



# INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES T3CDS & T3CDSPB

CABLE GLAND FOR USE WITH SINGLE WIRE ARMOUR (SWA), WIRE BRAID, STRIP, AND TAPE ARMOUR (T3CDSPB VERSION CAN ALSO BE USED ON CABLE WITH A LEAD SHEATH). FOR USE IN EXPLOSIVE ATMOSPHERES.

INCORPORATING EU DECLARATION OF CONFORMITY TO DIRECTIVE [2014/34/EU]

CMP TRITON™ CDS™ DELUGE PROOF CABLE GLAND FEATURING COMPENSATING DISPLACEMENT SEAL SYSTEM.

## CABLE GLAND TYPES T3CDS & T3CDSPB



Cable Gland Selection Table

### TECHNICAL DATA

**CABLE GLAND TYPE** : T3CDS / T3CDSPB  
**INGRESS PROTECTION** : IP66, IP68, NEMA 4X, DELUGE TO DTS01-91  
**PROCESS CONTROL SYSTEM** : BS EN ISO 9001  
 : ISO / IEC 80079-34:2011

### EXPLOSIVE ATMOSPHERES CLASSIFICATION

**ATEX CERTIFICATION No** : SIRAI3ATEX1073X, SIRAI3ATEX4079X  
**ATEX CERTIFICATION CODE** : ⓂII 2G, II 1D, Ex d IIC Gb, Ex e IIC Gb, Ex ta IIIC Da, Ⓜ II 3G Ex nR IIC Gc, ⓂIM2, Ex d I Mb, Ex e I Mb  
**IECEx CERTIFICATION No** : IECEx SIR.13.0028X  
**IECEx CERTIFICATION CODE** : Ex d IIC Gb, Ex e II Gb, Ex nR II Gc, Ex ta IIIC Da, Ex d I Mb, Ex e I Mb  
**cCSAus CERTIFICATION No** : 1310517  
**cCSAus CERTIFICATION CODE** : Class I, Div 2, Groups A,B,C and D, Class II, Div 2, Groups E,F and G, Class III, Enclosure Type 3, 4 and 4X, Ex d IIC, Ex e II, Ex nR II, Class I, Zone 1, AEx e II, AEx nR II  
**UL CERTIFICATION NO** : E200163  
**UL CERTIFICATION CODE** : Class I, Zone 1, AEx e II

### INSTALLATION INSTRUCTIONS

Installation should only be performed by a competent person using the correct tools. Read all instructions before beginning installation.

### SPECIAL CONDITIONS FOR SAFE USE

1. The T3\*\* Type cable glands shall not be used to terminate on braided cables in group I applications.
2. The glands when used for terminating braided cables are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.

### ACCESSORIES

The following accessories are available from CMP Products, as optional extras, to assist with fixing, sealing and earthing :- Locknut, Earth Tag, Serrated Washer, Entry Thread (I.P.) Sealing Washer, Shroud

Number of turns to tighten	Outer Seal Tightening Guide												
	GLAND SIZE												
	20S16	20S	20	25S	25	32	40	50S	50	63S	63	75S	75
	CABLE DIAMETER												
0.5	13.2	15.9	20.9	22.0	26.2	33.9							
1	12.5	15.3	20.0	21.2	25.4	32.9	40.4	46.7	52.8	59.2	65.9	72.1	78.5
1.5	11.9	14.7	19.0	20.4	24.6	31.9	39.0	45.4	51.4	57.7	64.6	70.6	77.2
2	11.2	14.2	18.1	19.6	23.8	30.8	37.6	44.1	50.0	56.2	63.4	69.2	75.9
2.5	10.5	13.6	17.2	18.8	23.0	29.8	36.2	42.9	48.7	54.7	62.1	67.7	74.6
3	9.8	13.0	16.2	18.0	22.2	28.8	34.8	41.6	47.3	53.2	60.9	66.3	73.3
3.5	9.2	12.4	15.3	17.2	21.4	27.8	33.5	40.3	45.9	51.6	59.6	64.8	71.9
4	8.5	11.8	14.4	16.4	20.6	26.8	32.1	39.0	44.5	50.1	58.4	63.4	70.6
4.5	7.8	11.2	13.4	15.6	19.8	25.7	30.7	37.8	43.2	48.6	57.1	61.9	69.3
5	7.1	10.7	12.5	14.8	19.0	24.7	29.3	36.5	41.8	47.1	55.9	60.5	68.0
5.5	6.5	10.1	12.0	14.0	18.2	23.7	27.9	35.2	40.4	45.6	54.6	59.0	66.7
6	5.8	9.5											

