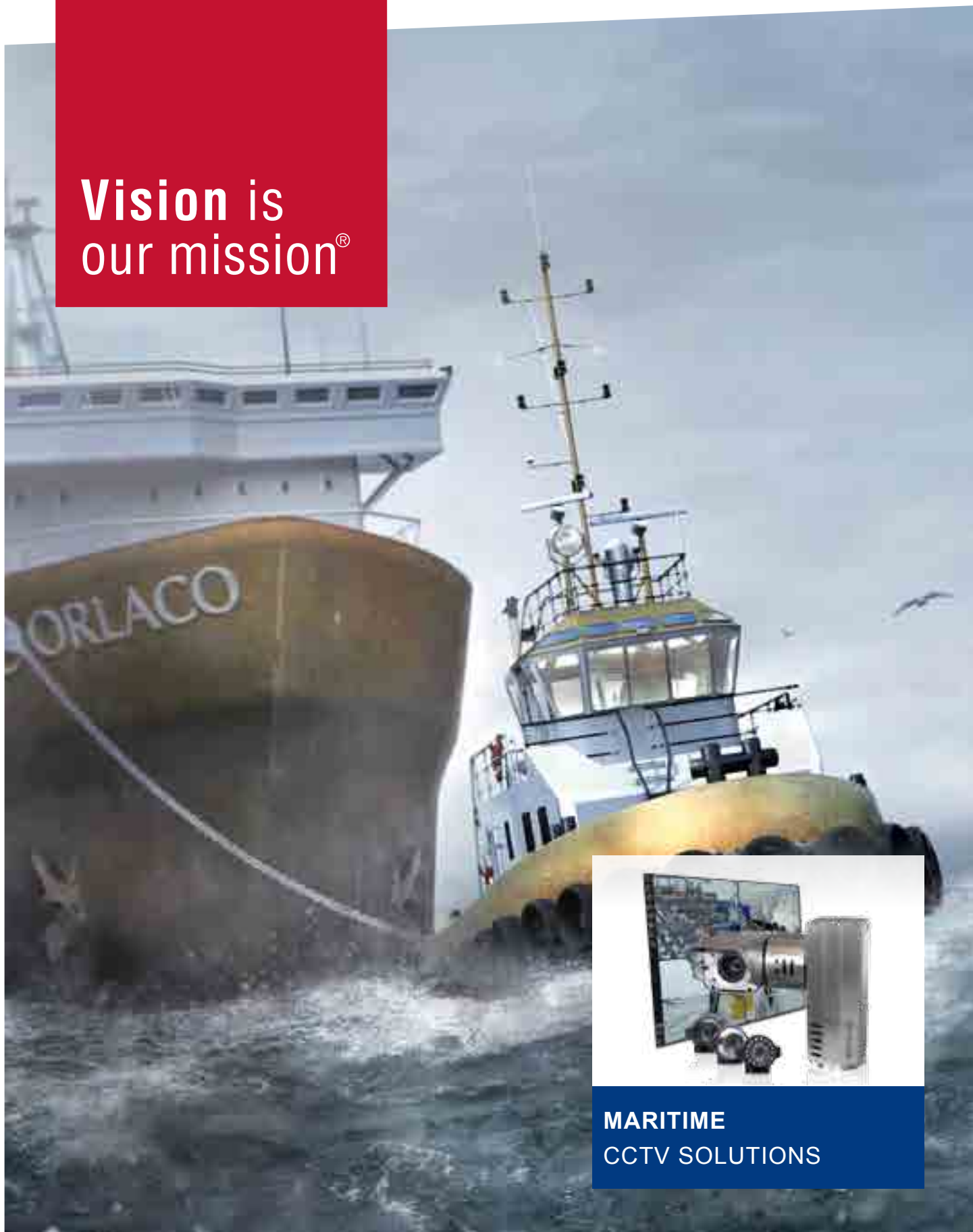


**Vision is
our mission®**



**MARITIME
CCTV SOLUTIONS**

See more
Work more

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Select
your
vessel

Why Orlaco?

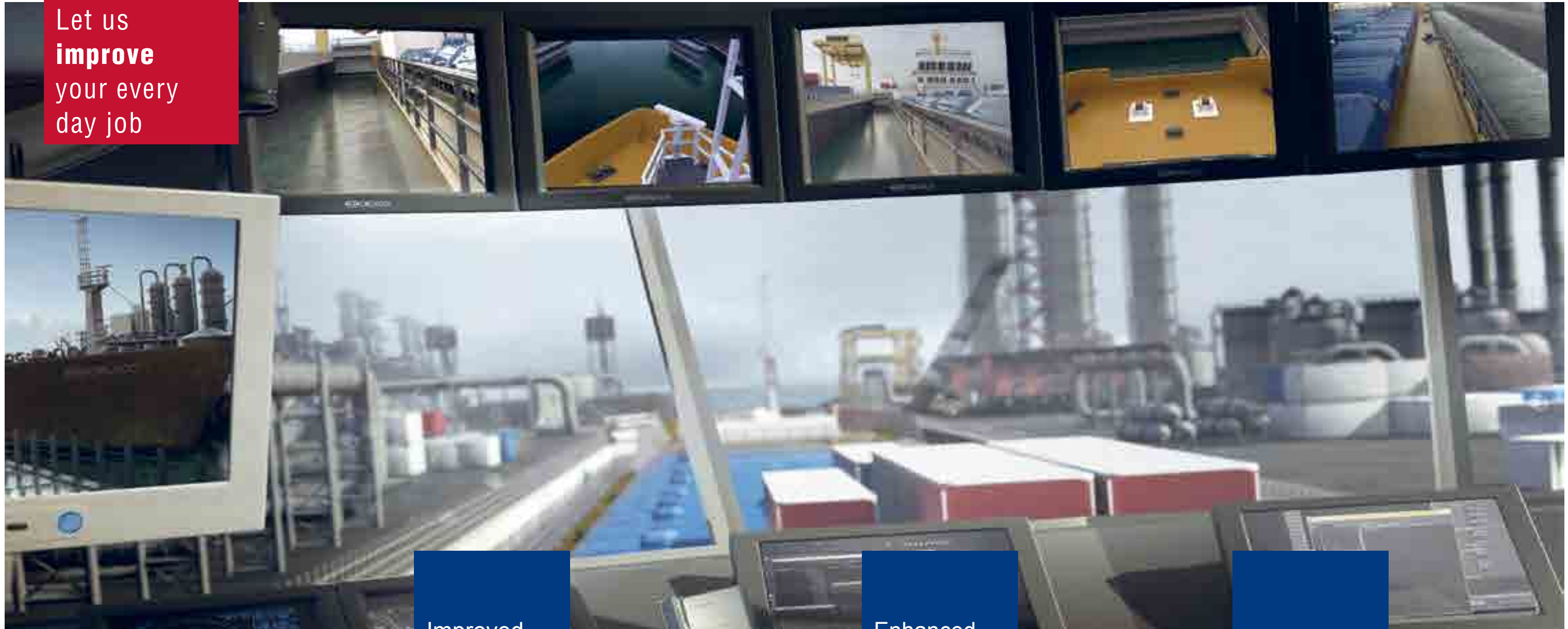
Welcome to the Orlaco product catalogue. We are personally committed to bringing you the best camera and monitor solutions possible. To help create safer and more secure workplaces around the world. Our professional team has spent over twenty-five years designing and manufacturing a variety of certified, 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

Enhanced
Ergonomics
and Comfort

Certified
Quality



Camera monitoring systems can play an important role in maintaining safety conditions and efficiency onboard ships. Next to that, ship operators might find that the extra visual coverage helps them keep a better eye on the ship, its crew and its surroundings. An Orlaco camera monitoring system could help the CCTV operator detect possible safety issues in time and prevent any incidents. An improved view of the on-board working areas and the ship's surroundings could help ship operators be more efficient in their work. Orlaco cameras can give a real-time overview of crew working areas, process monitoring and any other type of surveillance. On-board camera systems could add value to the security, safety and efficiency of ship personnel and the equipment they use.

Efforts can be made to prevent accidents, but they still happen. Operating in confined areas with a lot of blind spots can cause damage to equipment and possible injuries to people. An Orlaco camera monitor system could provide the operator with an 'extra pair of eyes'. For instance, a good camera monitoring system is helpful when maneuvering, and during ship crane operations or dredging operations. This could help reduce unnecessary personal injuries and help to prevent Lost Time Incidents (LTI). Additionally, the use of cameras can contribute to the ergonomics and comfort of the operators. What's more, video images can be distributed over a network to aid multiple employees with real-time reviewing of any given situation. Effective decisions could be made based upon the visual live feedback from any remote location.

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.

Why Orlaco

Why Orlaco

Marine sight solutions

Tugboats

Deck-view



The deck view camera provides the operator with a good view of people working on deck, machinery and stowed equipment.

Winchview



The winch camera provides the operator with a view of the winch and the tow cable.

Bridge wing-view



The bridge wing camera provides the operator a view of the people working on deck when reeling in the nets.

