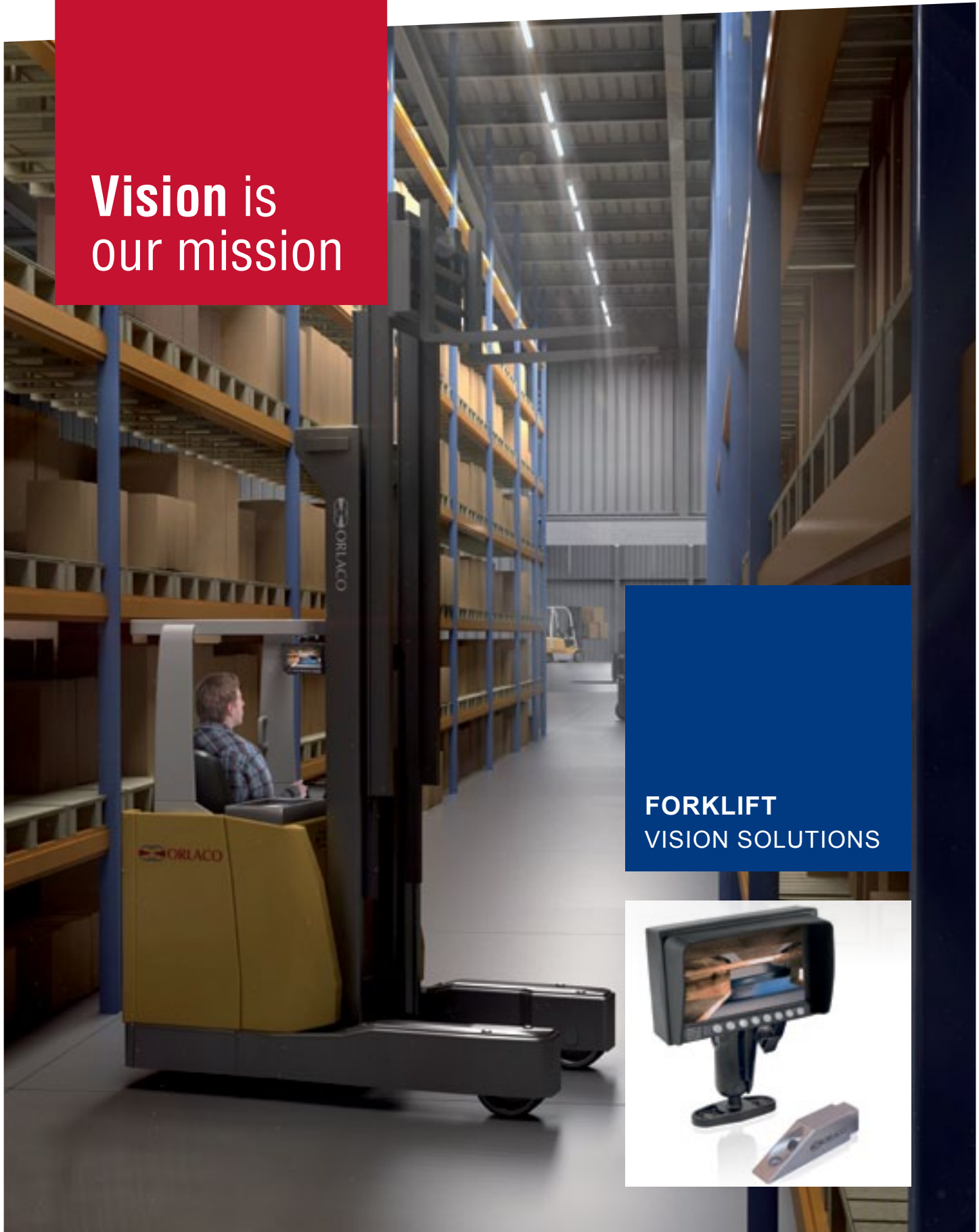


**Vision is  
our mission**



**FORKLIFT  
VISION SOLUTIONS**



See more  
Work more



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### Why Orlaco?

