

Technical Specifications

Orlaco is a Manufacturing company that specializes in making cameras and monitor systems for commercial vehicles, fork-lift trucks, cranes, off shore and maritime.

Our objective is to design and produce camera systems for the professional market that improve the drivers' view and increase operating efficiency.

At our facility in Barneveld we locate our design, manufacturing, warehousing and service department.

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For more information: www.orlaco.com

 II 2 G Ex pm II T5 -40°C < Ta < +75°C
Ex pm II T6 -40°C < Ta < +55°C
Nemko 02 ATEX 474X



Date: _____

Name: _____

Initials: _____

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



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Product DATA

Data sheet DS0103980 EN
2012 • R2-2



 II 2 G Ex pm II T5 -40°C < Ta < +75°C
Ex pm II T6 -40°C < Ta < +55°C
Nemko 02 ATEX 474X

Auto focus Zoom Camera PAL 80AFEX Serial (Explosion proof)



Article no 0103980

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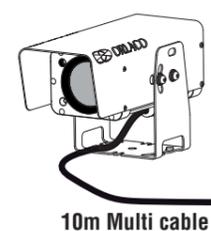
Article Number	0103980
CCD sensor	1/4" type EX view HAD CCD
Picture elements	752 (H) x 582 (V) (approx. 440 000 pixels)
Resolution	460 TVL.
Lens	f = 4,1 mm (wide) to 73,8 mm (tele). 216x zoom ratio; 18x optical zoom, 12x digital
Lens speed	from wide optical to tele (optical) 2,1 sec. (f=1,4 to f=3,0 zoom movement speed)
Angle of view (H)	48° (wide) to 2,7° (minimum object distance)
Min. working distance	10 mm (wide), 800 mm (tele)
Min. illumination	0 Lux (f1,4 1/50 sec. PAL) 0,1 Lux (f1,4 1/3 sec. PAL)
S/N ratio	50 dB or more
TV system	PAL, CVBS, Output: 1 Vtt composite video into 75 ohm
Construction	Sun cover and housing: aluminium (ALMGSI1). Bracket and mounting parts RVS 316. Suitable for mobile applications with shocks and vibrations.
Protection	Corrosion proof housing black Nituff (PTFE coated according Mil-A-6347A type II offshore proof according IEC 60068-2-52, condense- and watertight IP 67, (10 m under water) according to IEC 60529, dry-nitrogen filled, 1 Bar overpressure monitored by 2 absolute pressure sensors, long term stability 0,1% per year. Voltage barriers for sensor circuit.
Approvals	Specifications are according to CENELEC EN 50016, CENELEC EN 50014 and CENELEC EN 50028. Weather-, shock-, vibration-, corrosion- and explosion proof Nemko 02ATEX474X certificated colour camera Ex pm II T5, -40°..+75°C, suitable for zone 1 and 2. Ex II 2 G (Ex II 2DG for dust applications is possible upon request)
Bracket	Standard bracket, including bolts, nuts and washers. Suitable for mounting hanging, overhead and standing.
Operating temperature	Extended temperature range: Ex pm II T5 -40°C<Ta<+75°C.
Glass	Chemically hardened lens glass, 7x stronger than ordinary glass, scratch proof surface, following "VII Flachgläser" (german std.)
Weight	3 kg (including 10m cable)
Power input	Via Control box (Smart board) where mains input control box 230 V/AC 50 Hz. or 110V/AC (switchable inside Controlbox).
Power consumption	Temperature <0°C (demister on): 7,2 W & >0°C (demister off): 3,6 W
Communication	Visca protocol (TTL/CMOS) 9,6 Kbps, 38,4Kbps, Stop bit, 1/2 bit
Installation	Smart board must be mounted outside the EX zone and is equipped with an alarm buzzer that indicates low pressure.
Also included	A potential free contact to activate external alarm devices & an external on/off switch.

Serial commands					
Zoom tele far	8x 01 04 07 27 FF	Zoom tele std.	8x 01 04 07 02 FF	Zoom wide far	8x 01 04 07 37 FF
Zoom stop	8x 01 04 07 00 FF	Focus near std.	8x 01 04 08 03 FF	Focus far std.	8x 01 04 08 02 FF
Focus stop	8x 01 04 08 00 FF	Autofocus on	8x 01 04 38 02 FF	Autofocus off	8x 01 04 38 03 FF
Backlight on	8x 01 04 33 02 FF	Backlight off	8x 01 04 33 03 FF	0-lux on	8x 01 04 01 02 FF
0-lux off	8x 01 04 01 03 FF				

FCC compliance statement:
The camera comes under section for commodity codes for electronic equipment. This is known as "Harmonize code: 8525.30.9060" and the importer can check off Block 2 on FCC form which states: "An FCC grant of equipment authorization and an FCC ID are not required, but the equipment complies with FCC technical requirements." **Caution:** Any changes or modifications in the construction of this device which are not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Camera/ monitor sets are visual aids and objects visible in camera/ monitor systems are smaller or bigger than they appear on screen.