Cable Gland Size	Available Entry Threads (Alternate Metric Thread Lengths Available)				Cable Bedding Diameter		Overall Cable Diameter		Armour Range				Across Flats		Across Corners		Protusion Length	Combined Ordering Reference (*Brass Metric)			Shroud	Cable Gland Weight (Kgs)
	Standard		Option		Min	Max	Min	Max	Grooved Cone (X)		Stepped Cone (W)		Max	Max	Size	Type		Ordering Suffix				
	Metric	Thread Length (Metric) "E"	NPT	Thread Length (NPT) "E"					Min	Max	Min	Max										
20S/16	M20	15.0	1/2"	19.9	3/4"	3.1	8.6	6.1	13.1	0.3	1.0	0.8	1.25	24.0	26.4	78.7	20S16	T3CDS	1RA	PVC36	0.20	
20S	M20	15.0	1/2"	19.9	3/4"	6.1	11.6	9.5	15.9	0.3	1.0	0.8	1.25	24.0	26.4	78.7	20S	T3CDS	1RA	PVC36	0.20	
20	M20	15.0	1/2"	19.9	3/4"	6.5	13.9	12.5	20.9	0.4	1.0	0.8	1.25	30.5	33.6	76.2	20	T3CDS	1RA	PVC06	0.28	
25S	M25	15.0	3/4"	20.2	1"	11.1	19.9	14.0	22.0	0.4	1.2	1.25	1.6	37.5	41.3	88.8	25S	T3CDS	1RA	PVC09	0.44	
25	M25	15.0	3/4"	20.2	1"	11.1	19.9	18.2	26.2	0.4	1.2	1.25	1.6	37.5	41.3	88.7	25	T3CDS	1RA	PVC09	0.44	
32	M32	15.0	1"	25.0	1 1/4"	17.0	26.2	23.7	33.9	0.4	1.2	1.6	2.0	46.0	50.6	90.7	32	T3CDS	1RA	PVC11	0.63	
40	M40	15.0	1 1/4"	25.6	1 1/2"	22.0	32.1	27.9	40.4	0.4	1.6	1.6	2.0	55.0	60.5	93.2	40	T3CDS	1RA	PVC15	0.91	
50S	M50	15.0	1 1/2"	26.1	1 3/4"	29.5	38.1	35.2	46.7	0.4	1.6	2.0	2.5	60.0	66.0	100.7	50S	T3CDS	1RA	PVC18	1.12	
50	M50	15.0	2"	26.9	2 1/2"	35.6	44.0	40.4	53.0	0.6	1.6	2.0	2.5	70.1	77.1	105.8	50	T3CDS	1RA	PVC21	1.60	
63S	M63	15.0	2"	26.9	2 1/2"	40.1	49.9	45.6	59.4	0.6	1.6	2.0	2.5	75.0	82.5	102.5	63S	T3CDS	1RA	PVC23	1.73	
63	M63	15.0	2 1/2"	39.9	3"	47.2	55.9	54.6	65.8	0.6	1.6	2.0	2.5	80.0	88.0	105.4	63	T3CDS	1RA	PVC25	1.78	
75S	M75	15.0	2 1/2"	39.9	3"	52.8	61.9	59.0	72.0	0.6	1.6	2.0	2.5	90.0	99.0	110.6	75S	T3CDS	1RA	PVC28	2.57	
75	M75	15.0	3"	41.5	3 1/2"	59.1	67.9	66.7	78.4	0.6	1.6	2.5	3.0	100.0	110.0	120.3	75	T3CDS	1RA	PVC30	3.33	
90	M90	24.0	3 1/2"	42.8	4"	66.6	78.6	76.2	90.3	0.8	1.6	3.15	4.0	115.0	126.5	138.9	90	T3CDS	1RA	PVC32	4.87	
100	M100	24.0	4"	44.0	5"	76.0	90.9	86.1	101.4	0.8	1.6	3.15	4.0	127.0	139.7	128.2	100	T3CDS	1RA	LSF33	4.97	
115	M115	24.0	4"	44.0	5"	86.0	97.9	101.5	110.2	0.8	1.6	3.15	4.0	138.0	151.8	161.3	115	T3CDS	1RA	LSF34	7.72	
130	M130	24.0	5"	46.8	6"	97.0	114.9	110.2	123.2	0.8	1.6	3.15	4.0	157.0	172.7	173.3	130	T3CDS	1RA	LSF35	9.78	