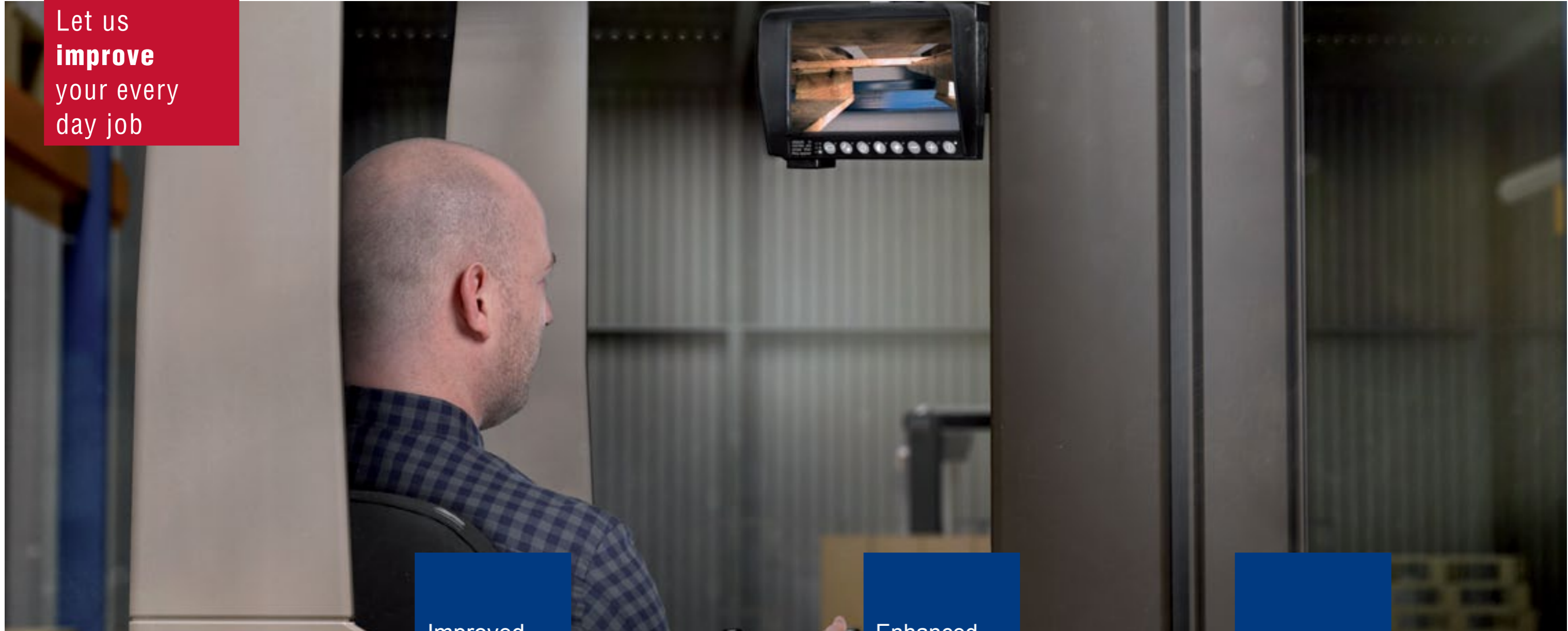
Welcome to the product catalogue of Orlaco. We are personally committed to bring you the best camera and monitor solutions to help create safer and more secure workplaces around the world. Our professional team has spent over twenty five years to design and manufacture a variety of certified, reliable and complete camera monitor solutions eliminating the blind spots around machinery. We are confident that the options offered in this catalogue will not only help you to improve safety, security and efficiency for your fleet of machinery, but also to provide better ergonomics and comfort for your operators. That is what Orlaco stands for. Please feel free to share your ideas and experiences with us.

On behalf of the entire team,  
Henrie van Beusekom, Executive Director Orlaco  
h.beusekom@orlaco.com



That's  
why!

Let us **improve** your every day job



Improved Safety and Efficiency

Enhanced Ergonomics and Comfort

Certified Quality



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.

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.

At Orlaco, quality is never taken lightly. We keep a clear and persistent focus on customer satisfaction. And we maintain this focus 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 freelif 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.

### 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




**Rearview**



PAGE 21

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



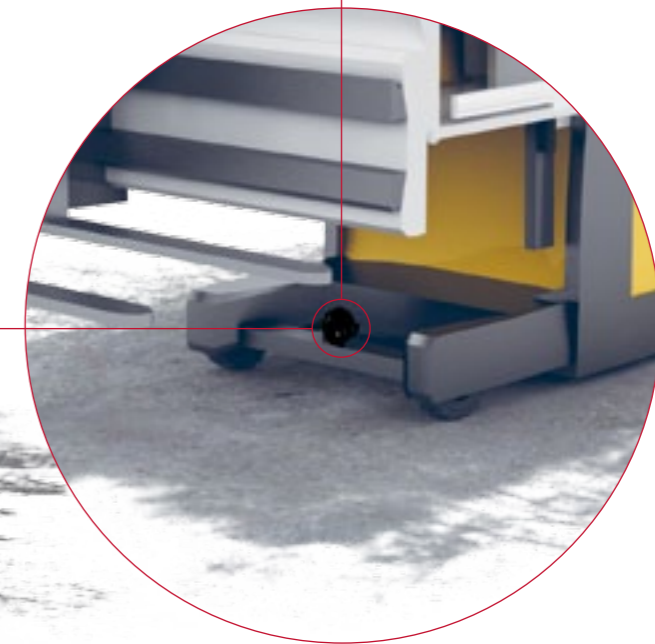
**Frontview**



PAGE 23

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.



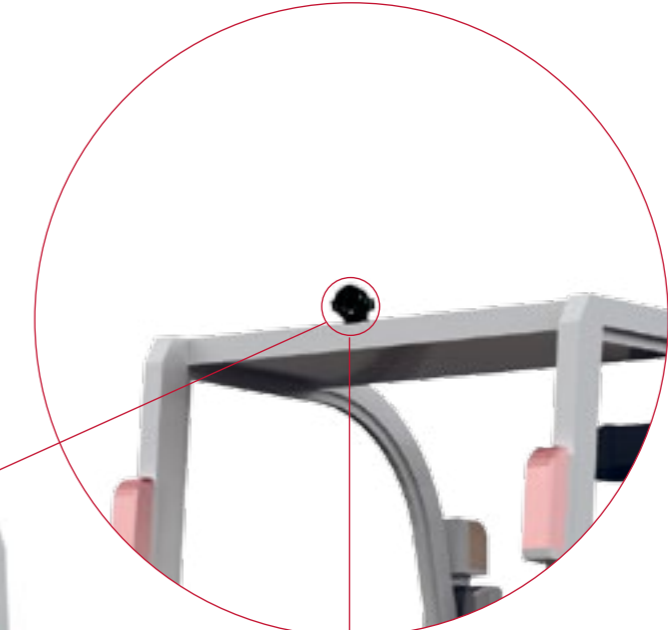
**View-on-forks**



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.



