

Certification of

EXPLOSION PROTECTED ELECTRICAL EQUIPMENT

Administered by: Standards Australia Quality Assurance Services

Certificate of Conformity

Certificate No: AUS 03.4008X **Issue:** 0 **Original Issue:** 5 December 2003

Date of Expiry: 31 December 2006

Certificate Holder: HAWKE INTERNATIONAL
Trading Name of HAWKE CABLE GLANDS LIMITED
Oxford Street West, Ashton-u-Lyne,
OL7 0NA,
United Kingdom

Electrical Equipment: Cable Glands:
Type 501/421 Cable Gland
Type 501/423 Cable Gland
Type 501/453 RAC Cable Gland
Type 501/453 [Dedicated] Cable Gland

Type of Protection: Ex d IIC / Ex e II / DIP A21 / IP66

Marking Code: See Schedule

Manufactured By: HAWKE INTERNATIONAL
Trading Name of HAWKE CABLE GLANDS LIMITED

Issued by:

ITACS™

*International Testing and Certification Services Pty. Ltd.
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STANDARDS AUSTRALIA



Standards Australia Quality Assurance Services Pty Limited A.B.N. 67 050 611 642

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This certificate is granted subject to the conditions as set out in Standards Australia Miscellaneous Publication MP 69 and the Procedures (Doc Q7134) of the scheme.

The electrical equipment and any acceptable variation to it specified in the schedule to this certificate and the identified documents, was found to comply with the following standards:

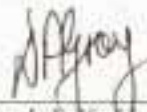
IEC 60079-0: 2000 Ed 3.1	Electrical apparatus for explosive gas atmospheres - Part 0: General requirements
IEC 60079-1: 2001 Ed 4.0	Electrical apparatus for explosive gas atmospheres - Part 1: Flameproof enclosures "d"
IEC 60079-7: 2001 Ed 3.0	Electrical apparatus for explosive gas atmospheres - Part 7: Increased Safety "e"
IEC 61214-1-1: 1999 Ed 2.0	Electrical apparatus for use in presence of combustible dust - Part 1-1: Electrical apparatus protected by enclosures and surface temperature limitation- Specification for apparatus

This certificate does not ensure compliance with electrical safety requirements and performance other than those included in the Standards listed above.

The equipment listed has successfully met the examination and test requirements as recorded in

Test Report No: ITACS TR 2500-2

File Reference: ITACS 2500



Signed for and on behalf of issuing authority

Manager - ITACS

Position

5 December 2003

Date of issue

Certificate No. AUS 03.4008X Issue: 0

This certificate and schedule may not be reproduced except in full.

This certificate is not transferable and remains the property of Standards Australia Quality Assurance Services and must be returned in the event of its being revoked or not renewed.

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Schedule

Certificate No: AUS 03.4008X Issue: 0 Date of Issue: 5 December 2003

Certified Equipment:

The following products utilise components covered by Certificate AUS 03.4007U

The type **501/421 Cable Gland** is designed for use with an effectively filled circular unarmoured cable and is manufactured from brass, aluminium or stainless steel. A coated or plated finish to suit environmental conditions is possible. This gland is produced in size range which is designated Os, O, A, B, C, C2, D, E & F representing an entry thread size of M20(M16), M20(M16), M20, M25, M32, M40, M50, M63 & M75 respectively. Or equivalent sizes in imperial conduit, Pg BSPP, BSPT, NPT or NPSM threadforms. The type 501/421 Cable Gland comprises the following components:

1. An entry component
2. A compressible sealing ring
3. A compression spigot
4. A back nut
5. An optional earth continuity device to use with metallic sheathed cable.

An alternative assembly of the M16 size gland, re-designated as size 2K is possible comprising:

1. A dedicated entry component
2. A compressible sealing ring
3. A nylon skid washer
4. A threaded compression spigot

The type **501/423 Cable Gland** is designed for use with an effectively filled circular unarmoured cable and is manufactured from brass, aluminium or stainless steel. A coated or plated finish to suit environmental conditions is possible. This gland is produced in size range which is designated Os, O, A, B, C, C2, D, E & F representing an entry thread size of M20(M16), M20(M16), M20, M25, M32, M40, M50, M63 & M75 respectively. Or equivalent sizes in imperial conduit, Pg BSPP, BSPT, NPT or NPSM threadforms. The type 501/423 Cable Gland comprises the following components:

1. An entry component
2. Two compressible sealing ring
3. Two compression spigot
4. A middle nut
5. A back nut
6. An optional earth continuity device to use with metallic sheathed cable.

