radiomatic® photon

Safe working with camera assistance.
Available with multiple types of Orlaco cameras.

quality in control

www.hbc-radiomatic.com

radiomatic® photon

Safe working with camera assistance.

Positioning a gripper hook precisely over the load, driving a logistic vehicle through narrow passages, or applying a drill bit exactly at the desired position: our radiomatic® photon camera assistance offers valuable help for demanding operations, complicated driving maneuvers and complete machine surveillance tasks.

radiomatic® photon delivers live video images to the radio control's color display. The operator is provided with a good view of the machine and working environment, even in areas with limited views or dead spots.

radiomatic® photon is designed to interface with many Orlaco cameras. Depending on the application, cameras with different viewing angles can be used, and infrared cameras for use in low light conditions or even in complete darkness.

radiomatic® photon is available for various transmitters with 3.5" display or 5" display.

More safety.

The operator has a better overview of complex environments from obstructed angles, allowing for the early detection of dangers. This possibility of early reaction makes work considerably safer.

More precision.

In difficult situations, for example when driving a machine through narrow passages or operating a machine in inaccessible areas, radiomatic® photon enables precise control.

More efficiency.

For surveillance tasks and machine control, the operator can cut down walking distances as the camera is providing up to date information. This offers a considerable increase in efficiency.

The highlights at a glance:

radiomatic® photon MCS
The mobile version radiomatic® photon MCS is the perfect choice for flexible use of the live camera at different locations. The operator can place the camera wherever it is needed without any installation effort or cables.

Low latency
The live images are transmitted via a separate radio link with very low latency of ≤ 120 ms and is therefore virtually in real time.

radiomatic® photon 2CAM switch
With this version, the operator can simply switch between two live camera images at any time. This even allows for a good view of working situations which are very difficult to oversee without having to change the location.

Display switch
Via a button or a switch, the operator can easily select standard data feedback on the display and access useful machine information.

radiomatic® photon 4CAM switch
Up to 4 cameras provide the necessary overview at all times, even in complex work situations. A clear split-screen display enables the simultaneous view from up to 4 camera perspectives.

radiomatic® photon PTZ
A pivoting, tilting and zoomable camera covers a significantly larger field of view for the operator. This flexibly allows for the perspective to be adjusted to match the specific working environment and by using the zoom feature, individual sections of the camera's field of view can be displayed in clear detail.

radiomatic® photon

Independently flexible viewpoints.

radiomatic® photon can be combined with numerous Orlaco camera options. Camera solutions for the spectrum series range from the compact FAMOS models – including an infrared variant – to a crane zoom camera and the pivoting, tilting and zooming PTZ version. With this variability, radiomatic® photon is ideally suited for a wide range of applications.

A selection of available cameras:

(further cameras on request)

FAMOS
various apertures
available on request

FAMOS IR LED
Infrared

Crane zoom camera

PTZ camera

radiomatic® photon modules at a glance:

radiomatic® photon
AC transmission unit

radiomatic® photon
DC transmission unit

radiomatic® photon
4CAM switch

radiomatic® photon MCS
Mobile Camera Solution

radiomatic® photon MCS

The mobile version.

radiomatic® photon MCS is the perfect choice for flexible use of the live camera at different locations. MCS stands for Mobile Camera Solution. The operator can place the camera wherever it is needed without any installation effort or cables.

For this purpose, the camera is mounted onto a handy and stable carrying frame with an integrated support leg. It is supplied with voltage via two of HBC's rechargeable exchange batteries with high-performing Li-ion technology. The camera can be optimally aligned for the respective working situation by means of the angularly adjustable camera mount.

radiomatic® photon MCS can be combined with numerous Orlaco cameras via the corresponding interface, for example with infrared versions as well as models with different fields of view. Moreover, the modular MCS concept allows to change the camera model quickly and easily at any time.

1. Carrying frame with support leg
2. Orlaco camera
3. Screw for adjusting the camera angle
4. 2 rechargeable Li-ion exchange batteries with charge level indication

radiomatic® photon 2CAM switch

The two-camera version.

Depending on machine type, work environment and purpose, using a second camera can be helpful and sensible. radiomatic® photon 2CAM switch is the optimum solution for such scenarios.

This concept involves using two cameras that are installed in different positions on the machine or in the work environment. If necessary, the operator can simply switch between the two live camera images at any time. This even allows for a good view of working situations which are very difficult to oversee without having to change the location.

With this variant, one can easily switch to the standard data indication via the display.

Possible combinations:

1 transmitter

+

2 x radiomatic® photon

1 transmitter

+

1 x radiomatic® photon

1 x radiomatic® photon MCS

1 transmitter

+

2 x radiomatic® photon MCS

radiomatic® photon 4CAM switch

Up to 4 live camera images at a glance.