**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.



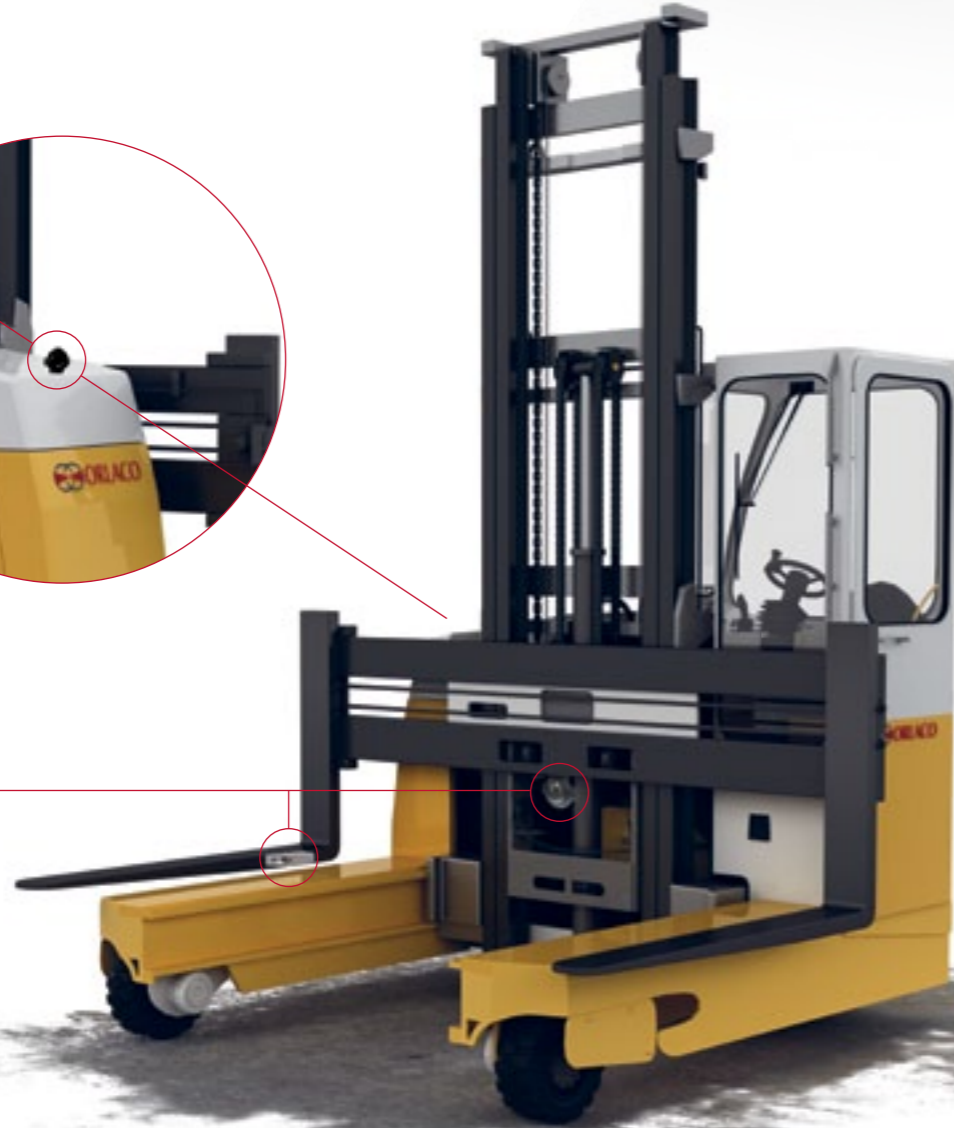
 Orlaco systems are suitable for **12...60V** power supply

Frontview / Rearview

PAGE 23



In confined areas or unclear situations it is often difficult 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.



Forkview / View-on-forks



PAGE 18-21

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.



View-on-forks



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.



Rearview



PAGE 23

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.

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

**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.



**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)



**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.



 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.





**Rearview**



PAGE 23

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**



PAGE 22

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

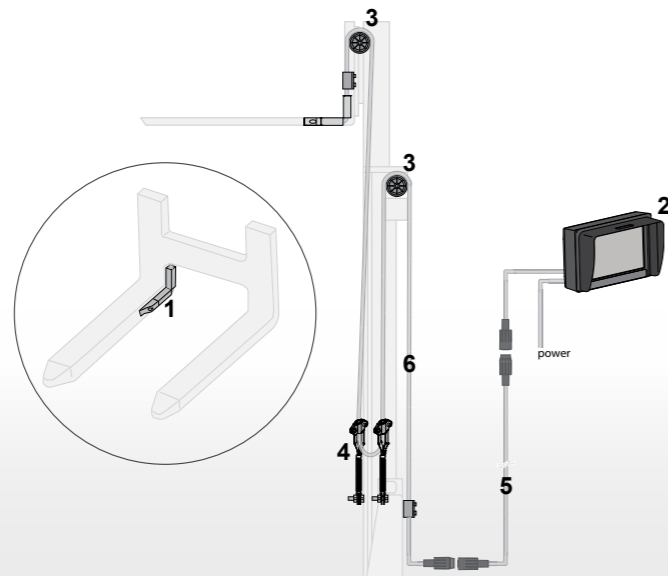
**Combined sets**

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.

