cable reel with 492ft + 49.2ft cable

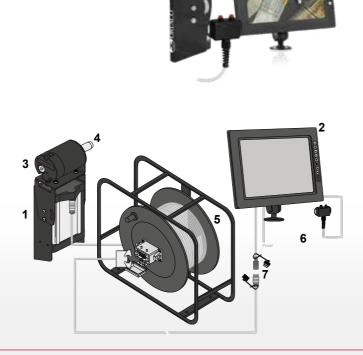
0712040 - page 42

6. Zoom control box

0702100 - page 48

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

Optional: Extra weight 0910280 - page 54 Optional: Foot switch 0502630 - page 48



Set Loadview Lattice harbour crane (7" RLED) LV7060

1. AF-Zoom Camera Serial

0103561 - page 37

2. Monitor 7" RLED Serial, including bracket 0208632 - page 41

3. Oil damped camera bracket

0701200 - page 53

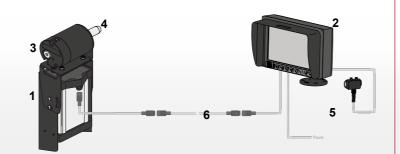
4. Quick release set Bolt 0910250 - page 54

5. Zoom Control box

0702100 - page 48

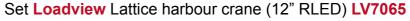
6. Multicable 278.9ft

0304400 - page 39



Optional: Extra weight 0910280 - page 54

Optional: Foot switch 0502630 - page 48



1. AF-Zoom Camera Serial

0103561 - page 37

2. Monitor 12" RLED Serial, including bracket

0411130 - page 41

3. Oil damped camera bracket 0701200 - page 53

4. Quick release set Bolt

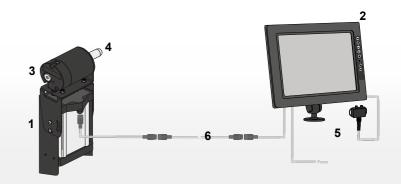
0910250 - page 54

5. Zoom Control box

0702100 - page 48

6. Multicable 278.9ft

0304400 - page 39



Optional: Extra weight 0910280 - page 54

Optional: Foot switch 0502630 - page 48

Set Loadview Hydraulic port crane / Overhead crane LV7070

1. Camera FAMOS 80°

0171130 - page 35

2. Monitor 7" RLED, including bracket

0208672 - page 41

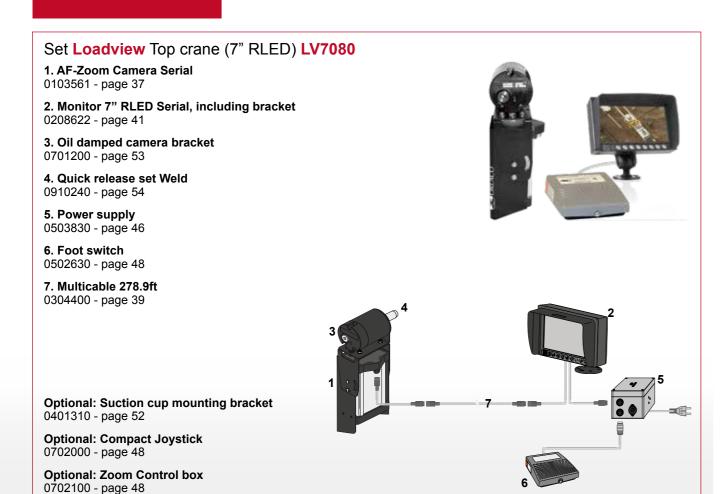
Cables 4p

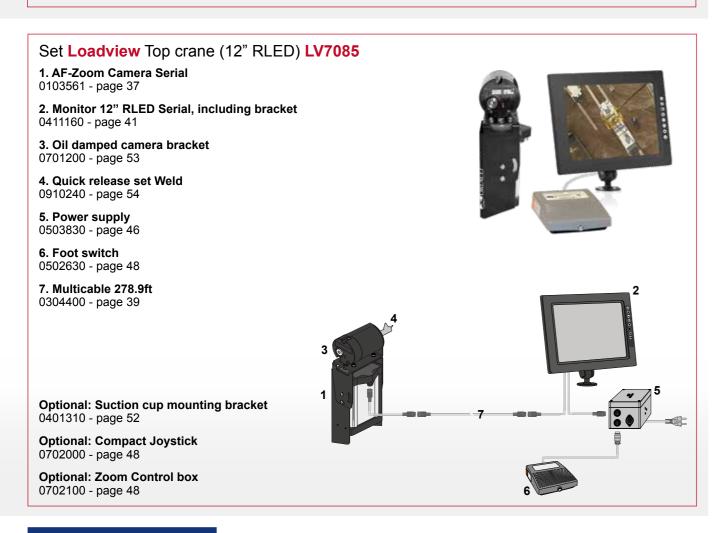
To be ordered separately, see page 39.



