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# **GOVERNMENT APPROVED TEST LABORATORY**

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

# IA CERTIFICATE

Date Issued: 26 Jan 2021 26 Jan 2024 \*Expiry date:

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Ex – Type Examination Certificate

Certificate Number: MS-XPL/21.0013 U

Equipment: Unions

Model / Type: Type 784, 789/PX784, PX789 **CMP Products Limited** Applicant:

Glasshouse Street

St Peters

**Newcastle Upon Tyne** 

**NE6 1BS** 

**United Kingdom** 

Manufacturer: **CMP Products Limited** 

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

**CMP Products Limited** 

Identified by Inspection Authority number

MS-XPL/21.0013 U

And as described in the Explolabs file number XPL/21804/21.0013 is hereby certified "Explosion Protected 1888 (Refer to clause 1, for Ex Rating)", having been examined and inspected in accordance with the relevant requirements of South African Standards.

SANS 60079-0: 2019 Ed 6

Explosive atmospheres Part 0: Equipment — General requirements IEC 60079-0: 2017 Ed 7

SANS 60079-1: 2015 Ed 5

Explosive atmospheres Part 1: Equipment protection by flameproof enclosures "d"

IEC 60079-1: 2014 Ed 7

SANS 60079-7: 2019 Ed 4 Explosive atmospheres Part 7: Equipment protection by increased safety "e"

IEC 60079-7: 2015 Ed 5

IEC 60079-31: 2013 Ed 2

SANS 60079-31: 2014 Ed 2 Explosive atmospheres Part 31: Equipment dust ignition protection by enclosure "t"

Protection afforded	Equipment Protection Level (EPL) Group	Performance of protection	Conditions of operation	T class or Max Surface Temp (°C)
High	Mb Group I	Suitable for normal operation and severe operating conditions	Equipment de-energized when explosive atmosphere present	150°C
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	150°C
Very high	Da Group III	Two independent means of protection or safe even when two faults occur independently of each other	Equipment remains functioning in zones 20, 21 and 22	150°C

#### ANNEX TO CERTIFICATE NO MS-XPL/21.0013 U

GENERAL

The marking of the Unions shall include the following:

Ex eb I Mb\*

Ex db I Mb\*

Ex eb IIC Gb

Ex db IIC Gb

Ex ta IIIC Da

Ta: -60°C to 85°C/-60°Cto +200°C (See description for details)

\*Aluminium alloy is not acceptable for Group I applications

The Type 784, 789/PX784 & PX789 Unions are manufactured from metallic materials and are intended for in-line connection of male to female, male to male or female to female threads when conventional adaptors/reducers are impractical. Additionally, they may be used to convert an existing cable entry aperture to a different threadform and /or size. Each union comprises two parts held together with a nut. The interface between the two parts being a serrated face which forms a flamepath when the nut is fully tightened. The union is designed such that connection at both ends is achieved without twisting the associated cable.

### **Design Options:**

#### Type 784 & PX784 Unions

The 784 & PX784 Unions are 45°C angled union adaptors and have an alternative immediate angled section.

#### **Type 789 & PX789 Unions**

The 789 & PX789 Unions are 90°C angled union adaptors and have an alternative immediate angled section.

### Type 784 Unions

The type 784 Unions are intended for in-line connection of male to female, male to male or female to female threads when conventional adaptor/reducers are impractical. Additionally, they may be used to convert an existing cable entry aperture to a different thread form and/or size. Each union comprises two parts held together with a nut. The interface between the two parts is a serrated face which forms a flamepath when the nut is tightened. The union is designed such that connection at both ends is achieved without twisting the cable. Ambient -60°C to +200°C.

### **PX789 Unions**

The PX789 Unions are a barrier seal version of the union and have an alternative thread entry internal arrangement, which includes and addition compound tube, resin dam and compression washer. The compound tube is filled with a sealing compound that provides a flameproof seal around the cable core passing through it. When the barrier seal is used the ambient is restricted to -60°C to +85°C.

#### Available sizes

Thread forms are between M20 to 100 (or equivalent per the list below).

Rear thread 'B' for any given is permitted to be maximum of one step in thread size larger than front thread 'C'. there is no limitation on how small rear thread size 'B' is in comparison to front thread 'C'.

## Materials of manufacture:

The Type 784, 789/PX784 & PX789 Unions are manufactured in brass. Aluminium, Mild steel and stainless steel. All brass manufactured parts can be optionally nickel plated. All mild steel manufactured parts can be optionally zinc plated.

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**Example of alternative thread forms:** 

Metric

ET (Conduit)

PG

**BSPP** 

**BSPT** 

ISO

NPT

**NPSM** 

Metric entry threads of all model series to be manufactured with a pitch between 0.7 mm and 2.0 mm, 1.5 mm as standard.

Based on the following documentation: IECEx CML 18.0186U. Issue 1.

#### 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) None.

## **SCHEDULE OF LIMITATIONS** (denoted by "U" after certificate number)

The following conditions relate to safe installation and / or use of the components.

- I. The PX78\* unions shall only be fitted to enclosures where the temperature, at the point of mounting, does not exceed -60°C to +85 °C.
- 11. The interfaces between the male thread of the Union adaptor/reducer and an associated enclosure and between the female thread of the union adaptor /reducer and the cable entry device cannot be defined. Therefore, it is the installer's responsibility to ensure that the maintained interfaces. appropriate ingress protection level is these

## **CONDITIONS OF CERTIFICATION**

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

# **MARKING**

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

Supplier : CMP Products Limited Manufacturer : CMP Products Limited

Equipment : Unions

Model/Type : Type 784, 789/PX784, PX789

Serial No.

Ex Rating : Ex eb I Mb\*

> Ex db I Mb\* Ex eb IIC Gb Ex db IIC Gb Ex ta IIIC Da

Ta: -60°C to 85°C/-60°Cto +200°C (See description for details) \*Aluminium alloy is not acceptable for Group I applications

: MS-XPL/21.0013 U IA Certificate No

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:

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;

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

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**Responsible Testing Officer:** 

M Lategan
Testing Officer
EXPLOLABS EXPLOSION PREVENTION SERVICES

This report/certificate shall not be reproduced except in full without the written approval of the company Explolabs (Pty) Ltd shall not be liable for any losses or damages sustained on account of any failure or omission to properly perform our duties in terms of any contract undertaken by us. This disclaimer is immutable and automatically incorporated in any contract undertaken by us; notwithstanding anything to the contrary, save for the express written waiver of our managing director. By marking the equipment in accordance with the documentation/standard, the manufacturer attests on his own responsibility that the equipment has been constructed in accordance with the applicable requirements of the relevant standards and that the routine verifications and tests have been successfully completed and that the product complies with the documentation and standard(s). The contents of electronic reports/certificates cannot be guaranteed. Original certification documents will be kept on file at Explolabs (Pty) Ltd

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