



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx SIM 14.0007X Issue No: 0 Certificate history:
Issue No. 0 (2014-07-18)

Status: **Current** Page 1 of 3

Date of Issue: **2014-07-18**

Applicant: **CMP Products Ltd**
Glasshouse Street
St Peters
NEWCASTLE UPON TYNE
NE6 1BS
United Kingdom

Electrical Apparatus: **Cable Glands Type E** and Trifon Types T3** and TE****
Optional accessory:

Type of Protection: **Flameproof, Increased Safety, Restricted Breathing and Dust Protection by Enclosure**

Marking:
Ex e I Mb
Ex d I Mb
Ex e IIC Gb
Ex d IIC Gb
Ex nR IIC Gc
Ex ta IIIC Da
Ta = -60°C to +130°C (When fitted with the standard seal)
Ta = -20°C to +200°C (When fitted with the high temperature seal)

Approved for issue on behalf of the IECEx
Certification Body:

Geoffrey Barnier

Position:

Principal Engineer - Certification

Signature:
(for printed version)

Date:

18 July 2014

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

Safety in Mines Testing and Research Station (Simtars)
2 Smith Street
REDBANK QLD 4301
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Manufacturer: **CMP Products Ltd**
3 Nelson Way
Nelson Park East
CRAMLINGTON
NORTHUMBERLAND
NE23 1WH
United Kingdom

Additional Manufacturing
location(s):

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended.

STANDARDS:

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

IEC 60079-0 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition:6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2008 Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2008-07 Edition:4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in

Test Report:

[GB/SIR/ExTR13.0066/00](#)

Quality Assessment Report:

[GB/SIR/QAR07.0009/05](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The E** series Type ranges of cable glands consist of a male-threaded front entry component containing an elastomeric sealing ring and a Nylon 6 skid washer which effect flameproof sealing onto the cable inner sheath and is intended to screw into an entry point of its associated enclosure in accordance with relevant codes of practice. The flameproof seal is actuated by an adjoining coupling component. The coupling component is attached to a main body. Their mating thread may be fitted with an optional 'O' ring seal to provide increased ingress protection. Clamping of the armoured or braided cable is effected by a combination of the coupling component, main body and the different optional armour cone and armour sleeve combinations being fastened together. An outer seal nut, containing an elastomeric sealing ring and a Nylon 6 ferrule, threads onto the main body and effects environmental sealing onto the cable outer sheath.

T3CDS - a range of displacement type cable glands, each comprises of a hollow threaded entry component containing an elastomeric compensating displacement seal (CDS) system with associated ferrule, a skid washer, flameproof sealing ring with compensator, a clamping sleeve and armour cone are provided for termination of various armour types. The flameproof sealing assembly is actuated by an inner seal nut. The entry component is fitted with an 'O' ring seal to provide increased ingress and deluge protection. Clamping of the armoured or braided cable is effected by a combination of the entry component, main body and the different optional armour cone and armour sleeve combinations being fastened together. An outer seal nut, containing an elastomeric sealing ring and a Nylon 6 ferrule, threads onto the main body and effects environmental sealing onto the cable outer sheath. The glands are intended for use with appropriately sized SWA, P.W.A., strip armoured, tape armoured or braided cables. The design is such that a constant pressure is maintained on the displacement seal by the use of the compensation ferrule.

T3CDS/PB Identical to the T3CDS Type but incorporates a continuity washer and are suitable for use with lead sheathed cables.

TE1F* Type - Identical inner seal/armour clamp front/outer seal to the T3CDS Type but overall length is shortened. The glands are intended for use with appropriately sized SWA, P.W.A., strip armoured, tape armoured or braided cables.

CONDITIONS OF CERTIFICATION: YES as shown below:

The E**-Type cable glands shall not be used on braided cables in group I applications.

The T3** and TE** Type cable glands shall not be used to terminate on braided cables in Equipment I Protection Level Mb applications.

The glands when used for terminating braided cables are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.

When assembled for fitting to flexible conduit, the conduit shall be effectively clamped to prevent twisting and pulling.

