

# Product

# DATA

Data sheet no DS0181100 EN  
2009 • version 2.1



Ex II 2 G Ex mb II T6 -40°C<Ta<35°C.  
Ex II 2 G Ex mb II T5 -40°C<Ta<50°C.  
Ex II 2 G Ex mb II T4 -40°C<Ta<75°C.



Ex II 2 D Ex mD 21 T85°C -40°C<Ta<35°C.  
Ex II 2 D Ex mD 21 T100°C -40°C<Ta<50°C.  
Ex II 2 D Ex mD 21 T125°C -40°C<Ta<75°C.

## Compact Camera CCC \*° Ex-M (Explosionproof)



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

Article no. 0181\*\*0

Top Side Offshore Technology - Radarstraat 12 - 2901 AV Capelle a/d IJssel - The Netherlands  
Phone: +31 (0) 10 451 5655 - Fax: +31 (0) 10 458 5828 - E-mail: [service@topsideoffshore.com](mailto:service@topsideoffshore.com) - Internet: [www.topsideoffshore.com](http://www.topsideoffshore.com)

# Technical Specifications

## Compact Camera CCC \*° Ex-M (Explosionproof)

	0181100	0181110	0181120	0181130	0181140	0181150	0181160
Article number PAL	0181100	0181110	0181120	0181130	0181140	0181150	0181160
Article number NTSC	0181200	0181210	0181220	0181230	0181240	0181250	0181260
Description	CCC Ex 95°	CCC Ex 81°	CCC Ex 70°	CCC Ex 52°	CCC Ex 44°	CCC Ex 33°	CCC Ex 15°
Horizontal angle	95°	81°	70°	52°	44°	33°	15°
Vertical angle	71°	...	53°	39°	...	25°	11°
CCD	1/4 inch CCD Image sensor.						
CCD total pixels	PAL: 795(H) x 596(V), NTSC: 811(H) x 508(V).						
Minimum illumination	1,5 Lux (F1.2, 5600°K).						
Resolution	470 TVL / 580 TVL (Enhanced).						
S/N ratio	52dB ( MIN ) / 60dB ( TYP ) (AGC OFF).						
A.E.S.	1/50~1/100,000 sec.						
Video output	1,0V p-p composite video at 75 Ohm.						
Gamma correction	0,45						
Gain control	AGC						
White balance mode	ATW / AWC Switchable.						
White balance range	3200 ~ 10000 °K.						
Mirror function	REV. / NOR. Switchable via orange wire connected to 12V/DC +/- 3V.						
Shock constancy	Shock and vibration resistant for usage on offshore platform.						
Weight	0,44 kg, without cable.						
Lensglass	Chemically hardened, toughened, tempered floatglass, 5 to 7 times stronger than ordinary glass.						
Housing	Stainless steel 316L, IP68.						
Camera bracket	Camera bracket is made of glass reinforced polyamide, survives torque test: 50 Nm at -40°C...+85°C.						
Ambient temperature	T4:-40°C<+75°C, T5:-40°C<+50°C, T6:-40°C<+35°C.						
Cable	Art. no 1220110, metric marker. 5,0 meters (+/-0,1m), the cable shall be fixed mounted.						
Approvals	EN 60079-0:2006, EN 60079-18:2004, EN 61241-0:2006, EN 61241-18:2004. IEC 60079-0:2004, IEC 60079-18:2004, IEC 61241-0:2004, IEC 61241-18:2004.						
Power	+12V/DC +/- 15%, consumption 250mA heating on, 85mA heating off. Camera must be connected to a fuse 250 mA slow blow. The breaking capacity of the fuse must be in accordance with the prospective short circuit current of the supply.						
Protection	Automatic shutdown <11,1V/DC and >16,1V/DC Protection against extreme voltage 28V/DC (500 hrs.) With Ferrite T filter protection against spikes, load-dumps, ripples.						
Notes:	Electrical connections shall only be done by qualified Ex engineers following the latest ATEX regulations. Orlaco accepts no liability for mistakes, faults or damages due to wrong voltage connection. Zenerbarriers and fuses are not included, should be applied by installer.						

