Vision is our mission®

FORKLIFT
VISION SOLUTIONS

ORLACO
Specialised Camera Solutions

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Work more

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Select your forklift

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
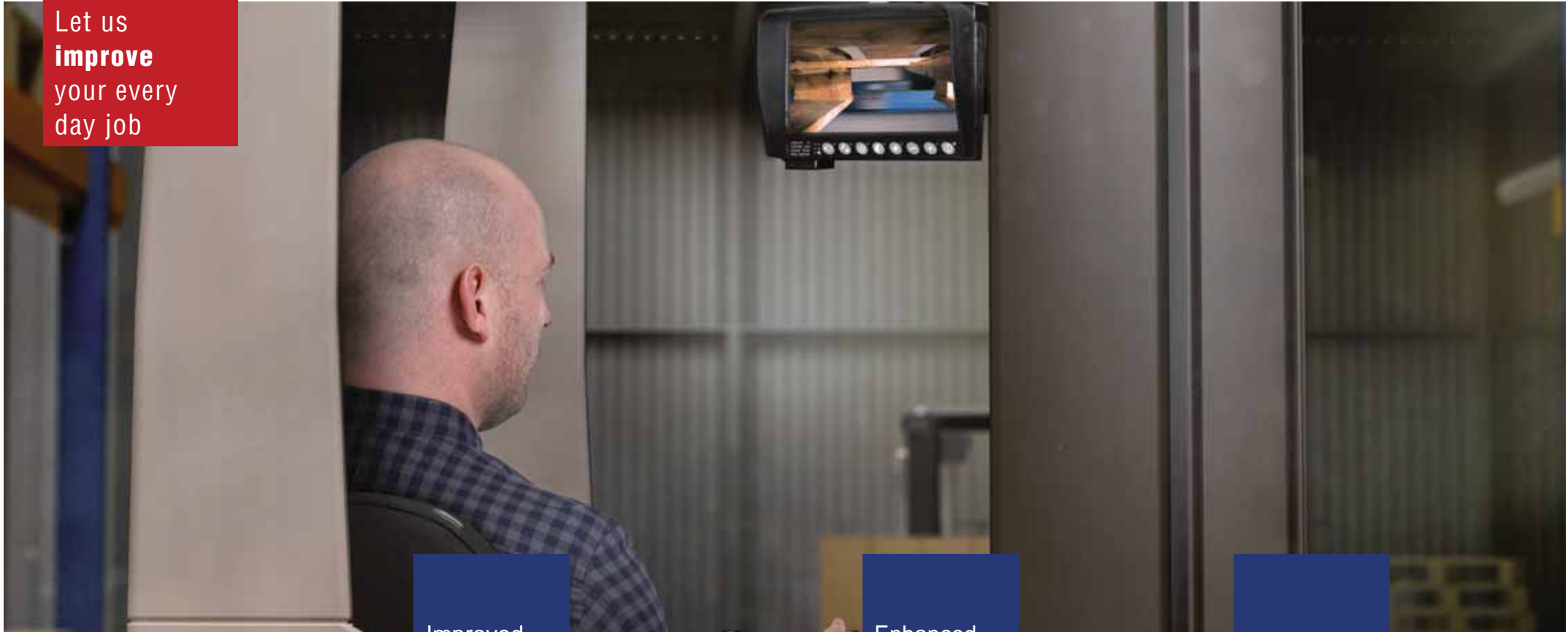
Improved Safety and Efficiency

Forklift and forklift truck working environments can get very hectic. Today's lifts extend higher, making it more difficult for the driver to see the position of the forks. And maneuvering between racks while moving pallets from place to place can prove challenging. Orlaco can help. Orlaco produces a line of vision systems for forklifts and forklift trucks. These cameras give the drivers a reliable, crystal-clear image of the forks and their surroundings. From up high to down low; the position of the forks, the load, and the surroundings. A better view increases the driver's awareness, improves safety and reduces risks. An ideal solution for a more productive day on the job.

Enhanced Ergonomics and Comfort

The repetition of looking quickly up and down, from side to side, can take its toll on a forklift driver's neck and back. Fatigue reduces concentration, precision, speed, and efficiency. The Orlaco vision system helps to improve a forklift driver's performance. Physical turning and twisting is no longer necessary with the Orlaco vision system. A quality system that allows the driver to see all that is required by simply looking at the mounted dashboard monitor in front of them. A system that supports a correct, more comfortable driving posture.

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.

