

**GOVERNMENT APPROVED TEST LABORATORY**  
IN TERMS OF ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"

**IA CERTIFICATE**

Date Issued: **13 Apr 2017**  
\*Expiry date: **13 Apr 2020**  
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**Issue: 0**

**Ex – Type Examination Certificate**

Certificate Number: **S-XPL/17.0244 X**  
 Equipment: **Pan and Tilt Cameras**  
 Model / Type: **14XX and 24XX**  
 Applicant: **Eaton MEDC Limited**  
**PO Box 1075**  
**Doncaster**  
**DN1 9LE UK**  
 Manufacturer: **Eaton MEDC Ltd (Oxalis)**  
 Serial No: All serial numbers imported between issued- and expire date and all serial numbers covered by a valid report or acceptable product certification mark.

Supplied by  
**Eaton MEDC Limited**  
Identified by Inspection Authority number  
**S-XPL/17.0244 X**

And as described in the Explolabs file number **XPL/18339/17.0244** is hereby certified "Explosion Protected Ex db IIC T6...T4 Gb\*; Ex tb III C T135°C Db IP6X\*, -\*\*°C ≤ Ta ≤ +\*\*°C (\* Coding reflects the standard camera variant, refer to certificate appendix for further details. \*\* Ambient temperature varies depending upon equipment configuration, refer to certificate appendix for further details)", having been examined and inspected in accordance with the relevant requirements of South African Standards.

- SANS 60079-0: 2012 Ed 5** Explosive atmospheres Part 0: Equipment — General requirements
- IEC 60079-0: 2011 Ed 6**
- SANS 60079-1: 2015 Ed 5** Explosive atmospheres Part 1: Equipment protection by flameproof enclosures "d"
- IEC 60079-1: 2014 Ed 7**
- SANS 60079-11: 2012 Ed 4** Explosive atmospheres Part 11: Equipment protection by intrinsic safety "i"
- IEC 60079-11: 2011 Ed 6**
- SANS 60079-28: 2009 Ed 1** Explosive atmospheres Part 28: Protection of equipment and transmission systems using optical radiation
- IEC 60079-28: 2006 Ed 1**
- SANS 60079-31: 2014 Ed 2** Explosive atmospheres Part 31: Equipment dust ignition protection by enclosure "t"
- IEC 60079-31: 2013 Ed 2**

Risk of ignition provided:

Protection afforded	Equipment Protection Level (EPL)	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
	Group			
High	Gb Group II	Suitable for normal operation and frequently occurring disturbances or equipment where faults are normally taken into account	Equipment remains functioning in zones 1 and 2	T6 (85°C)... T4 (135°C)
High	Db Group III		Equipment remains functioning in zones 21 and 22	T4 (135°C)

**1. GENERAL**

The Camera Housing is constructed from stainless steel AISI316L with glass windows and designed to accommodate a range of CCTV cameras, infra-red cameras, lenses and associated ancillary equipment to allow their deployment in harsh environmental conditions. The housing has facilities for optional items such as window demister/heater, internal window wiper mechanism, integral window washer pump and external sunshield.

The unit is 260mm to 600mm in length (dependant on model) and is constructed from 139.7mm diameter cylindrical tube and 154mm diameter end covers. The unit has a cemented window assembly in one end cover, with the opposite end cover being either a blank end plate, end plate with up to three cable entries available in M20, M25, ½" or ¾" NPT thread forms. The cable entry to the camera housing is either via a cable entry adaptor in the side of the housing tube or via the tilt motor shaft attachment flange when mounted to a Pan/Tilt unit. When fitted with Germanium windows, for use with infra-red cameras, a protective guard plate is factory fitted on the window end cover and secured in place.

The Camera Housing has welded joints and is therefore to be subjected to routine overpressure tests. The IR model is fitted with an infrared LED Illuminator which is fitted in place of a camera.

The integrated Pan & Tilt Unit would be used in conjunction with the Camera Housing where installations require a moveable camera.