Annex:

[IECEX SIM 14.0007X-0 Annex.pdf](#)



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Equipment:

The E** series Type ranges of cable glands consist of a male-threaded front entry component containing an elastomeric sealing ring and a Nylon 6 skid washer which effect flameproof sealing onto the cable inner sheath and is intended to screw into an entry point of its associated enclosure in accordance with relevant codes of practice. The flameproof seal is actuated by an adjoining coupling component. The coupling component is attached to a main body. Their mating thread may be fitted with an optional 'O' ring seal to provide increased ingress protection. Clamping of the armoured or braided cable is effected by a combination of the coupling component, main body and the different optional armour cone and armour sleeve combinations being fastened together. An outer seal nut, containing an elastomeric sealing ring and a Nylon 6 ferrule, threads onto the main body and effects environmental sealing onto the cable outer sheath.

T3CDS - a range of displacement type cable glands, each comprises of a hollow threaded entry component containing an elastomeric compensating displacement seal (CDS) system with associated ferrule, a skid washer, flameproof sealing ring with compensator, a clamping sleeve and armour cone are provided for termination of various armour types. The flameproof sealing assembly is actuated by an inner seal nut. The entry component is fitted with an 'O' ring seal to provide increased ingress and deluge protection. Clamping of the armoured or braided cable is effected by a combination of the entry component, main body and the different optional armour cone and armour sleeve combinations being fastened together. An outer seal nut, containing an elastomeric sealing ring and a Nylon 6 ferrule, threads onto the main body and effects environmental sealing onto the cable outer sheath. The glands are intended for use with appropriately sized SWA, P.W.A., strip armoured, tape armoured or braided cables. The design is such that a constant pressure is maintained on the displacement seal by the use of the compensation ferrule.

T3CDS/PB Identical to the T3CDS Type but incorporates a continuity washer and are suitable for use with lead sheathed cables.

TE1F* Type - Identical inner seal/armour clamp front/outer seal to the T3CDS Type but overall length is shortened. The glands are intended for use with appropriately sized SWA, P.W.A., strip armoured, tape armoured or braided cables.

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Design options - Cable Gland Types E**

- The front entry component may be manufactured with a profiled groove to captivate an 'O' ring seal which locates on the mating face with the associated enclosure. This option having the gland type designation prefixed with the letter R, e.g. 25RE1FW.
- **Materials of manufacture:**
Brass to EN12168:1998 Grade CuZn39Pb (CW614N)
Mild steel to BS EN 10088-3:2005 Grade 220M07Pb
Stainless steel to BS EN 10088-3:2005 Grade 316S11, 316S13, 316S31 or 316S33
Aluminium alloy not inferior to grade 6082 to EN755,1-3:1996 or LM25 to BS EN 1676:2010 (Not Group I)
- **Alternative entry component thread forms:**
Metric ISO 965-1, ISO965-3 medium fit (6g) for external threads
ET(Conduit) BS 31:1940 (1979), Table A
PG DIN 40430:1971
BSPP BS 2779:1973 class A full form for external threads
BSPT BS 21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A
ISO ISO 7/1:1982, gauging to ISO 7/2 clause 6.3 for external threads
NPT ANSI/ASME B1.20.1-1983 gauging to clause 8.1 for external threads
NPSM ANSI/ASME B1.20.1-1983 gauging to clause 9 for external threads
- The option to manufacture glands with entry threads that are one size up from the nominal quoted gland size.
- The use of alternative armour clamping components specified by the cable gland type designation. The various arrangements vary the cable gland suitability for differing armour or braided type cables.
- The use of a component having an alternative profile allowing an integral earthing facility. The type designation identifying the cable gland being fitted with this option.
- The use of metallic continuity diaphragm component specified by the cable gland type designation for use when terminating lead sheathed cables.
- The use of an earthing device component specified by the cable gland type designation for use with variable speed drive (VSD) / variable frequency drive (VFD) cables.
- Alternative material of manufacture of the ferrule to be the same as the gland material.
- The use of seals suitable for flat form cables
- The use of an O ring seal between the body and the entry item to provide a deluge seal.
- Alternative outer seal arrangement to allow the glands to be fitted to flexible conduit.
- The option to fit a blanking disc between the outer seal and the main body to maintain a minimum IP66 rating. The disc is to be marked 'Ex e only' to indicate that the gland is not suitable for Ex d applications when the disc is fitted.