Forklift **sight** solutions

Mid-mastview ——————————

PAGE 21

The **Mid-mastview** system shows the driver on the monitor the view along the fork after the freelift stage. This allows correct positioning. Also, this configuration provides a view on the racking when non-Euro pallets are used

With a **Mid-mastview** system the camera is mounted (mostly on an additional bracket) on the cross member of the inner mast stage. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted on the reach truck's guardrail.

Forkview ——————

PAGE 18-21

On the monitor the **Forkview** system shows the operator the view along the fork. This allows correct positioning of the fork. Shoulder- and neck muscles need not be strained anymore. Also correct positioning of loads reduces damages.

The **Forkview** system has a camera mounted at the inside of the right-hand side fork. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted on the reach trucks guardrail.

Important
Drilling holes in the fork is only allowed with formal permission of the fork manufacturer. To mount the camera with M6 bolts, holes of 11mm deep are drilled, resulting in 9mm effective thread. This is 1.5 times the length of a M6 bolt and is sufficient to hold the M6 bolt.
Orlaco can not be held responsible for any damage to the forks or damage resulting from malfunctioning forks.

ℹ Information

Telescopic forks allow flexibility when moving pallets of different sizes. The long forks allow for double-deep storage of pallets. The greater reach of the truck requires the driver to pay even closer attention. The area that needs to be scrutinized is even larger. This is simplified with an Orlaco camera mounted in the fork carriage. In cooperation with the supplier of the telescopic forks, the camera may also be integrated on the fork.

View-on-forks ——————

PAGE 20-21

The **View-on-forks** system allows the driver to see on the monitor an optimal view along the fork. This allows correct positioning, without making the fork wider.

With the **View-on-forks** system, the camera is mounted under the fork carriage. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted on the reach trucks guardrail.

Orlaco systems are suitable for 12...60V power supply

Vision solutions

Vision solutions

Rearview

The **Rearview** system allows the driver to see the area behind the truck on the monitor. This enables the driver to see what is happening behind the truck, as well as in the aisle when backing out of the racking. This helps to reduce risks for goods and personnel.

With a **Rearview** system, the camera is mounted on the back of the mast on one of the cross members. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted on the cabin roof, or inside the cabin.

Orlaco systems are suitable for 12...60V power supply

Frontview

The **Frontview** system allows the driver to see the area directly in front of the truck on the monitor. When the cabin is raised the driver maintains a direct view of the aisle below. This helps to reduce risks for goods and personnel.

The **Frontview** system has a camera mounted at the bottom of the chassis. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted on the cabin roof, or inside the cabin.

Frontview

The **Frontview** system allows the driver to see the area in front of the forklift truck. Even with a load on the forks, the driver maintains a view of what happens in front. This helps to reduce risks for goods and personnel.

With a **Frontview** system the camera is mounted on the mast´s fixed outer stage. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted in the truck´s cabin.

Rearview

PAGE 23-24

In confined areas or unclear situations it is often difficult to estimate the space behind the forklift truck accurately. Also, frequent driving in reverse causes strain on the driver´s neck- and shoulder muscles. The **Rearview** system ensures a safe environment in which the physical strain for the driver is minimal.

With a **Rearview** system the camera is mounted on the back of the truck. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted in the truck´s cabin.

View-on-forks

PAGE 20-21

Loading and unloading of trucks often requires the forks to be at a height where the view of the forks is blocked by the fork carriage. The **View-on-forks** system allows the driver to maintain a view of the forks.

With a **View-on-forks** system the camera is mounted in or under the fork carriage so that the driver gets a complete overview of the area around the forks. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted on the reach truck´s guardrail.

Recommendation:
Add RadarEye to increase safety & efficiency. (see page 25)

RADAREYE

Orlaco systems are suitable for **12...60V** power supply

In confined areas or unclear situations it is often diffficult to estimate the space in front of the forklift truck accurately. Using a **Frontview** / **Rearview** system ensures a safe environment. The driver can see on the monitor what is happening around the sideloader which enables correct and safe maneuvering.

With a **View-on-forks** system the camera is mounted on the end of the boom. This allows the driver to see the attachment on the monitor which enables optimal positioning.

The sturdy monitor comes with a fully adjustable clamp bracket that is mounted in the truck´s cabin. The installation of the cable on the boom depends on the configuration of the telehandler.

Forkview / View-on-forks

When handling loads with a sideloader it is often not possible for the driver to see the forks. Using a **Forkview** or **View-on-forks** system allows the driver to see on the monitor where the forks are to be positioned. This helps to reduce risks for goods and equipment.

The **Forkview** system has a camera mounted at the inside of the right hand side fork. The camera of the **View-on-forks** system is mounted in or under the fork carriage. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted in the truck´s cabin.