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  
0304340 - page 29
6. Dynamic cable 15m  
0301730 - page 29



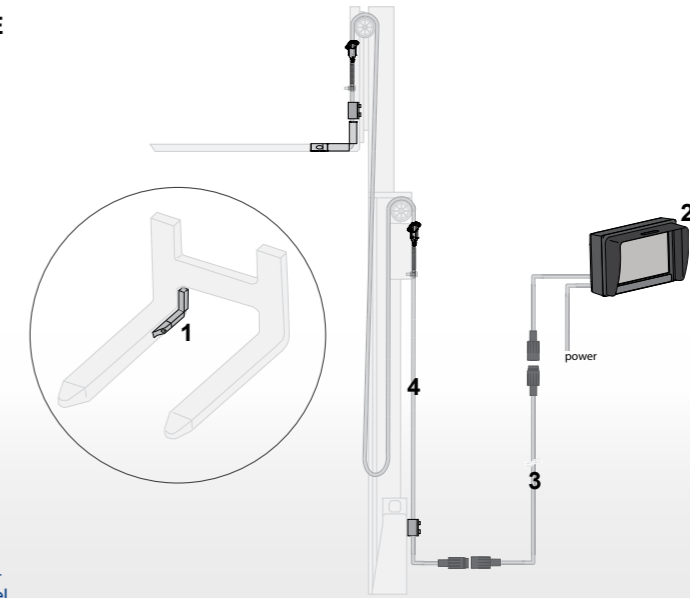
YouTube

[Check our video on the Orlaco YouTube channel.](#)

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  
0304340 - page 29
4. Cable 15m BT (Toyota) RRE  
0305970 - page 37



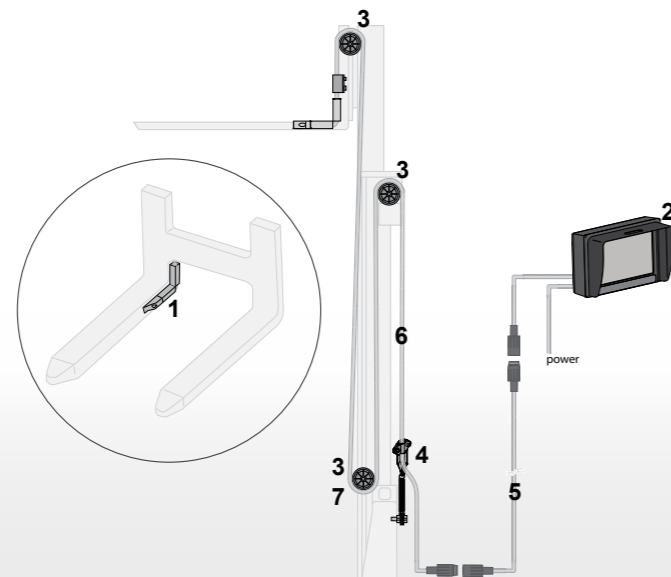
YouTube

[Check our video on the Orlaco YouTube channel.](#)

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  
0304340 - page 29
6. Dynamic cable 15m  
0301730 - page 29
7. Pulley conversion set  
0404750 - page 37



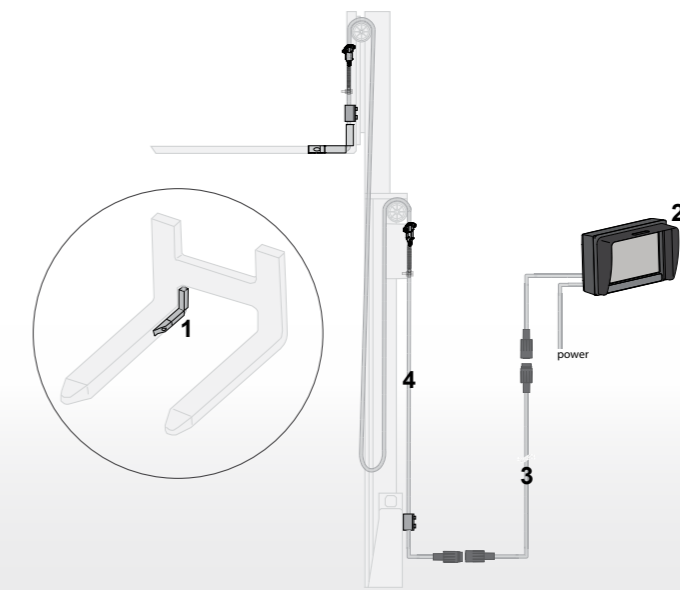
YouTube

[Check our video on the Orlaco YouTube channel.](#)

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  
0304340 - page 29
4. Cable 15m Crown ESR5000  
0301740 - page 37

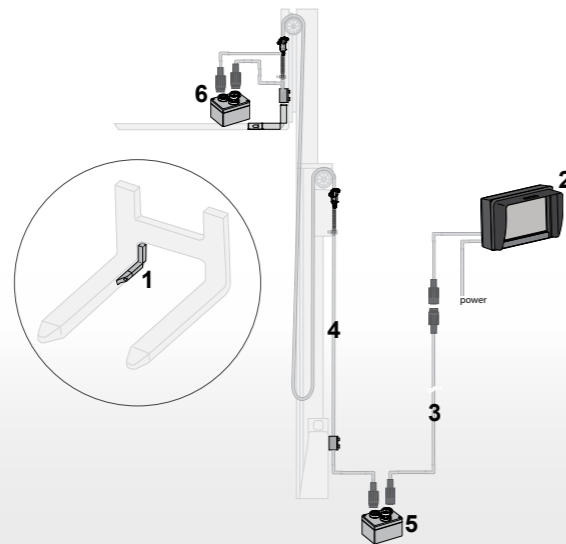


YouTube

[Check our video on the Orlaco YouTube channel.](#)

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  
0304340 - page 29
4. Cable 15m 8p  
0301820 - page 37
5. Junctionbox Reachcarrier  
0404710 - page 37
6. Junctionbox forkcarriage  
0404720 - page 37