\*Note: For material options please add the following suffix to change the Ordering Reference; Brass (no suffix required), Nickel Plated Brass "5", 316 Grade Stainless Steel "4", Copper Free Aluminium "1"  
 For NPT options please add the following digits to the material suffix; 1/2" = 31, 3/4" = 32, 1" = 33, 1 1/4" = 34, 1 1/2" = 35, 2" = 36, 2 1/2" = 37, 3" = 38, 3 1/2" = 39, 4" = 310 (Brass requires prefix "0")  
 Examples : 32T3CDS1RA534 = Nickel Plated Brass 1-1/4" NPT, 50S3T3CDS1RA035 = Brass 1-1/2" NPT, 25T3CDS1RA432 = Stainless Steel 3/4" NPT, 20T3CDS1RA5 = Nickel Plated Brass M20  
 Dimensions are displayed in millimetres unless otherwise stated

Note: Standard Seal (Black) Temperature Range = -60°C to +130°C  
 High Temperature Seal (Brown) Temperature Range = -20°C to +200°C for High Temperature Seal add 'HT' to Ordering Reference after Gland Type e.g. 20S3T3CDSHT1RA.

\*\* Insert "PB" into the code for T3CDSPB glands e.g. 20T3CDSPB1RA  
 \*Stepped cone is for single wire armour and grooved cone is for all other armours

CMP Products Limited on its sole responsibility declares that the equipment referred to herein conforms to the requirements of the ATEX Directive 2014/34/EU and the following standards:-  
 EN 60079-0:2012, EN 60079-1:2007, EN 60079-7:2007, EN 60079-15:2010, EN 60079-31:2009, BS 6121:1989, EN 62444:2013

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**CE 0518**

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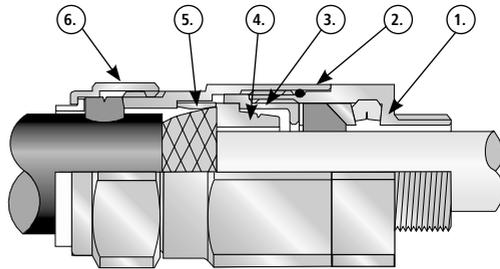
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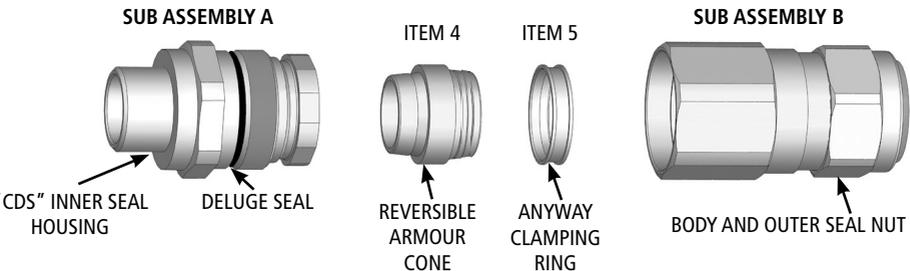
# INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND T3CDS & T3CDSPB

