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Product Data

Camera FAMOS PAL
20°: Article no. 0171060
40°: Article no. 0171050
60°: Article no. 0171040
80°: Article no. 0171030
102°: Article no. 0171020
118°: Article no. 0171010
129°: Article no. 0171000

Camera FAMOS NTSC
20°: Article no. 0171160
40°: Article no. 0171150
60°: Article no. 0171140
80°: Article no. 0171130
102°: Article no. 0171120
118°: Article no. 0171110
129°: Article no. 0171100

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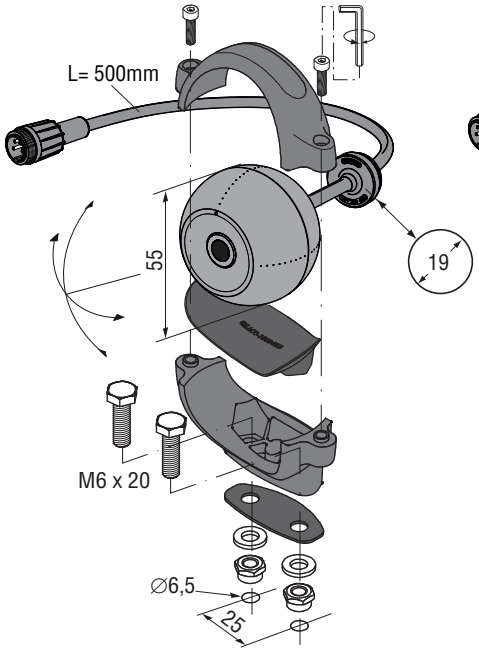
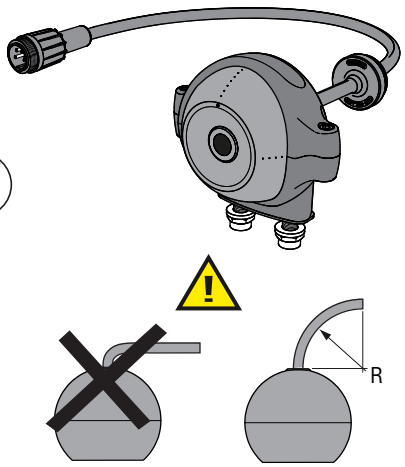
Dimensions





Min. bend radius (R) = 50mm

Units in mm

TECHNICAL DATA

Camera FAMOS 20°/129° PAL/NTSC

Description							
Article number PAL	**0171060**	**0171050**	**0171040**	**0171030**	**0171020**	**0171010**	**0171000**
Article number NTSC	**0171160**	**0171150**	**0171140**	**0171130**	**0171120**	**0171110**	**0171100**
	FAMOS 20°	FAMOS 40°	FAMOS 60°	FAMOS 80°	FAMOS 102°	FAMOS 118°	FAMOS 129°
Lens specified	20°	40°	60°	80°	102°	118°	129°
Horizontal lens angle	20°	40°	60°	80°	102°	118°	129°
Vertical lens angle	15°	31°	44°	57°	73°	89°	97°

Sensor

Video signal PAL = 720(H)x576(V) 50fld/s. NTSC = 720(H)x480(V) 60fld/s. 1 Vtt composite video into 75 Ohm.
Sensor element ¼" CMOS digital image sensor. 640 H x 480 V.
Light sensitivity <0,05 Lux.
Dynamic Range 80dB.

Electrical

Power input 12...24V/DC.
Below 6V: camera is non functional. Between 7V heating element automatically activated (20% capacity). At 8V the camera is fully functional and the heating is at 40% of its capacity. At 12V the heating is at 100% capacity. Between 12V and 33V camera and heating element are fully functional. Above 33V the overvoltage protection is activated and camera plus heating element are switched off. This overvoltage-protection is deactivated below 32V. Powercircuit is protected up to 80V/Dc. Outputs are Short Circuit Protected.
In all these above mentioned values; a tolerance of +/-10% is applied.
Power consumption Heating off: 1.1W at 12V, 1.2W at 24V; Heating on: Max. power at 24V 0,15A = 3,6W. Max. power at 12V 0.28A = 3.4W.
Inrush current 0.5A at 12V and 1.0A at 24V (t < 2ms, peak (>90%) t = 0.3ms).
Heater element 2.4W max. Pulse width modulated, activated from +30°C (min) to -40°C.
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.
Connectors 0,5m cable with 4p molded male connector (camera power input and video output).
Min. cable bend radius 50mm.

Mechanical

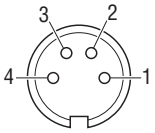
Housing Cycoloy (PC + ABS). Filling: Camera is potted with Polyurethane elastomer.
Ingress protection IP67 according to IEC 60529; dust tight and protected against the effects of continuous immersion in water up to 1m for 30 minutes. IP69k according to DIN 40050-9: camera can withstand a high pressure cleaning with water: 14-16L/min. 80°C and 100 bars flow.
Mounting hardware Standard stainless steel.
Shock constancy Shock and vibration resistant for usage on trucks, cranes, fork-lifts, maritime applications, machinery. Random vibration test 15,3Grms at frequency: 24 to 2000, PSD (g^2/Hz) 0,04 to 0,10.
Camera bracket Material: glass reinforced polyamide, test: 50 Nm at -40°C to +85°C.
Weight 0,21kg, 0,29 in standard packing.
Truck use 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 -40°C to +85°C.
Storage temperature -40°C to +100°C.

Certification

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

Electrical connections

Front side of molded 4p male connector



1 = Coax core	= Video signal
2 = Coax screen	= Video GND
3 = Red	= 12...24V/DC
4 = Black/orange	= 0V
Shielding	To connector housing

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, IATF 16949 quality automotive, ISO 14001 environmental management systems and all Ex products with the IECEx scheme and ATEX directives, where applicable.

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