

# Product DATA

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## Camera AMOS 69/118° IR LED PAL/NTSC



Article no 01462\*0

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# Technical Specifications

## Camera AMOS 69/118° IR LED PAL/NTSC

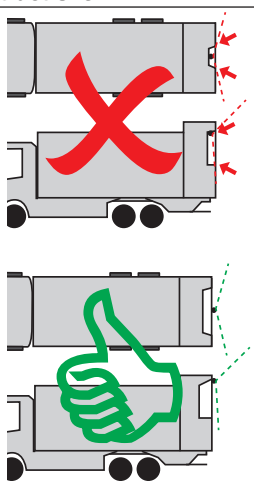
Article number PAL	0146200	0146210
Article number NTSC	0146220	0146230
Description	AMOS 69° IR LED	AMOS 118° IR LED
Lens specified	69°	118°
Horizontal lens angle	69°	118°
Vertical lens angle	52°	89°
Video signal	PAL = 720(H)x576(V) 50fld/s. NTSC = 720(H)x480(V) 60fld/s, 1Vtt composite video into 75 Ohm.	
Sensor element	1/4" CMOS Digital image sensor. 680 H x 480 V.	
Light sensitivity LED	< 0,05 Lux.	
Activation IR LED's	15 High Power Infrared LEDs (850nm). Modern software algorithm measures automatically the output parameters of the CMOS sensor and automatically decides and activates the value of IR illumination needed for the best image. IR LED's are activated between 0% and 100% in steps of 1%.	
Housing	Anodised aluminium, black, UV resistant, light fastness >8, corrosion proof according IEC 60068-2-52 salt mist, cyclic.	
Ingress protection	IP68 according to IEC 60529 (up to 10 m under water). IP69k according to DIN 40050-9: camera can withstand a high pressure cleaning with water: 14-16L/min. 80°C and 100 bars flow.	
Nitrogen filled	Filled with overpressure 1 bar.	
Lens glass	Chemically hardened, toughed, tempered float glass: 5 to 7 times stronger than ordinary glass, protected against acid: class 2-3; DIN 12116, passed flying stone test.	
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 <sup>2</sup> /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).	
Power input*	12..24V/DC.	
Power consumption	Camera only: 0,8W at 12V , Heater & full LED on: 6W at 12V Camera only: 1W at 24V , Heater & full LED on: 6,7W at 24V	
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.	
Heater	2,4W max. Puls Width Modulated, activated from +30°C (min) to -40°C.	
Operating temperature	-40°C to +85°C.	
Storage temperature	-40°C to +125°C.	
Connectors	0,5m cable with 4p male connector (camera power input and video output).	
Min. cable bend radius	50mm.	
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. 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).	
Green Passport		

### Power input\*

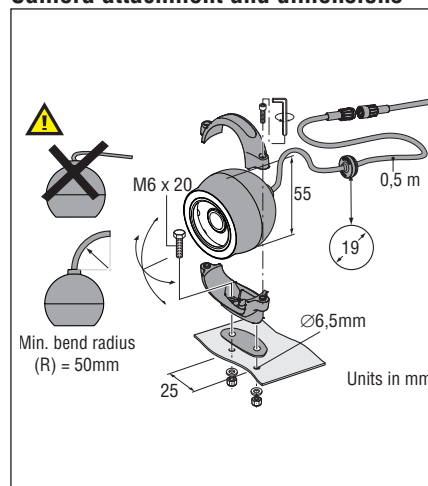
Below 6V: camera is non functional. Between 7V heating element automatically activated (20% capacity). At 8V the camera is fully functional and the heating is at 40% of its capacity. At 12V the heating is at 100% capacity. Between 12V and 33V camera and heating element are fully functional. Above 33V 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.*

### Camera mounting instructions

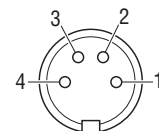
The IR LED camera is equipped with powerful LED illumination which reflects back and disturbs the image if nearby structural parts of the vehicle are in the field of vision or just around the field of vision. Make sure the IR LED camera has a free area in the immediate surroundings of the camera to prevent these reflections. **Warning:** IR emitted from this product. Do not stare at operating camera.



### Camera attachment and dimensions



### Front side of molded 4p male connector



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