With the 4CAM version, up to 4 cameras can be used in different positions on the machine. The feature is therefore optimal for very demanding and/or complex areas of application where multiple views are necessary. Switching between the cameras is carried out using a control element on the transmitter.

Another highlight is the simultaneous display of up to 4 camera images via split screen. A four-part split screen enables different perspectives of the machine or the work situation and ensures additional safety and convenience.

With the radiomatic® photon 4CAM switch, the operator can toggle between camera and data feedback displays at any time.

Possible combinations:

1 transmitter

+

1 x radiomatic® photon 4CAM switch

+

up to 4 cameras

split-screen with
4 camera views

radiomatic® photon PTZ

Flexible field of view and more details with PTZ camera.

radiomatic® photon can be combined with a pivoting, tilting and zoomable camera (PTZ: Pan Tilt Zoom). As a result, radiomatic® photon PTZ offers the operator oversee a significantly larger field of view with just a single camera and is able to adjust the perspective to exactly match the work situation – a decisive advantage, especially when using mobile machines in changing environments and application scenarios.

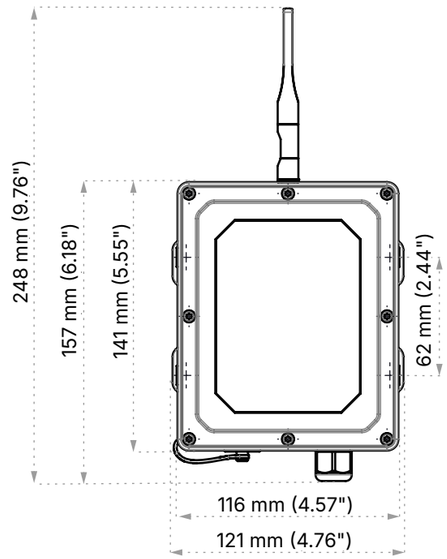
Using the zoom function, targeted sections of the camera's field of view can be displayed in clear detail. This enables a clear view of objects, processes and people in the work environment. In addition to enhancing operator comfort and ease of remote of use, safety for man and machine is also increased.

radiomatic® photon

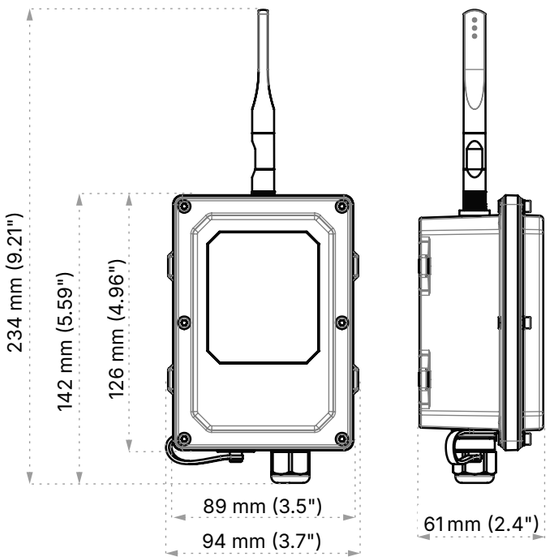
Technical data

HBC feature	radiomatic® photon
Radio transmission	digital, interference-resistant, encrypted 1-channel transmission technology
Range	typically 100 m
Frequency range	2400 – 2483,5 MHz
Latency	≤ 120 ms
Operating temperature	-20 °C ... +70 °C (-4 ... +158 °F)
Degree of protection	IP 65
Antenna	external with SMA connector
Input voltage	12 / 24 V DC; 100 – 240 V AC (10 m connection cable included)
Camera voltage supply	via transmitter module
Camera interfaces	Orlaco standard connectors (M16, 4-pole) supported
Compatible cameras	numerous FAMOS models by Orlaco with different opening angles as well as PTZ and crane zoom cameras (other camera models upon request)
Camera installation	installation devices available upon request