Winchview



With the winch camera the operator can see if the cable is running properly onto the reel. It is also possible to detect any damages to the cable in time.

Engine room-view



With an unmanned engine room the operator has no visual of this area. With the help of a camera, with or without LED lights, the operator can detect oil spills or smoke forming, before any of the detection systems gives a warning.

Tugboat

When maneuvering the Tug an Orlaco camera monitor system supports the captain in his operation. With cameras placed at the several locations and a monitor in the wheelhouse he will have an overview of the winch, towing cable and engine room.



Fishing vessel

When the operation on a fishing vessel is in full progress the captain does not have a visual of all the locations onboard of the vessel. Especially a good overview of the crew reeling in the nets is a must. With the use of an Orlaco camera monitor system the captain can concentrate on operating the vessel and will also have a good overview, creating a safer working environment.



Fishing vessels 7

Bridge wing FWD-view



With the bridge wing camera the operator can maneuver the ship into locks and on narrow waterways. The camera is also used to view the front Bolder and people working on deck.

Aft deck-view



Hatch crane-view



Unsafe situations can occur during operation of the hatch crane. The Hatch crane camera system will improve safety during operation of the crane. On both sides of the crane two Compact Cameras will be installed. One camera for a good overview of the gangway, the other camera is aimed at the hook of the spreader. Now the operator is always able to see if the gangway is clear and if the hook is properly locked.

FWD-view



The forward view camera is used to overlook the waterway and maneuver the ship into a Lock. This camera also takes away the blind spot in front of the bow, making it possible to observe smaller boats in time to prevent accidents.

Engine room-view



Most of the time the engine room is unmanned and there is no visual of this area. With the help of a camera, with our without LED lights, the operator can detect Oil spills or smoke forming, before any of the detection systems gives a warning.

Inland shipping and Coaster ship

When positioning a vessel in front of a lock and maneuvering into the lock, a camera monitor system is of great help. With the installation of a zoom camera on the bridge wings and a fixed camera on the mast, the captain has a good overview of the situation. The fixed camera on the mast is also used to eliminate the blind spot in front of the vessel. He can overlook the waterway to see if any smaller vessels like pleasure boats are in front of the vessel. This ensures safe operation of the vessel.



Anchor-winchview



With the winch camera the operator can see if the cable is running properly onto the reel. It is also possible to detect any damages to the cable in time.



Deck ramp-view



This camera is used to view the loading and unloading of the ship. As an additional security precaution the deck ramp camera will give the operator a clear view of the ramp being properly closed or opened.



Night vision observation-view



The thermal image camera with pan & tilt unit (PTTIC) is a night vision camera used for security reasons on open water. Without the need of a light source this camera will generate a picture and will warn the operator of any object that is approaching the vessel.

Aft deck-view



The deck view camera provides the operator with a good view of people working on deck, machinery and stowed equipment.

Bridge wing-view



The Bridge wing camera is used by the operator for observation of the ships gangways and for maneuvering and mooring of the ship.



Auto deck-view



The deck view camera provides the operator with a good view of the parked trailers.

Ro-ro vessel

With a lot of activities happening during the loading and unloading of the vessel a camera monitor system will give the operator a better view of all the operations that are going on. Positioning deck view cameras on strategic positions will give the operator a good view of the load and deck areas and possible passenger quarters he cannot oversee from the wheelhouse. As a final safety precaution the Deck ramp camera will show the operator if the ramp has been properly opened or closed.



Observation-view



By placing a PTZ Dome camera under an overhead the operator has a good view of the passenger area and any other area that needs observation

Engine room-view



With the help of a camera the operator can detect oil spills or smoke forming, before any of the detection systems gives a warning.

Aft deck-view



The deck view camera provides the operator with a good view of people working on deck, machinery and stowed materials.

Draghead / Bridge wing-view



A PTZ camera is used for a view of the Draghead position either on SB or PS of the vessel. With the possibility to maneuver the camera in a left/right and up/down position the whole area can be scanned. With the integrated zoom camera the operation can be viewed in full detail.

Hopper overflow-view



This camera is used to see the water draining through the overflow. With a vision on the overflow the operator can take immediate action if anything goes wrong during the operation.



Pump room-view



Most of the time the pump room is unmanned and there is no visual of this area. With the help of a camera the operator has a good view of the dredging pump.

Engine room-view



Most of the time the engine room is unmanned and there is no visual of this area. With the help of a camera the operator can detect Oil spills or smoke forming, before any of the detection systems gives a warning.

Dredging vessel

For any operation onboard a Dredging vessel an Orlaco camera monitor system is an added value. Either being used for a view of the draghead, pump room, engine room or the overflow, a camera system will give the operator an overview of all operations in one view. With the possibility of choosing between a fixed, zoom or pan & tilt zoom camera observation, the right type of camera can be selected for any of the processes.



Deck-view



The deck view camera provides the operator with a good view of people working on deck, machinery and stowed equipment.

Loadview



A Boom tip camera reduces the risk during crane operations. Installed in combination with the Or-laco Oil damped bracket, the crane operator is provided with the best possible view of the load and the area under the load.

Deck-view



The deck view camera provides the operator with a good view of people working on deck, machinery and stowed equipment.

Bridge wing-view



The Bridge wing camera is used by the operator for observation of the ships gangways, maneuvering and mooring of the ship.

Engine room-view



Most of the time the engine room is unmanned and there is no visual of this area. With the help of a camera the operator can detect Oil spills or smoke forming, before any of the de-tection systems gives a warning.

Anchor-winchview



With the winch camera the operator can see if the cable is running properly onto the reel. It is also possible to detect any damages to the cable in time.

Reel-view



From his position the operator has no view of the cable running from the reel. With the reel camera he is able to observe the reel operation and can take immediate action if necessary.

Cable Laying vessel

For any operation onboard a cable laying vessel an Or-laco camera monitor system is an added value. Whether being used for a view of the turntable, anchor winches, engine room or deck areas where the crew is working, a camera system will give the operator an over-view of all operations in one view. With the possibility of choosing between a fixed, zoom or pan & tilt zoom camera observation; the right type of camera can be selected for any of the processes. Using an Or-laco camera monitor system will not only improve your operation but will also add to a safer working environment.



Loadview



A Boom tip camera reduces the risk during crane operations. Installed in combination with the Orlaco Oil damped bracket, the crane operator is provided with the best possible view of the load and the area under the load.

Night vision observation-view



The thermal image camera with pan & tilt unit (PTTIC) is a night vision camera used for security reasons on open water. Without the need of a light source this camera will generate a picture and will warn the operator of any object that is approaching the vessel.



Engine room-view



Most of the time the engine room is unmanned and there is no visual of this area. With the help of a camera the operator can detect Oil spills or smoke forming, before any of the detection systems gives a warning.

Winchview



With the winch camera the operator can see if the cable is running properly on to the reel. It is also possible to detect any damages to the cable in time.

Heavy lifting and Special Transport vessel

With the load obscuring the vision of the operator, a camera monitor system is the right solution to this problem. Positioning deck view cameras at strategic positions will give the operator a good view of the container load and deck areas he cannot oversee from the wheelhouse. As an added value a camera monitor system can also be used for detecting possible Piracy attacks. With a day time camera and a night time thermal camera, approaching vessels can be detected in time by the crew and the necessary precautions can be taken.



Aft deck-view



The deck view camera provides the operator with a good view of people working on deck, machinery and stowed equipment.



Deck-view



The deck view camera will give the operator a good view of people working on deck, machinery and stowed materials.



Heli deck-view

Helicopter departures and arrivals are one of the most riskfull activities on board a ship. With the installation of a Heli deck camera, these operations can be monitored day and night.

Anchor-winchview



With the winch camera the operator can see if the cable is running properly on to the reel. It is also possible to detect any damages to the cable in time.



Aft deck-view



The deck view camera will give the operator a good view of people working on deck, machinery and stowed materials.

Platform Supply Vessel

For any operation onboard a Supply vessel an Orlaco camera monitor system is an added value. Whether being used for a view of the engine, deck areas or Heli deck, a camera system will give the operator an overview of all operations in one view. With the possibility of choosing between a fixed, zoom or pan & tilt zoom camera observation; the right type of camera can be selected for any of the processes.



Engine room-view



Most of the time the engine room is unmanned and there is no visual of this area. With the help of a camera the operator can detect Oil spills or smoke forming, before any of the detection systems gives a warning.



Mooring winchview



With the installation of an Ex compact camera the operator can remotely view all the winch operations.

Bridge wing-view



PTZ Ex camera for eliminating any blind spots alongside the ship or viewing the immediate surrounding of the ship.

General process-view



With the installation of a single or multiple Ex compact cameras a direct overview of the process area is secured.

