



1 EU-TYPE EXAMINATION CERTIFICATE

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 05ATEX1287X** Issue: **5**

4 Equipment: **Type KSG, KSGDS and KCG Range of Cable Glands**

5 Applicant: **Weidmüller Interface GmbH & Co. KG**

6 Address: Klingenbergstrasse 16
32758 Detmold
Germany

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

8 CSA Group Netherlands B.V., Notified Body Number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 the confidential reports listed in Section 14.2.

9 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 60079-0:2012/A11:2013 EN 60079-1:2014 EN 60079-7:2015 EN 60079-31:2014

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This EU-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.

12 The marking of the equipment shall include the following:



II 2GD
Ex db IIC Gb
Ex ta IIIC Da

and/or



II 2GD
Ex eb IIC Gb
Ex ta IIIC Da

* Due to restrictions applied by the applicant some products that are detailed in this certificate may not be commercially available.

Project Number 0464

Signed:

Title: Director of Operations

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CSA Group Netherlands B.V.
Utrechtseweg 310,
6812 AR, Arnhem,
Netherlands



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13 DESCRIPTION OF EQUIPMENT

The type KSG, KSGDS and KCG ranges of cable glands are intended for use with any cable type where sealing and retention is required by gripping the outer sheath (this includes armoured/screened/braided cables, the armour/screen/braid being clamped inside the terminating equipment). Construction materials are brass, mild steel, stainless steel or aluminium alloy. Glands are available in a single or double seal configuration and utilise either silicone or neoprene seals. The single seal configuration is available with alternative compression nuts, which will accept either male, female or flexible conduit. All the gland types have an IP66 and IP68 (50 meters 7 days) rating.

Glands are available in the size range 12 to 100 mm with ISO metric entry threads of M12 to M100 respectively. Alternative thread sizes and forms ISO metric, NPT, NPSM, BSPT, BSPP, PG and ET are available.

Variation 1 - This variation introduced the following changes:

- i. To allow the batch number shown in the actual product marking to be removed.
- ii. The recognition of a number of minor, dimensional design changes.

Variation 2 - This variation introduced the following changes:

- i. The KSG, KSGDS and KCG Range of Cable Glands to be marked IP68; this indicates that they have been tested at a depth up to 25 m for a duration of 30 mins when fitted into either threaded entries or 'Ex e' enclosures that have plain hole entries with 0.5 mm clearances.
- ii. The extension of the upper ambient service temperature limit to +85°C for cable glands that incorporate neoprene seals (60° IRHD).
- iii. The use of Nitrile Butyle Rubber (NBR) O-ring interface seals with the KSG, KSGDS and KCG Range of Cable Glands fitted with neoprene sealing rings.
- iv. Introduction of a new size, 16/M16 in all types, cable gland that has either neoprene or silicone sealing rings.
- v. The modification of the mid cap component.
- vi. The introduction of minor drawing changes.

Variation 3 - This variation introduced the following changes:

- i. Following appropriate re-assessment to demonstrate compliance with the requirements of the EN 60079 series of standards, the documents originally listed in section 9, EN 50014:1997 (amendments 1 and 2), EN 50018:2000, EN 50019:2000 and EN 50281-1-1:1998, were replaced by those currently listed, the markings in section 12 were updated accordingly.

Variation 4 - This variation introduced the following change:

- i. The UK manufacturing site was removed from the certificate.



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Variation 5 - This variation introduced the following changes:

- i. A clarification to the type designation of the type KSG, KGDS and KCG range of cable glands.
- ii. Following appropriate reassessment to demonstrate compliance with the requirements of the latest editions of the EN/IEC 60079 series of standards, the documents previously listed in section 9, EN 60079-0:2006, EN 61241-0:2006 and EN 61241-1:2004 were replaced by those currently listed, the markings were updated accordingly, the Special Conditions for Safe Use are also amended.
- iii. Type of protection Ex t is upgraded from EPL Db to EPL Da. Following appropriate reassessment to demonstrate compliance with the additional requirements for Ex ta, the markings were updated accordingly.
- iv. The size range of the glands has been extended to include size 12 glands and entry threads of M12, the description being modified accordingly.
- v. The reference system used for the ranges of glands was amended to incorporate the introduction of the alternative conduit connections, the tables in the description were modified to recognise this change.
- vi. Introduction of conduit fittings to the range was approved. The gland may be connected to rigid or flexible conduit.
- vii. The introduction of an alternative silicone and neoprene seal material was endorsed.
- viii. The service temperature range of the glands fitted with a neoprene seal was extended to -35°C to +90°C.
- ix. The cable glands, when installed in accordance with the manufacturer's instructions and with an appropriate enclosure on which they are fixed, are capable of providing an ingress protection of IP66 and IP68 (50 metres 7 days).