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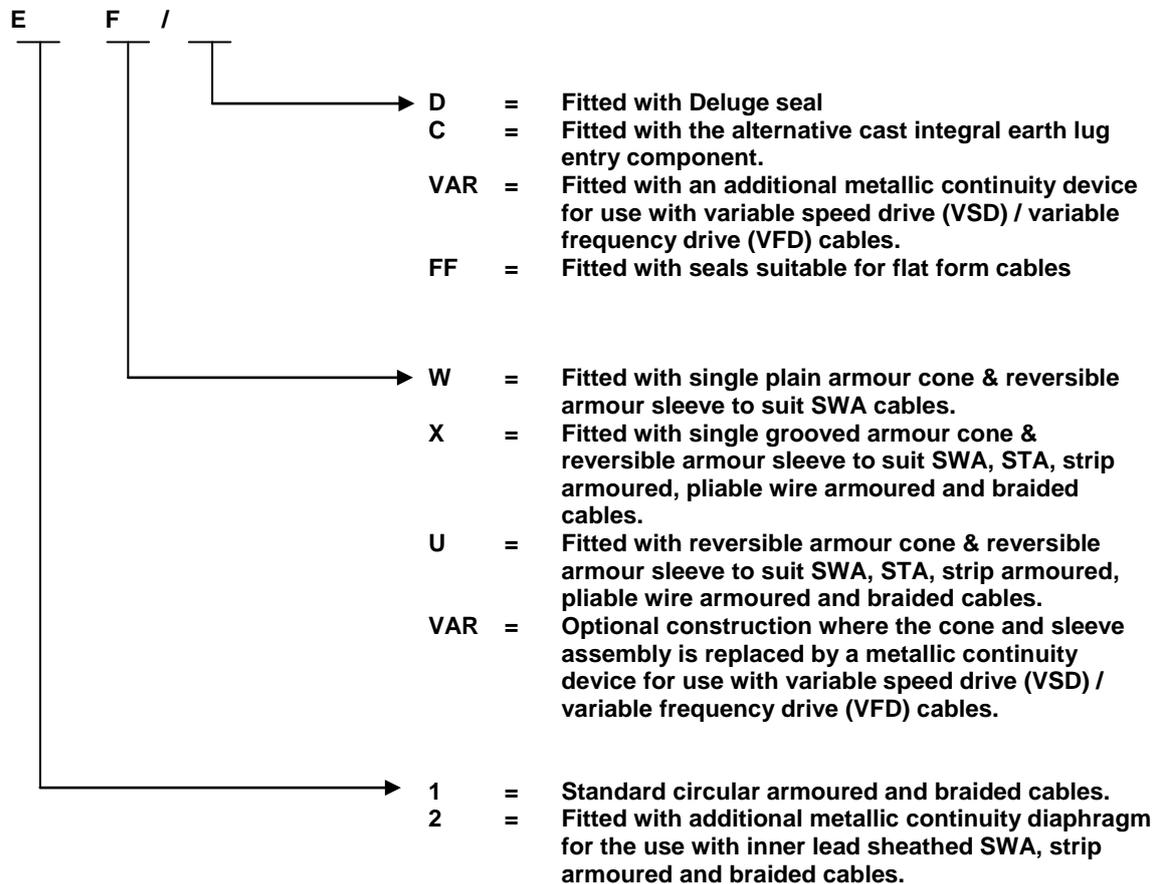


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Type designation code



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The gland and seal sizes are determined by the entry thread and cable range take sizes:

Gland Size	Entry Thread	Cable Inner Seal Sheath Ø (mm)		SWA (mm)		SWA, STA, strip armour, pliable wire armour* and wire braid (mm)		Cable Outer Seal Sheath Ø (mm)	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	M16 x 1.5	3.1	8.6	0.8	1.25	0	0.8	6.1	13.2
20s/16	M20 x 1.5	3.1	8.6	0.8	1.25	0	0.8	6.1	13.2
20s16/20s	M20 x 1.5	3.1	8.6	0.8	1.25	0	0.8	9.5	15.9
20s	M20 x 1.5	6.1	11.6	0.8	1.25	0	0.8	9.5	15.9
20s/20	M20 x 1.5	6.1	11.6	0.8	1.25	0	0.8	12.5	20.9
20	M20 x 1.5	6.5	13.9	0.8	1.25	0	0.8	12.5	20.9
20/25s	M20 x 1.5	6.5	13.9	1.25	1.6	0	1.1	14.0	22.0
20/25	M20 x 1.5	6.5	13.9	1.25	1.6	0	1.1	18.2	26.2
25s	M25 x 1.5	11.1	19.9	1.25	1.6	0	1.1	14.0	22.0
25	M25 x 1.5	11.1	19.9	1.25	1.6	0	1.1	18.2	26.2
25/32	M25 x 1.5	11.1	19.9	1.6	2.0	0	1.2	23.7	33.9
32	M32 x 1.5	17.0	26.2	1.6	2.0	0	1.2	23.7	33.9
32/40	M32 x 1.5	17.0	26.2	1.6	2.0	0	1.2	27.9	40.4
40	M40 x 1.5	22.0	32.1	1.6	2.0	0	1.2	27.9	40.4
40/50s	M40 x 1.5	22.0	32.1	2.0	2.5	0	1.5	35.2	46.7
50s	M50 x 1.5	29.5	38.1	2.0	2.5	0	1.5	35.2	46.7
50s/50	M50 x 1.5	29.5	38.1	2.0	2.5	0	1.5	40.4	53.1
50	M50 x 1.5	35.6	44.0	2.0	2.5	0	1.5	40.4	53.1
50/63s	M50 x 1.5	35.6	44.0	2.0	2.5	0	1.5	45.6	59.4
63s	M63 x 1.5	40.1	49.9	2.0	2.5	0	1.5	45.6	59.4
63s/63	M63 x 1.5	40.1	49.9	2.0	2.5	0	1.5	54.6	65.9
63	M63 x 1.5	47.2	55.9	2.0	2.5	0	1.5	54.6	65.9
63/75s	M63 x 1.5	47.2	55.9	2.0	2.5	0	1.5	59.0	72.1
75s	M75 x 1.5	52.8	61.9	2.0	2.5	0	1.5	59.0	72.1
75s/75	M75 x 1.5	52.8	61.9	2.5	3.0	0	1.5	66.7	78.5
75	M75 x 1.5	59.1	67.9	2.5	3.0	0	1.5	66.7	78.5
75/90	M75 x 1.5	59.1	67.9	3.0	3.5	0	1.6	76.2	90.4
90	M90 x 2.0	66.6	79.9	3.0	3.5	0	1.6	76.2	90.4
90/100	M90 x 2.0	66.6	79.9	3.15	4.0	0	1.6	86.1	101.5
100	M100 x 2.0	76.0	90.9	3.15	4.0	0	1.6	86.1	101.5
100/115	M100 x 2.0	76.0	90.9	3.15	4.0	0	1.6	101.5	110.3
115	M115 x 2.0	86.0	97.9	3.15	4.0	0	1.6	101.5	110.3
115/130	M115 x 2.0	86.0	97.9	3.15	4.0	0	1.6	110.2	123.3
130	M130 x 2.0	97.0	114.9	3.15	4.0	0	1.6	110.2	123.3

E*-FF in these sizes only:

Gland Size	Entry Thread	Cable Inner Seal Sheath (mm)		Cable Outer Seal Sheath (mm)	
		Min.	Max.	Min.	Max.
20s	M20 x 1.5	4.0 x 6.2	6.8 x 11.7	4.4 x 7.8	6.8 x 11.7
20	M20 x 1.5	5.7 x 8.0	8.7 x 13.5	4.4 x 10.9	8.7 x 16.0

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Design options - Cable Gland Types Triton T3** and TE**