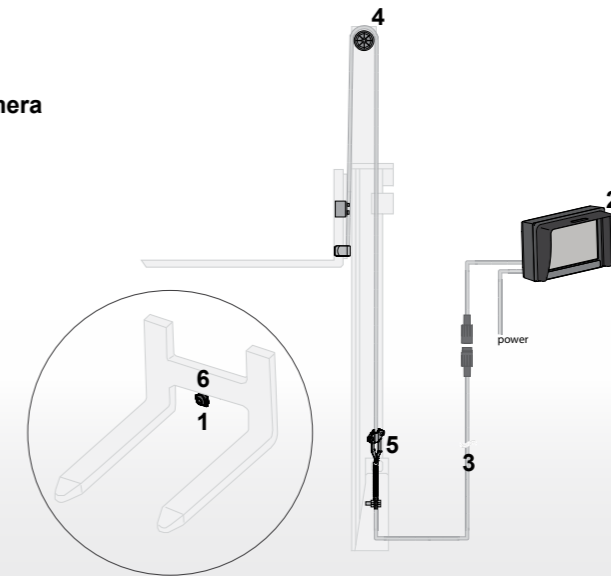
YouTube

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  
0301810 - page 29
4. Pulley  
0403330 - page 36
5. Springset  
0403340 - page 36
6. Rubber mounts Compact Camera  
0403310 - page 38

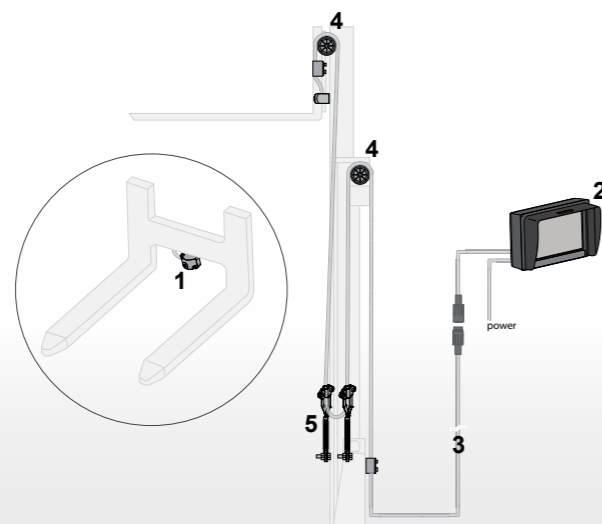


YouTube

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  
0208902 - page 31
3. Dynamic cable 11m  
0301810 - page 29
4. Pulley (2x)  
0403330 - page 36
5. Springset (2x)  
0403340 - page 36

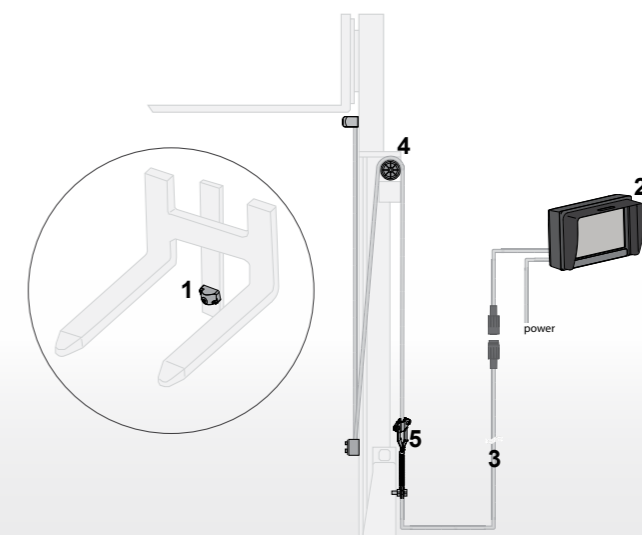


YouTube

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  
0301810 - page 29
4. Pulley  
0403330 - page 36
5. Springset  
0403340 - page 36



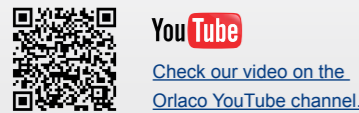
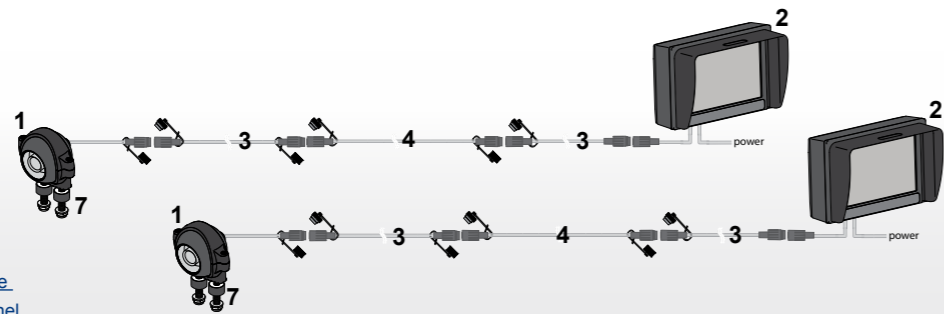
Note: The camera bracket needs to be added locally. For some truck models, specific dedicated sets are available. Contact Orlaco for further information.

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)  
0301810 - page 29
4. Dynamic cable 20m\* (2x)  
0301830 - 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

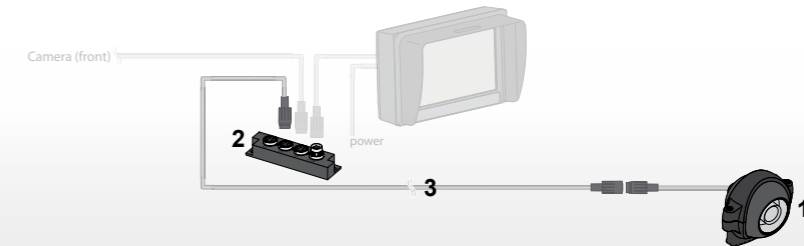
\* Typical example -  
cable lengths are  
to be checked!

Note: It is assumed that the  
cabling within the spreader is  
installed by the spreader  
manufacturer.

