GOVERNMENT APPROVED INSPECTION AUTHORITY

Mining And Surface Certification (Pty) Ltd

(Pty) Ltd: 2015/021934/07

IN TERMS OF REGULATION 21.17.2 OF THE MINERALS ACT (INCORPORATION THE MINE HEALTH AND SAFETY ACT) AND REGULATION 9 (1) OF THE ELECTRICAL MACHINERY REGULATIONS OF THE OCCUPATIONAL HEALTH AND SAFETY ACT

IA CERTIFICATE	MASC MS/20-9023X	**Issue**	0
Issue Date	27 January 2021	**Expiry Date**	27 January 2031
Applicant	Pratley Manufacturing (Pty) Limited 14 Jackson Street, Factoria, Krugersdorp, 1745, Gauteng, South Africa		
Manufacturer	Pratley Manufacturing (Pty) Limited 14 Jackson Street, Factoria, Krugersdorp, 1745, Gauteng, South Africa		
Description (See "Annex A" below)			
Equipment	Ezee-fit Box Range	**Type**	Refer to description
MARKING: ***Must be additionally applied to the equipment***	**Applicant / Manufacturer** **Type** **Ex Marking** **IA Number** **Serial Number** **Rating**	Pratley Manufacturing (Pty) Limited Refer to description Ex eb I T* Mb, Ex eb IIC T* Gb, Ex tb IIIC T* Db * See description for temperature ratings IP66/68 (2m continuous.) -20°C to 55°C (as applicable) MASC MS/20-9023X See "Annex A" below As per description below	
WARNING(S)	As per conditions below		

Compliance:

The equipment as described above and in report **ZA/ICS/ExTR20.0023/00** has been allocated the rating Explosion Protected **as above** utilizing the SANS/IEC Standards:

- SANS (IEC) 60079-0: 2019 General requirements
- SANS (IEC) 60079-7: 2019 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
- SANS (IEC) 60079-31: 2014 Equipment dust ignition protection by enclosure "t"
- ARP 0108: 2018 Regulatory requirements for explosion protected apparatus

Special conditions of safe use X:

- See "Annex A" below

Conditions of manufacture:

- See "Annex A" below

Terine Orsmond
TECHNICAL OFFICER

Regardt Zeelie
TECHNICAL SPECIALIST

This certificate only covers the sample submitted and does not cover production units.

According to the relevant requirements of the MHS Act and the OHS Act, production units of explosion protected equipment are required to comply with third party quality assurance (an approved mark scheme or batch testing by an accredited test laboratory).

Apparatus in hazardous locations is subject to the following provisions as applicable, which shall be adhered to:
SANS 10086 requirements;
Any conditions mentioned in the above certificate;
Any relevant requirements of the MHS Act and code of practice enforced in terms of regulations 21.17.2 of the minerals act;
Any restrictions and conditions enforced by the chief inspector of mines, principal inspector (Group I equipment) or chief inspector of factories (Group II equipment).

Mining And Surface Certification (Pty) Ltd
Unit 5 Lelyta Park, 45 Jurg Ave, Hennopspark Ext 87
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sanas Testing Laboratory T0444

ANNEX A

Description

The Ezee-fit range of junction boxes are manufactured in either Orange or Black Dough Moulding Compound (DMC) with a lid manufactured from the same material, or in clear polycarbonate. The junction boxes have a circular shape, with cable entry locations in the curved sidewall. The entry points are available in various configurations. The entry locations may be fitted with Pratley gland accessories to form integral cable glands suitable for armoured or unarmoured cable. Stopping plugs may also be provided. The lid is fitted with an elastomeric gasket and is fixed to the base with four screws.

Inside the enclosure, a terminal rail is fixed to the base with screws. Rail mounted suitably certified terminals, or Kwik-blok terminals, are fitted to the rail between partitions and end stops. There is a facility for the connection of an earthing or equipotential bonding conductor provided inside the main body by either an earth terminal block from one of the ranges as detailed in Table 1, or an earth plate arrangement. There is also provision for external earth as per EXA 0005 notes and EXA 0006.1 to EXA 0006.4 documents.
The certification details are shown below.

The Kwik-blok terminals accept conductor sizes and current ratings as follows:

Table 1:

Kwik-blok Terminal Type	Conductor size range	Maximum current (A)
IK3	0.5 to 2.5 mm^2	15
IK5	0.5 to 4.0 mm^2	21.0
IK10	0.5 to 10 mm^2	37.0
IK16	0.5 to 16 mm^2	47.0
IK25	10 to 25 mm^2	63.0
IK51	16 to 50 mm^2	98.0
IK70	25 to 95 mm^2	121.0

Combinations of suitably certified terminals and terminals as listed in Table 1 above may be fitted, provided the maximum power dissipation, in accordance with IEC 60079-7 Annex E, does not exceed the maximum rated dissipated power in table 2 below.
The maximum potential between live parts does not exceed 550V for Ex eb and a 1000V for Ex ec.

Table 2
Max Dissipated Power [W]

	T6 (85deg C)				T5 (100deg C)			
Box Size	-20 < Ta < 40	40 < Ta < 45	45 < Ta < 50	50 < Ta < 55	-20 < Ta < 40	40 < Ta < 45	45 < Ta < 50	50 < Ta < 55
Nº0	3.0	2.2	1.4	0.6	5.3	4.5	3.7	3.0
Nº1	3.3	2.4	1.5	0.6	6.0	5.1	4.2	3.3
Nº2	5.4	4.3	3.2	2.0	8.8	7.6	6.5	5.4
Nº3	9.6	7.4	5.2	3.0	16.2	14.0	11.8	9.6
Nº4	13.4	11.7	10.1	8.4	18.4	16.7	15.1	13.4

Standard compliance

See “certificate” above

Warnings

See “certificate” above

Conditions of Certification

Special Conditions of safe use (X)

- The junction boxes are rated for an ambient temperature range of -20°C to 55°C. Refer to description for guidance on ambient range.
- Only suitably certified terminals may be used inside the enclosure. Special attention shall be given to Table 2 in the product description when populating the enclosure, noting the maximum dissipated power, T-rating and ambient temperature range.
- For group I installations, enclosures to be installed in areas of low mechanical impact risk (7 Joules).
- For group I installations, enclosures fitted with polycarbonate (clear lids), shall be installed such that exposure to oils and greases are prevented. Black and Orange lids can safely be used in the presence of oils and greases.
- Enclosures are rated for both fixed and mobile installations, when made from Black material. Orange and clear polycarbonate are rated for fixed installations only.
- When the junction boxes are manufactured from the orange DMC material, or the clear polycarbonate lids are fitted, the equipment is marked, WARNING STATIC HAZARD, WIPE WITH DAMP CLOTH. Refer to the instruction manual for further advice on how to clean the equipment safely and prevent static charge build up.
- Only suitably certified IP66/68 blanking elements and cable glands, where applicable, may be used on enclosure entries.

Conditions of manufacture

- When the junction boxes are equipped by the manufacturer with wired terminals, a routine electric strength test shall be conducted in accordance with IEC 60079-7 Clause 6.1.
- The maximum number of terminals permitted shall be calculated in accordance with IEC 60079-7 Annex E, and this shall not exceed the maximum dissipated power rating of the enclosure.