Orlaco systems are suitable for 12...60V power supply

Rearview

In confined areas or unclear situations it is often difficult to estimate the space behind the telehandler accurately. The **Rearview** system ensures a safe and concise environment in which the physical strain of the driver is minimal.

With a **Rearview** system the camera is mounted at the back of the telehandler. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted in the cabin.

Topview

The **Topview** system allows the driver to see the area in front of the container. When a container has been picked up, the driver maintains a view of what happens in front. This helps to reduce risks for goods and personnel.

With a **Topview** system the camera is mounted at the top of the boom. The camera is aimed so that the monitor shows an image of the area in front of the reach stacker. The installation of the cable on the boom depends on the configuration of the Reach Stacker.

View-on-twistlocks

PAGE 22

When picking up containers the correct positioning can be difficult. The **View-on-twistlocks** system can assist the driver and simplify this task.

With a **View-on-twistlocks** system a camera is mounted on each side of the spreader, aimed at the twist locks. Each camera´s image is shown on its own monitor.

Rearview

PAGE 24

When maneuvering with a reach stacker it is often difficult to estimate the space behind the vehicle accurately.

With a **Rearview** system the camera is mounted at the back of the Reach Stacker. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted in the cabin.

Recommendation:
Add RadarEye to increase safety & efficiency.
(see page 25)

RADAREYE)))

Orlaco systems are suitable for **12...60V** power supply

Combined sets
The **View-on-twistlocks** or **Topview** system is often extended with an extra camera for **Rearview**. By using the truck´s driving direction signal, the image from the **Rearview** camera can automatically be shown when the truck is put in reverse.

Vision solutions

Vision solutions

Rearview

When maneuvering with an ECH it is often difficult to estimate the space behind the vehicle accurately. Due to the frequency of driving in reverse the operators neck and shoulder muscles are under strain. The **Rearview** system ensures a safe environment in which the physical strain for the driver is minimal.

With a **Rearview** system the camera is mounted at the back of the Empty Container Handler. The sturdy monitor comes with a fully adjustable clamp bracket that is mounted in the cabin.

Recommendation:
Add RadarEye to increase safety & efficiency.
(see page 25)

View-on-twistlocks

Empty containers are stacked to save space. When picking up containers the correct positioning of the spreader can be difficult. The **View-on-twistlocks** system can assist the driver and simplify this task.

With a **View-on-twistlocks** system a camera is mounted on each side of the spreader, aimed at the hooks. Each camera´s image is shown on its own monitor.

Orlaco systems are suitable for 12...60V power supply

Combined sets

The **View-on-twistlocks** system is often extended with an extra camera for **Rearview**. By using the truck´s driving direction signal, the image from the **Rearview** camera can automatically be shown when the truck is put in reverse.

Vision solutions   Vision solutions

Set **Forkview** reach truck (0401421) generic

Suitable for: **Atlet, Caterpillar, Hyster, Jungheinrich, Mitsubishi, Nissan, Still, Yale** and many others.

1. Camera FMC 51°
0198010 - page 28

2. Monitor 7" RLED, incl. adjustable bracket
0208902 - page 31

3. Pulley (2x)
0403330 - page 36

4. Springset (2x)
0403340 - page 36

5. Dynamic cable 5m
0304341 - page 29

6. Dynamic cable 15m
0301731 - page 29

Set **Forkview** reach truck (0401441)

Suitable for: **BT (Toyota) RRE series**

1. Camera FMC 51°
0198010 - page 28

2. Monitor 7" RLED, incl. adjustable bracket
0208902 - page 31

3. Dynamic cable 5m
0304341 - page 29

4. Cable 15m BT (Toyota) RRE
0305970 - page 37

Set **Forkview** reach truck (0401431)

Suitable for: **Linde 115 series**

1. Camera FMC 51°
0198010 - page 28

2. Monitor 7" RLED, incl. adjustable bracket
0208902 - page 31

3. Pulley (3x)
0403330 - page 36

4. Springset (1x)
0403340 - page 36

5. Dynamic cable 5m
0304341 - page 29

6. Dynamic cable 15m
0301731 - page 29

7. Pulley conversion set
0404750 - page 37

Set **Forkview** reach truck (0401491)

Suitable for: **Crown ESR5000 series**

1. Camera FMC 51°
0198010 - page 28

2. Monitor 7" RLED, incl. adjustable bracket
0208902 - page 31

3. Dynamic cable 5m
0304341 - page 29

4. Cable 15m Crown ESR5000
0301740 - page 37

Set Forkview reach truck (0401411)