- The front entry component may be manufactured with a profiled groove to captivate an 'O' ring seal which locates on the mating face with the associated enclosure. This option having the gland type designation prefixed with the letter R, e.g. 25RT3CDS.
- Materials of manufacture:
Brass to EN12168:1998 Grade CuZn39Pb (CW614N)
Mild steel to BS EN 10088-3:2005 Grade 220M07Pb
Stainless steel to BS EN 10088-3:2005 Grade 316S11, 316S13, 316S31 or 316S33
Aluminium alloy not inferior to grade 6082 to EN755,1-3:1996 or LM25 to BS EN 1676:2010 (Not Group I)
- Alternative entry component thread forms:
Metric ISO 965-1, ISO965-3 medium fit (6g) for external threads
ET(Conduit) BS 31:1940 (1979), Table A
PG DIN 40430:1971
BSPB BS 2779:1973 class A full form for external threads
BSPT BS 21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A
ISO ISO 7/1:1982, gauging to ISO 7/2 clause 6.3 for external threads
NPT ANSI/ASME B1.20.1-1983 gauging to clause 8.1 for external threads
NPSM ANSI/ASME B1.20.1-1983 gauging to clause 9 for external threads
- The option to manufacture glands with entry threads that are one size up from the nominal quoted gland size.
- The option to have an alternative entry component profile that incorporates an earth lug.
- Single or double sided and with an identically dimensioned plain taper each side for SWA type cables, the gland type designation becoming T3CDSW, T3CDSW/PB, TE1FW and TE1FW/PB.
- Single or double sided with an identically dimensioned grooved taper each side for SWA, P.W.A., strip armoured, tape armoured or braided type cables; the gland type designation becoming T3CDSX, T3CDSX/PB, TE1FX and TE1FX/PB.
- The use of alternative armour clamping components specified by the cable glands type designation. The various arrangements vary the cable gland suitability for differing armour or braided type cables.
- The use of seals suitable for flat form cables
- Alternative outer seal arrangement to allow the glands to be fitted to flexible conduit.
- The option to fit a blanking disc between the outer seal and the main body to maintain a minimum IP66 rating. The disc is to be marked 'Ex e only' to indicate that the gland is not suitable for Ex d applications when the disc is fitted.

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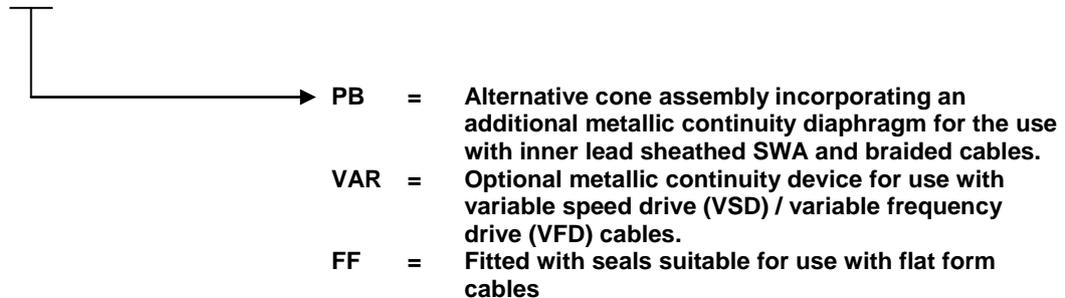
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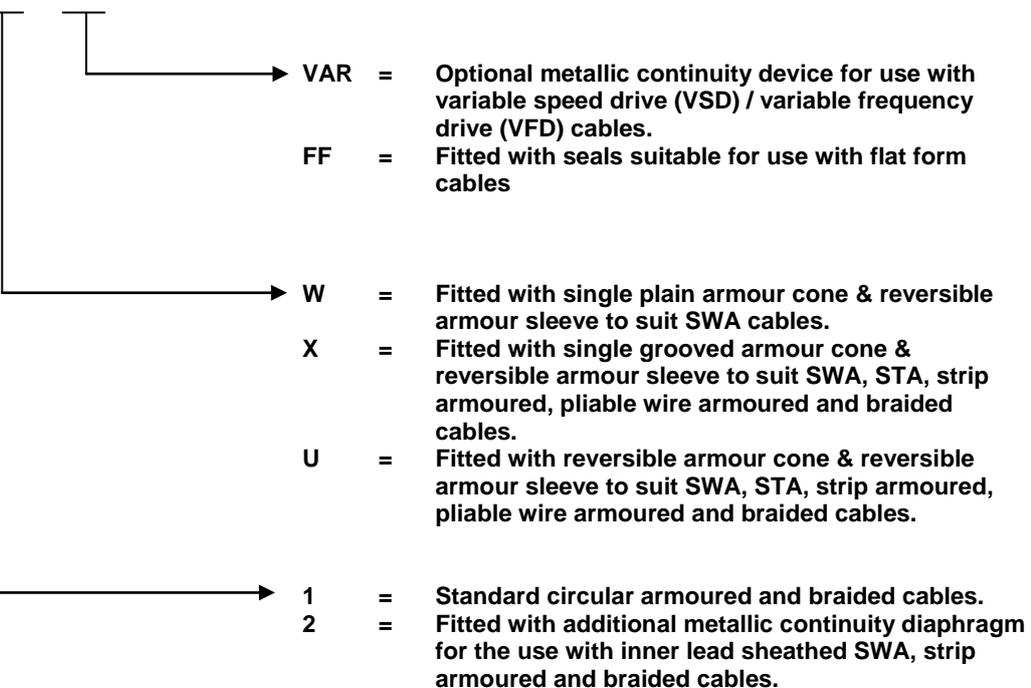
Type designation code

