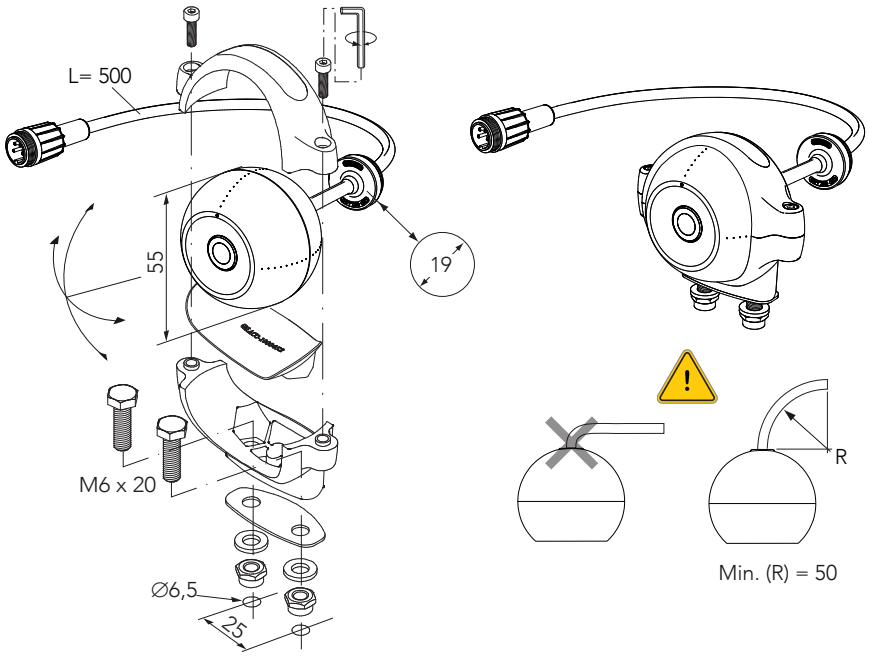
Camera FAMOS 102°/118°
PAL / NTSC Mirror



DIMENSIONS Units in mm.

DOCUMENT & ARTICLE NO.

DS0961200ENA06

Article no. 0171221 camera PAL 102°
Article no. 0171211 camera PAL 118°
Article no. 0171241 camera NTSC 102°
Article no. 0171231 camera NTSC 118°

Camera FAMOS 102°/118° PAL/NTSC Mirror

	Description			
Article number	**0171221**	**0171211**	**0171241**	**0171231**
	FAMOS 102° PAL Mirror	FAMOS 118° PAL Mirror	FAMOS 102° NTSC Mirror	FAMOS 118° NTSC Mirror
Lens specified	102°	118°	102°	118°
Horizontal lens angle	102°	118°	102°	118°
Vertical lens angle	73°	89°	73°	89°

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

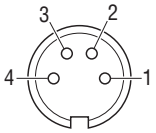
Housing	Cycoloy (PC + ABS). Filling: Camera is potted with Polyurethane elastomer.
Ingress protection	IP67 according to IEC 60529; dust tight and protected against the effects of continuous immersion in water up to 1m for 30 minutes. IP69k according to DIN 40050-9: camera can withstand a high pressure 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%, iso-propanol 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

DS0961200ENA06