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Addendum to Certificate No.....

Certificate No: AUS 03,4008X

Issue: 0

Date of Issue: 5 December 2003

Certified Equipment:

The type **501/453 RAC Cable Gland** is designed for use with an effectively filled circular armoured or braided cable and is manufactured from brass, aluminium or stainless steel. A coated or plated finish to suit environmental conditions is possible. This gland is produced in size range which is designated Os, O, A, B, C, C2, D, E & F representing an entry thread size of M20(M16), M20(M16), M20, M25, M32, M40, M50, M63 & M75 respectively. Or equivalent sizes in imperial conduit, Pg BSPP, BSPT, NPT or NPSM threadforms. The type 501/453 RAC Cable Gland comprises the following components:

1. An entry component
2. A compressible sealing ring
3. A combined compression spigot and armour clamping cone
4. A reversible armour clamping ring
5. A middle nut
6. An outer seal assembly (sleeve seal and support ring)
7. A back nut
8. An optional earth continuity device to use with metallic sheathed cable.

The type **501/453 Dedicated Cable Gland** is designed for use with an effectively filled circular armoured or braided cable and is manufactured from brass, aluminium or stainless steel. A coated or plated finish to suit environmental conditions is possible. This gland is produced in size range which is designated Os, O, A, B, C, C2, D, E & F representing an entry thread size of M20(M16), M20(M16), M20, M25, M32, M40, M50, M63 & M75 respectively. Or equivalent sizes in imperial conduit, Pg BSPP, BSPT, NPT or NPSM threadforms. The type 501/453 Cable Gland comprises the following components:

1. An entry component
2. A compressible sealing ring
3. A combined compression spigot and armour clamping cone
4. A dedicated armour, or braided, clamping ring
5. A middle nut
6. An outer seal assembly (sleeve seal and support ring)
7. A back nut
8. An optional earth continuity device to use with metallic sheathed cable.

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Addendum to Certificate No.....

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Details of Marking Code

Examples of the style of marking for the various gland types is shown below:-

501/421 - Drawing AUS 501/421

HAWKE 501/421 C / M32 / S / -60°C +100°C ExdIIIC Exell
DIP A21 IP66 AUS 03.4008X 01 0L70NA UK

501/423 - Drawing AUS 501/423

HAWKE 501/421 C / M32 / S / -60°C +100°C ExdIIIC Exell
DIP A21 IP66 AUS 03.4008X 01 0L70NA UK

501/453 RAC - Drawing AUS 501/453 RAC

HAWKE 501/453RAC C / M32 / R / S / -60°C +80°C ExdIIIC Exell
DIP A21 IP66 AUS 03.4008X 01 0L70NA UK

501/453 DEDICATED - Drawing AUS 501/453 Dedicated

HAWKE 501/453 C / M32 / W / S / -60°C +80°C ExdIIIC Exell
DIP A21 IP66 AUS 03.4008X 01 0L70NA UK

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Addendum to Certificate No.....

Certificate No. AUS 03.4008X Issue: 0

MANUFACTURER'S DOCUMENTS				
Item	Subject	Drawing No.	Rev.	Date
1	Drawing Title: AUS: General arrangement for unarmoured 501/421 Gland	AUS 501/421	A	16/10/03
2	Drawing Title: AUS: General arrangement for 501/423 Gland	AUS 501/423	A	16/10/03
3	Drawing Title: General arrangement of Type 501/453 RAC	AUS 501/453 RAC	A	16/10/03
4	Drawing Title: AUS: General arrangement of Type 501/453 Dedicated Armour Clamping Gland	AUS 501/453 Dedicated	A	16/10/03

The detailed drawings for the individual components referred to in the general arrangement drawing is covered by Component Certificate AUS 03.4007U.

Special Conditions for Safe Use

1. These glands are not suitable for use with Group IIC flameproof enclosures with a volume greater than 2000cc
2. The operating temperature range for the 501/421 and 423 range of glands is -60°C to $+100^{\circ}\text{C}$. For the 501/453 RAC and Dedicated glands the operating temperature range is -60°C to $+80^{\circ}\text{C}$
3. When used with braided or non armoured cables, these glands are only suitable for fixed installations, the cable for which must be effectively clamped to prevent pulling and twisting
4. When used in Increased Safety (Ex e) or dust protection enclosures, the entry thread is to be suitably sealed to maintain the ingress protection rating of the associated enclosure.

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