Suitable for: **BT (Toyota) RR / B/E series**

1. Camera FMC 51°
0198010 - page 28

2. Monitor 7" RLED, incl. adjustable bracket
0208902 - page 31

3. Dynamic cable 5m
0304341 - page 29
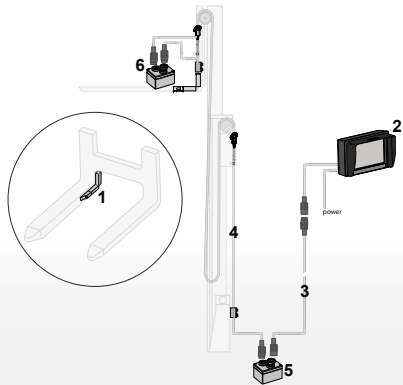
4. Cable 15m 8p
0301820 - page 37

5. Junctionbox Reachcarrier
0404710 - page 37

6. Junctionbox forkcarriage
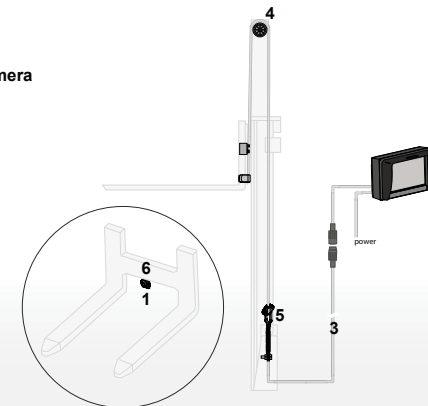0404720 - page 37

You Tube
Check our video on the
Orlaco YouTube channel.

Set View-on-forks forklift truck (Generic 2-stage mast) (0401511)

Also suitable for Rearview on Man-up truck.

1. Camera AMOS 102°
0135020 - page 27

2. Monitor 7" RLED, incl. adjustable bracket
0208672 - page 31

3. Dynamic cable 11m
0301811 - page 29

4. Pulley
0403330 - page 36

5. Springset
0403340 - page 36

6. Rubber mounts Compact Camera
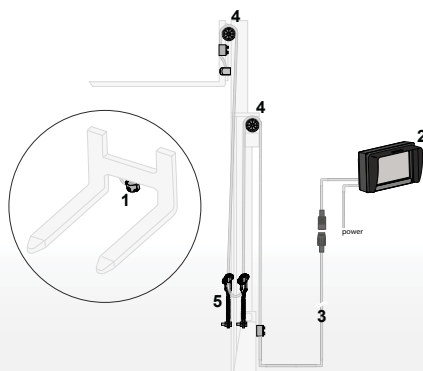0403310 - page 38

You Tube
Check our video on the
Orlaco YouTube channel.

Set View-on-forks forklift truck (Generic 3-stage mast) (0401501)

1. Camera CPH 5100P
0199000 - page 28

2. Monitor 7" RLED, incl. adjustable bracket
0208672 - page 31

3. Dynamic cable 11m
0301811 - page 29

4. Pulley (2x)
0403330 - page 36

5. Springset (2x)
0403340 - page 36

You Tube
Check our video on the
Orlaco YouTube channel.

Set Mid-mastview reach truck (0401570)

1. Camera CPH 5100P
0199000 - page 28

2. Monitor 7" RLED, incl. adjustable bracket
0208902 - page 31

3. Dynamic cable 11m
0301811 - page 29

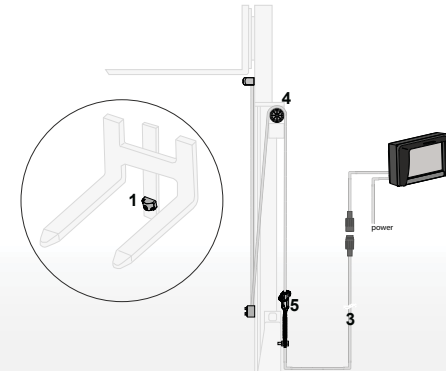**4. Pulley**
0403330 - page 36

5. Springset
0403340 - page 36

Note: The camera bracket needs to be added locally. For some truck models, specific dedicated sets are available. Contact Orlaco for futher information.

Set **View-on-twistlocks** reach stacker

1. Camera AMOS 102° (2x)
0135020 - page 27

2. Monitor 7" RLED, incl. adjustable bracket (2x)
0208672 - page 31

3. Dynamic cable 11m* (4x)
0301811 - page 29

4. Dynamic cable 20m* (2x)
0301831 - page 29

5. Protection cap male (6x)
1350200 - page 34

6. Protection cap female (6x)
1350300 - page 34

7. Rubber mounts Compact Camera (2x)
0403310 - page 38

* Typical example -
cable lengths are
to be checked!