	Ex II 2 G Ex mb II T6 -40°C<Ta<35°C.
	Ex II 2 G Ex mb II T5 -40°C<Ta<50°C.
	Ex II 2 G Ex mb II T4 -40°C<Ta<75°C.
	Ex II 2 D Ex mD 21 T85°C -40°C<Ta<35°C.
	Ex II 2 D Ex mD 21 T100°C -40°C<Ta<50°C.
	Ex II 2 D Ex mD 21 T125°C -40°C<Ta<75°C.

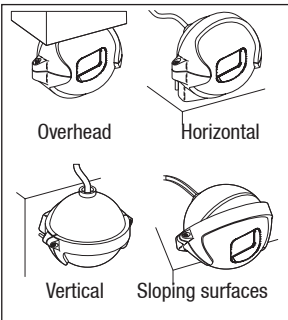
**Camera must be connected to a fuse 250 mA slow blow.**

### EC Declaration of conformity

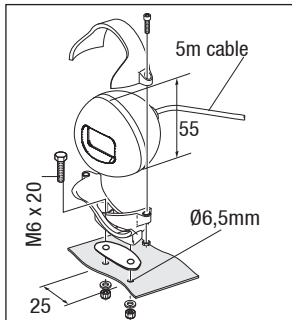
According to Annex XB, ATEX guidelines 94/9/EC.  
 Name manufacturer: Orlaco Products BV.  
 Address manufacturer: A. Plesmanstraat 42, 3771 MN, Barneveld  
 The Netherlands, Europe.  
 Declares that the product:  
 Product name: [Compact Camera XX° Ex-M (Explosionproof)]  
 Model number(s): [0181\*\*0 Compact Camera XX° Ex-M] comply with the following products specifications:  
 EN/IEC 60079-0:2006/2004, EN/IEC 60079-18:2004, EN/IEC 61241-0:2006/2004, EN/IEC 61241-18:2004.  
**Extra information:**  
 Products are tested as independent units.  
 Contacts The Netherlands:  
 Mr. G. van Beusekom  
 Tel.: +31 342 404555.  
 Notified body CE0344:  
 Kema Quality BV, Utrechtse-weg 310, 6812 AR ARNHEM  
 The Netherlands, Europe.

## Installation

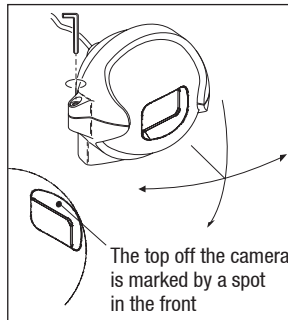
### Universal camera bracket



### Camera attachment

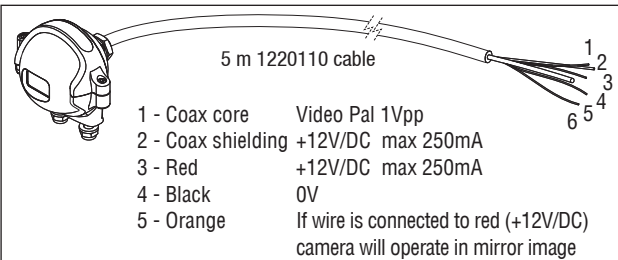


### Aiming the camera

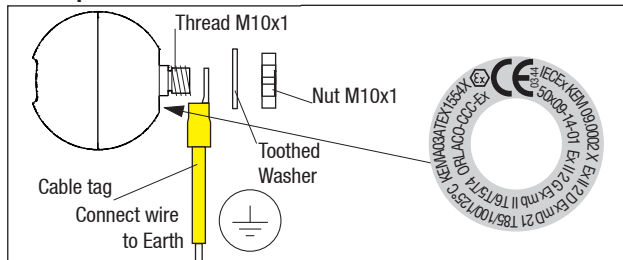


The free end of the permanently connected, unterminated cable is to be connected in an appropriate way, e.g. in a suitable Ex e or Ex d junction box.

### How to connect the camera



### Earth point



All data subject to change without notice. All dimensions are for commercial purpose only.  
 The camera/display systems comply with the latest CE, ADR, EMC and mirror-directive regulations.  
 All products are manufactured in accordance with the ISO 9001-2000 quality management system, ISO 14001 environmental management systems and all Ex products with the IECEx scheme and ATEX directives.

