

ADE-5F - for armoured cable

Hazardous area cable glands



Suitable for the following cable types:

- Steel wire armoured cable (SWA)
- Steel wire braided cable (SWB)
- Steel tape armoured cable (STA)
- Braided marine shipboard cable; Type P cable
- Lead sheathed cable (with addition of earthing washer)

With inspectable clamping for wire or braid

Double seal provides 100% of cable clamping, including braided cables.

Certifications and compliances

• ATEX No. INERIS 12ATEX0032X

Zones 1 and 2, Groups I, IIA, IIB and IIC

Zones 21 and 22, Groups IIIA, IIIB and IIIC

⚡ II2GD / Ex db IIC / Ex eb IIC / Ex tb IIIC

⚡ II3G Ex nRc IIC

⚡ IM2 / Ex db I / Ex eb I ; for mining applications

Brass or bronze size 8 to 17; NPT 3/4" to 4", ISO 25 to 110

Stainless steel size 4 to 17; NPT 3/8" to 4", ISO 16 to 110

• IECEx No. IECEx INE 12.0025X

Zones 1 and 2, Groups I, IIA, IIB and IIC

Zones 21 and 22, Groups IIIA, IIIB and IIIC

Ex db IIC / Ex eb IIC / Ex nRc IIC / Ex tb IIIC

Ex db I / Ex eb I ; for mining applications

Brass or bronze size 8 to 17; NPT 3/4" to 4", ISO 25 to 110

Stainless steel size 4 to 17; NPT 3/8" to 4", ISO 16 to 110

• UL: 3DJN E310130 Class I Zone 2*, AEx e II, Ex e II

⚡ ADE size 4 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured cable

ITC, MV, PLTC, TC-ER, TC-ER-HL, TC

• UL: 3LRC E314047 Class I Zone 2*, AEx e II, Ex e II

⚡ ADE size 4 to 17, NPT 1/2" to 4" or ISO 20 to 110 with armoured marine cable

* Can be used in Div.2 provided that the enclosure contains no components that produce arcs or sparks.



Other certificates:

CEPEL 05.0559X

CCoE P360379-1

KOSHA 2015-BO-0483 to 0490

NANIO TC-RU C-FR.ГБ05.B.00858

NEPSI GYJ13.1082X

SABS MS/15-0314X

Shipping applications:

ABS 14-HS1274083-PDA

BV 40910/A0 BV

DNV TAE000010X

Lloyds 11/00072

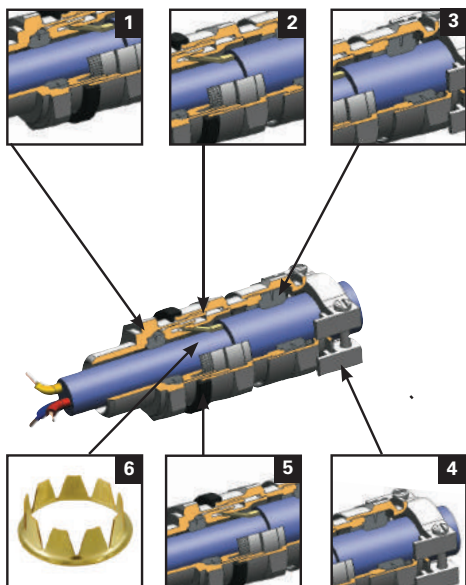
DTS-01:1991

Technical specification

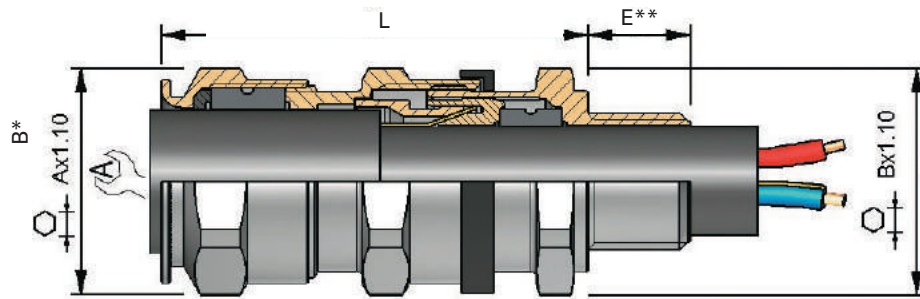
- Nickel-plated brass for superior corrosion resistance. 316L stainless steel, bronze and aluminum options available. It is recommended that a suitable lubricant is used on all threads of stainless steel and aluminum versions.
- Temperature range: -60 °C to +140 °C
- IP66 / IP68 according to the method of attachment and the condition of the equipment area, see page 2.5