Set **Camera expansion**

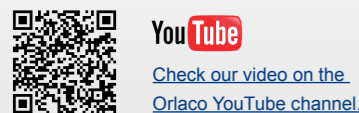
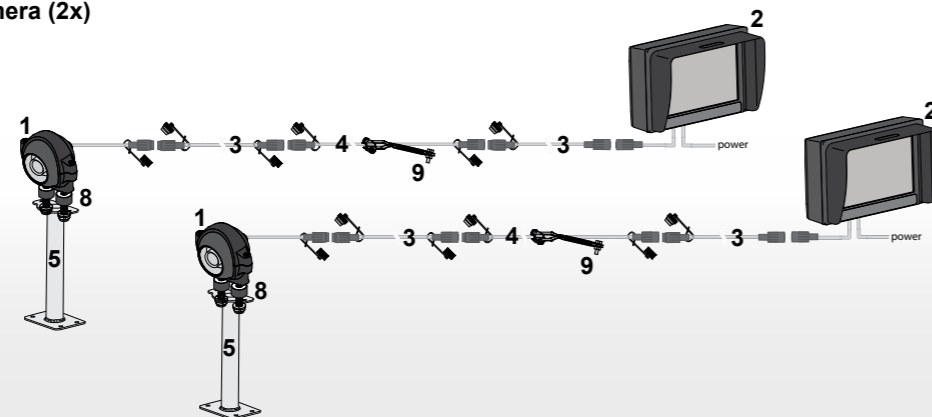
The Orlaco camera monitor system offers a variety of possibilities. Besides offering a view on the situation in front of the truck an Orlaco system can simply be extended with a second or even a third camera for a complete overview around the forklift. The driver can have the camera images shown on the monitor as desired, there are numerous possibilities. 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. Multicable 5m  
0301880 - page 29

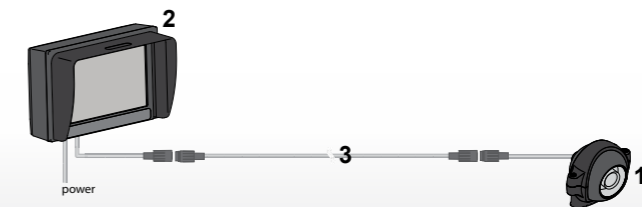
Set **View-on-twistlocks** empty container handler

1. Camera AMOS 69° (2x)  
0135030 - page 27
2. Monitor 7" RLED, incl. adjustable bracket (2x)  
0208672 - page 31
3. Dynamic cable 10m\* (4x)  
0304440 - page 29
4. Dynamic cable 20m\* (2x)  
0301830 - 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!

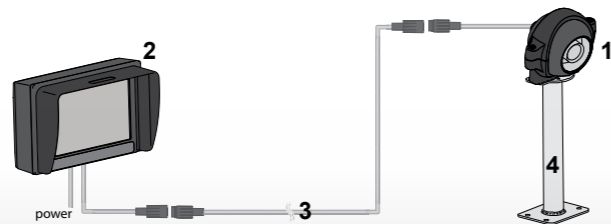
Set **Rearview** counter balance truck (0401551)

1. Camera AMOS 118°  
0135010 - page 27
2. Monitor 7" RLED, incl. adjustable bracket  
0208672 - page 31
3. Multicable 5m  
0301880 - page 29

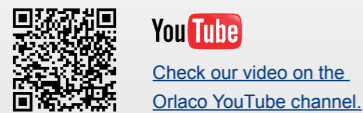
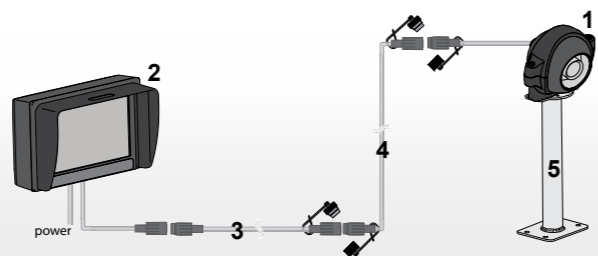


Set **Rearview** high capacity forklift trucks (0401630)

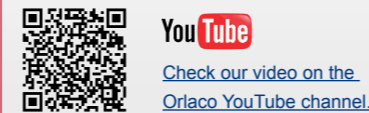
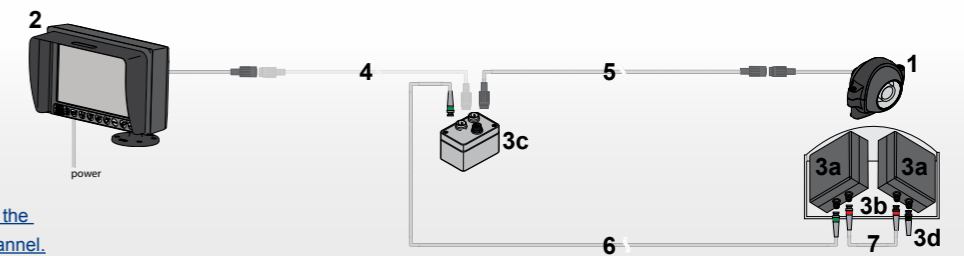
1. Camera AMOS 118°  
0135010 - page 27
2. Monitor 7" RLED, incl. adjustable bracket  
0208672 - page 31
3. Dynamic cable 10m  
0304440 - page 29
4. Camera extension 250mm  
0402270 - page 38

Set **Rearview** reach stackers (0401600)

