

Product DATA

Data sheet DS0103980 EN
2008 • version 1.6



II 2 G EEx pm II T5 -30°C ≤ Ta ≤ +75°C
EEx pm II T6 -30°C ≤ Ta ≤ +55°C
Nemko 02 ATEX 474X

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



Top Side Offshore Technology
Official world wide distributor Orlaco ex camera systems

Article no 0103980

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

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) 0,05 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. 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 68, (25 m under water) acc. to DIN/IEC 529, 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 EEx pm II T5, -30°..+75°C, suitable for zone 1 and 2. EEx II 2 G (Eex 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 temp.	PRELIMINARY: This product will have extended temperature range: EEx pm II T5 -40°C<Ta<+75°C, certification pending, started 03-2008
Glass	Chemically hardened lens glass, 7x stronger than ordinary glass, scratch proof surface, following "VII Flachgläser" (german std.)
Weight	3 kg (including 5,5 m cable)
Power input	Via control box where mains input control box 230 V/AC 50 Hz. or 110V/AC (switchable inside control box).
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.

Soldering (1220250) cable

Green	0.40mm Screening/shielding jacket
White	0.40mm Coax core
Blue	0.40mm 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

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

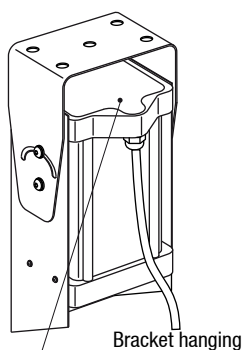
Dimensions



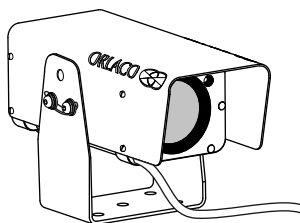
II 2 G EEx pm II T5 -30°C ≤ Ta ≤ +75°C
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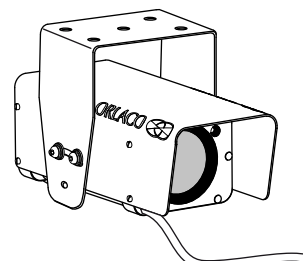
Article Number 0103980



Bracket hanging



Bracket standing

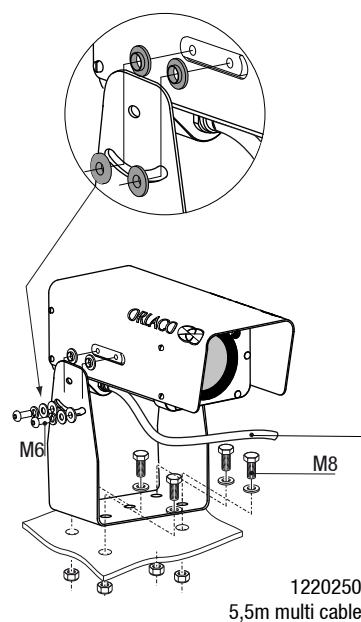
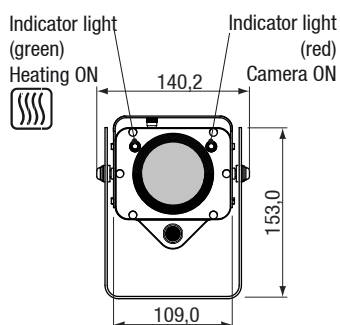
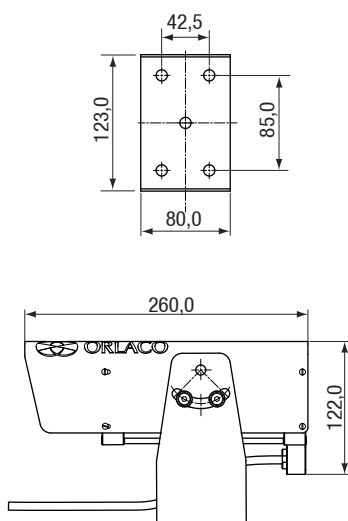


Bracket overhead



UNITS IN MM

ATTENTION: Always use the ISOLATION MANCHETS



EC Declaration of conformity

According to Annex XB, ATEX guidelines 94/9/EC

Name manufacturer: Orlaco Products BV

Declares that the product:

Product name: [EEx zoom camera, serial]

Model number(s):

[0103980 EEx 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.