Loadview

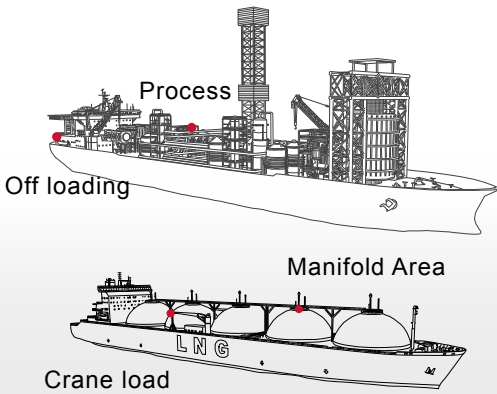


The Ex zoom camera fitted on the boom is looking vertically downwards onto the top of the hook providing the crane operator with a clear view of the working area and load he is maneuvering.

Observation-view

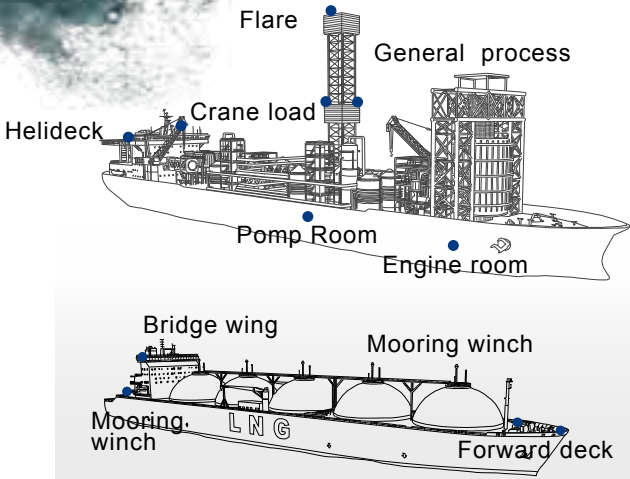


PTZ Ex camera for overview of the area near or away from the ship.



• Operations

For any operation onboard an Offshore vessel an Orlaco camera display system is an added value. Whether being used for the observation of the manifold area, mooring winch or engine room operations, a camera system will give the cctv operator an overview of all operations in one glance. By selecting a camera in any of the operating areas, an operator can have a detailed look at the operating process.



• Safety and Security

Safety onboard of any vessel is of great importance. Either for crew, equipment or the vessel itself safety at all times should be guaranteed. An Orlaco camera system can be of assistance in maintaining the safety onboard the vessel. By placing cameras in strategic positions the cctv operator has a general overview of all the areas where a possible safety incident could occur. With the decreasing amount of the number of crew members onboard the vessels the camera "eyes" are of an added value.



Helideck-view



Helicopter arrivals and departures are one of the most hazardous activities on board an offshore rig. With the installation of a Heli deck camera these activities can be monitored and recorded day and night.

General process-view



With the installation of a single or multiple Ex compact cameras a clear overview of the process area is secured.



Loadview



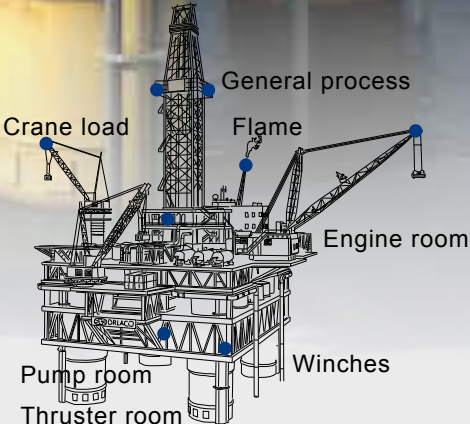
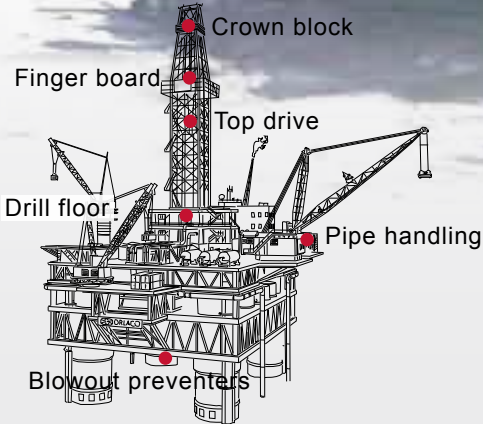
A Boom Tip crane camera reduces the risk during crane operations. Installed in combination with the Orlaco oil damped bracket, the crane operator is provided with the best possible view of the load he is manoeuvring and the areas under the load.

• Operations

For any operation onboard of a rig an Orlaco camera display system is an added value. Either being used for the general, drilling or crane loading and offloading operations, a camera system will give the operator an overview of all his operations in one glance. The use of a camera system will increase operator profitability because of the reduction of operators

• Safety and Security

The number of crew members working on an offshore rig is decreasing. This is a recent trend in the offshore industry since a few years. During the operation of the rig, a lot of activities are going on. A good alternative to display these activities, as well as the many blind spots on the rig, is an Orlaco camera display system. Activities can be monitored and recorded. These images can be used to train the crew to avoid future incidents from happening.

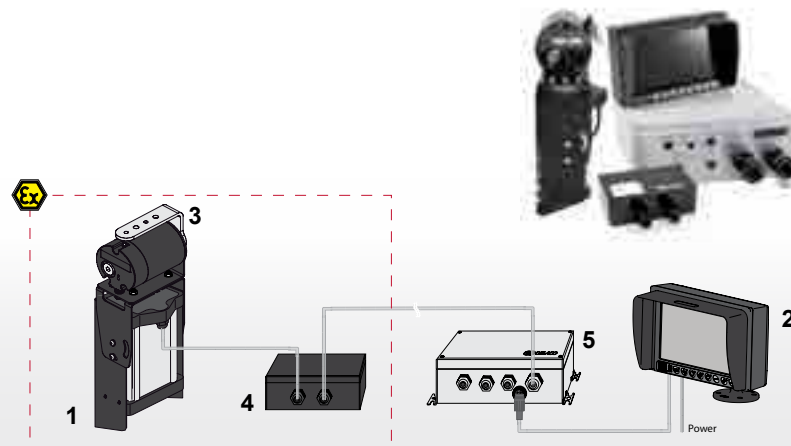


Set **UNI PTZ System** OS1200

1. **PTZ Camera**
Make your choice - page 32
 2. **Monitor 12" RLED**
0411000 - page 34
 3. **Control Interface**
0502920 - page 39
 4. **Junction box**
0504791 - page 53
 5. **Keyboard build-in Serial**
0502620 - page 37
 6. **Joystick**
0506500 - page 37
 7. **Cables**
To be ordered separately, see page 34
- Note: 20cm monitor adapter cable required

Set **Loadview Ex**

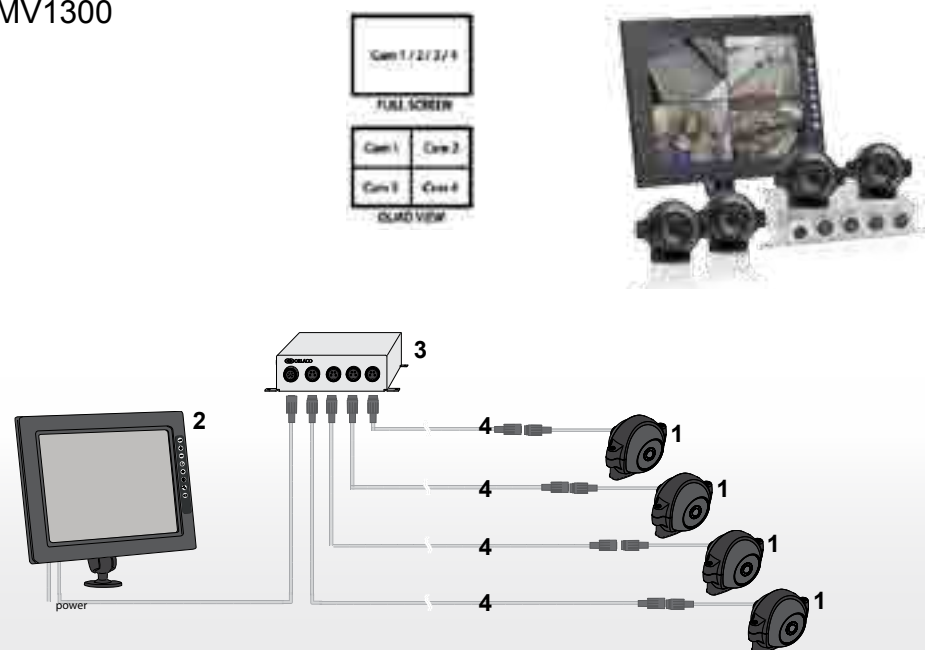
1. **AF-Zoom Camera PAL Serial**
0192030 - page 40
2. **RLED 7" Display including bracket**
0208632 - page 34
3. **Oil damped camera bracket**
0701200 - page 53
4. **Junction box**
0504791 - page 53
5. **Control box**
0504811 - page 50
6. **Cables**
To be ordered separately, see page 34