Note: It is assumed that the
cabling within the spreader is
installed by the spreader
manufacturer.
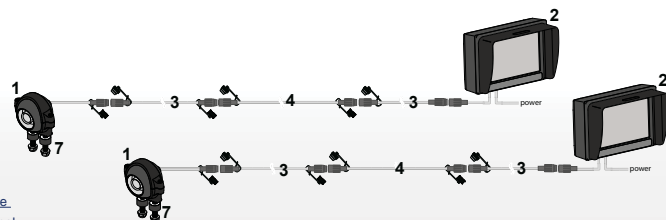
Check our video on the
Orlaco YouTube channel.

Set **View-on-twistlocks** empty container handler

1. Camera AMOS 69° (2x)
0135030 - page 27

2. Monitor 7" RLED, incl. adjustable bracket (2x)
0208672 - page 31

3. Dynamic cable 10m* (4x)
0304441 - page 29

4. Dynamic cable 20m* (2x)
0301831 - page 29

5. Camera extension 250mm (2x)
0402270 - page 38

6. Protection cap male (6x)
1350200 - page 34

7. Protection cap female (6x)
1350300 - page 34

8. Rubber mounts Compact Camera (2x)
0403310 - page 38

9. Springset (2x)
0403340 - page 36

* Typical example -
cable lengths are
to be checked!
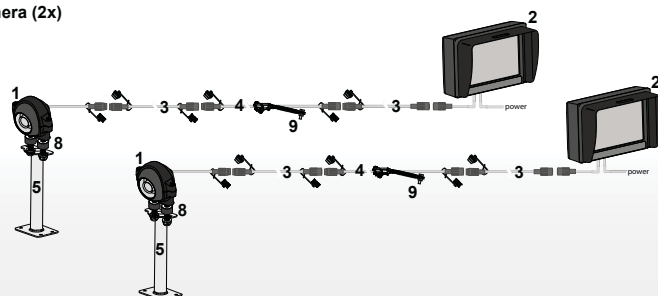
Check our video on the
Orlaco YouTube channel.

Set **Camera expansion** (0401450)

The Orlaco camera monitor system offers a variety of pos-
sibilities. Besides offering a view on the situation in front of
the truck an Orlaco system can simply be extended with
a second or even a third camera for a complete overview
around the forklift. The driver can have the camera images
shown on the monitor as desired, there are numerous pos-
sibilities. To name one, the monitor can show the Rearview
camera's image automatically when reversing.

1. Camera AMOS 118°
0135010 - page 27

2. Switcher UNI
0404040 - page 36

3. Multi cable 5m
0301880 - page 29

Camera (front)
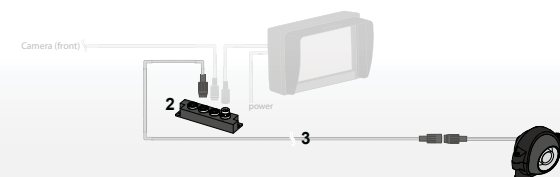
Set **Rearview** counter balance truck (0401551)

1. Camera AMOS 118°
0135010 - page 27

2. Monitor 7" RLED, incl. adjustable bracket
0208672 - page 31

3. Multi cable 5m
0301880 - page 29

Check our video on the
Orlaco YouTube channel.

Set **Rearview** high capacity forklift trucks (0401630)

1. Camera AMOS 118°
0135010 - page 27

2. Monitor 7" RLED, incl. adjustable bracket
0208672 - page 31

3. Dynamic cable 10m
0304441 - page 29

4. Camera extension 250mm
0402270 - page 38

Set Rearview reach stackers (0401600)

1. Camera AMOS 118°
0135010 - page 27

2. Monitor 7" RLED, incl. adjustable bracket
0208672 - page 31

3. Dynamic cable 5m
0304341 - page 29

4. Dynamic cable 11m
0301811 - page 29

5. Camera extension 250mm
0402270 - page 38

6. Protection cap male (4x)
1350200 - page 34

7. Protection cap female (4x)
1350300 - page 34

Check our video on the
Orlaco YouTube channel.

Set RadarEye center rear reach stackers

Suitable for reach stackers with a sliding cabin.

1. Camera AMOS 118°
0135010 - page 27

2. Monitor 7" RLED CAN Radar, incl. adjustable bracket
0208871 - page 31

3. RadarEye set center rear
0403100 - page 32

    a. SRD sensors (2x)
    b. RadarEye center bracket
    c. RadarEye Terminator
    d. RadarEye cable M12 Master-Slave Red 0,5m

4. RadarEye Interface box with ext. speaker
0504820 - page 33

5. Dynamic cable 10m
0304441 - page 29

6. RadarEye cable M12 Green 10m
0301060 - page 33

Check our video on the
Orlaco YouTube channel.

