

1. **GENERAL**

The marking of the Cable Gland shall include the following:

Ex db I Mb

Ex eb I Mb

Ex db IIC Gb

Ex eb IIC Gb

Ex nR IIC Gc

Ex ta IIIC Da

Ta= -60°C to +130°C (standard seal) / -20°C to +200°C (high temperature seal)

The Triton T3CDS series is 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 reversible 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 affected 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 series suffixed 'R' or alternatively named TE1FU series – Identical to the above but incorporating an external shorter gland body to provide a reduced overall length.

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

Design Options

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:

The standard material supplied is:

Brass	BS EN 12164:2011/ BS EN 12168:2011 Grade CuZn39Pb3 (CW614N) All brass manufactured component parts can be optionally nickel plated to a maximum of 0.008mm
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Alternate materials are:

Stainless steel	BS EN 10088-3:2014 Grades 316S11, 316S13, 316S31, 316S33, 316L
Mild steel	BS EN 10277-2:2008 Grades 220M07, 230M07 (EN1A) / 220M07Pb, 230M07Pb (EN1APb)
Aluminium	BS EN 573-3:2013 / BS EN 755-1-3:2008 Grade 6082 T6, 6262 T6 / BS EN 1676:2010 Grade LM25 TF Not for use with Group I mining Aluminium will contain less than 6% magnesium

Alternative entry component thread forms:

Metric	ISO 965-1, ISO 965-3 medium fit (6g) for external threads
ET (Conduit)	BS31:1940 (1979), Table A
PG	DIN 40430:1971
BSPP	BS2779:1986 class A full form for external threads
BSPT	BS21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A
ISO	ISO 7/1:1994, gauging to ISO 7/2 clause 6.3 for external threads
NPT	ANSI/ASME B1.20.1-2013 gauging to clause 3.2 for external threads
NPSM	ANSI/ASME B1.20.1-2013 gauging to clause 3.2 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 cone with an identically dimensioned plain taper each side for SWA type cables.

Single or double-sided cone with an identically dimensioned grooved taper each side for SWA, P.W.A., strip armoured, tape armoured or braided type cables.

Cable glands may be fitted with armour cones with alternative diameters to allow the clamping of smaller or larger armour wires and braided 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.

Type designation:

T3CDS ****

- PB Alternative cone assembly incorporating an additional metallic continuity diaphragm for the use with inner lead sheathed SWA and braided cables
- VAR Optional metallic continuity device for use with variable speed drive (VSD) / variable frequency drive (VFD) cables
- FF Fitted with seals suitable for use with flat form cables
- "Blank" Standard gland arrangement with reversible armour cone
- W Fitted with single plain armour cone to suit S.W.A. cables
- X Fitted with single grooved armour cone to suit S.W.A., S.T.A., strip armoured, pliable wire armoured and braided cables
- R Alternative type number to the TE1FU types
- L Longer intermediate body

TE 1 F ****

- VAR Optional metallic continuity device for use with variable speed drive (VSD) / variable frequency drive (VFD) cables
- FF Fitted with seals suitable for use with flat form cables
- "Blank" Standard gland arrangement with reversible armour cone
- PB Fitted with additional metallic continuity diaphragm for use with inner lead sheathed S.W.A., strip armoured and braided cables.
- W Fitted with single plain armour cone to suit S.W.A. cables
- X Fitted with single grooved armour cone to suit S.W.A., S.T.A., strip armoured, pliable wire armoured and braided cables
- U Fitted with a universal cone to suit S.W.A., S.T.A., strip armoured, pliable wire armoured and braided cables

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

Gland Size	Entry Thread	Entry Thread "B" version	Inner Seal sheath range Ø (mm)		SWA, STA, strip armour, pliable wire armour & wire braid (mm)		SWA (mm)		Outer seal sheath range Ø (mm)	
			Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
16	M16 x1.5	----	3.1	8.7	0	0.8	0.8	1.25	6.1	13.2
20S16	M20 x1.5	M25 x1.5	3.1	8.7	0	0.8	0.8	1.25	6.1	13.2
20S16/20S	M20 x1.5	M25 x1.5	3.1	8.7	0	0.8	0.8	1.25	9.5	15.9
20S	M20 x1.5	M25 x1.5	6.1	11.7	0	0.8	0.8	1.25	9.5	15.9
20	M20 x1.5	M25 x1.5	6.5	14.0	0	0.8	0.8	1.25	12.5	20.9
25S	M25 x1.5	M32 x1.5	11.1	20.0	0	1.1	1.25	1.6	14.0	22.0
25	M25 x1.5	M32 x1.5	11.1	20.0	0	1.1	1.25	1.6	18.2	26.2
32	M32 x1.5	M40 x1.5	17.0	26.3	0	1.2	1.6	2.0	23.7	33.9
40	M40 x1.5	M50 x1.5	22.0	32.2	0	1.2	1.6	2.0	27.9	40.4
50S	M50 x1.5	M63 x1.5	29.5	38.2	0	1.5	2.0	2.5	35.2	46.7
50	M50 x1.5	M63 x1.5	35.6	44.1	0	1.5	2.0	2.5	40.4	53.1
63S	M63 x1.5	M75 x1.5	40.1	50.0	0	1.5	2.0	2.5	45.6	59.4
63	M63 x1.5	M75 x1.5	47.2	56.0	0	1.5	2.0	2.5	54.6	65.9
75S	M75 x1.5	M90 x2.0	52.8	62.0	0	1.5	2.5	3.0	59.0	72.1
75	M75 x1.5	M90 x2.0	59.1	68.0	0	1.6	2.5	3.0	66.7	78.5
90	M90 x2.0	M100 x 2.0	66.6	80.0	0	1.6	3.15	4.0	76.2	90.4
100	M100 x 2.0	M115 x 2.0	76.0	91.0	0	1.6	3.15	4.0	86.1	101.5
115	M115 x 2.0	M130 x 2.0	86.0	98.0	0	1.6	3.15	4.0	101.5	110.3
130	M130 x 2.0	----	97.0	115.0	0	1.6	3.15	4.0	110.2	123.3

T3 series suffixed 'FF' or TE series suffixed 'FF' in these sizes only.

Gland size	Entry thread	Entry thread 'B' version	Cable inner seal sheath range (mm)		Cable outer seal sheath range (mm)	
			Min.	Max.	Min	Max
20s	M20 x1.5	M25 x1.5	4.0 x 6.2	6.8 x 11.7	4.4 x 7.8	6.8 x 11.7
20	M20 x1.5	M25 x1.5	5.7 x 8.0	8.7 x 13.5	4.4 x 10.9	8.7 x 16.0

T3CDSL series which includes the longer intermediate body are determined by the entry thread and cable range-take sizes:

Gland size	Entry thread	Entry thread 'B' version	Inner seal sheath range Ø (mm)		SWA, STA, strip armour, pliable wire armour & wire braid (mm)		SWA (mm)		Outer seal sheath range Ø (mm)	
			Min.	Max	Min	Max	Min	Max	Min	Max
63	M63x1.5	----	47.2	56.0	0	1.5	2.0	2.5	54.6	65.9

Based on the following documentation: IECEx CML 18.0183X. Issue 0.