Set **Quad-view System** MV1300

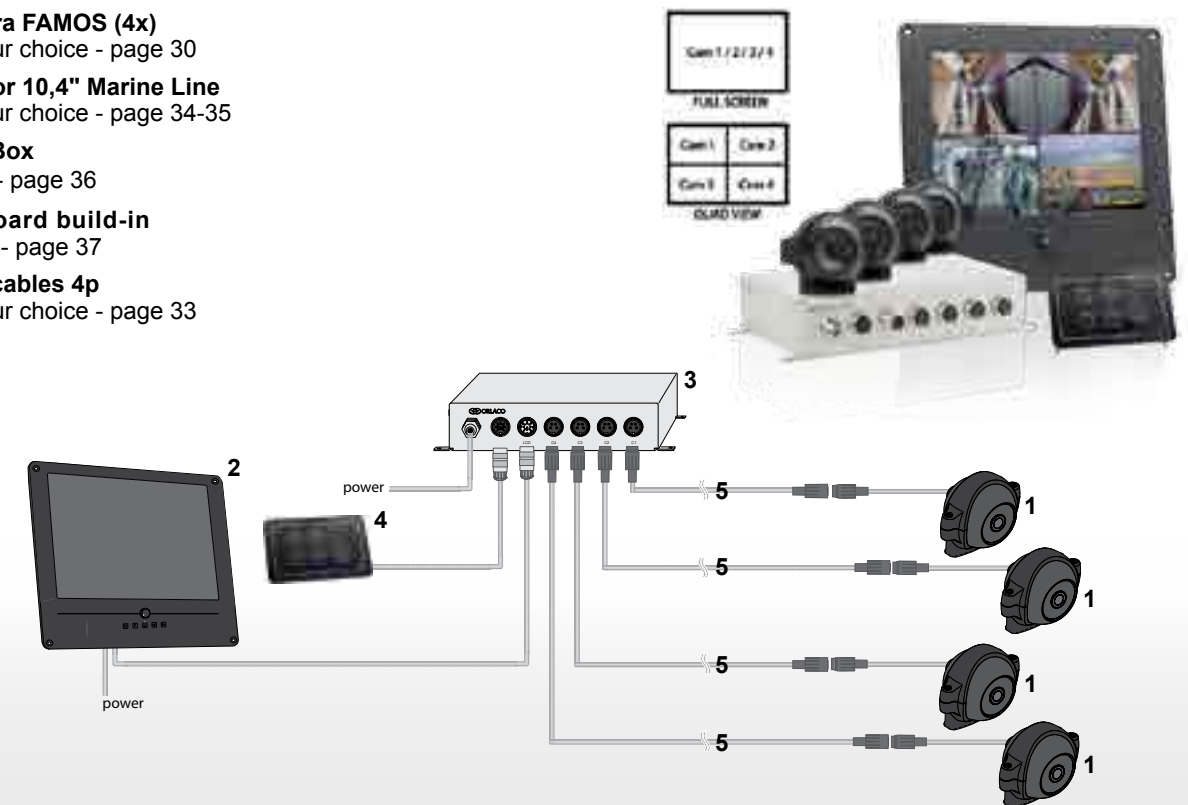
1. **Camera FAMOS (4x)**
Make your choice - page 30
2. **Monitor 12" RLED Serial**
0411130 - page 34
3. **MultiView box**
0404110 - page 35
4. **Multi cables 4p**
Make your choice - page 33

Optional:

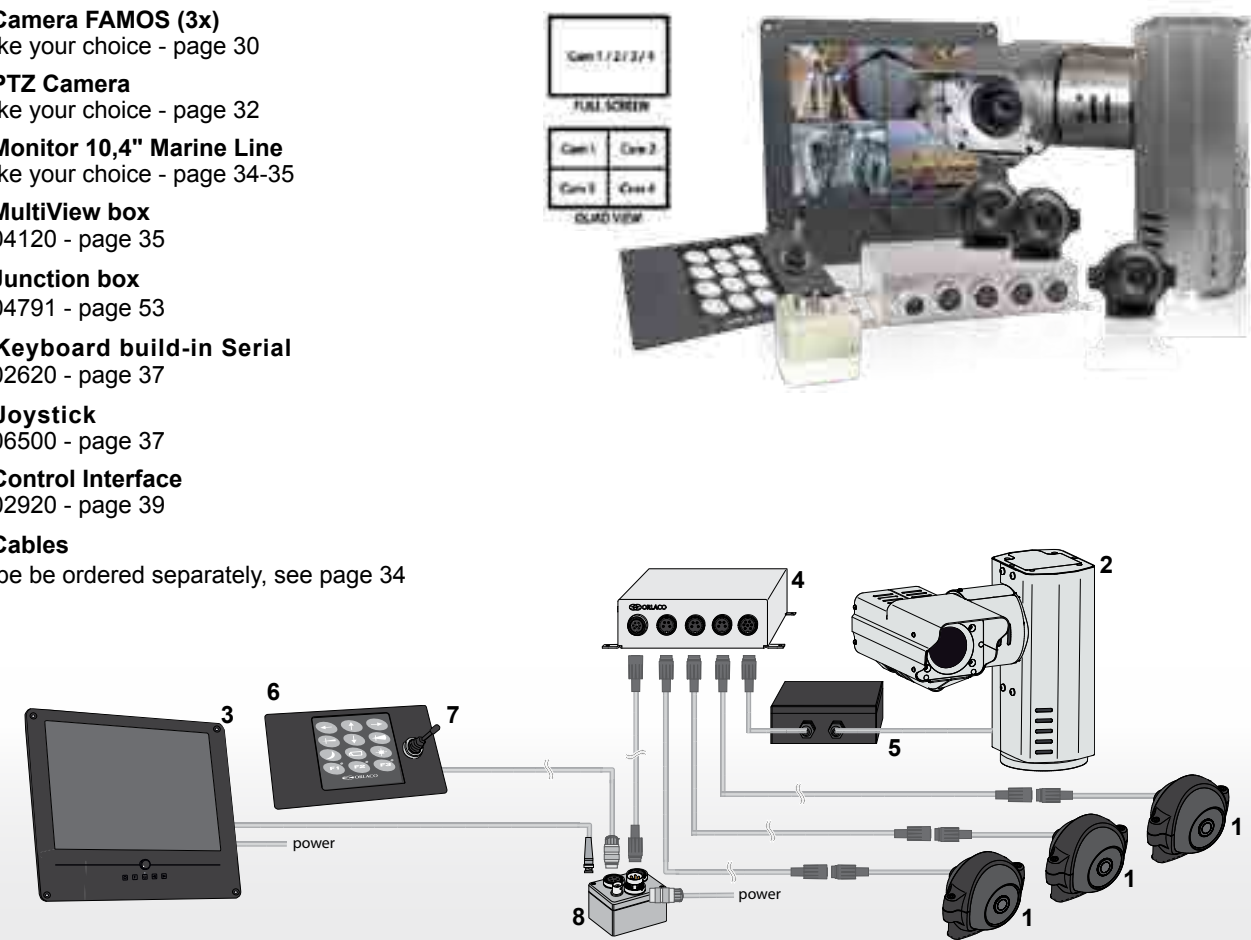
- Monitor 7" RLED Serial**
0208632 - page 34

Set **Quad-view System** MV1400

1. **Camera FAMOS (4x)**
Make your choice - page 30
2. **Monitor 10,4" Marine Line**
Make your choice - page 34-35
3. **QuadBox**
QB1404 - page 36
4. **Keyboard build-in**
2230680 - page 37
5. **Multi cables 4p**
Make your choice - page 33

Set **Quad-view System** MV1440

1. **Camera FAMOS (3x)**
Make your choice - page 30
2. **PTZ Camera**
Make your choice - page 32
3. **Monitor 10,4" Marine Line**
Make your choice - page 34-35
4. **MultiView box**
0404120 - page 35
5. **Junction box**
0504791 - page 53
6. **Keyboard build-in Serial**
0502620 - page 37
7. **Joystick**
0506500 - page 37
8. **Control Interface**
0502920 - page 39
9. **Cables**
To be ordered separately, see page 34