This Pan & Tilt Unit is also constructed from AISI316L stainless steel and can be fitted with either AC fixed speed or DC variable speed motors. The Pan & Tilt Unit with integral base mount is 300mm wide and 485mm high. There is one cable entry in the base mount which has one M25 threaded flamepath. There are four spigot flamepaths, two where the end covers fit into the housing and two where the motor/gearbox assemblies connect to the housing. In addition there are 2 cylindrical flamepaths for the motor shafts allowing for the pan and tilt movement.

The Pan & Tilt Unit has welded joints and is therefore to be subjected to routine overpressure tests. An alternate base unit can also be provided with a M110x1.5 threaded cover for readily accessing wiring terminals. This is secured with a hexagonal grub screw.

Internal and external earthing points are provided.

Options are also available fitted with an optical output for data transmission purposes and antennas with associated barriers.

Only suitably certified cable glands, thread adaptors or blanking elements to be utilized as detailed on the certificate.

Based on the following documentation: IECEx ITS 15.0068X issue No.: 1

**2. INSTALLATION INSTRUCTIONS**

It is the manufacturer's responsibility to supply installation instructions with each unit offered for sale as required by IEC/SANS 60079-0 Clause 30.

**3. SPECIAL CONDITIONS FOR SAFE USE** (denoted by X after certificate number)

The following conditions of use apply to the end user of the equipment. Refer to the certificate for the conditions of manufacture, which apply to the manufacturer Oxalis.

- No modifications must be made to the flamepaths of the unit without consultation of the drawings listed on the schedule.
- Temperatures could exceed 70°C at the cable gland or 80°C at the branching point, suitably rated cable must be selected.
- Use only hex socket head fasteners with property class of A4-70 for securing end covers & shafts to housings.
- No electromagnetic or ultrasonic energy radiating equipment shall be fitted within the enclosures other than armoured/protected fibre optic cables (op pr) or the IR illuminator as specified in the documents.
- When fitted, the optical fibre output from the camera housing must always be terminated within a suitably certified enclosure or safe area.

- Only armoured cable or conduit is to be utilized when fitted with a fibre optic output in order to protect the fibre optic cable.
- Precautions must be taken to avoid dust from forming layers on the equipment.

**4. CONDITIONS OF CERTIFICATION**

All production units must be covered by a QAN (Quality Assurance Notification), Product Mark Scheme or batch evaluation.

**5. MARKING**

The following (or similar) information have to be clearly and permanently marked on all units:

Supplier : Eaton MEDC Limited  
 Manufacturer : Eaton MEDC Ltd (Oxalis)  
 Equipment : Pan and Tilt Cameras  
 Model/Type : 14XX and 24XX  
 Serial No. : ---  
 Ex Rating : Ex db IIC T6...T4 Gb\*  
 Ex tb III C T135°C Db IP6X\*  
 -\*\*°C ≤ Ta ≤ +\*\*°C

\* Coding reflects the standard camera variant, refer to certificate appendix for further details. \*\* Ambient temperature varies depending upon equipment configuration, refer to certificate appendix for further details.

IA Certificate No : S-XPL/17.0244 X

*This certification indicates compliance with R10.1 of the Mines Health and Safety Act and/or EMR 9(2) of the Occupational Health and Safety Act, provided that the apparatus is used as relevant in accordance with:*

- i) SANS 10086 and IEC/SANS 61241-14 requirements as applicable;
- ii) Any conditions mentioned in the above report;
- iii) Any relevant requirements and codes of practice enforced in terms of the Mine Health and Safety Act or Occupational Health and Safety Act; and
- iv) Any restrictions and conditions enforced by the Chief Inspector of Mines or the Principal Inspector or the Chief Inspector: Occupational Health and Safety.
- v) A revision certificate replaces all previous version of the certificate.
- vi) \* - Only covers equipment imported between the "Issued" and "Expire" dates.
- vii) If and when your QAN (Quality Assurance Notification) Certificate for your equipment manufacturer expires during the valid period of the IA Certification (issued for your equipment) and a new certificate is not submitted the existing IA Certification will then be cancelled. It is thus the client's responsibility to always submit the updated and valid QAN certificate(s) to Explolabs (Pty) Ltd

**Responsible Testing Officer:**

**Reviewed by:**




**P van Staden  
 Testing Officer**

**D Maree  
 Senior Testing Officer**

**EXPLOLABS EXPLOSION PREVENTION SERVICES**

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