



EC TYPE-EXAMINATION CERTIFICATE

Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

Certificate Number: Sira 02ATEX1305X

Equipment: RGM Range of Cable Glands

Applicant: Wrexham Mineral Cable

Address: Wynnstay Technology Park
Ruabon
Wrexham
LL14 6EN
UK

This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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 Annex II to the Directive.

The examination and test results are recorded in confidential report number R53A9395A.

Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 50014:1997 (Amendments A1 & A2)
EN 50018:2000

If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

The marking of the equipment shall include the following:



II 2G
EEx d IIC



Project Number 53A9395
Date 22 November 2002
C. Index 07

M D Shearman
Certification Manager

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Sira Certification Service

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SCHEDULE

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13 DESCRIPTION OF EQUIPMENT

The RGM range of compression seal cable glands are manufactured from brass to BS2874 Grade CZ121. The glands are intended to terminate circular, copper sheathed, mineral insulated cable into flameproof enclosures without compromising the explosion protection provided by the enclosures in accordance with the relevant codes of practice. The glands consist of a male-threaded front entry component designated the gland body, a back nut and a compression ring. The gland body has a hexagonal centre portion that enables it to be screwed into the entry point of its associated enclosure; it also has a mating thread spigot to attach the gland nut. The gland nut has a plain portion to allow product marking and a hexagonal portion for tightening purposes. The compression ring is housed between the gland body and the gland and is compressed onto the cable when the back nut is tightened. The compression ring provides sealing, clamping and earthing arrangements.

Design options

Each one of four metric entry thread forms, M20, M25, M32 and M40, can accommodate various sizes of copper sheathed, mineral insulated cable. This is achieved by enlarging the minor bore of the gland body and nut, and introducing another size sensitive, compression ring. The combinations are as follows:

RGM Gland Size 20, with M20 x 1.5 entry thread form	
Gland Type Number	To Suit Cable Diameter ± 0.5 mm
2L1	5.1
2L1.5	5.7
2L2.5	6.6
2L4	7.7
3L1	5.8
3L1.5	6.4
3L2.5	7.3
4L1	6.3
4L1.5	7.0
4L2.5	8.1
2H1.5	7.9
2H2.5	8.7
2H4	9.8
2H6	10.9
3H1.5	8.3
3H2.5	9.3
3H4	10.4
4H1.5	9.1
4H2.5	10.1
5L1.5	10.1

RGM Gland Size 25, with M25 x 1.5 entry thread form	
Gland Type Number	To Suit Cable Diameter ± 0.5 mm
2H4	9.8
2H6	10.9
2H10	12.7
2H16	14.7
3H2.5	9.3
3H4	10.4
3H6	11.5
3H10	13.6
3H16	15.6
4H2.5	10.1
4H4	11.4
4H6	12.7
4H10	14.8
5L1.5	10.1
7H1.5	10.8
7H2.5	12.1
7L1	7.6
7L1.5	8.4
7L2.5	9.7

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RGM Gland Size 32, with M32 x 1.5 entry thread form	
Gland Type Number	To Suit Cable Diameter ± 0.5 mm
2H10	12.7
3H10	13.6
4H6	12.7
4H10	14.8
4H16	17.3

RGM Gland Size 40, with M40 x 1.5 entry thread form	
Gland Type Number	To Suit Cable Diameter ± 0.5 mm
2H16	14.7
3H16	15.6
4H16	17.3

14 DESCRIPTIVE DOCUMENTS

14.1	Drawing No.	Sheet	Iss.	Rev.	Date	Title
	AC001	1 of 1	C	0	24/09/02	Back Nut & Compression Ring M20
	AC002	1 of 1	B	0	24/09/02	Gland Body M20
	AC003	1 of 1	C	0	24/09/02	Back Nut & Compression Ring M25
	AC004	1 of 1	B	0	24/09/02	Gland Body M25
	AC005	1 of 1	C	0	24/09/02	Back Nut & Compression Ring M32
	AC006	1 of 1	B	0	24/09/02	Gland Body M32
	AC007	1 of 1	C	0	24/09/02	Back Nut & Compression Ring M40
	AC008	1 of 1	B	0	24/09/02	Gland Body M40
	AC019	1 of 1	B	0	24/09/02	General Arrangement
	AC163	1 of 1	A	0	06/11/02	Marking Information