Set **Citadel / Safe room System** CS1500**1. Compact Cameras (4x / 8x / 16x)**

Make your choice - page 30

2. Monitor 10,4" - 19" Marine Line

Make your choice - page 34-35

3. Power supply box CS1500 (4Cams / 8Cams / 16Cams)

Please contact Orlaco for advice

4. HD Recorder (4Cams / 8Cams / 16Cams)

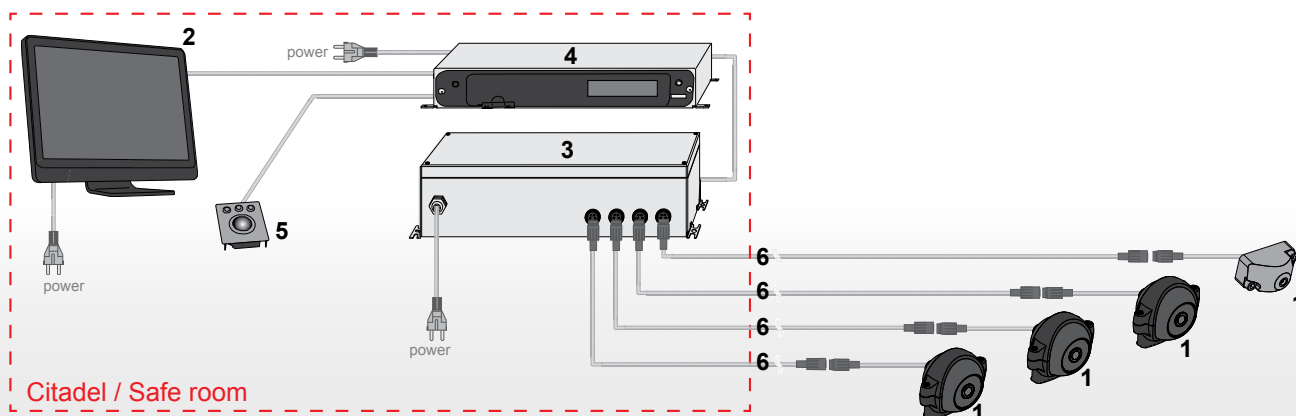
Please contact Orlaco for advice

5. Mouse / Trackball

Please contact Orlaco for advice

6. Multi cables 4p

Make your choice - page 33

Set **All Time Day-Night Vision System** AV1600**1. AF-Zoom Camera PAL Serial**

0103531 - page 32

2. Thermal Imaging Camera TIC 320 9Hz

0103730 - page 31

3. Monitor 10,4" - 19" Marine Line

Make your choice - page 34-35

4. Control box ATV System

Please contact Orlaco for advice

5. Keyboard build-in Serial

0502620 - page 37

6. Joystick

0506500 - page 37

7. Pan & Tilt unit 24V/DC

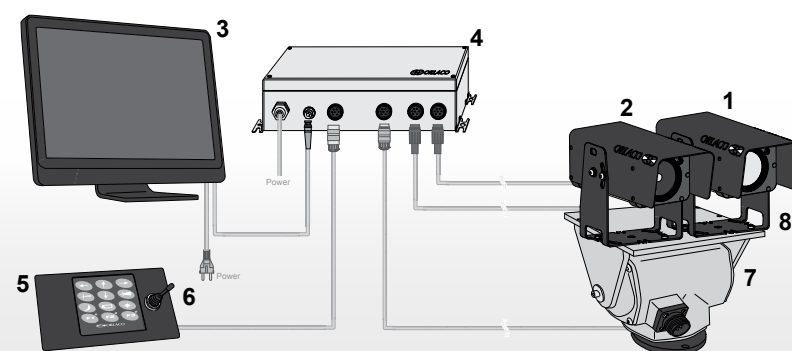
0507040 - page 38

8. Fastening plate

0507100 - page 38

9. Cables

To be ordered separately, see page 34

Set **Switchbox System** SB1808 (8 cams) / SB1812 (12 cams) / SB1816 (16 cams)**1. Camera FAMOS**