Notified body CE0344: Kema Quality BV,

Utrechtseweg 310, 6812 AR ARNHEM

The Netherlands, Europe



Autofocus Zoom Camera PAL 80AFEX Serial (Explosionproof)

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SUPPLEMENT 2 TO EC-TYPE EXAMINATION CERTIFICATE

[12] The marking of the equipment or protective system shall include the following :

 II 2 G EEx pm II T5 -30°C < Ta < +75°C
 EEx pm II T6 -30°C < Ta < +55°C

[14] EC-TYPE EXAMINATION CERTIFICATE No Nemko 02ATEX474X

[15] Description of Equipment or Protective System

This Certificate is extended to include a new alternative design with serial communication, RS232, and a new model name.

Type Designation

80AFEXSERIAL

[16] Report No. 54435

Descriptive Documents

Name/Title	Drawing No.	Rev.	Date	Sheets
Scematic 80AFRS232EX	0103980		2005-08-29	1
Colorcamera 80AF RE232 EX with part list	0103980		2005-09-11	2
Scematic ORL537	8953700		2005-08-29	1
ORL537	8953700		2005-08-29	1
Partlist Zonnekap 80AFEX Camera OR40-08	8980300		2005-10-05	1
ZONNEKAP 80AFEX CAMERA	2011641		2003-11-27	1
BEHUIZING CAMERA AUTOFOCUS	8000350		2001-05-23	1
PART LIST	8000350		2005-09-13	1
CNC BACK COVER AF EX RS232	7080110		2005-09-15	1
Afdekplaat EX RS232+ anodi +tek	8986610	V1.2	2006-02-15	1
CNC VOORDEKSEL 80++Ex CAMERA	7080170		2001-03-01	1
VERW, CAMERA	8040100		2005-09-26	1
PART LIST	8040100		2005-09-26	1
FRAME AF ZOOM CAMERA	2012560		2004-11-23	1
VERWARMING CAMERA	899090		2005-09-26	1
ORL525	8952500		2005-08-25	1

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ORLACO ORL525-A AF RS-232 EX	8952500	V1.01	2005-04-29	1
ORLACO ORL525-A Pressure Sensor Switch	8952500	V1.01	2005-04-29	1
ORLACO ORL525-A Power	8952500	V1.01	2005-04-29	1
Print ORL501 EX Kabelprint	1950100		2002-09-21	1
Print ORL501C EX Schematic	1950100		2002-09-20	1
ACHTERDEKSEL COMPL. AF EX RS232	8028010		2005-09-15	1
PART LIST	8028010		2005-09-26	1
Assemblage manual 0103980 Colorcamera 80AFEXRS232	0103980	V1.0	2005-09-19	14

Routine Test

A routine pressure test of 2,25 Bar for two minutes must be made on all samples.

Routine tests according to EN50028 clause 7.2 must be made on all samples of the moulded part.

[17] Special Conditions for Safe Use

The camera has a cable permanently connected to it. This cable must be terminated in an Ex-certified junction box or outside the hazardous area.

The external earth terminal is for connection with cable lug connection only.

The camera must be filled in a non-hazardous area according to the manufacturers instructions

[18] Essential Health and Safety Requirements

See item 9

Oslo, 2006-03-06

Rolf Hoel

Rp Rolf Hoel
Certification Department

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NO 974404532

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The camera monitor systems are entirely conform the latest CE, ADR, VDE and EMC specifications and are produced conform the ISO 9001 - 2000 quality system