Features and benefits

- 1: Specifically formulated elastomer for flame path sealing on inner sheath of cable
- 2: Anti-rotation feature providing simplified inspectability of armour clamping and grounding system
- 3: Specifically formulated elastomer for IP sealing on outer sheath of cable
- 4: Additional external cable clamping for strain relief (optional)
- 5: Additional deluge seal available for ADE-5F gland sizes No.12 to No.17
- 6: Suitable for lead sheath cable with installation of simple washer (optional)



Hazardous area cable glands



* For 'across corners' dimensions, multiply 'across flats' dimensions by 1.1

***For 'E' see thread
dimension page 5.18*

SERIES	THREAD SIZE	CABLE SEALING RANGE	MATERIAL	OPTION
ADE5	M25	3	NPN	

0 = XS
1 = S
2 = M
3 = L

SELECT

SELECT

CODES	
K1	Accessories kit 1
K2	Accessories kit 2
K3	Accessories kit 3
BLANK	No option

NPN	Nickel-plated brass
SSN	Stainless steel
BZN	Bronze
ALN	Aluminum (not Group I)

When the "DTS" prefix is specified before the "K" of the kit option, a deluge ring will be included. The deluge rings are available for sizes 12-17 only. (Ex: ADE5N2003NPNDTSK1)

KIT OPTIONS	
K1	Kit 1 contents: • Locknut • Green composite washer
K2	Kit 2 contents: • Locknut • Green composite washer • Earth tag • Shroud
K3	Kit 3 contents: • Locknut • Green composite washer • Earth tag • Serrated washer

Ordering codes

Series	Thread Size (ISO)	Thread Size Code (ISO)	Thread Size (NPT)	Thread Size Code (NPT)	Cable Sealing Range	Cable Sealing Range			A	B	L	ADE Gland Size	Catalog Number (ISO)	Catalog Number (NPT)
						Inner Sheath Min	Inner Sheath Max	Outer Sheath Min - Max						
ADE5	12"	M12	1/4"	N025	3	4.5 - 8.0	7.0 - 12.0	0.2 - 0.9	19	19	55.0	5	ADE5M123NPN	ADE5N0253NPN
ADE5	16"	M16	3/8"	N038	2	4.5 - 8.0	7.0 - 12.0	0.2 - 0.9	19	19	55.0	5	ADE5M162NPN	ADE5N0382NPN
ADE5	16"	M16	3/8"	N038	3	7.0 - 12.0	10.0 - 16.0	0.2 - 1.2	24	24	57.0	6	ADE5M163NPN	ADE5N0383NPN
ADE5	20	M20	1/2"	N050	1	4.5 - 8.0	7.0 - 12.0	0.2 - 0.9	19	24	55.0	5	ADE5M201NPN	ADE5N0501NPN
ADE5	20	M20	1/2"	N050	2	7.0 - 12.0	10.0 - 16.0	0.2 - 1.2	24	24	57.0	6	ADE5M202NPN	ADE5N0502NPN
ADE5	20	M20	1/2"	N050	3	10.0 - 15.5	13.5 - 21.0	0.2 - 1.2	30	30	64.0	7	ADE5M203NPN	ADE5N0503NPN
ADE5	25	M25	3/4"	N075	1	7.0 - 12.0	10.0 - 16.0	0.2 - 1.2	24	30	57.0	6	ADE5M251NPN	ADE5N0751NPN
ADE5	25	M25	3/4"	N075	2	10.0 - 15.5	13.5 - 21.0	0.2 - 1.2	30	30	64.0	7	ADE5M252NPN	ADE5N0752NPN
ADE5	25	M25	3/4"	N075	3	13.5 - 20.5	18.0 - 27.5	0.2 - 1.6	41	41	75.0	8	ADE5M253NPN	ADE5N0753NPN
ADE5	32	M32	1"	N100	2	13.5 - 20.5	18.0 - 27.5	0.2 - 1.6	41	41	75.0	8	ADE5M322NPN	ADE5N1002NPN
ADE5	32	M32	1"	N100	3	18.0 - 26.0	23.0 - 34.0	0.2 - 1.6	48	48	83.0	9	ADE5M323NPN	ADE5N1003NPN
ADE5	40	M40	1 1/4"	N125	2	18.0 - 27.5	23.0 - 34.0	0.2 - 1.6	48	48	83.0	9	ADE5M402NPN	ADE5N1252NPN
ADE5	40	M40	1 1/4"	N125	3	23.0 - 34.0	29.0 - 41.0	0.2 - 2.0	55	55	90.0	10	ADE5M403NPN	ADE5N1253NPN
ADE5	50	M50	1 1/2"	N150	2	23.0 - 34.0	29.0 - 41.0	0.2 - 2.0	55	55	90.0	10	ADE5M502NPN	ADE5N1502NPN
ADE5	50	M50	1 1/2"	N150	3	29.0 - 41.0	35.0 - 48.0	0.2 - 2.5	64	64	99.0	11	ADE5M503NPN	ADE5N1503NPN
ADE5	63	M63	2"	N200	2	35.0 - 48.0	42.0 - 56.0	0.2 - 2.5	72	72	108.0	12	ADE5M632NPN	ADE5N2002NPN
ADE5	63	M63	2"	N200	3	42.0 - 53.0	50.0 - 65.0	0.2 - 2.5	85	85	120.0	13	ADE5M633NPN	ADE5N2003NPN
ADE5	75	M75	2 1/2"	N250	2	42.0 - 56.0	50.0 - 65.0	0.2 - 2.5	85	85	120.0	13	ADE5M752NPN	ADE5N2502NPN
ADE5	75	M75	2 1/2"	N250	3	50.0 - 62.5	58.0 - 74.0	0.2 - 2.5	95	95	128.0	14	ADE5M753NPN	ADE5N2503NPN
ADE5	90	M90	3"	N300	2	58.0 - 74.0	66.0 - 83.0	0.2 - 3.1	110	110	150.0	15	ADE5M902NPN	ADE5N3002NPN
ADE5	90	M90	3"	N300	3	66.0 - 78.0	75.0 - 93.0	0.2 - 3.1	120	120	160.0	16	ADE5M903NPN	ADE5N3003NPN
ADE5	110	M110	4"	N400	3	75.0 - 93.0	85.0 - 104.0	0.2 - 3.5	135	135	172.0	17	ADE5M1103NPN	ADE5N4003NPN

