

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

IA CERTIFICATE

Date Issued: **26 Jan 2021**
*Expiry date: **26 Jan 2024**
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Issue: 0

Ex – Type Examination Certificate

Certificate Number: **MS-XPL/21.0005 U**
Equipment: **Right-Angled Adaptors**
Model / Type: **Type 787**
Applicant: **CMP Products Limited**
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/21.0005 U

And as described in the Explolabs file number **XPL/21804/21.0005** is hereby certified "Explosion Protected (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**
- 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) 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

1. GENERAL

The marking of the Right-Angled Adaptors shall include the following:

- Ex db I Mb
- Ex eb I Mb
- Ex db IIC Gb
- Ex eb IIC Gb
- Ex ta IIIC Da

The Type 787 Range of Right-Angled Adaptors has a male thread at one end and a female thread at 90° to the male thread. They are intended to provide cable entry options where space is limited or to avoid cable damage. Additionally, they may be used to convert an existing cable entry aperture to a different thread form and/or size. Male thread forms are between M20x1.5 and M100x2.0 and combinations such that a maximum of one 'standard' size difference is maintained. The male thread may be fitted with an optional O-ring seal. The type 787 range has been tested and assessed to achieve a minimum IP rating of IP64 by Sira. IP ratings exceeding IP64 have not been endorsed by CML but may be marked on the adaptors.

Design Options

Materials of manufacture:

The standard material supplied is:

Brass	BS EN 12164:2011/ BS EN 12168:2011 Grade CuZn39Pb3 (CW614N) All brass manufactured component parts can be optionally nickel plated to a maximum of 0.008mm
Cast Brass	Not inferior to gb/t 5231-2012 hpb58-3 / astm38000 jis c3604 All brass manufactured component parts can be optionally nickel plated to a maximum of 0.008mm

Alternate materials are:

Stainless steel	BS EN 10088-3:2014 Grades 316S11, 316S13, 316S31, 316S33, 316L
Mild steel	BS EN 10277-2:2008 Grades 220M07, 230M07 (EN1A) / 220M07Pb, 230M07Pb (EN1APb)
Aluminum	BS EN 573-3:2013 / BS EN 755-1-3:2008 Grade 6082 T6, 6262 T6 / BS EN 1676:2010 Grade LM25 TF Not for use with Group I mining Aluminium will contain less than 6% magnesium

The materials are manufactured in the following methods

	Male x Female metric thread size									
	M20xM16	M25xM20	M32xM25	M40xM32	M50xM40	M63xM50	M75xM63	M80xM75	M90xM80	M100xM90
Brass	M/C	M/C	M/C	M/C	M/C	M	M	M	M	M
Aluminium	M	M	M	M	M	M	M	M	M	M
Mild Steel	M/C	M/C	M/C	M/C	M/C	M	M	M	M	M
St. Steel	M/C	M/C	M/C	M/C	M/C	M	M	M	M	M

M – Machined C – Cast

Alternative entry component thread forms:

Metric	ISO 965-1, ISO 965-3 medium fit (6g) for external threads
ET (Conduit)	BS31:1940 (1979), Table A
PG	DIN 40430:1971
BSPP	BS2779:1986 class A full form for external threads
BSPT	BS21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A
ISO	ISO 7/1:1994, gauging to ISO 7/2 clause 6.3 for external threads
NPT	ANSI/ASME B1.20.1-2013 gauging to clause 3.2 for external threads
NPT	USAS B2.1-1968, Gauging to clause 36 for external threads and clause 37 for internal threads
NPSM	ANSI/ASME B1.20.1-2013 gauging to clause 6.4 for external threads

Based on the following documentation: IECEx CML 18.0176U. Issue 0.