Optional: Protection cover 0402320 - page 53



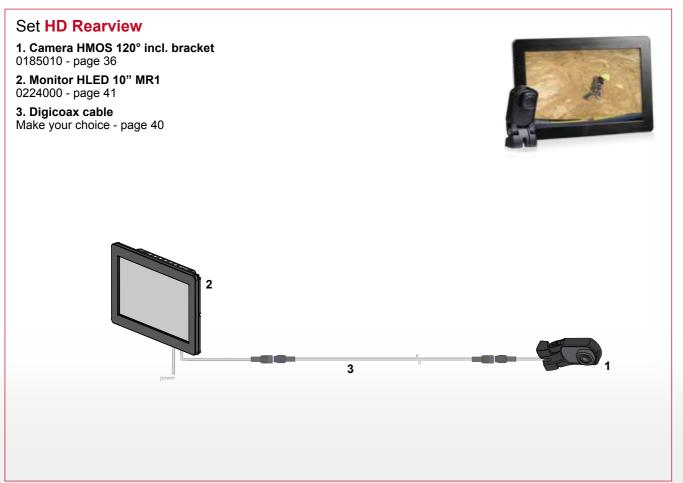


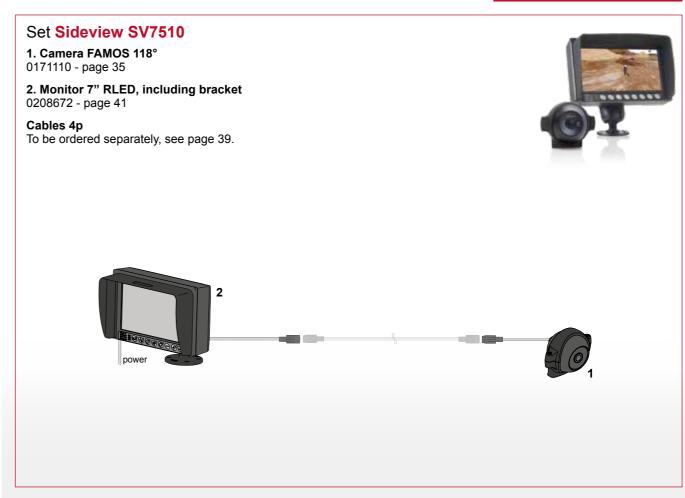










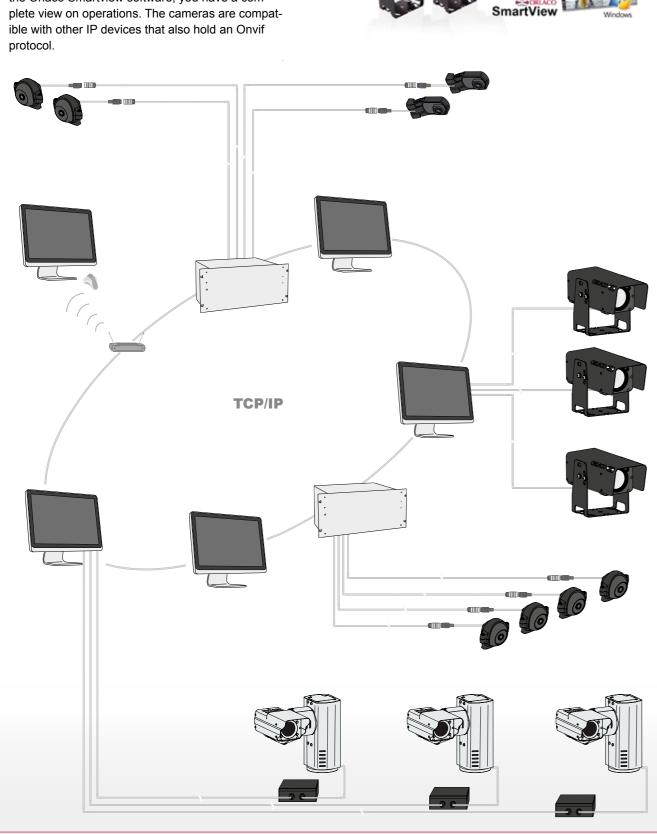


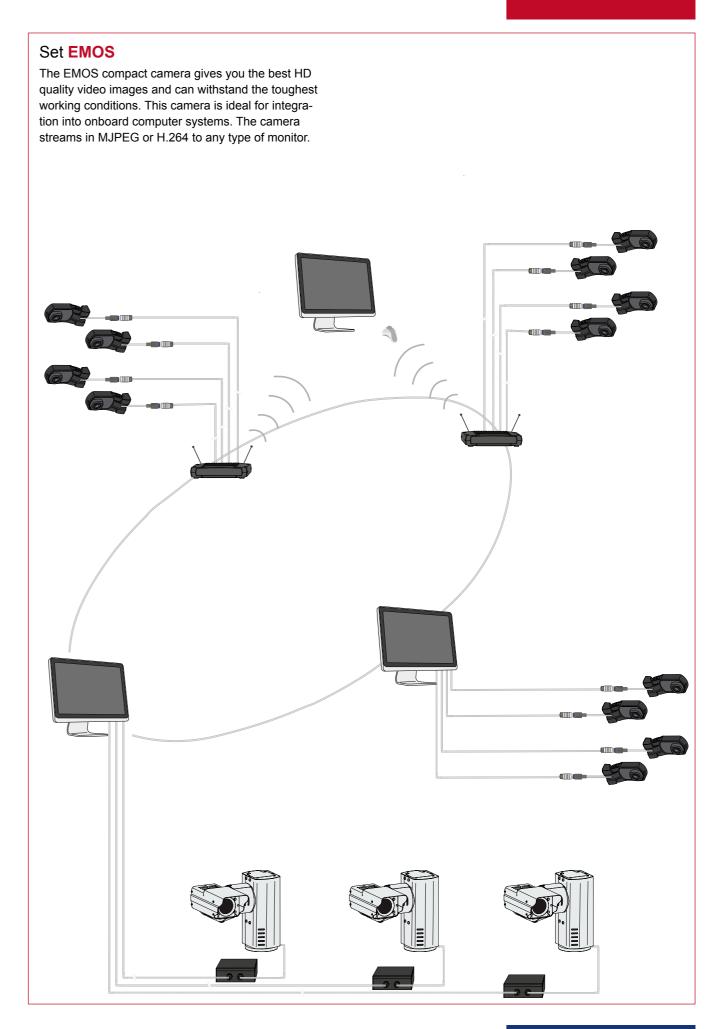


Set HD-IP

Orlaco's HD-IP cameras support the TCP/IP protocol. This enables streaming of high resolution video images via digital networks. You have the flexibility to connect the HD IP cameras to any location in your network and PC-monitors. Through a single network cable you have access to all camera images. With the Orlaco Smartview software, you have a complete view on operations. The cameras are compatible with other IP devices that also hold an Onvif protocol.







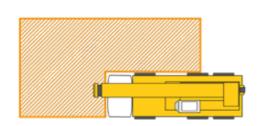
Set CornerEye 1. Set HMOS camera with CornerEye bracket 0185610 - page 34 a. Camera HMOS 180° b. CornerEye Bracket 2. Monitor HLED 10" MR1 0224000 - page 41 3. Monitor Bracket A pillar 0402610 3. Digicoax cable Make your choice - page 40

CornerEye delivers a real-time field of vision of 270°



Get excellent view on blind spots around crane vehicles with the revolutionary CornerEye camera monitor system. Ultimate digital technology and an effective application deliver a unique vision solution. The system has a wide angle lens that, combined with the latest technology, delivers a field of vision of 270°. An ideal solution for rear or side view on a crane vehicle.