Installation

Soldering (1220250) cable



Green	0.40mm ²	(Screening/shielding jacket)
White	0.40mm ²	(Coax core)
Blue	0.40mm ²	(Coax screening)
Red	AWG20	(Power input)
Black	AWG20	(Power ground)
Blue	AWG24	(OK signal EX cam)
Yellow	AWG24	(Press. switch power 9V/DC)
Green	AWG24	(RX)
Grey	AWG24	(TX)
Brown	AWG24	(OK Signal PT)
Pink, Violet, Red/Black	AWG24	(Not connected)
White, Black/White	AWG24	(Not connected)

Build up cable	
Jacket diameter	8.7 ±0.2mm
Jacket material	PUR Santoprene

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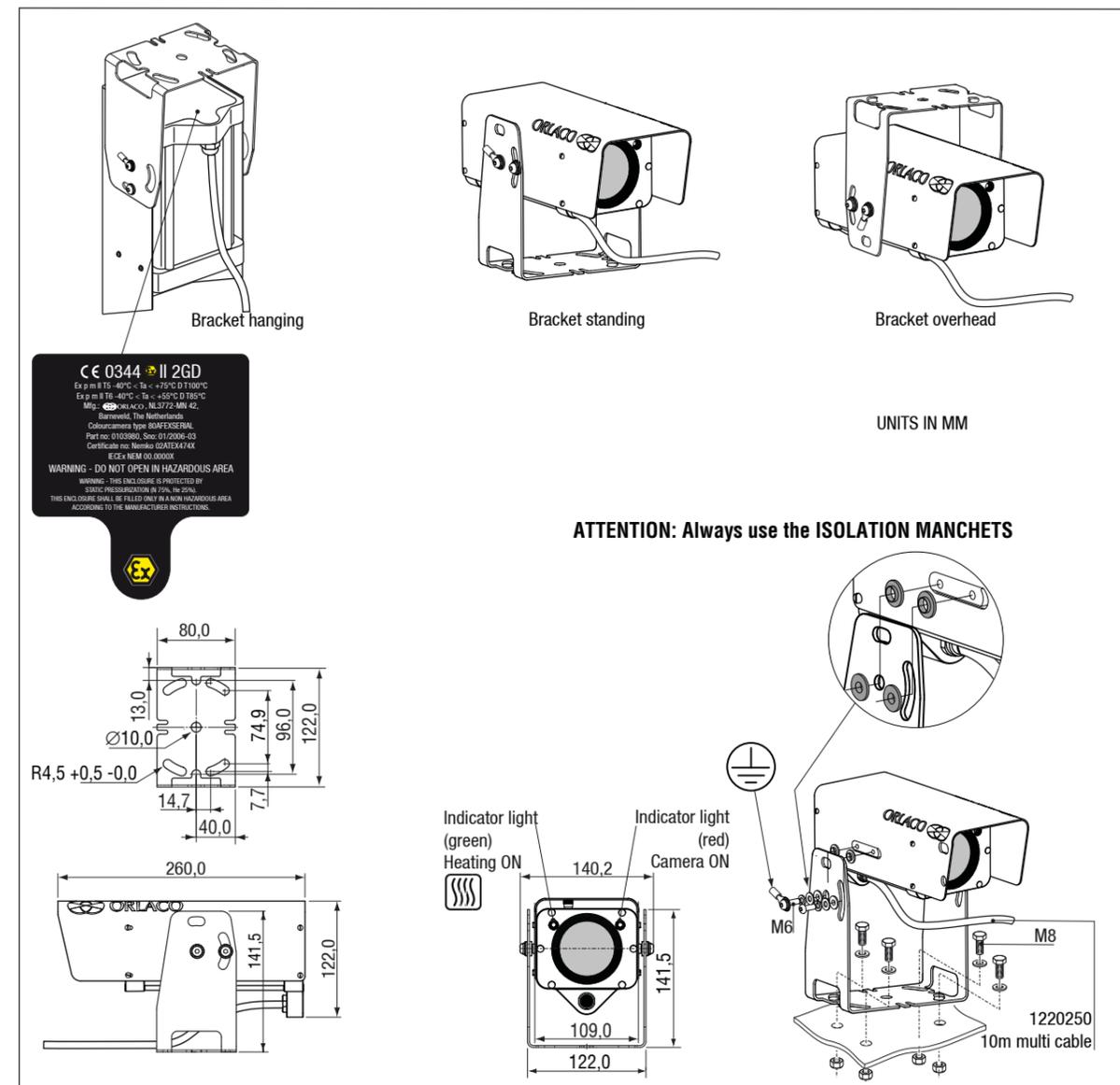
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Dimensions

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Article Number 0103980



ATTENTION: Always use the ISOLATION MANCHETS

EC Declaration of conformity

According to Annex XB, ATEX guidelines 94/9/EC
Name manufacturer: Orlaco Products BV
Address manufacturer:
A. Plesmanstraat 42, 3771 MN, Barneveld
The Netherlands, Europe
Declares that the product:
Product name: [Load view system with Eex zoom camera]
Model number(s):
[0103980 Ex zoom camera] comply with the following products specifications:
Cenelec EN50014-1992, EN50016-1995 and EN50028-1987, EMC 95/54/EC

Extra information:
Products are tested as independent units.
Contacts The Netherlands:
Mr. B.J. Antink
Tel.: +31 342 404555
Notified body CE0344: Nemco AS,
Gaustadalléen 30 0373 Oslo Norway, Europe

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