

Camera EMOS 180° Ethernet Article no. 0186000 Camera EMOS 120° Ethernet **Article no. 0186010** Camera EMOS 90° Ethernet Article no. 0186020

Camera EMOS 60° Ethernet **Article no. 0186030**

Camera EMOS 30° Ethernet **Article no. 0186040**

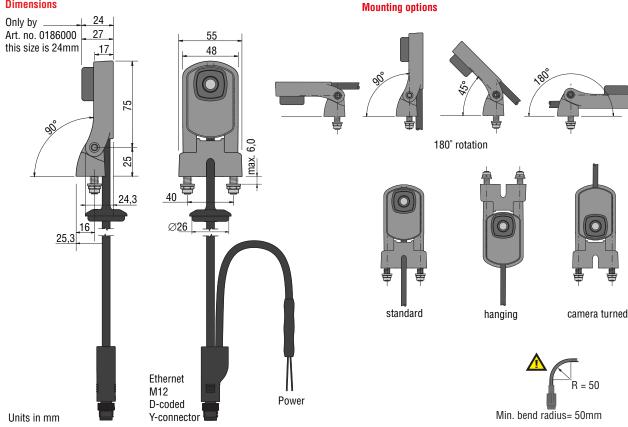
2018 • DS0961110 EN A 04



New Generation digital High resolution camera; using fast Ethernet video link

Dimensions

Product Data







TECHNICAL DATA

Camera EMOS Ethernet

Article number	Description				
	0186000	0186010	0186020	0186030	0186040
Lens specified	180°	120°	90°	60°	30°
Horizontal lens angle	180°	120°	90°	60°	30°
Vertical lens angle	130°	91°	68°	45°	22°

Sensor element High resolution 1/3" CMOS rolling shutter, 1280H x 960V.

Video image 60fps at 720p SDR, 45fps at 960p SDR image processing and 56fps at 720p HDR, 43fps at 960p HDR image processing. Protocols RTP (MJPEG RFC2435 and h.264 RFC6184) over UDP, PTP and gPTP, ISO17215-2014, IEEE1722 (AVB), ARP.

IP address DHCPv4 or static IPv4 (IPv6 possible).

Latency <100ms depending on hardware processing platform (50ms demonstrated on Orlaco hardware).

Light sensitivity responsitivity 5,5V/lux-sec, Low light feature (<0,1Lux).

High dynamic range >115dB.

Compression MJPEG, H.264 (High 10 intra profile encoding).

Interface 100Mb/s (Fast Ethernet).

Image processing Color and gamma correction, 3D noise correction, edge enhancement, digital WDR, advanced contrast enhancement, auto

white-balance, auto exposure control, mirroring, flipping, photometric and geometric lens distortion correction.

Electrical

Power input 12/24V/DC. Below 7V: camera is non-functional. Above 33V the overvoltage protection is activated. This overvoltage-

protection is deactivated below 30V. Powercircuit is protected up to 80V/DC. Outputs are Short Circuit Protected.

In all these above mentioned values; a tolerance of \pm 10% is applied. <2W.

Power consumption

Connector/Cable

Transient protection Camera may be powered directly from 12V or 24V battery without additional electrical protection since camera has an

integrated circuit that protects the camera against over- and undervoltage, spikes, ripples and loaddumps (ISO-Pulses).

6 wire: 2x twisted pair for data and 2 wires for power supply. Connector 4-pin M12 d-coded for data and open wires for

power supply.

Min. cable bend radius 50mm.

Mechanical

Housing Anodised aluminium, black, UV resistant, light fastness >8, corrosion proof according IEC 60068-2-52 salt mist, cyclic.

Filling Camera is potted with automotive potting resin

Ingress protection IP67 according to IEC 60529; dust tight and protected against the effects of immersion in water up to 1m under water for

30 minutes. IP69k according to DIN 40050-9: camera can withstand a high pressure cleaning with water: 14-16L/min. 80°C

and 100 bars flow.

Shock constancy Camera bracket

Camera bracket Weight

Truck use

Onerating temperature

Shock and vibration resistant for usage on trucks, cranes, fork-lifts, maritime applications, machinery.

Material: glass reinforced plastics, test: 50 Nm at -40°C to +85°C. Mounting hardware standard stainless steel.

 $0,\!24 kg.\ including\ cable,\ bracket\ and\ mounting\ material.\ 0,\!30 kg.\ in\ standard\ packing.$

Withstand all fluids and materials used in and around trucks like: ammonia solution 5%, ethanol 80-100%, isopropanol

5-10%, soapy water (min. 50% soap per volume), alkaline degreasing compounds (used in high pressure washing equipment).

Operating temperature Storage temperature -40°C to +85°C. -40°C to +125°C.

Storage temperature -40°C to +125°C.

Certification

Approvals In compliance with all relevant EMC- and Automotive directives. This device complies with Part 15 of the FCC Rules.

Operation is subject to the following conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Certificates available

upon request.

Compliant with RoHS and REACH.

Features

This camera complies to R10 ECE regulations.

FCC regulations.

EN 12895 (2000) Industrial trucks – Electromagnetic Compatibility.

EN 13309 (2010) Construction machinery – E.C. of machines with internal power supply. EN ISO 14982 (2009) Agricultural and forestry machinery - Electromagnetic Compatibility.

ISO 13766 (2006) Earth-moving machinery - Electromagnetic Compatibility.

All data subject to change without notice. All dimensions are for commercial purpose only.

The camera/display systems from Orlaco comply with the latest CE, ADR, EMC and mirror-directive regulations, where applicable.

All products are manufactured in accordance with the ISO 9001 quality management system, ISO/TS 16949 quality automotive, ISO 14001 environmental management systems and all Ex products with the IECEx scheme and ATEX directives, where applicable.