- HD camera and 10" HD monitor
- 270° field of vision
- · Real time: zero latency
- · Shock and vibration proof
- · Ruggedized design
- · Designed to comply with automotive requirements
- · Camera IP69K watertight
- · Short mounting time
- · Custom made bracket per brand on request





0185610 Set HMOs with bracket

Including camera HMOS 180

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

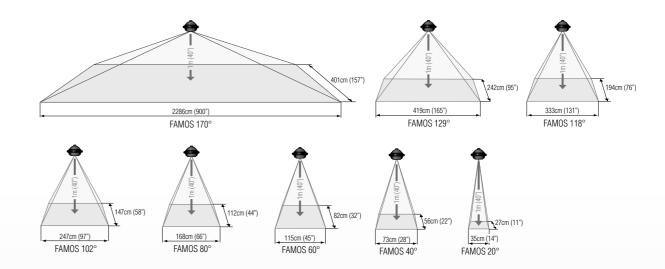
It is also possible to configure your system online on our website: www.orlaco.com

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 FAMOS Compact Cameras

- · Next generation CMOS sensor
- · Light sensitivity 0.05 lux
- · Integrated Safety ticker to show that camera is running and active
- · Optimized impact- and vibrationresistance
- · Scratch-resistance by chemically hardened lens
- · Automotive molding-filled housing, watertight IP69K according to DIN 40050-9
- Improved EMC-standards
- · 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

Туре	Art. no. NTSC
20°	0171160
40°	0171150
60°	0171140
80°	0171130
102°	0171120
102° MIRROR	0171240
118°	0171110
118° MIRROR	0171230
129°	0171100
170°	0171170



Products Products

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Cameras FAMOS MIRROR SW

Camera with mirrored image and guiding lines.

Art. no. NTSC Type 102° MIRROR 0171260



Cameras FAMOS IR LED

Day-night camera including 4 High Power Infrared LEDs 850nm. The IR LED's will be automatically activated. Based on the output of the CMOS sensor the IR illumination value will be set to ensure the best possible image.

Туре	Art. no. NTSC
80°	0171630
118°	0171620
118° MIRROR	0171910

· UV-transparent front cover

The additional qualifications of our High Definition Digital Cameras

- High resolution CMOS rolling shutter Excellent impact- and vibration-
- 1280 x 960 video image

resistance

- · Light sensitivity 0.1 lux
- Excellent EMC performance 100 V/m



Cameras HMOS

Compact, industrial high definition camera.

Туре	Art. no.
30°	0185040
60°	0185030
90°	0185020
120°	0185010
180°	0185000

- With 0,5m cable including a digicoax waterproof molded 4p male connector
- · Including camera bracket



Cameras EMOS

Low latency, high definition ethernet camera specifically designed for onboard computer systems.

Туре	Art. no.
30°	0186040
60°	0186030
90°	0186020
120°	0186010
180°	0186000

- Image streaming in MJPEG or H.264
- Total system latency less than 100ms
- · Communication according to ISO 17215 protocol

The qualifications of our zoom cameras

- Operating temperature between -40°F to 185°F
- Built-in brightness function to ensure better visibility on dark areas
- 480x zoom, 1,6° 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 Cameras

0103561 AF-Zoom Camera Serial

- Including 19.7ft multicable fitted with 7p connector (female)
- Power supply 12V 24V/DC when cable is <164ft Power supply 18V - 24V/DC when cable is >164ft

0103611 AFI Auto Focus Insulated

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

- Power supply 12V 24V/DC when cable is <164ft Power supply 18V - 24V/DC when cable is >164ft
- · Damper absorbs sudden movements and procure stability
- · Stainless steel mounting hardware
- Including 19.7ft multicable fitted with 7p connector (female)

0103621 AFI Auto Focus Insulated Arctic

• Operating temperature -58°F to +185°F



Thermal Imaging Camera

0103732 TIC-camera 320 9Hz

- Thermal Imager Uncooled VOx microbolometer
- Including 19.7ft multicable fitted with 7p connector (female)
- 25° lens (up to 1476ft detection)
- Nitrogen-filled housing, 100% waterproof IP69
- Operating temperature between -40°F to 176°F
- 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

0506912 PTZ Camera Stainless steel

- · Stainless steel housing
- Weight: 16,6kg (including 16.4ft cable)

0506953 PTZ Camera Aluminium

- Aluminium housing
- Weight: 5kg (including 16.4ft cable)





Washer Wiper

- Reservoir 8L with 19.7ft rubber hose
- Wall mount reservoir housing h2.1ft x w1.4ft x d0.8ft
- 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 (0506910)

The additional qualifications of our HD-IP zoom cameras

- HD Image CMOS Sensor
- · Chemically hardened lens
- 30x zoom

- Resolution: 1920 x 720 at 60 fps
- Video streaming over TCIP/IP
- Conform ONVIF-protocol
- · Operating temperature between -40°F
- and +140°F
- Input Voltage 18...30V/DC