Variation 6 - This variation introduced the following changes:

- i. To introduce the following alternative NPT entry thread to the following gland sizes of types KSG, KCG, KSGDS Cable Glands:
 - Gland size 12 supplied with a 1/4" NPT entry thread
 - Gland size 16 supplied with a 3/8" NPT entry thread.
- ii. The recognition of the 'standard' entry threads associated with every gland types gland sizes, in accordance with newly introduced generic bill of material drawing(s).
- iii. To permit all gland types, of parallel threaded entry threads, marked suitable for 'Exe' only to be modified to have a minimum thread length reased to 10 mm from 8 mm.
- iv. To permit all gland types of parallel threaded entry threads to be manufactured with a longer than 'standard' thread length to suit the end use application.
- v. To permit all gland types to be manufactured with a size larger than the 'standard' entry threads listed within the product description.
- vi. To recognise all gland types with the following alternate threaded entry threads complying with the requirements of EN 50018:2000. Are intended to be used as replacement entry devices within existing installations with equipment that have threaded entries no longer permitted by the current edition of EN 60079-1.
 - NPSM ANSI/ASME B1.20.1:1983
 - BSPT BS21:1985 (ISO 7/1; BS EN 10226-1:2004 'standard threads'
 - BSPP BS EN ISO 228-1 :2003; BS EN ISO 2228-2:2003 class A full form 'external threads'
 - PG DIN 40430:1971
 - ET BS 31:1940 (1979) Table 'B'

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All alternative trade size thread forms are manufactured within the dimensional parameter of the standard entry threads of the gland entry body, and relevant constructional compliance length and engagement requirements in accordance with their product markings.

- vii. To recognise the actual seal 'material specification' reference as a replacement for the seal 'material supplier'.
- viii. The brass materials of manufacture were updated and corrected.
- ix. The aluminium materials of manufacture were updated and corrected.
- x. EN 60079-0:2012, EN 60079-1:2007, EN 60079-7:2007 and EN 60079-31:2009, were replaced by EN 60079-0:2012/A11:2013, EN 60079-1:2014, EN 60079-7:2015, and EN 60079-31:2014. The markings were updated, and a Specific Condition of Use was modified and amended to recognise the new standard edition. In addition the description was modified to clarify the certified cable gland types, the standard gland size 'entry threads', and gland size range taking capabilities exclusive of changes carried out under this certificate variation.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report number	Comment
0	12 April 2006	R51A14293A	The release of prime certificate.
1	26 June 2009	R51A20139C	This Issue covers the following changes: <ul style="list-style-type: none">• All previously issued certification was rationalised into a single certificate, Issue 1, Issue 0 referenced above is only intended to reflect the history of the previous certification and has not been issued as a document in this format.• The rationalisation of the certificate in accordance with that listed in section 14.3.
2	22 March 2012	R270741A/00	The introduction of Variation 4
3	26 March 2013	R27876A/00	The rationalisation of the certificate in accordance with that listed in section 14.3.



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Issue	Date	Report number	Comment
4	04 June 2018	R70144815B	<p>This Variation introduced the following changes:</p> <ul style="list-style-type: none">• EC-Type Examination Certificate in accordance with 94/9/EC updated to EU-Type Examination Certificate in accordance with Directive 2014/34/EU. <i>(In accordance with Article 41 of Directive 2014/34/EU, EC-Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such EC-Type Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)</i>• The introduction of Sira Variation 6
5	15th October 2019	0464	<ul style="list-style-type: none">• Transfer of certificate Sira 05ATEX1287X from Sira Certification Service to CSA Group Netherlands B.V..

14.3 Certificate number Sira 01ATEX1272X Issue 12

15 SPECIFIC CONDITIONS OF USE (denoted by X after the certificate number)

15.1 The KSG, KSGDS and KCG Range of Cable Glands shall not be used in enclosures where the temperature at the point of entry/mounting exceeds the following.

- 35°C to +90°C for the Neoprene seal variants
- 60°C to +180°C for the Silicone seal variants

15.2 The cable entries are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.

15.3 The KSG, KSGDS and KCG range of cable glands, when installed in accordance with the manufacturer's instructions and with an appropriate enclosure on which they are fixed, are capable of providing an ingress protection of IP66 and IP68 (50 metres, 7 days).

15.4 The threaded entry component threads without interface O-ring seals installed in an explosive dust atmosphere, within threaded entries, shall only be fitted into enclosures that have either:

- parallel entries that will ensure that a minimum of 5 full threads of contact will be maintained, this is in accordance with clause 5.1.2 of EN 60079-31:2014,
- tapered entries that will ensure that a minimum of 3 1/2 full threads of contact will be maintained, this is in accordance with clause 5.1.2 of EN 60079-31:2014

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

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Certificate Annexe



Certificate Number: **Sira 05ATEX1287X**

Equipment: **Type KSG, KSGDS and KCG Range of Cable Glands**

Applicant: **Weidmüller Interface GmbH & Co. KG**

Issue 0

Drawing No.	Sheet	Rev.	Date	Title
WMR/ATX/A2L	1 of 1	1	11 Nov 05	KSG, KSGDS and KCG label drawing

Issue 1

Drawing No.	Sheets	Rev.	Date	Title
WMR/ATX/A2L	1 of 1	2	23 Apr 09	Label Drawing Sira 05ATEX1287X

Issue 2 No new drawings were introduced.

Issue 3

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
WMR/ATX/A2L	1 to 2	5	26 Mar 13	Trade Agent Label Drawing KSG, KSGDS & KCG

Issue 4

Drawing	Sheets	Rev	Date (Sira stamp)	Title
WMR/ATX/A2L	1 to 2	6	31 May 2018	KSG, KSGDS & KCG Glands

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