Set RadarEye center rear

Suitable for counterbalance forklifts

1. Camera AMOS 118°
0135010 - page 27

2. Monitor 7" RLED CAN Radar, incl. adjustable bracket
0208871 - page 31

3. RadarEye set center rear
0403100 - page 32

    a. SRD sensors (2x)
    b. RadarEye center bracket
    c. RadarEye Terminator
    d. RadarEye cable M12 Master-Slave Red 0,5m

4. RadarEye Interface box with ext. speaker
0504820 - page 33

5. Multi cable 5m
0301880 - page 29

6. RadarEye cable M12 Green 5m
0301050 - page 33

Check our video on the
Orlaco YouTube channel.

Set View-on-forks in combination with Rearview

1. Camera CPH 5100P
0199000 - page 28

2. Camera AMOS 118°
0135010 - page 27

3. Monitor 7" RLED, incl. adjustable bracket
0208672 - page 31

4. Pulley (2x)
0403330 - page 36

5. Springset (2x)
0403340 - page 36

6. Dynamic cable 11m
0301811 - page 29

7. Dynamic cable 5m
0304341 - page 29

8. Multi cable 5m
0301880 - page 29

9. Switcher UNI
0404040 - page 36

power + switch wire

Check our video on the
Orlaco YouTube channel.

Set Three cameras on fork (carriage)

1. Camera FMC 51°
0198010 - page 28

2. Camera AMOS 69° (2x)
0135030 - page 27

3. Monitor 7" RLED, incl. adjustable bracket
0208902 - page 31

4. Pulley (2x)
0403330 - page 36

5. Springset (2x)
0403340 - page 36

6. Switcher UNI
0404040 - page 36

7. Dynamic cable 15m
0301731 - page 29

8. Dynamic cable 5m (3x)
0304341 - page 29

Set Four cameras on fork (carriage)

1. Camera AMOS 102° (4x)
0135020 - page 27

2. Monitor 7" RLED Serial, incl. adjustable bracket
0208632 - page 31

3. Pulley (2x)
0403330 - page 36

4. Springset (2x)
0403340 - page 36

5. MultiView Box
0404110 - page 35

6. Multi cable 5m (4x)
0301880 - page 29

7. Dynamic cable 17m
0304590 - page 29

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

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 Compact Cameras

- Next generation CMOS sensor
- Light sensitivity 0.05 lux
- Integrated *Safety ticker* to show that camera is running and active
- Operating temperature between -40°C to +85°C
- Chemically hardened glass

- Nitrogen-filled housing, watertight IP69K according to DIN 40050-9
- Heated lens glass, therefore no problems with condensation or frost
- Impact and vibration proof
- Fixed lens

- The camera has a 0,5m cable including a waterproof molded 4p connector male
- There is an aperture angle for every vision solution
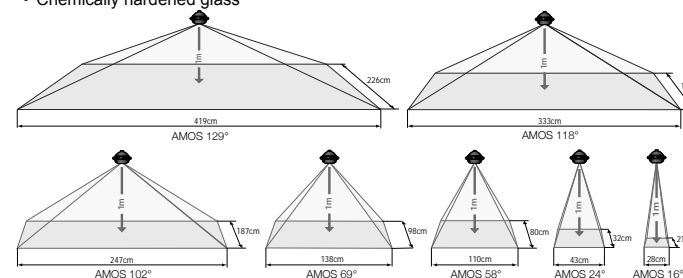
The measurements given above are theoretical. Practical situations may deviate.

Cameras AMOS

Type	Art. no. PAL	Art. no. NTSC
16°	0135060	0135160
24°	0135050	0135150
58°	0135040	0135140
69°	0135030	0135130
118°	0135010	0135110
118° MIRROR	0135210	0135310
129°	0135000	0135100

Cameras AMOS MaxView
Camera with fisheye correction.

Type	Art. no. PAL	Art. no. NTSC
102°	0135020	0135120

Camera AMOS MaxView MIRROR SW1
Camera with additional features: fisheye correction and guiding lines.

Type	Art. no. PAL	Art. no. NTSC
102°	0135230	-

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

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

Cameras AMOS IR LED
Day/Night camera including 15 High Power Infrared LEDs 850nm.

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

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

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

Cameras AMOS ATVC Set (All Time Vision Camera)
Self cleaning camara 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 FMC and CPH cameras

• Color camera
• Light sensitivity 1.0 Lux
• 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
• High resolution
• Fixed lens, angle of aperture: 51°
• Impact and vibration proof

Camera FMC
Camera for mounting at the inside of the right-hand side fork.