AF Zoom HD-IP Cameras

- · Including 16.5ft ethernet cable, open wired
- Watertight IP68 and IP69K

0103810 AF-Zoom HD-IP Camera Aluminium

0103820 AF-Zoom HD-IP Camera SSt



Pan & Tilt Zoom HD- IP Cameras

- · Including 16.5ft ethernet cable, open wired
- Pan angle 340° (170° to left, 170° to the right) tilt angle 180° (90° up, 90° down)
- 32 presets for camera positions
- Watertight IP69K

0506810 PTZ HD-IP Camera Aluminium

0506820 PTZ HD-IP Camera SSt



Infrared illuminator

0507300 IR-CIV870 Lamp

- 870nm IR light
- Max. 15W
- IP67
- Maximum range 262.5ft

The advantages of Orlaco cables

• All cables are specially developed by • Special cables are available for

various circumstances such as severe conditions

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	4.9ft	0303352	9.8ft
0303472	16.4ft	0303362	24.6ft
0303372	29.5ft	0303482	36ft
0303492	52.5ft	0305021	65.6ft
0305011	91.9ft		

Resistant to oil and petrol

Watertight cable connectors



Dynamic cable

Designed for dynamic use.

· Soft cover with small bend radius

Including 4p molded connectors:

0304371	1.6ft	0304281	3.3ft
0305341	11,5ft	0304341	16.4ft
0304381	19.7ft	0304391	26ft
0304431	29.5ft	0304441	32.8ft
0301811	36ft	0304451	39.4ft
0301731	49.2ft	0301831	65.6ft
Including	7p connectors	s (1311250 & 132	2450):
Including 0304460	7p connector 9.8ft	s (1311250 & 132 0304470	•
•	•	•	•
0304460	9.8ft	0304470 0304490	13.1ft
0304460 0304480	9.8ft 16.4ft	0304470 0304490	13.1ft 26ft

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	3.3ft	0301870	6.6ft	
0301890	9.8ft		16.4ft	
0301910	24.6ft	0301930	26ft	
0301910	29.5ft	0301900	36ft	
0301920	52.5ft	0301940	69ft	
0301990	131.2ft			

Including 7p molded connectors:

0304420	1.6ft	0304260	6.6ft
0304410	19.7ft	0304610	36ft
0304620	52.5ft	0305030	69ft
0304400	278.9ft		



Products Products

Digicoax cable

Designed for use with HMOS cameras.

Including digicoax molded connectors:

0311000	3.3ft	0311010	6.6ft
0311020	9.8ft	0311030	16.4ft
0311040	24.6ft	0311050	26ft
0311060	29.5ft	0311070	36ft
0311080	52.5ft	0311090	69ft



Ethernet cable

Designed for use with HD-IP AF-zoom and PTZ cameras.

1221340 Ethernet cable, open wired



Extension cables

• Multi cable p7M - m7F

0305040	3.3ft	0305060	6.6ft
0305110	23ft	0305120	29.5ft
0305070	36.1ft	0305070	52.5ft
0305080	52.5ft		
Multi cable m7l	M - p7F		
	·		
0305050	3.3ft	0305090	6.6ft
0305150	9.8ft	0305160	16.4ft



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 44)

The possibilities offered by Orlaco LED monitors

- · Automotive TFT liquid crystal display module, LED backlight
- Operating temperature -40°F to 185°F
- · Impact and vibration resistance meet the stringent requirements

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Monitors RLED

800xRGBx480

High resolution pixel WVGA

- · Power protected against:
- Induction voltages
- Load dumps
- Over- and undervoltage
- · Mirror image setting
- Brightness automatically adjusts to



Monitor 7" RLED (Incl. 5.2" bracket) Monitor 12" RLED (Incl. 7.5" bracket)

· Option of a marker line per camera on the screen for the optimum determination of distance