Make your choice - page 30-

2. Monitor 10,4" - 19" Marine Line

Make your choice - page 34-35

3. Switchbox

Make your choice - page 36

4. Keyboard build-in

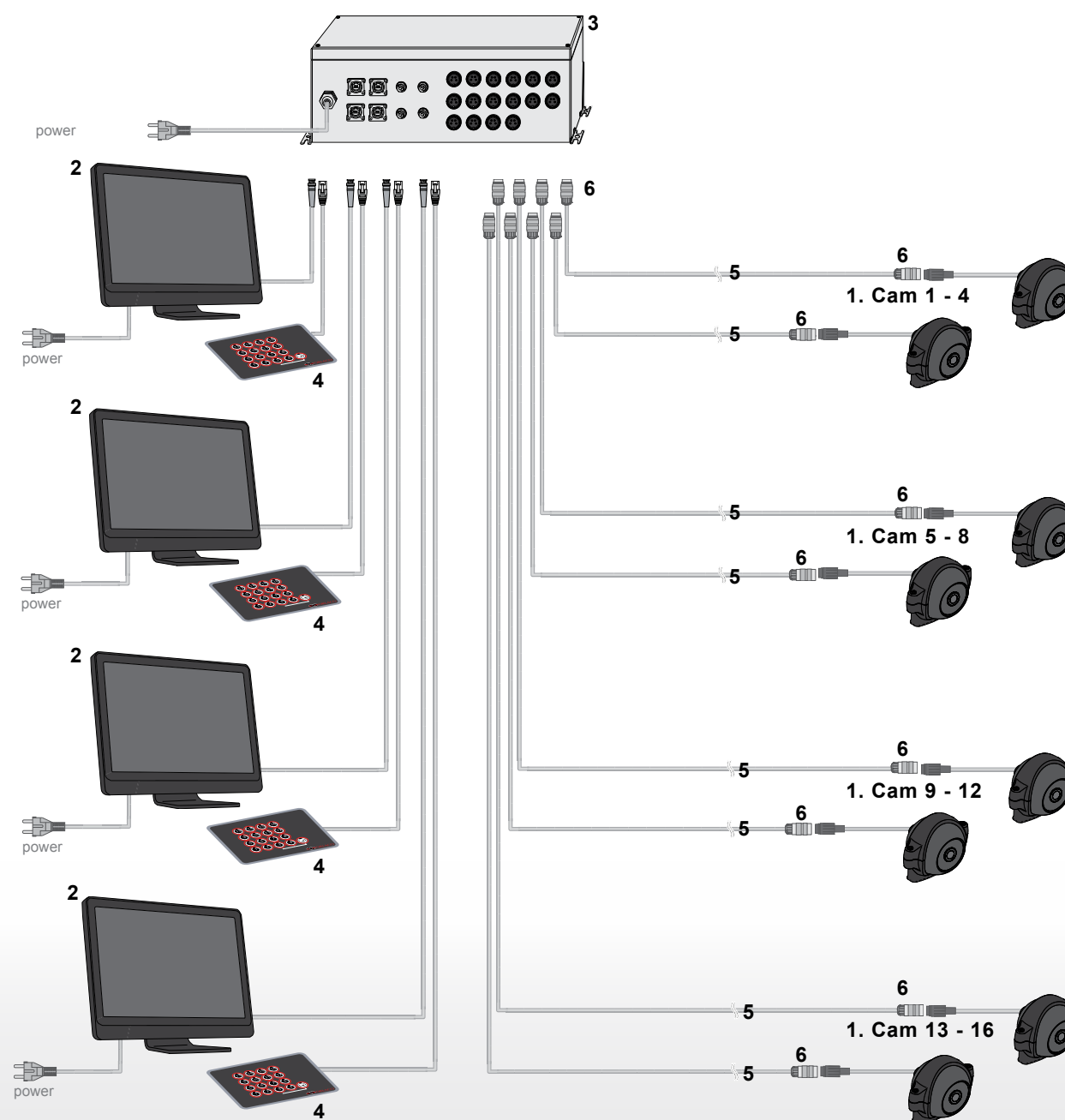
2231630 - page 37

5. Multi cables (per metre)

Make your choice - page 33

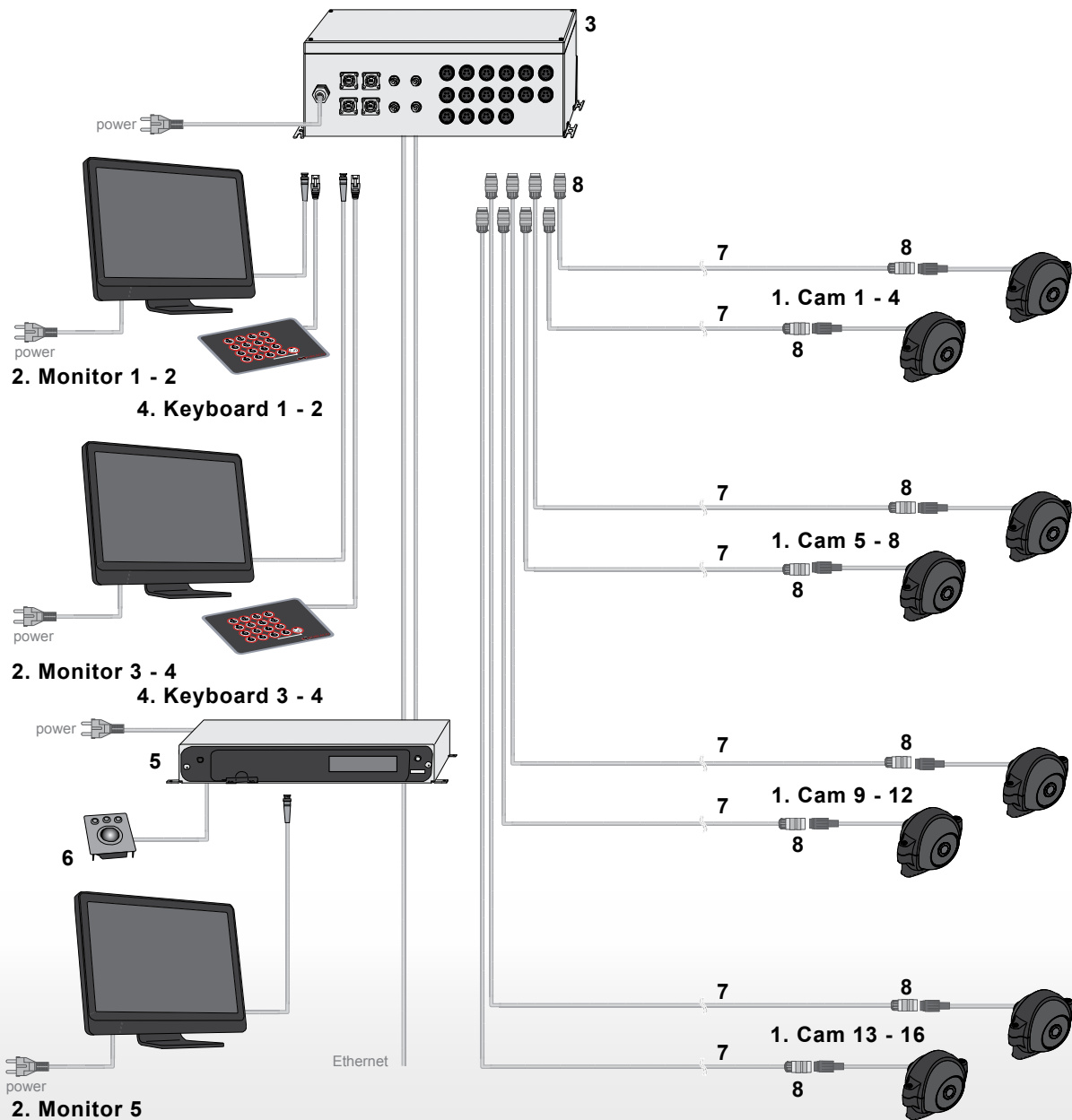
6. Connectors 4p

1310841 & 1312001 - page 36



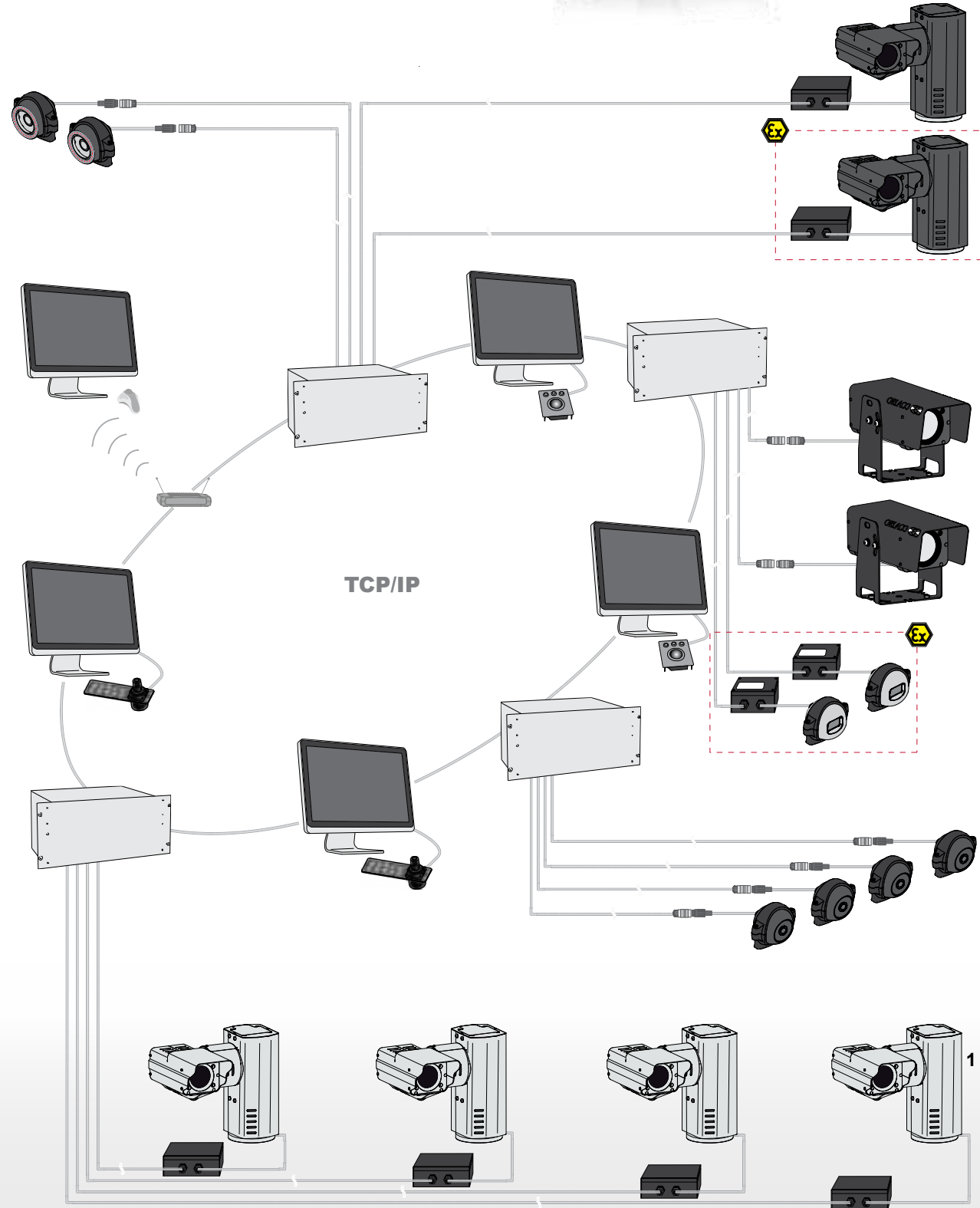
Set **Switchbox recording** (8 cams) / (16 cams)

- 1. **Camera FAMOS**
Make your choice - page 30
- 2. **Monitor 10,4" - 19" Marine Line**
Make your choice - page 34-35
- 3. **Switchbox**
Make your choice - page 36
- 4. **Keyboard build-in**
2231630 - page 37
- 5. **HD Recorder (4Cams / 8Cams / 16Cams)**
Please contact Orlaco for advice
- 6. **Mouse / Trackball**
Please contact Orlaco for advice
- 7. **Multi cables (per metre)**
Make your choice - page 33
- 8. **Connectors 4p**
1310841 & 1312001 - page 36



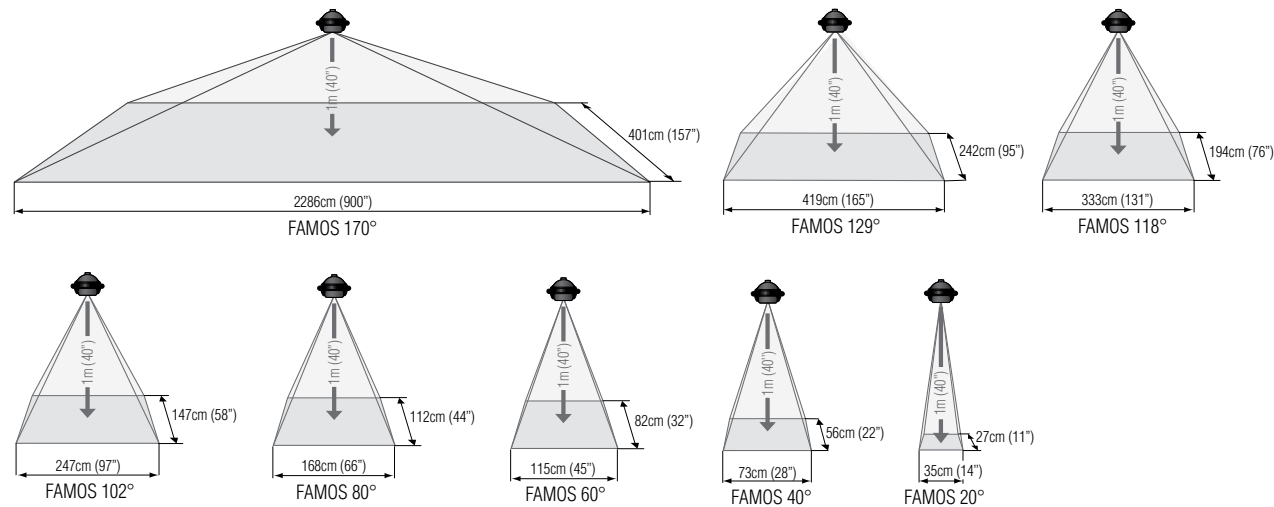
Set **SmartView**

The Orlaco Smartview solution is an IP based CCTV system based on the Orlaco Smartview software for the connection of multiple control and camera stations. By combining the Smartview camera interfaces, a system design based on a TCP/IP network can be made.



