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Rea No: 1999/027771/07

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#### **GOVERNMENT APPROVED TEST LABORATORY**

IN TERMS OF ARP 0108: "REGULATORY REQUIREMENTS FOR EXPLOSION PROTECTED APPARATUS"

# IA CERTIFICATE

Date Issued: 15 Nov 2016 \*Expiry date: 15 Nov 2026

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Ex – Type Examination Certificate

Certificate Number: S-XPL/16.1203 X

Equipment: ZED BOX, ECONO BOX and ENVIROBOX

Model / Type: Refer to certification schedule
Applicant: Pratley Manufacturing (Pty) Ltd

14 Jackson Street Krugersdorp

Manufacturer: Pratley Maunfacturing (Pty) Ltd

Serial No: All serial numbers of equipment covered by a valid report or acceptable

product certification mark.

The unit(s) as described in Explolabs File Number XPL/17891/16.1203 is hereby certified "Explosion Protected" Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex tb IIIC T85°C Db, IP66/68 (2m continuous), having been tested, examined and inspected in accordance with the relevant requirements of South African Standards:

SANS 60079-0: 2012 Ed 5 IEC 60079-0: 2011 Ed 6 Explosive atmospheres Part 0: Equipment — General requirements

SANS 60079-7: 2007 Ed 3 Explosive atmospheres Part 7: Equipment protection by increased safety

IEC 60079-7: 2006 Ed 4 "e'

SANS 60079-15: 2010 Ed 4 E

5ANS 00075-13. 2010 Lu 4

IEC 60079-15: 2010 Ed 4

SANS 60079-31: 2009 Ed 1

IEC 60079-31: 2008 Ed 1

Explosive atmospheres Part 15: Equipment protection by type of protection

"n"

Explosive atmospheres Part 31: Equipment dust ignition protection by

enclosure "t"

Risk of ignition provided:

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

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:

SANS 10086 and IEC/SANS 61241-14 requirements as applicable;

i) Any conditions mentioned in the above report;

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.

A revision certificate replaces all previous version of the certificate.

\* - Only covers equipment Imported between the "Issued" and "Expire" dates.

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



vi)



The South African National Accreditation System (SANAS) is a member of the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement (MRA). This Arrangement allows for the mutual recognition of technical test and calibration data by the member accreditation bodies worldwide. For more information on the Arrangement please consult www.ilac.org

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## **DESCRIPTION OF EQUIPMENT**

The range of junction boxes comprises a molded non-metallic housing with the following approximate dimensions:

Box size 0: 110mm x 100mm x 75mm Box size 1: 118mm x 110mm x 84mm Box size 2: 142mm x 134mm x 98.5mm

The junction boxes had the following electrical ratings:

Box Size	Rated Voltage	Rated Current	Rated Power
0	550V (For Ex e application) 1000V (for Ex nA application)	37A	2.2W
1	550V (For Ex e application) 1000V (for Ex nA application)	47A	2.5W
2	550V (For Ex e application) 1000V (for Ex nA application)	68A	3.8W

The junction box cover is secured onto the body of the enclosure by means of four M5 x 16.5mm stainless steel screws. The boxes (special armored) are equipped with an earth harness permanently molded to the enclosure body. The earth harness was equipped with an earth stud. Cabling to the junction box is by means of four threaded entries, located in the wall of the enclosures:

Box size 0: M20 entries Box size 1: M20 entries Box size 2: M25 entries

### Schedule of certified Units:

Box Size	Product Code	Description	Certification Name	Rating
	54400	BOX ZED N <sup>0</sup> 0x4 WAY WITH BLACK LID	Special Unarmoured Box N <sup>0</sup> 0	IP66/68 ONLY
0	57250	PRA BOX ECONO STD X Nº 0x4 BLACK LID	Special Armoured Box N <sup>0</sup> 0	Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex t IIIC T85°C Db IP66/68
	57253	PRA BOX ECONO STD X Nº 0x4 PC LID	Special Armoured Box N <sup>0</sup> 0	Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex t IIIC T85°C Db IP66/68
	54402	BOX ZED Nº 1x4 WAY WITH BLACK LID	Special Unarmoured Box N <sup>0</sup> 1	IP66/68 ONLY
	57251	PRA BOX ECONO STD X Nº 1x4 BLACK LID	Special Armoured Box N <sup>0</sup> 1	Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex t IIIC T85°C Db IP66/68
1	57254	PRA BOX ECONO STD X Nº 1x4 PC LID	Special Armoured Box N <sup>0</sup> 1	Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex t IIIC T85°C Db IP66/68
	57322	PRA BOX ENVIRO Exe n X Nº 1x4 BLACK LID	Envirobox	Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex t IIIC T85°C Db IP66/68
	57323	PRA BOX ENVIRO Exe n X Nº 1x4 PC LID	Envirobox	Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex t IIIC T85°C Db IP66/68
	54404	BOX ZED N <sup>0</sup> 2x4 WAY WITH BLACK LID	Special Unarmoured Box N <sup>0</sup> 0	IP66/68 ONLY
2	57252	PRA BOX ECONO STD X Nº 2x4 BLACK LID	Special Armoured Box N <sup>0</sup> 0	Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex t IIIC T85°C Db IP66/68
	57255	PRA BOX ECONO STD X Nº 2x4 PC LID	Special Armoured Box N <sup>0</sup> 0	Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex t IIIC T85°C Db IP66/68

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- 2. SPECIAL CONDITIONS FOR SAFE USE (denoted by X after certificate number)
  - a. The cover manufactured from PA66 glass reinforced polyamide material may only be used in areas where there is a low risk of mechanical impact.
  - b. The enclosure has a maximum internal power dissipation of:

Box size No 0: 2.2W Box size No 1: 2.5W Box size No 2: 3.8W

c. The junction box nay only be populates with previously certified Ex e terminals for use in an environment requiring a EPL of Gb or Gc

### 3. 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.

### 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 : Pratley Manufacturing (Pty) Ltd Manufacturer : Pratley Maunfacturing (Pty) Ltd

Equipment : ZED BOX, ECONO BOX and ENVIROBOX

Model/Type : Refer to certification schedule

Serial No. : ---

Ex Rating : Ex e IIC T6 Gb, Ex nA IIC T6 Gc, Ex tb IIIC T85°C Db, IP66/68 (2m continuous)

IA Certificate No : S-XPL/16.1203 X

**Responsible Testing Officer:** 

Reviewed by:

D Maree

Senior Testing Officer

H de Wet Testing Officer

### **EXPLOLABS EXPLOSION PREVENTION SERVICES**

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