Monitor 10" HLED

the ambient light

8-15 languages

• Full On-Screen-Display (OSD) in

· Watertight molded connectors

- IP67 according to IEC 60529
- · Integrated sun visor

Type Video cable / connector Power cable Input Voltage	Art. no.
7" 6.6ft / 4p female 6.6ft open wired 12-60V/DC	0208603
7" 4Cam 6.6ft Y-split / 4p female 6.6ft open wired 12-60V/DC	0208612
7" Serial 19.7ft / 7p female 19.7ft / 8p male 18-30V/DC	0208622
7" Serial 19.7ft / 7p female 19.7ft open wired 18-30V/DC	0208632
· · · · · · · · · · · · · · · · · · ·	0208672
7" CAN SRD 19.7ft / 7p female 19.7ft open wired 18-30V/DC	0208871
12" 13.1ft / 4p female 13.1ft open wired 12-30V/DC	0411000
12" 4Cam 6.6ft Y-split / 4p female 6.6ft open wired 12-30V/DC	0411040
	0411170
	0411130
· · · · · · · · · · · · · · · · · · ·	0411160
12" CAN SRD 19.7ft / 7p female 19.7ft open wired 18-30V/DC	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 50-51)

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

Monitors HLED

- · High resolution pixel WXGA 1280xRGBx800
- Input Voltage 12V / 24V/DC
- IP54 according to IEC 60529
- 1m multi cable (power) open wired, 1m multi cable (video) including 4p molded female coax connector

0224000 Monitor 10" HLED

Products Products



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

Cable reels

0712020 Cable reel

- Maximum capacity 492ft cable 1220150
- Including 10p harting connectors

0712040 Cable reel with 492ft + 49.2ft cable

- Including 492ft multicable with 7p female connector
- Including 49.2ft multicable with 10p female Harting connector
- · Including mounting strips and pipe clamps

0710270 Spring driven cable reel

- Including 180.4ft cable 1220250 on reel with 7p female connector and 16.4ft monitor cable with 7p male connector
- · Holds the cable tight

0712010 Cable reel

- · Capacity up to 328ft cable on reel with 10p male connector
- · Holds the cable tight

0710240 Cable reel spring driven

- · Holds the cable tight
- 23ft cable (1220150) and 39.4ft cable (1220600)
- Watertight connector straight (1310850 & 1312001)
- Operating temperature 32°F to 167°F

0710280 Cable reel spring driven

 Specification identical to 0710240 except for: operating temperature -40°F to 167°F

Orlaco Battery packs parts

· Suitable for Battery packs 0049040 and 0049601.

2108990 Remote control

2130780 Battery

• 12V / 18A

2109351 Antenna with BNC

- · CB Antenna, lenght 4.4 inch
- Power: 15 watt
- Frequency 868MHz
- Cable length: 13.1 ft
- Connector BNC RG58, 50 OHM

Battery packs

0049040 Camera Control Unit + Battery

- · Battery, 12VW, 18Ah
- Including spiral cable (length 7m) for charging the battery manually (0303670)
- · Battery pack is IP 65 watertight
- 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)



- · Battery, 12VW, 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 (0403861)





Charging systems

0405951 Auto-contact (sliding contact)

- Tower crane battery loading system
- Operating temperature between -40°F to 185°F



0049500 Solar Cell Panel

- · Monocrystalline silicon cells
- Capacity 4,1A (nominal 3,75A)
- Dimensions 2.5ft x 2.2ft
- Weight 6,7kg
- · Including mounting frame



Battery cables

0403880 Spider cable crane

Specially designed to connect the Battery pack to the Spectrum Scanner.

- 12.5ft multicable including 8p female connector
- Two extra 4.6ft charging cables (7p male)
- · 10p Harting male connector

0303670 Spiral cable for Battery pack

- Total length 19.7ft
- Including 10p Harting male and 7p male connector







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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)

0357011 Bulkhead connector 4p

· Suitable for lead-through on bodywork

0357051 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

Adapter plugs

0357500 Adapter plug 4p male - 7p female

0357510 Adapter plug 4p female - 7p male

Adapter cables

0304000 Adapter cable 4p female - 4p female

0304050 Adapter cable 4p male - 4p male

0303860 Adapter cable 4p female - BNC

0303770 Adapter cable 4p female - Cinch

(if OEM monitor is used)





Split cable (6.6ft)

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)



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

0404080 Switcher UNI IP67

- Waterproof IP67 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)





Digicoax switcher

Inputs and power supply for at the maximum of 4 Digicoax HMOS cameras.

Cameras can be switched over automatically with a HLED MR1 monitor

0404240 Switcher Digicoax - 4 channel



Multiview split

- · Stainless steel housing
- · Serial Orlaco Monitor needed

0405100 MultiView box II

• 4 camera inputs (4x Compact Camera)

0405110 MultiView box II Serial

• 4 camera inputs (3x Compact Camera 1x AF-Zoom Camera)





0404300 Switcher 4Cam

This video switcher for third party monitors has 4 video inputs and 1 video output

- · Connect up to 4 cameras to a third party monitor
- Including 12.6ft power/switch cable



Power supplies

0504870 Junction box HD-IP Power supply for the HD-IP camera.

- Including power cable 230V/AC
- · Maximum cable length 656.2ft



0504880 Junction box HD-IP

Power supply for the HD-IP camera.