* Not UL certified. Above catalog numbers are for nickel-plated brass; refer to order code diagram for other options.

ADE Accessories

Hazardous area cable glands

ADE external clamping module - available with all ADE range



CABLE RANGE	SIZE	FOR HEXAGON	WIDTH	THICKNESS	CATALOG NUMBER
2.8 - 5.5	3	15	18.0	5.0	CAP810334
4.0 - 8.5	4	17	20.0	5.0	CAP810444
6.0 - 11.0	5	19	22.0	5.0	CAP810534
8.5 - 16.0	6	24	27.5	6.0	CAP810634
12.0 - 21.0	7	30	33.5	8.0	CAP810734
16.0 - 27.5	8	41	45.0	8.0	CAP810834
21.0 - 34.0	9	48	52.0	9.5	CAP810934
27.0 - 41.0	10	55	59.0	9.5	CAP811034
33.0 - 48.0	11	64	69.0	12.0	CAP811134
40.0 - 56.0	12	72	78.0	12.0	CAP811234
47.0 - 65.0	13	85	92.0	16.0	CAP811334
54.0 - 74.0	14	95	103.0	16.0	CAP811434
63.0 - 83.0	15	110	118.0	18.0	CAP811534
72.0 - 93.0	16	120	128.0	18.0	CAP811634

ADE clamping module – Material: nickel-plated brass and stainless steel washer and screws.