0198010 Camera FMC 51° (PAL)
• Including 1m multi cable 4p connectors

Camera FMC + LEDs
Camera with two integrated high bright LEDs.

0198000 Camera FMC 51° + LEDs (PAL)
• Including 1m multi cable 4p connectors

Camera CPH
Extremely robust small camera for mounting on a vulnerable position.

Type	Art. no. PAL	Art. no. NTSC
51°, 0,2m cable	0199010	0199610
51°, 0,6m cable	0199000	0199600

The advantages of Orlaco cables

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

Dynamic cable (Mast cable)
Designed for dynamic use as mast cable.
• 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 connectors (1311250 & 1322450):

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	0302820	1m
0304260	2m	0304410	6m
0304610	11m	0304620	16m
0305030	21m		

Spiral cable 4p
• Operating temperature -40°C to +85°C

| 0303560 | 4,5m (max streched) |
| 0303570 | 6,5m (max streched) |

Shielded spiral cable 4p (forklift)
| 0303700 | 3,5m (max streched) |

• Operating temperature -20°C to +80°C

Cable drum
0710240

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

0710280
• Specification identical to 0710240 except for:
  operating temperature -40°C to +75°C

Cable per meter (connectors not included)
Any required connectors can be ordered separately (page 34).

1220600 Dynamic cable per meter
For moving applications.
• 1 x coax + 5 x wires
• Diameter 9mm

1221000 Dynamic cable per meter
For moving applications.
• 1 x coax + 11 x wires
• Diameter 9mm

1221100 Dynamic cable per meter
For moving applications.
• 1 x coax + 14 x wires
• Diameter 9mm

1220110 Multi cable per meter
For non moving applications.
• 1 x coax + 3 x wires
• Diameter 6mm

1220170 Multi cable per meter
For non moving applications.
• 1 x coax + 5 x wires
• Diameter 6mm

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

Monitors

0208672 Monitor 7" RLED R 4 CS
• 4m multi cable (power) open wired, 4m multi cable (video) with 4p female connector
• User-adjustable 132mm mounting bracket
• Suitable for (open) cold store applications

0208632 Monitor 7" RLED Serial R 6
• 6m multi cable (power) open wired, 6m multi cable (video) with 7p female connector
• User-adjustable 132mm mounting bracket
• To be used in combination with MultiView box (see page 35) or camera AMOS communicator (see page 28)

0208871 Monitor 7" RLED CAN SRD 6
• 6m multi cable (power) open wired, 6m multi cable (video) with 7p female connector
• User-adjustable 132mm mounting bracket
• Specially designed for RadarEye systems (see page 32-33)

RLED 7" (Incl. User-adjustable 132mm mounting bracket)

0208902 Monitor 7" RLED RC 4 CS
• 4m multi cable (power) open wired, 4m multi cable (video) with 4p female connector
• User-adjustable 190mm mounting bracket with clamp
• Suitable for (open) cold store applications

0411000 Monitor 12" RLED R 4
• 4m multi cable (power) open wired, 4m multi cable (video) with 4p female connector
• User-adjustable 190mm mounting bracket

0411130 Monitor 12" RLED Serial R 6
• 6m multi cable (power) open wired, 6m multi cable (video) with 7p female connector
• User-adjustable 190mm mounting bracket
• To be used in combination with MultiView box (see page 35) or camera AMOS communicator (see page 28)

RLED 7" (Incl. User-adjustable 190mm mounting bracket with clamp)

0411300 Monitor 12" RLED CAN SRD 6
• 6m multi cable (power) open wired, 6m multi cable (video) with 7p female connector
• User-adjustable 190mm mounting bracket
• Specially designed for RadarEye systems (see page 32-33)

RLED 12" (Incl. User-adjustable 190mm mounting bracket)

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.

Check our demo RadarEye videos on the Orlaco YouTube channel.

• 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 31)
• RadarEye can be extended with multiple sensor and camera units for all around detection and visibility
• Please contact Orlaco for advice and installation

range = 2m...20m
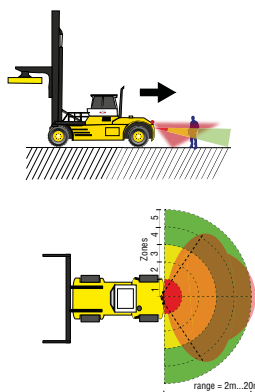
RadarEye Sets

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.