• 24V/DC



0004601 Power supply 9-36V

- Including 6.6ft cable
- · Power input 9-36V/DC
- Power output 12V/DC



0503830 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)

Interfaces

0050000 Glass fibre transmitter / receiver

- Input voltage 12-16VA and 12-16V/DC
- Operating temperature between -40°F and 167°F
- Glass fibre 62,5 µm



Video distributor

0407001 Orlaco video distributor
For connecting a second and third Orlaco monitor.

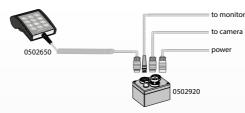
- 7 32 V/DC
- · Cables and connectors are not included



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 12.6ft 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: 5.5"x4.7"x3.1"mm

0502650 Handheld control AF 7p (serial)

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

- Zoom function
- · Including 20.7ft power supply cable

0502610 Handheld control AF (serial)

Open wired









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.



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



Digital video recorder

0000250 DVR Multi view

Digital video recorder with four camera inputs and one video output with multiview options.

- Suitable for compact cameras (4p)
- Including 128GB 80 MB/s SDXC-card for max 72 hours of storage

Digital video recorder with one camera input and one video output

0000300 DVR one channel

- Can be used with a compact camera (4p) or serial camera (7p)
- Video loop function
- 9-30V/DC
- Automatic timestamp
- Including 32GB SDHC-card for max 72 hours of storage and SD-card reader



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

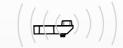


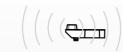
Spectrum Scanner wireless video transmitter & receiver

- 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 492ft (dependent on surroundings)





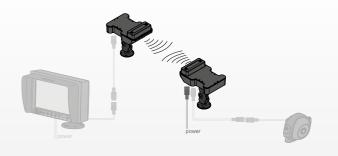
0004091 LineMax 300

- · Directional antenna with vertical orientation
- Maximum range 984ft (dependent on surroundings)









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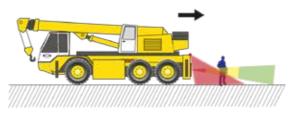
RadarEye unites visibility and active detection

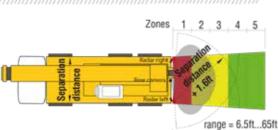


Orlaco has developed this radar unit in addition to the camera- monitor systems. By combining the vision solution with an active signaling system, RadarEye offers additional safety and efficiency.

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
- 6.5...65ft detection area, divided in 5 equally sized segments
- Separation distance: 3.3ft-13.1ft (configurable)
- Antenna beam horizontal: 70°(typ.), vertical: 11°(typ.)
- Operating temperature between -40°F to 185°F
- 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







Check our demo RadarEye videos on the Orlaco YouTube channel.

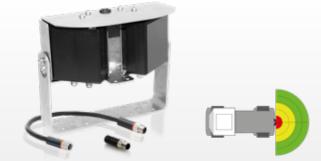


RadarEye Sets

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 3.3ft

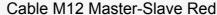


RadarEye Cables

Cable M12 Green

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

0301051	16.4ft	0301061	32.8ft
0301071	49.2ft	0301121	65.6ft
0301131	82ft	0301141	98.4ft



Connection cable between master SRD sensor and slave SRD sensor.

0301081	0.8ft	0301021	3.3ft
0301031	13.1ft	0301041	26ft
N3N1N91	52 5ft		



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

RadarEve 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

0350111 M12 Terminator 120 Ohm

120 Ohm resistor for terminating CAN bus.













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°F to 185°F



0401310 Suction cup with ball joint For mounting the Orlaco monitor on the cab window.



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.

0402320 Protective cover

Cover specially designed for the Compact Camera.

· Stainless steel housing



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 0.43ft

2015500 Adjustable mounting bracket

• Length 0.43ft

2015600 Adjustable mounting bracket

• Length 0.62ft



0701200 Oil damped camera bracket

Designed for usage on cranes to have a camera permanently pointed vertically 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**.



Certification





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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:















Check our website for all our brochures (pdf).