T3CDS



TE

F



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The gland and seal sizes are determined by the entry thread and cable range take sizes:

Gland Size	Entry Thread	Cable Inner Seal Sheath Ø (mm)		SWA (mm)		SWA, STA, strip armour, pliable wire armour* and wire braid (mm)		Cable Outer Seal Sheath Ø (mm)	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	M16 x 1.5	3.1	8.7	0.8	1.25	0	0.8	6.1	13.2
20s/16	M20 x 1.5	3.1	8.7	0.8	1.25	0	0.8	6.1	13.2
20s16/20s	M20 x 1.5	3.1	8.7	0.8	1.25	0	0.8	9.5	15.9
20s	M20 x 1.5	6.1	11.7	0.8	1.25	0	0.8	9.5	15.9
20	M20 x 1.5	6.5	14.0	0.8	1.25	0	0.8	12.5	20.9
25s	M25 x 1.5	11.1	20.0	1.25	1.6	0	1.1	14.0	22.0
25	M25 x 1.5	11.1	20.0	1.25	1.6	0	1.1	18.2	26.2
32	M32 x 1.5	17.0	26.3	1.6	2.0	0	1.2	23.7	33.9
40	M40 x 1.5	22.0	32.2	1.6	2.0	0	1.2	27.9	40.4
50s	M50 x 1.5	29.5	38.2	2.0	2.5	0	1.5	35.2	46.7
50	M50 x 1.5	35.6	44.1	2.0	2.5	0	1.5	40.4	53.1
63s	M63 x 1.5	40.1	50.0	2.0	2.5	0	1.5	45.6	59.4
63	M63 x 1.5	47.2	56.0	2.0	2.5	0	1.5	54.6	65.9
75s	M75 x 1.5	52.8	62.0	2.5	3.0	0	1.5	59.0	72.1
75	M75 x 1.5	59.1	68.0	2.5	3.0	0	1.6	66.7	78.5
90	M90 x 2.0	66.6	80.0	3.15	4.0	0	1.6	76.2	90.4
100	M100 x 2.0	76.0	91.0	3.15	4.0	0	1.6	86.1	101.5
115	M115 x 2.0	86.0	98.0	3.15	4.0	0	1.6	101.5	110.3
130	M130 x 2.0	97.0	115.0	3.15	4.0	0	1.6	110.2	123.3

T3* or TE*-FF in these sizes only:

Gland Size	Entry Thread	Cable Inner Seal Sheath Ø (mm)		Cable Outer Seal Sheath Ø (mm)	
		Min.	Max.	Min.	Max.
20s	M20 x 1.5	4.0 x 6.2	6.8 x 11.7	4.4 x 7.8	6.8 x 11.7
20	M20 x 1.5	5.7 x 8.0	8.7 x 13.5	4.4 x 10.9	8.7 x 16.0

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Manufacturer's documents:

Drawing No	Subject	Rev.	Date
GA355A	E TYPE SERIES GENERAL ARRANGEMENT - SIMTARS	00	21/05/2014
GA356A	TE1FU GENERAL ARRANGEMENT - SIMTARS	00	21/05/2014
GA357A	TRITON CDS GENERAL ARRANGEMENT - SIMTARS	00	21/05/2014
SCH0321	INNER SEAL DETAILS	00	27/09/2012
SCH0322	OUTER SEAL DETAILS	00	27/09/2012
SCH0323	TYPICAL ARMOUR CLAMP DETAILS	00	27/09/2012
SCH0328	CDS ASEMBLY DETAILS	00	27/09/2012

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