

UK Type Examination Certificate CML 21UKEX3073X Issue 0**United Kingdom Conformity Assessment**

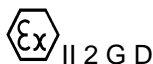
- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1
- 2 Equipment **Type 501/RCG (Rapid Connection Gland)**
- 3 Manufacturer **Hawke International (A division of Hubbell Limited) (A Member of the Hubbell Group of Companies)**
- 4 Address **Oxford Street West, Ashton Under Lyne, Lancashire, OL7 0NA**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

BE EN IEC 60079-0:2018

BS EN IEC 60079-7:2015+ A1: 2018

BS EN 60079-31:2014

- 10 The equipment shall be marked with the following:



Ex eb II* T** Gb

Ex tb III* T** Db

T_{amb} = -60°C to +60°C**

The equipment can be marked for all Gas and Dust groups, IIA, IIB or IIC and IIIA, IIIB or IIIC

(*/**) See schedule for related ambient and temperature class





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11 Description

The Type 501/RCG (Rapid Connection Gland) is designed to allow rapid electrical coupling of cables. The equipment's metallic body and clamping parts are manufactured from brass, stainless steel or aluminium and contains a polymeric insert. The equipment may include the following components to form 501/RCG Entry, Body and or the Coupler:

- | | |
|--|---|
|) Entry component: Two sizes M20 and M25 |) Back nut |
|) Middle nut |) Internal terminal socket/crimp inserts (male and female pins) |
|) Spigot |) O-ring |
|) Reversible armour clamping ring |) Deluge Boot |
|) Back nut seal |) Extension insert and extension tube |
|) Back nut clamp | |

The product consists of modular components which can be used to either connect to equipment or to create an inline cable connection. The modular variants are:

The 501/RCG Entry assembly may be installed onto enclosures or fittings and consist of a metallic entry component fitted with a polymeric insert. This insert is populated with male pin contacts which make crimped connection to cable conductors.

The 501/RCG Body assembly is used to terminate cable. The assembly consists of metallic centre nut, middle nut, and back nut. Inside the middle nut may be housed an armour clamping ring and spigot. A polymeric insert may be mounted to the spigot. The insert is populated with female socket contacts which make a screwed connection to cable conductors. Inside the back nut is an elastomeric sealing ring and polymeric cage which form an ingress protection seal with the cable outer sheath when installed.

The 501/RCG Coupler is used as an inline connection to cables terminated with 501/RCG Bodies. The coupler consists of a metallic outer tube and a polymeric insert containing male through pin connections. The 501/RCG Coupler may alternatively be fitted with a metallic adaptor to allow cable termination with suitable cable glands fitted to one side of the product.

The 501/RCG products may be fitted with Hawke GMC accessories for clamping of cables.

The equipment has the provision for braided, armour and non-armour cables with 4 to 6 pins configuration with solid or stranded conductors' size 1.5mm² up to 6mm². The conductors may be used with crimp ferrules as an option. The equipment is rated up to 300V AC or 212V DC and IK10 impact rated as per IEC 62262.

Temperature rating table vs Amperage:

501- Standard RCG	Conductor size mm ²	Amperage for T5*/100°C* at 50°C**	Amperage for T6*/85°C* at 60°C**
6 Pin	1.5	13	7.5
6 Pin	2.5	16	15
6 Pin	4	23	19
6 Pin	6	22.5	20
4 in	1.5	7	5.5



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501- Standard RCG	Conductor size mm ²	Amperage for T5*/100°C* at 50°C**	Amperage for T6*/85°C* at 60°C**
4 Pin	2.5	17	11.5
4 Pin	4	18.5	12.5
4 Pin	6	27	23.5

501- Coupler RCG	Conductor size mm ²	Amperage for T5*/100°C* at 50°C*	Amperage for T6*/85°C* at 60°C**
6 Pin	1.5	13	9
6 Pin	2.5	16	13.5
6 Pin	4	26	16
6 Pin	6	24	20
4 in	1.5	13	10.5
4 Pin	2.5	12	11.5
4 Pin	4	18	18
4 Pin	6	28.5	21

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	1 st Jan 2021	R13490A/00	The issue of prime certificate.

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.
- ii. The 501/RCG Connector Series are to be designed in accordance with general electrical safety standards.

14 Specific Conditions of Use (Special Conditions)

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

- i. Do not disconnect product when energised.



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- ii. The entry and body sections of 501/RCG may remain disconnected only when secured by a blanking threaded cap. The cap is not permitted to be opened when energized or hazardous atmosphere is present.
- iii. The socket grub screw shall be tightened and secured by thread locking compound.
- iv. When a coupler is fitted with an adapter, a suitable cable gland shall be fitted.
- v. Product may not be left uncoupled in a hazardous area and shall be capped when not used.