AC-Version



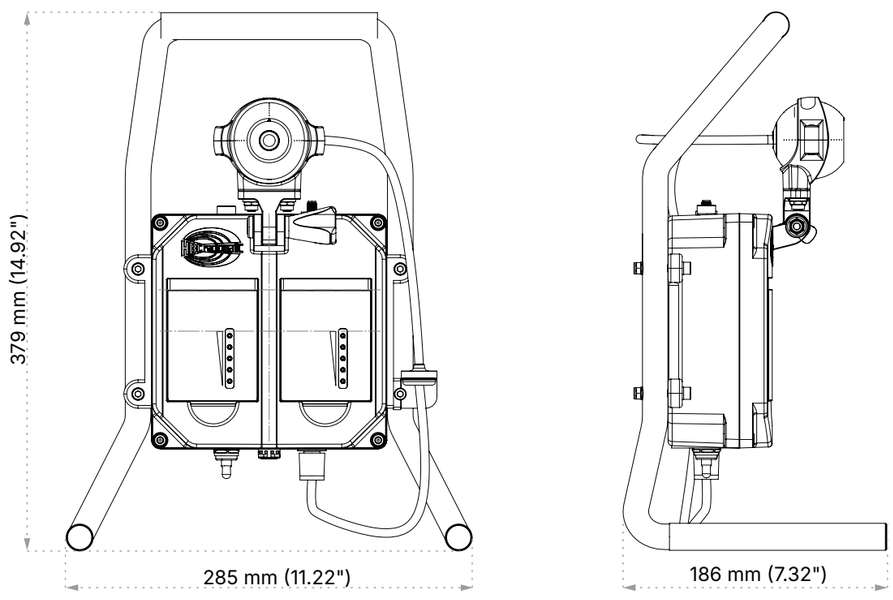
DC-Version



radiomatic® photon MCS

Technical data

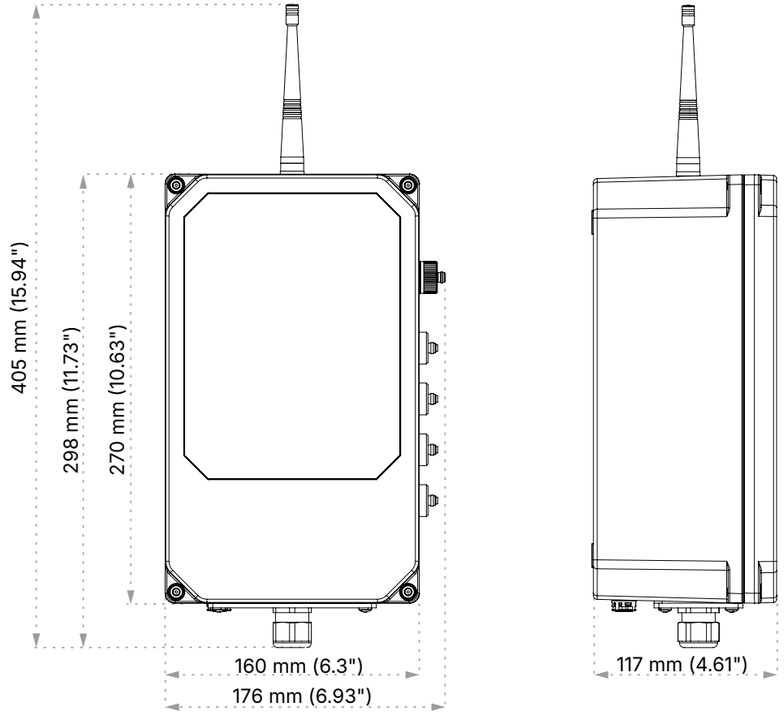
HBC feature	radiomatic® photon MCS
Radio transmission	digital, interference-resistant, encrypted 1-channel transmission technology
Range	typically 100 m
Frequency range	2408 – 2483.5 MHz
Latency	≤ 120 ms
Operating temperature	-20 °C ... +70 °C (-4 ... +158 °F)
Degree of protection	IP 65
Antenna	external with SMA connector
Camera voltage supply	2 x 3.6 V (via two HBC batteries type BA406)
Endurance	typically 12 h
Power	maximum 8 W
Camera interfaces	Orlaco standard connectors (M16, 4-pole) supported
Compatible cameras	Orlaco FAMOS and FAMOS-IR (infrared) models



radiomatic® photon 4CAM switch

Technical data

HBC feature	radiomatic® photon 4CAM switch
Radio transmission	digital, interference-resistant, encrypted 1-channel transmission technology
Range	typically 100 m
Frequency range	2400 – 2483,5 MHz
Latency	≤ 120 ms
Operating temperature	-20 °C ... +70 °C (-4 ... +158 °F)
Degree of protection	IP 65
Antenna	external with SMA connector
Input voltage	12 / 24 V DC; 100 – 240 V AC (10 m connection cable included)
Power	max. 40 W
Camera voltage supply	via radiomatic® photon 4CAM switch module
Camera interfaces	Orlaco standard connectors (4 x M16, 4-pole) supported
Compatible cameras	numerous FAMOS models by Orlaco with different opening angles (other camera models upon request)
Camera installation	installation devices available upon request



HBC-radiomatic GmbH
Haller Strasse 45 – 53
74564 Crailsheim
Germany
Phone: +49 7951 393-0
info@radiomatic.com
www.hbc-radiomatic.com