ADE-4F and 5F lead sheath washer



Ø OUTER LEAD SHEATH			
GLAND SIZE	MIN	MAX	CATALOG NUMBER
5	4.5	7.5	CAP560530
6	7.0	11.0	CAP560630
7	10.0	15.0	CAP560730
8	13.5	20.0	CAP560830
9	18.0	26.5	CAP560930
10	23.0	32.5	CAP561030
11	29.0	39.5	CAP561130
12	35.0	46.5	CAP561230
13	42.0	54.5	CAP561330
14	50.0	61.0	CAP561430
15	58.0	72.5	CAP561530
16	66.0	81.5	CAP561630

ADE-4F/5F lead sheath washer – material: natural brass

ADE-5F deluge seal



SIZE	CATALOG NUMBER
12	CAP850012
13	CAP850013
14	CAP850014
15	CAP850015
16	CAP850016
17	CAP850017

HTL4 (high temperature thread lubricant)

FORMAT	CATALOG NUMBER
1 tube 120 ml	HTL4



HTL is a high temperature, anti-seize, conductive thread lubricant:

- Effective and stable from -55 °C to +980 °C (-70 °F to +1800 °F)
- Prevents seizure, galling, rust, galvanic action
- Maintains grounding continuity; should not be used on exposed current-carrying parts
- Compatible with all types of material

Solid compound TSC epoxy

FORMAT	ORDER UNIT	CATALOG NUMBER
10 tubes 15 ml (0.5 oz)	1 carton	TSC05
10 tubes 30 ml (1.0 oz)	1 carton	TSC1
5 tubes 120 ml (4.0 oz)	1 carton	TSC4

For use with ADE-1FC & 6FC cable glands



Mixing time: 5 minutes
Application: by hand
Full curing time: 24 hours
Available for installation in any orientation

INTRODUCTION

HAZARDOUS AREA CABLE GLANDS

HAZARDOUS AREA ACCESSORIES

INDUSTRIAL CABLE GLANDS AND ACCESSORIES

TECHNICAL GUIDE



ADE 6FC



ADE 6F



ADE 4F/5F



ADE 1F2

Technical data

Ex e cable glands metal ADE ...

Marking accd. to 2014/34/EU	Ex II 2 G Ex db eb IIC / Ex II 2 D Ex tb IIIC
EC-Type Examination Certificate	INERIS 12 ATEX 0032X
IECEX Certificate of Conformity	IECEX INE 12.0025X
Marking accd. to IECEx	Ex db eb IIC / Ex tb IIIC / Ex e II / Ex tD
Permissible ambient temperature	ADE 1/4/5...: -60 °C to +140 °C ADE 1/6 FC...: -60 °C to +80 °C
Degree of protection accd. to EN 60529	IP66 / IP68 - 10 bar
Thread	ISO-thread accd. ISO 965/1, ISO 965R and EN 60423
Enclosure material	Nickel-plated brass (CuZn gal. Ni), stainless steel, bronze, natural brass option