The qualifications of our AMOS and FAMOS Compact Cameras

- Next generation CMOS sensor
 - Light sensitivity 0.05 lux
 - Integrated *Safety ticker* to show that camera is running and active
 - Impact and vibration proof
- Operating temperature between -40°C to +85°C
 - Heated lens glass, therefore no problems with condensation or frost
 - Fixed lens
- IP68 dust- and waterproof according to IEC 60529
 - The camera has a 0,5m cable including a waterproof molded 4p connector male



Cameras FAMOS

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

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



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

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

Compact Cameras CCC Stainless steel 316

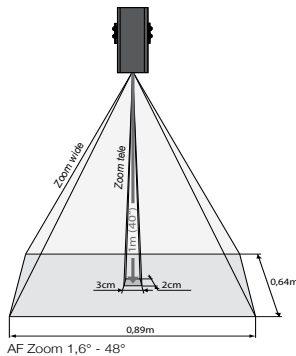
CCD sensor camera with stainless steel housing.

Type	Art. no. PAL	Art. no. NTSC
32°	0123030	0123120
54°	0123020	-
78°	0123010	0123110
102°	0123000	0123100
115°	0123050	-



The qualifications of our Zoom Cameras

- Operating temperature between -40°C to +85°C
 - Built-in brightness function to ensure better visibility on dark areas
 - 36x optical zoom, 1,7° to
- 48° horizontal opening angle
 - Built-in night vision function (0 lux mode)
 - Nitrogen-filled housing, 100% watertight (IP 69K)
- Heated lens glass, therefore no problems with condensation or frost
 - Shock and vibration resistant



AF-Zoom Cameras

- Including 6m multi cable fitted with 7p connector (female)
- Power supply 12V - 24V/DC when cable is <50m
- Power supply 18V - 24V/DC when cable is >50m

0103531	AF-Zoom Camera Aluminium
0113530	AF-Zoom Camera Aluminium RS 485
0103480	AF-Zoom Camera SSt 316
0113480	AF-Zoom Camera SSt 316 RS 485

Infrared illuminator for zoom camera

For AF-Zoom Cameras.

0507300 IR-CIV870 Lamp

- 870nm IR light
- Max. 15W
- IP67
- Maximum range 50m



Thermal Imaging Camera

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

0103730	TIC Aluminium 9Hz
0113730	TIC Aluminium 9Hz RS 485
0103740	TIC SSt 316 9Hz
0113740	TIC SSt 316 9Hz RS 485





Dome Camera

Ruggedized dome camera with 360° continuous rotation.

- 0506700 PTZ Dome Camera PAL
- 0506710 PTZ Dome Camera NTSC
- 0506750 PTZ Dome Camera IP

- Dimensions: 104x240mm
- Weight: 8,3kg
- Waterproof IP69K (high pressure wash resistant)

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

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

Pan & Tilt Zoom Cameras (PTZ)

- 0506952 PTZ Camera Aluminium
- 0516951 PTZ Camera Aluminium RS 485
 - Aluminium housing

- 0506911 PTZ Camera SSSt 316
- 0516911 PTZ Camera SSSt 316 RS 485
 - Stainless steel housing

Pan & Tilt Thermal Image Camera (PTTIC)

- 0506971 PTTIC Aluminium 9Hz
- 0516971 PTTIC Aluminium 9Hz
 - Aluminium housing

- 0506981 PTTIC SSSt 316 9Hz
- 0516981 PTTIC SSSt 316 9Hz
 - Stainless steel housing

Washer Wiper

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

- 0405810 Washer Wiper Installation PTZ Camera
 - Including mounting plate, nozzle and wiper stainless steel 316
 - Only in combination with the stainless steel PTZ (0506910)



The advantages of Orlaco cables

- All cables are specially developed by Orlaco engineering for the applications mentioned in this catalogue
 - Special lengths or versions are available upon request
 - All cables have EMC screening for optimum performance of the equipment in crowded areas with
- electromagnetic noise
 - Resistant to oil and petrol
 - Watertight cable connectors
 - Operating temperature -40°C to +85°C

Cable per metre (without connectors)

Any required connectors can be ordered separately. (page 36)

- 1220170 Multi cable
 - 1 x video coax + 5 x wires
 - Halogen free

- 1220280 Multi cable armored
 - 1 x video coax + 5 x wires armored

- 1220250 Multi cable
 - 1 x video coax + 10 x wires PUR

- 1220260 Multi cable armored
 - 1 x video coax + 12 x wires armored

- 1221330 Multi cable
 - 1 x video coax + 6 x wires



Multi cable standard (type 1220170)

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

Including 4p molded connectors:

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

Including 7p molded connectors:

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

- Including 4p molded connector & open wired:
 - 0302150 20m

- Including 7p female connector (1311201) & open wired:
 - 0302160 20m



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
- Watertight molded connectors
- Input Voltage 12...60V/DC +/-10%



Monitors

0208672 Monitor 7" RLED

- 4m multi cable (power) open wired, 4m multi cable (video) including 4p female connector
- User-adjustable 132mm mounting bracket

0208632 Monitor 7" RLED Serial

- For serial connection (Zoom- , PTZ- or TIC cameras)
- 6m multi cable (power) open wired, 6m multi cable (video) including 7p female connector
- User-adjustable 132mm mounting bracket

0411000 Monitor 12"

- 4m multi cable (power) open wired, 4m multi cable (video) including 4p female connector
- User-adjustable 190mm mounting bracket

0411130 Monitor 12" Serial

- For serial connection (Zoom- , PTZ- or TIC cameras)
- 6m multi cable (power) open wired, 6m multi cable (video) including 7p female connector
- User-adjustable 190mm mounting bracket

2291230 Sunmask 12" Monitor Horizontal

ABS Sunmask specially designed for the 12" RLED Monitor.

Marine Line monitors

- Anti-reflection protection glass plate, IP65 sealing (front)
- Input composite (BNC),VGA, DVI-D,S-video
- 0-100% dimming with IP67 twistknob
- 110 to 230V/AC
- Options:** Capacitive or resistive touchscreen (RS232 & USB), Optical bonding, Transflective, 9-34V/DC



Panelmount TFT Monitor

0200008 Monitor 10.4" Picture diagonal

0200009 Monitor 15.0" Picture diagonal

0200010 Monitor 17.0" Picture diagonal

0200011 Monitor 19.0" Picture diagonal

0200012 Monitor 24.0" Picture diagonal

Desktop TFT Monitor

0200007 Monitor 10.4" Picture diagonal

0200003 Monitor 15.0" Picture diagonal

0200004 Monitor 17.0" Picture diagonal

0200005 Monitor 19.0" Picture diagonal

0200006 Monitor 24.0" Picture diagonal

1000864 Desktop Stand

- for 10.4" to 19" monitors

1000865 Heavy Duty Desktop Monitor Stand

- for 15" to 24" monitors

1000868 RAM Bracket Vesa mount

- for DT series



Orlaco SmartView

0060310 Licence Smartview software

- Viewing of high quality video for multiple cameras in multiple configurations
- Support H.264 digital video codec
- Low latency and a high quality image
- 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
- Video loss detection
- Motion detection
- Individual lock functions PTZ
- Supplied on USB memory stick



Multiview split

- Stainless steel housing
- Serial Orlaco Monitor needed

0404110 MultiView box

- 4 camera inputs (4x Compact Camera)
- MV1300 system

0404120 MultiView box

- 4 camera inputs (3x Compact Camera 1x AF-Zoom Camera)
- MV1440 system





Connectors

1310841 Connector 4p female Gold
Recommended for cable (1220170).

1312001 Connector 4p male Gold
Recommended for cable (1220170).

1310850 Connector 4p female PG9 Gold
Recommended for cable (1220280).

1312050 Connector 4p male PG9 Gold
Recommended for cable (1220280).

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

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

1311250 Connector 7p female PG9 Gold
Recommended for cable (1220280).

1322450 Connector 7p male PG9 Gold
Recommended for cable (1220280).

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

0357050 Bulkhead connector
• 7p
• Suitable for through the wall applications

Quadbox

QB1404 Quadbox
• Serial Orlaco Monitor needed
• Control connection
• Stainless Steel IP66 housing
• Central power supply 110-230 V/AC
• 4 camera inputs
• MV1400 system

Switchbox

• 4 keyboard / video-display outputs (BNC)
• Stainless Steel housing IP66
• Central power supply 110-230 V/AC
• Dimensions 300mm (d) x 400mm (w) x 160mm (h)

SB1808 Switchbox
• 8 compact camera inputs

SB1812 Switchbox
• 12 compact camera inputs

SB1816 Switchbox
• 16 Compact camera inputs

Control Unit panel mount (for Switchbox)

• CAT5 cable connection
2231630 Control panel mount
• Control of max 16 cameras
• SB1801 / SB1812 / SB1816 system

Control Unit panel mount (for Quadbox)

• CAT5 cable connection
2230680 Control panel mount
• Control of max 4 cameras.
• MV1400 system

USB Keyboard

Built-in keyboard for activating of max 10 cameras controlled by SmartView.