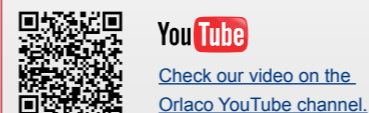
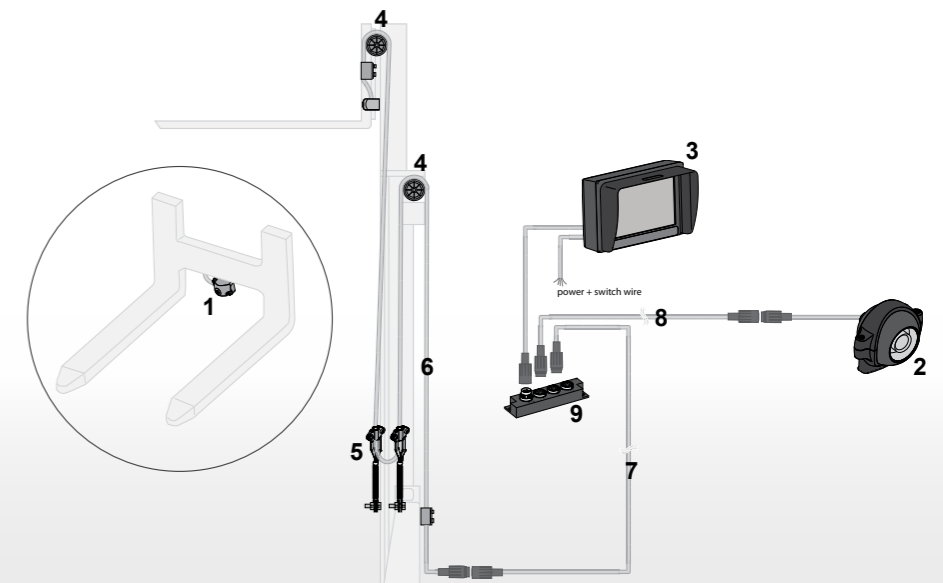
1. Camera AMOS 118°  
0135010 - page 27
2. Monitor 7" RLED, incl. adjustable bracket  
0208672 - page 31
3. Dynamic cable 5m  
0304340 - page 29
4. Dynamic cable 11m  
0301810 - page 29
5. Camera extension 250mm  
0402270 - page 38
6. Protection cap male (4x)  
1350200 - page 34
7. Protection cap female (4x)  
1350300 - page 34

Set **RadarEye center rear**

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. RadarEye units (2x)
  - b. RadarEye center bracket
  - c. RadarEye Interface box
  - d. RadarEye Terminator
4. Dynamic cable 11m (optional, in case of sliding cabin)  
0304580 - page 29
5. Multicable 5m  
0301880 - page 29
6. RadarEye cable M12 Green 5m  
0301050 - page 33
7. RadarEye cable M12 Master-Slave Red 1m  
0301020 - page 33

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  
0301810 - page 29
7. Dynamic cable 5m  
0304340 - page 29
8. Multicable 5m  
0301880 - page 29
9. Switcher UNI  
0404040 - page 36



**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  
0301730 - page 29
8. Dynamic cable 5m (3x)  
0304340 - 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



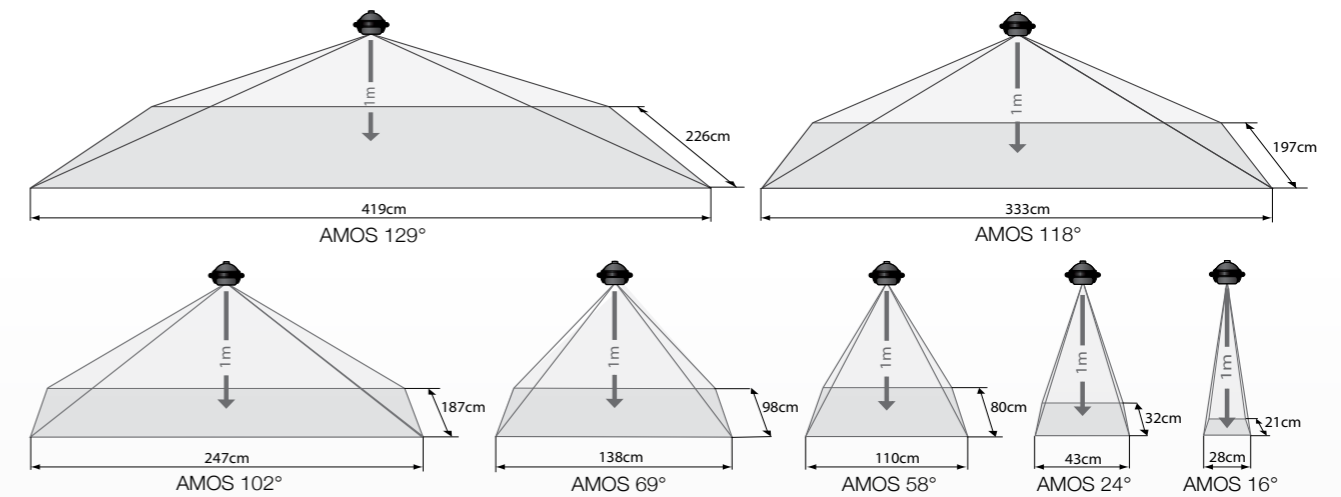
**Or design your system yourself**

- 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
102° MaxView	0135020	0135120
118°	0135010	0135110
118° MIRROR	0135210	0135310
129°	0135000	0135100

**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



**Camera FMC**

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

- 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
- Including 1m multicable 4p connectors

0198010 Camera FMC 51° (PAL)

0198000 Camera FMC 51° + LEDs (PAL)  
Camera with two integrated high bright LEDs.

**Camera CPH**

Extremely robust small camera for mounting on a vulnerable position.