14.2 Report No. R53A9395A

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

15.1 The cable gland shall not be used where the temperature at the point of mounting is outside the range -20°C to 450°C. However, the user/installer shall address the following issues:

- The gland is normally used with a cable seal that will govern the upper temperature limit.
- If the gland is used above 250°C, then the user/installer shall confirm with the manufacturer that the cable and the cable seal are both suitable for the intended application.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSR'S)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in Report No. R53A9395A.

17 CONDITIONS OF CERTIFICATION

- 17.1 The use of this certificate is subject to the Regulations Applicable to Holders of SCS Certificates.
- 17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.
- 17.3 The manufacturer must take all reasonable steps to ensure that the user/installer complies with the Special Conditions for Safe Use.

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(Appendix) WMC 009
Brass Ring Type Glands Ref: RGM

**NOTE : For certain Heavy Duty cables the gland size increases
when Earth Tail seals are fitted.**

*The following Instructions apply to all Brass Ring Type Glands
for use in Hazardous Area Applications
assessed to BS EN 50014:1997 (amendments A1-A2) & BS EN 50018 : 2000
and compliance with ATEX Directive 94/9/EC.*

Certified :  **IIC G EExd IIC Ref : Sirs 02ATEX1305X**

- 1) The Compression Ring Type Glands may be used with apparatus group II flammable gases and vapours with a temperature class T1 in an ambient temperature range of -20°C to +450°C.**
- 2) The Compression Ring Type Glands are only certified for use in those ambient temperatures above and should not be used outside this range.**
- 3) Installation shall be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. EN 60079-14:1997.**
- 4) Inspection and maintenance of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. EN 60079-17.**
- 5) Repair of this equipment shall be carried out by suitably trained personnel in accordance with the applicable code of practice e.g. EN 60079-19.**
- 6) If the Compression Ring Type Glands are likely to come into contact with aggressive substances, then it is the responsibility of the user to take suitable precautions to prevent them being adversely affected, it is essential to replace any covering removed to facilitate termination, by taping over the exposed copper and brass with two full half laps up to the entry position. This is then covered by the gland shroud.**

(Corrosive environments / aggressive substances e.g. acidic liquids or gases)



(Appendix) WMC 009

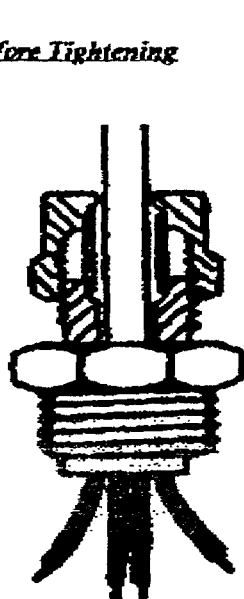
Brass Ring Type Glands

Ref : RGM followed by cable type/size e.g. RGM2L1.5 - 20 (mm size)

Fitting Instructions

- 1) Slide the complete Brass Ring Type Gland onto the cable sheath before screwing the seal pot into position .
- 2) Assemble the completed termination into the terminal box entry .
- 3) Secure the gland body into the equipment by screwing it into a threaded entry or securing it into a plain hole entry by means of a locknut using a spanner on the hexagon of the gland body . In the latter case when necessary a lock-washer may be utilised between the locknut and the internal face of the equipment .
- 4) Locate the seal pot in the desired position and fully tighten the backnut to swage down the compression ring onto the cable sheath , this secures the cable into the application .

Before Tightening



After Tightening