Connectors

1310841   Connector 4p female Gold
This connector is recommended for the multi cable 6mm.

1312001   Connector 4p male Gold
This connector is recommended for the multi cable 6mm.

1310850   Connector 4p female PG9 Gold
This connector is recommended for the dynamic cable 9mm.

1312050   Connector 4p male PG9 Gold
This connector is recommended for the dynamic cable 9mm.

1311250   Connector 7p female PG9 Gold
This connector is recommended for the dynamic cable 9mm.

1322450   Connector 7p male PG9 Gold
This connector is recommended for the dynamic cable 9mm.

Protection caps

1350200   Protection cap - male

1350300   Protection cap - female

Cable disconnection sets
• With caps

0351070   7p

0351130   13p

0351100   10p harting

Adapter cables

0304220   Interface cable 4p male - 7p female
For use with combination of MultiView box and standard 4p monitor.

0303860   Interface cable 4p female - BNC
To connect camera to third-party monitor.

0303770   Adapter cable 4p female - Cinch
To connect camera to third-party monitor.

Split cable (2m)

0303781   Y-Split cable UNI RLED
• With two 4p female connectors (video) and open wire cable (power)
• For connection 2 to 4 cameras (with Switcher)

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

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

• Stainless steel housing
• Serial Orlaco Monitor needed (A regular non Serial Orlaco monitor can be connected to the Multiview box via a 7-to-4-pin adapter cable (0304220), please contact your dealer for futher advice)

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

Preset view options for channel 1-4.

NOR   ALL   DUA   TRI   REA   D=R   SUR 1   SUR 2

Default channel 5

QUAD
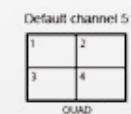
LED Lamp

0140810 Compact Camera housing with LEDs

- Nitrogen-filled housing, waterproof IP 69
- Shock- and vibration resistant
- 0,5m cable from camera housing to 3p connector
- Input voltage 12V/DC
- Operating temperature -40°C to + 85°C

Electrical transformers

0408070 FL DC/DC in 50...150V/DC-24V 5A

- Galvanically isolated
- Input voltage: 50 to 150 V/DC
- Output voltage: 24V 5A
- Including fuses and screw connections

Pulley

0403330 Pulley for dynamic cable

- Diameter: 80mm
- Stainless steel brackets and anodized aluminum pulley
- Suitable for: -50°C ... +150°C

Spring set

0403340 Spring set for dynamic cable

For pre-tensioning mast cable.

Push button

8975760 Push button yellow

For manually switching between cameras.

Switchers

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

- 4p output for monitor
- Cameras can be switched over automatically or manually

0404040 Switcher UNI
- Waterproof IP54 according to IEC 60529

0404080 Switcher UNI IP67
- Waterproof IP67 according to IEC 60529

Brand specific components

0404750 Pulley conversion set
- Linde 115 Series / OM Pimespo Thesi Series

0404710 Junctionbox Reach carrier
For connection of solenoid valve cabling in the reach carrier.

- BT (Toyota) reflex RR B / E reach truck
- Operating temperature -40°C to + 80°C

0404720 Junctionbox forkcarriage
For connection of solenoid valve cabling in the forkcarriage.

- BT (Toyota) reflex RR B / E reach truck
- Operating temperature -40°C to + 80°C

Truck specific mast cables

- Including Orlaco connectors for connecting the camera system
- Provided with clamps for the original springs
- Dynamic cable with a small bending diameter
- Operating temperature -40°C to + 80°C
- Suitable for use in cold storage: max -40°C

0301820 Cable 15m 8p
For connection with Junction boxes (0404710 & 0404720).

- BT (Toyota) reflex RR B / E reach truck
- Cable length: 15m (1220600)

0305970 Cable 15m BT (Toyota) RRE
- Including BT connectors X40 and X37 to connect to the reach truck
- Cable length: 15m (1221100)

0301740 Cable 15m Crown ESR5000
- Including Deutsch connectors DT06 and DT04-12S-12P for connection to the reach truck
- Cable length: 15m (1221100)

0303150 Cable CFMC (Jungheinrich)
For connecting the Orlaco camera to the Jungheinrich board computer.

Mounting means

0403310   Rubber mounts for Compact Cameras
For installation on positions where the Compact Camera can
suffer impact.

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

0402250   Camera extension 155mm

0402270   Camera extension 250mm

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

Mounting brackets

2015500 Adjustable mounting bracket
• Length 132mm

2015600   Adjustable mounting bracket
• Length 190mm

2015950 Clamp with ball coupling

2015510 Arm component 90mm

2015800 Arm component 144mm

2015750 Ball joint with connection plate

2015710 Ball joint 3/8" thread

2015900 Ball joint double

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 regu-
lations.

Compliance

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