- 1. Entry Item
- 2. Body
- 3. Compensating Sleeve
- 4. Reversible Armour Cone
- 5. AnyWay Clamping Ring
- 6. Outer Seal Nut



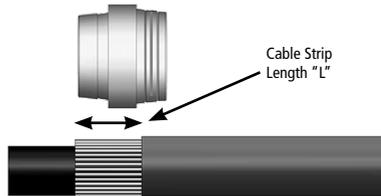
## PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION

**CABLE GLAND COMPONENTS** - It is not necessary to dismantle the cable gland any further than illustrated below



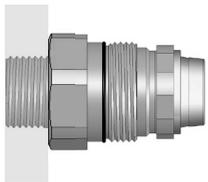
1. Separate the gland into two sub-assemblies, A and B, by unscrewing the body (2) from the entry item (1). Note that items (4) and (5) are loose items.

2. Prepare the cable by stripping back the cable outer sheath and armour to suit the equipment geometry. Expose the armour by stripping back the outer sheath further using the table below as a guide.

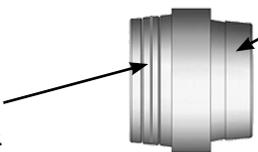


CABLE GLAND SIZE	20S/16, 20S, 20	25S, 25, 32, 40	50S, 50, 63S, 63	75S, 75, 90, 100, 115, 130
CABLE STRIP LENGTH "L"	12 mm (0.472 inches)	15 mm (0.591 inches)	18 mm (0.709 inches)	20 mm (0.787 inches)

3. Secure the entry components (sub-assembly A) into the equipment. (Not for remote installation) Pass the sub-assembly B (outer seal first) and AnyWay clamping ring (5) over the cable. Insert the reversible armour cone (4) in the sub-assembly A, orientation to suit cable (see below)



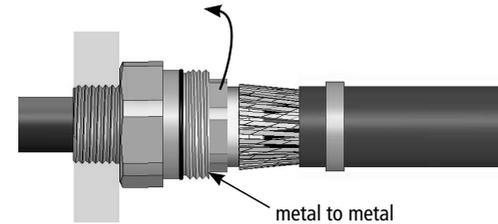
**Grooved side of cone outwards** - to terminate braid, strip armour, pliable wire or tape armour.



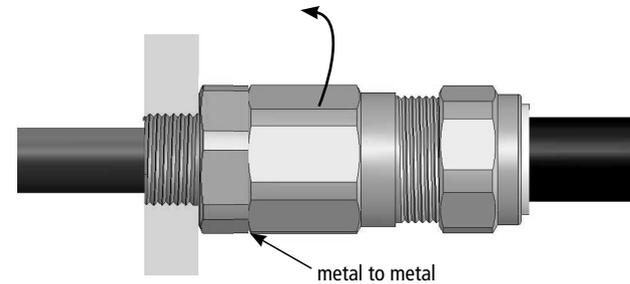
**Stepped side of cone outwards** - to terminate SWA cable.

4. Pass the cable through sub-assembly A, spacing the armour or braid evenly around the cone. Whilst continuing to push the cable forward to keep the cable braid or armour in contact with the cone, tighten the compensating sleeve (3) into the entry component (1) until all the threads are used. (Note that the internal compensator will prevent the cable gland inner seal from being overtightened onto the cable inner sheath.)

The inner sheath of the T3CDSPB gland contains a device to automatically make an electrical contact with the lead sheath on the cable as the cable is installed.



5. Terminate the cable by tightening the body (2) onto the entry component (1) using a spanner on each part. Tighten the body until the body and entry components are metal to metal and cannot be tightened further.



6. Only using finger pressure, tighten the outer seal nut assembly (8) until light resistance to tightening is met.

Then either use the outer seal tightening guide tape or table on the rear of the page to determine how much further to tighten the seal using a spanner (using the outer seal tightening guide is recommended).

Wrap the outer seal tightening guide tape around the cable to show the amount of spanner turns needed (as shown here). Make sure the correct side of the outer seal tightening guide tape is used depending on the cable gland size.