Certificate Annex

Certificate Number CML 21ATEX3073X
Equipment Type 501/RCG (Rapid Connection Gland)
Manufacturer Hawke International



The following documents describe the equipment defined in this certificate:

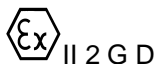
Issue 0

Drawing No	Sheets	Rev	Approved date	Title
620155	1 to 6	A	08/12/200	501/RCG certification drawing

UK Type Examination Certificate CML 21UKEX3073X Issue 1**United Kingdom Conformity Assessment**

- 1 Product or Protective System Intended for use in Potentially Explosive Atmospheres UKSI 2016:1107 (as amended by UKSI 2019:696) – Schedule 3A, Part 1
- 2 Equipment **Type 501/RCG (Rapid Connection Gland)**
- 3 Manufacturer **Hawke International (A division of Hubbell Limited) (A Member of the Hubbell Group of Companies)**
- 4 Address **Oxford Street West, Ashton Under Lyne, Lancashire, OL7 0NA**
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ, United Kingdom, Approved Body Number 2503, in accordance with Regulation 43 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations.
The examination and test results are recorded in the confidential reports listed in Section 12.
- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This UK Type Examination certificate relates only to the design and construction of the specified equipment. Further requirements of the Regulations apply to the manufacturing process and supply of the product. These are not covered by this certificate.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:
BS EN IEC 60079-0:2018 BS EN IEC 60079-7:2015+ A1: 2018 BS EN 60079-31:2014

- 10 The equipment shall be marked with the following:



Ex eb II* T** Gb

Ex tb III* T** Db

T_{amb} = -60°C to +60°C**

The equipment can be marked for all Gas and Dust groups, IIA, IIB or IIC and IIIA, IIIB or IIIC

(*/**) See schedule for related ambient and temperature class



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Issue 1

11 Description

The Type 501/RCG (Rapid Connection Gland) is designed to allow rapid electrical coupling of cables. The equipment's metallic body and clamping parts are manufactured from brass, stainless steel or aluminium and contains a polymeric insert. The equipment may include the following components to form 501/RCG Entry, Body and or the Coupler:

- Entry component: Two sizes M20 and M25
- Middle nut
- Spigot
- Reversible armour clamping ring
- Back nut seal
- Back nut clamp
- Back nut
- Internal terminal socket/crimp inserts (male and female pins)
- O-ring
- Deluge Boot
- Extension insert and extension tube

The product consists of modular components which can be used to either connect to equipment or to create an inline cable connection. The modular variants are:

The 501/RCG Entry assembly may be installed onto enclosures or fittings and consist of a metallic entry component fitted with a polymeric insert. This insert is populated with male pin contacts which make crimped connection to cable conductors.

The 501/RCG Body assembly is used to terminate cable. The assembly consists of metallic centre nut, middle nut, and back nut. Inside the middle nut may be housed an armour clamping ring and spigot. A polymeric insert may be mounted to the spigot. The insert is populated with female socket contacts which make a screwed connection to cable conductors. Inside the back nut is an elastomeric sealing ring and polymeric cage which form an ingress protection seal with the cable outer sheath when installed.

The 501/RCG Coupler is used as an inline connection to cables terminated with 501/RCG Bodies. The coupler consists of a metallic outer tube and a polymeric insert containing male through pin connections. The 501/RCG Coupler may alternatively be fitted with a metallic adaptor to allow cable termination with suitable cable glands fitted to one side of the product.

The 501/RCG products can be provided with Hawke GMC accessories, and if fitted no further clamping of cables is required.

The equipment has the provision for braided, armour and non-armour cables with 4 to 6 pins configuration with solid or stranded conductors' size 0.75mm² up to 6mm².

The conductors may be used with crimp ferrules as an option. The equipment is rated up to 300V AC or 212V DC and IK10 impact rated as per IEC 62262.



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Temperature rating table vs Amperage:

501/RCG	T - Classes and Amperage		
	Conductor Size mm ²	T5+50°C	T6+60°C
	0.75	5	5
	1.5		
	2.5	16	10
	4	18	12
	6	30	20

501/RCG Coupler	T - Classes and Amperage		
	Conductor Size mm ²	T5+50°C	T6+60°C
	0.75	5	5
	1.5		
	2.5	10	10
	4	18	12
	6	30A (4pin) 25A (6 pin)	20

Variation 1

- i. To introduce the 0.75mm² conductor size to the equipment for both 4 and 6 pins variants.
- ii. To update the description to include the rated current for the new Connection size and other model variants.
- iii. To include an additional specific condition of safe use.
- iv. To amend the equipment name.
- v. To remove an irrelevant Condition of Manufacture.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	01 Jan 2021	R13490A/00	The issue of prime certificate.
1	16 Feb 2021	R13863A/00	The introduction of variation 1.

Note: Drawings that describe the equipment or component are listed in the Annex.

13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components the manufacturer shall ensure that any changes to those parts or components do not affect the compliance of the certified product that is the subject of this certificate.



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Issue 1

14 Specific Conditions of Use (Special Conditions)

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

- i. Do not disconnect product when energised.
- ii. The entry and body sections of 501/RCG may remain disconnected only when secured by a blanking threaded cap. The cap is not permitted to be opened when energized or hazardous atmosphere is present.
- iii. The socket grub screw shall be tightened and secured by thread locking compound.
- iv. When a coupler is fitted with an adapter, a suitable cable gland shall be fitted.
- v. Product may not be left uncoupled in a hazardous area and shall be capped when not used.
- vi. Temperature class and maximum upper ambient:
 - For T6/T80°C applications, the upper ambient temperature shall not exceed +60°C.
 - For T5/T95°C applications, the upper ambient temperature shall not exceed +50°C.

Certificate Annex

Certificate Number CML 21UKEX3073X
Equipment Type 501/RCG (Rapid Connection Gland)
Manufacturer Hawke International



The following documents describe the equipment defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
620155	1 to 6	A	08 Dec 2020	501/RCG certification drawing

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
620155	1 to 6	B	16 Feb 2021	501/RCG certification drawing