0199000 Camera CPH 5100P (PAL)  
0199600 Camera CPH 5100N (NTSC)

- 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
- The camera has a 0,6m cable including a waterproof 4p connector male

**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 connectors (1310850 & 1312050):**

0304370	0,5m
0304280	1m
0305340	3,5m
0304340	5m
0304380	6m
0304390	8m
0304430	9m
0304440	10m
0301810	11m
0304450	12m
0301730	15m
0301830	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
0301900	11m
0301920	16m
0301940	21m





### Spiral cable 4p

- Operating temperature -40°C to +85°C

0303560 4,5m (max stretched)

0303570 6,5m (max stretched)



### Shielded spiral cable 4p (forklift)

0303700 3,5m (max stretched)

- 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 Multicable per meter

For non moving applications.

- 1 x coax + 3 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 multicable (power) open wired, 4m multicable (video) with 4p female connector
- User-adjustable 132mm mounting bracket
- Suitable for (open) cold store applications

#### 0208632 Monitor 7" RLED Serial R 6

- 6m multicable (power) open wired, 6m multicable (video) with 7p female connector
- User-adjustable 132mm mounting bracket
- To be used in combination with MultiView box (see page 35)

#### 0208871 Monitor 7" RLED CAN Radar 6

- 6m multicable (power) open wired, 6m multicable (video) with 7p female connector
- User-adjustable 132mm mounting bracket
- Specially designed for RadarEye systems (see page 32-33)

#### 0208902 Monitor 7" RLED RC 4 CS

- 4m multicable (power) open wired, 4m multicable (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 multicable (power) open wired, 4m multicable (video) with 4p female connector
- User-adjustable 190mm mounting bracket

#### 0411130 Monitor 12" RLED Serial R 6

- 6m multicable (power) open wired, 6m multicable (video) with 7p female connector
- User-adjustable 190mm mounting bracket
- To be used in combination with MultiView box (see page 35)

#### 0411300 Monitor 12" RLED CAN Radar 6

- 6m multicable (power) open wired, 6m multicable (video) with 7p female connector
- User-adjustable 190mm mounting bracket
- Specially designed for RadarEye systems (see page 32-33)



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



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



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.

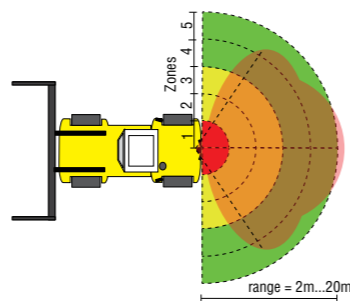
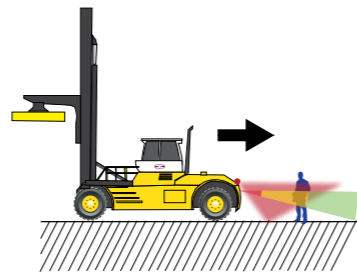
RadarEye is an integrated active view system designed to detect and see objects in zones obscured from the operator's view. The radar system detects stationary as well as moving objects in a designated coverage area. With this view system the operator is actively warned with audible tones that increase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



**YouTube**

[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 sizes segments
- Separation distance: 1-4m (configurable)
- Antenna beam horizontal: 70°(typ.), vertical: 11°(typ.)
- Operating temperature between -40°C to +85°C
- Obstacle reaction delay 50ms
- Orlaco CAN bus Radar monitor is required (0208871 or 0411300)
- RadarEye can be extended with multiple radar and camera units for all around detection and visibility
- Please contact Orlaco for advice and installation



### RadarEye sets

**0403120 RadarEye set corner rear**  
Active Rearview system for corner mounting.

- Including RadarEye units, brackets, interface box and terminator
- Cables, Camera and Monitor are not included

**0403100 RadarEye set center rear**  
Active Rearview system for center mounting.

- Including RadarEye units, bracket, interface box and terminator
- Cables, Camera and Monitor are not included

**0403110 RadarEye set center rear and side/front**  
Active Center Rear and Side/Front view system.

- Including RadarEye units, brackets, interface box and terminator
- Cables, Camera and Monitor are not included



### RadarEye Cables

#### RadarEye Cable M12 Green

Connection cable between RadarEye Interface box and master RadarEye unit or connection cable between slave RadarEye unit and next RadarEye unit.

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



#### RadarEye Cable M12 Master-Slave Red

Connection cable between master RadarEye unit and slave RadarEye unit.

0301020	1m
0301030	4m
0301040	8m
0301090	16m



### RadarEye parts

**0004310 RadarEye unit**

Active detect unit for integration in active view system (RadarEye).



**0256010 RadarEye Interface box**

RadarEye Interface is designed to connect RadarEye units to camera and monitor.



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





**Connectors**

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

1312001 Connector 4p male Gold  
This connector is recommended for the multicable 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.



**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.

Through the menu of the Orlaco Serial monitor, the Multiview box can be programmed to show any desired lay-out of views from the connected cameras. Once programmed, the Multiview box will retain these settings even when power is completely disconnected. Different views can be shown on the screen using the standard switching features without the need for further programming.

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

0404110 MultiView box

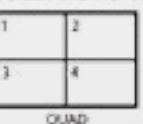
- 4 camera inputs (4x Compact Camera)



Preset view options for channel 1-4.



Default channel 5:





### Housing

#### 0140810 Compact Camera housing with LEDs

- Nitrogen-filled housing, waterproof IP 69
- Shock- and vibration resistant
- 0,5m cable from camera 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**

All Orlaco products are manufactured according to the latest *Environmental Management System Standard*:

**ISO 14001 : 2004**

### Type-Approval Certifications

**Regulation 10 and 46** are used to determine the Type-Approval for **EMC** and **Indirect Vision** (Mirror Directive). **R46** describes the specifications that a truck's mirrors must comply with. Orlaco Frontview systems meet all these requirements. **R10** describes the **EMC** behaviour of the Orlaco Camera- monitor systems.

### TÜV Automotive Certifications

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

### Compliance

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





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dealer:



[Check our website for all our catalogs \(pdf\).](#)



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**