2231510 USB Keyboard SmartView
• Dimensions: 170x53mm, mounting depth 35mm
• Smartview system

Control Serial

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

0502610 Handheld control AF (serial)
• Zoom function
• Including 5m power supply cable

0502620 Control panel mount
Built-in keyboard for activating of the Pan & Tilt / AF-Zoom / TIC camera.
• Joystick (0506500) is not included
• Dimensions: 140x116x80mm
• OS1200 / AV1600 system

0506500 Joystick
• Built-in
• Operating temperature between -30°C to +75°C
• IP40
• Telemanique

Power supply

Power supply for the Compact Camera.

0504031 AC/DC unit
• Power input 110-230V/AC
• Power output 12V/DC
• Dimensions 94mm(d) x 130mm(w) x 57mm(h)



Spectrum Scanner wireless video transmitter & receiver

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

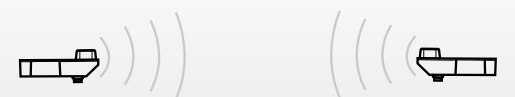
0004061 RoundMax 150

- Omnidirectional antenna with horizontal orientation
- Maximum range 150m (dependent on surroundings)



0004091 LineMax 300

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



Pan & Tilt units

- IP 68 watertight

0507061 Pan & Tilt unit 6kg 24V

- Left/right reach 360° speed: 30° sec.
- Reach up 30° down 90° speed: 10° sec.

0507050 Pan & Tilt unit 12kg 230V

- Left/right reach 350° speed: 6° sec.
- Reach up 25° down 90° speed: 3° sec.

0507040 Pan & Tilt unit 12kg 24V

- Left/right reach 360° speed: 32° sec.
- Reach up 25° down 90° speed: 12° sec.

0507100 Fastening plate

For quick mounting of camera on Pan & Tilt unit.

Mounting parts

Cover specially designed for the Compact Camera.

0402320 Protective cover

- Stainless steel housing

Specially designed for the Compact Camera. The nozzle allows high pressure cleaning of the camera lens.

0402310 Aerodynamic cover + nozzle

- Hose and water tank are not included
- Stainless steel

Ceiling mount for Compact Camera.

0402450 Camera Housing Dome

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



Switchers

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

- Cameras can be switched over automatically or manually

0404040 Switcher UNI

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

0404060 Switcher Serial

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



Switchers in – out

- Composite BNC connection
- 230 volt/AC 50 Hz
- Dimensions 110mm(d) x 160mm(w) x 40mm(h)

0404510 Switcher 2 in - 1 out

- 2 camera inputs - 1 monitor output

0404100 Switcher 4 in - 1 out

- 4 camera inputs - 1 monitor output



Screen splitter / Quad box

- Full screen video image
- Sequence (adjustable time)
- Quad image (4)
- 230V/AC 50Hz by means of enclosed adapter
- Dimensions 235mm(d) x 285mm(w) x 44mm(h)

0002090 Screen splitter 2 channel

- 2 camera inputs - 1 monitor output

0002100 Quad box 4 in - 1 out

- 4 camera inputs - 1 monitor output



Interface Control panel

To control a serial zoom camera.

0502920 Interface Controlpanel Serial 2x7p

- Including 4m power supply cable
- Can control each type of monitor



The qualifications of our Ex Compact Cameras

- CCD sensor
 - Nitrogen-filled camera housing, 100% watertight (IP 69K)
- Shock and vibration resistant for usage on offshore platform
 - Chemically hardened glass
- There is an aperture angle for every vision solution

Cameras CCC Ex

- Light sensitivity 1.5 lux
- T4: -40°C to 75°C, T5: -40°C to 50°C, T6: -40°C to 35°C
- Including a 5m multi cable

Type	Art. no. PAL	Art. no. NTSC
12° Zone 1	0193060	0193130
23° Zone 1	0193050	0193120
33° Zone 1	0193040	0193110
44° Zone 1	0193030	0193100
52° Zone 1	0193020	0193090
70° Zone 1	0193010	0193080
81° Zone 1	0193000	0193070

- CE0344
- EX II 2 G Ex mb IIC T6/T5/T4 Gb
- EX II 2 D Ex mb IIIC T85/100/125°C Db

Type	Art. no. PAL	Art. no. NTSC
12° Zone 2	0194060	0194130
23° Zone 2	0194050	0194120
33° Zone 2	0194040	0194110
44° Zone 2	0194030	0194100
52° Zone 2	0194020	0194090
70° Zone 2	0194010	0194080
81° Zone 2	0194000	0194070

- EX II 3 G Ex mc IIC T6/T5/T4 Gc
- EX II 3 D Ex mb IIIC T85/100/125°C Dc



The qualifications of our Ex Zoom Cameras

- Operating temperature between -40°C to +75°C
 - Monitoring by 2 absolute pressure sensors
- CE0344
 - EX II 2 G Ex ib mb px IIC T4 Gb
 - EX II 2 D Ex mb tb IIIC T102°C Db
- Nitrogen-filled camera housing, 100% watertight (IP 69K)

AF-Zoom Cameras Ex

- Including 10m multi cable Ex
- 36x optical zoom, 1,7° to 48° horizontal opening angle
- Built-in night vision function (0 lux mode)

0192030	AF-Zoom Camera Ex Aluminium
0192020	AF-Zoom Camera Ex Aluminium 10M
0192120	AF-Zoom Camera Ex Aluminium RS 485
0192180	AF-Zoom Camera Ex Aluminium RS 485 NTSC

0192040	AF-Zoom Camera Ex SST
0192130	AF-Zoom Camera Ex SST RS 485
0192190	AF-Zoom Camera Ex SST RS 485 NTSC



Thermal Imaging Camera Ex

- Including 5m multi cable Ex
- Thermal Imager Uncooled VOx microbolometer
- 2x and 4x zoom

0192000	TIC Ex Aluminium
0192100	TIC Ex Aluminium RS 485
• Aluminium housing	

0192010	TIC Ex SST
0192110	TIC Ex SST RS 485
• Stainless steel housing	



The qualifications of our Ex Pan & Tilt Zoom Cameras

- Operating temperature between -40°C to +75°C
 - Monitoring by 2 absolute pressure sensors
 - Nitrogen-filled camera housing, 100% watertight (IP 69K)
- Pan angle 360° (180° to left, 180° to the right)
 - tilt angle 180° (90° up, 90° down)
 - Built-in brightness function to ensure better visibility on dark areas
- CE0344
 - EX II 2 G Ex ib mb px IIC T4 Gb
 - EX II 2 D Ex tb mb IIIC T95°C Db

Pan & Tilt Zoom Cameras EX (PTZ EX)

0192060	PTZ Camera Ex Aluminium
0192150	PTZ Camera Ex Aluminium RS 485
0192150	PTZ Camera Ex Aluminium RS 485 NTSC
• Aluminium housing	

0192050	PTZ Camera Ex SSt
0192090	PTZ Camera Ex SSt NTSC
0192140	PTZ Camera Ex SSt RS 485
0192200	PTZ Camera Ex SSt RS 485 NTSC
• Stainless steel housing	



Pan & Tilt Thermal Image Camera Ex (PTTIC Ex)

0192070	PTTIC Aluminium Ex
0192160	PTTIC Aluminium Ex RS 485
• Aluminium housing	

0192080	PTTIC Ex SSt
0192170	PTTIC Ex SSt RS 485
• Stainless steel housing	



0404960	Ex Board Plate
To monitor the gas-pressurised camera via an intrinsic safe circuit.	
• CE0344	
• EX II 2 G Ex ib im px Gb IIC	





Junction box Ex

- II 2GD Ex e ai II CT6tDA21
- IP 65 T80°C

0504780 Junction box Ex 8p

- For use with compact camera Ex
- 8 pins

0504791 Junction box Ex 14p

- For use with 1221300 multi cable Ex
- 14 pins

0504770 Junction box Ex 14p

- For use with 1221320 armored cable Ex
- 14 pins



Control box

0504811 Control box

- To connect two AF-zoom Ex camera's and 2 compact Ex camera's

0404970 Control box Serial

- To connect 4 Ex camera's, AF-zoom or PTZ camera
- PAL video output
- Ethernet adapter



Ex Cable per metre (without connectors)

1221300 Multi cable Ex

- 1 x video coax + 11 x wires
- Halogen free

1221320 Multi cable Ex

- 1 x video coax + 11 x wires

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 meets all these requirements. **R10** describes the **EMC** behavior of the Orlaco Camera and Monitor systems.

The Orlaco camera and monitors for vessels are **RMRS** (Russian Maritime Register of Shipping) accredited.

Ship Security Surveillance TV System
type "ORLACO CCTV System" 04410000

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**.

All Orlaco materials are compliant to **Green Passport** requirements according IMO resolution MEPC.197(62) as adopted on July 15th 2011 (Maritime sector: International Maritime Organization concerning the functions of the Marine Environment Protection Committee).





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dealer:

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



**HEAVY
EQUIPMENT**



**ON ROAD
TRUCKS**



CRANES



FORKLIFTS



MARITIME



**EMERGENCY
VEHICLES**



DEFENSE



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