Ex-cable glands ADE 5F



ADE 5F ISO

3

Ordering details

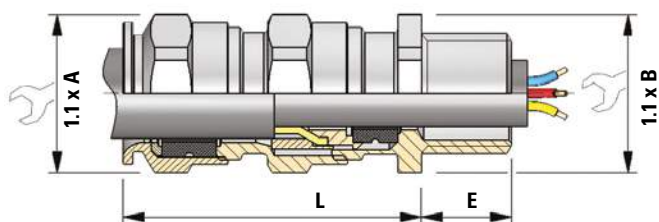
ISO	Type	Cable Ø inside mm	Cable Ø outside mm	A mm	B mm	E mm	L mm	Order No. CuZn gal. Ni	Order No. stainless steel
Cable gland type ADE 5F for armoured cable with ISO thread									
M12 x 1.5	5	4.5 - 8.0	7.0 - 12	19	19	15	36	CAP 846 404 V1	CAP 846 409 V1
M16 x 1.5	5	4.5 - 8.0	7.0 - 12	19	19	15	36	CAP 846 594 V1	CAP 846 599 V1
M20 x 1.5	5	4.5 - 8.0	10 - 16	19	24	15	36	CAP 846 504 V1	CAP 846 509 V1
M16 x 1.5	6	7.0 - 12.0	7.0 - 12	19	24	15	36	CAP 846 674 V1	CAP 846 679 V1
M20 x 1.5	6	7.0 - 12.0	10 - 16	24	24	15	42	CAP 846 694 V1	CAP 846 699 V1
M25 x 1.5	6	7.0 - 12.0	13.5 - 21	30	30	15	46	CAP 846 604 V1	CAP 846 609 V1
M20 x 1.5	7	10.0 - 15.5	10 - 16	24	30	15	42	CAP 846 774 V1	CAP 846 779 V1
M25 x 1.5	7	10.0 - 15.5	13.5 - 21	30	30	15	46	CAP 846 794 V1	CAP 846 799 V1
M25 x 1.5	8	13.5 - 20.5	18 - 27.5	41	41	15	56	CAP 846 704 V1	CAP 846 709 V1
M32 x 1.5	8	13.5 - 21.0	18 - 27.5	41	41	15	56	CAP 846 894 V1	CAP 846 899 V1
M32 x 1.5	9	18.0 - 26.0	23 - 34	48	48	15	63	CAP 846 804 V1	CAP 846 809 V1
M40 x 1.5	9	18.0 - 27.5	23 - 34	48	48	15	63	CAP 846 994 V1	CAP 846 999 V1
M40 x 1.5	10	23.0 - 34.0	29 - 41	55	55	15	68	CAP 846 904 V1	CAP 846 909 V1
M50 x 1.5	10	23.0 - 34.0	29 - 41	55	55	16	68	CAP 847 094 V1	CAP 847 099 V1
M50 x 1.5	11	29.0 - 41.0	35 - 48	64	64	16	74	CAP 847 004 V1	CAP 847 009 V1
M63 x 1.5	12	35.0 - 48.0	42 - 56	72	72	17	77	CAP 847 294 V1	CAP 847 299 V1
M63 x 1.5	13	42.0 - 53.0	50 - 65	85	85	17	85	CAP 847 204 V1	CAP 847 209 V1
M75 x 1.5	13	42.0 - 56.0	50 - 65	85	85	18	85	CAP 847 394 V1	CAP 847 399 V1
M75 x 1.5	14	50.0 - 62.5	58 - 74	95	95	18	92	CAP 847 304 V1	CAP 847 309 V1
M90 x 2	15	58.0 - 74.0	58 - 74	95	95	20	92	CAP 847 494 V1	CAP 847 499 V1
M90 x 2	16	66.0 - 78.0	66 - 83	110	110	20	104	CAP 847 404 V1	CAP 847 409 V1
M110 x 2	17	75.0 - 93.0	66 - 83	110	110	22	104	CAP 847 594 V1	CAP 847 599 V1

Please use sealing washers (see page 2.3.28).

For cable gland kits with washer and lock nut please add "K1" at the end of the order No.

Example: **CAP 846 804 V1 K1** contains a **ADE 4F M32 x 1.5 type 9 + 1 x MsNi lock nut M32 + 1 x green fibre gasket for M32**

Dimension drawing



Type ADE 5F

Dimensions in mm



ADE 5F NPT

3

Ordering details

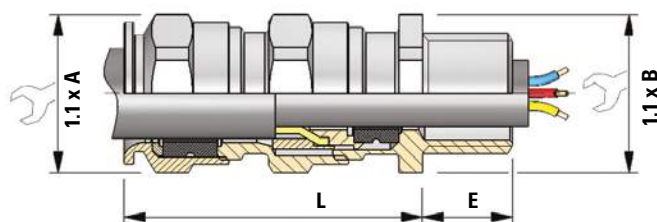
NPT	Type	Cable Ø inside mm	Cable Ø outside mm	A mm	B mm	E mm	L mm	Order No. CuZn gal. Ni	Order No. stainless steel
Cable gland type ADE 4F for armoured cable with NPT thread									
3/8"NPT	5	4.5 - 8.0	7.0 - 12.0	19	19	16.6	38.4	CAP 858 594 V1	CAP 858 599 V1
1/2"NPT	5	4.5 - 8.0	7.0 - 12.0	19	24	22.2	32.8	CAP 858 674 V1	CAP 858 679 V1
3/8"NPT	6	7.0 - 12.0	10.0 - 16.0	24	24	16.6	40.4	CAP 858 504 V1	CAP 858 509 V1
1/2"NPT	6	7.0 - 12.0	10.0 - 16.0	24	24	22.2	34.8	CAP 858 694 V1	CAP 858 699 V1
3/4"NPT	6	7.0 - 12.0	10.0 - 16.0	24	30	22.5	34.5	CAP 858 774 V1	CAP 858 779 V1
1/2"NPT	7	10.0 - 15.5	13.5 - 21.0	30	30	22.2	41.8	CAP 858 604 V1	CAP 858 609 V1
3/4"NPT	7	10.0 - 15.5	13.5 - 21.0	30	30	22.5	41.5	CAP 858 794 V1	CAP 858 799 V1
3/4"NPT	8	13.5 - 20.5	18.0 - 27.5	41	41	22.5	52.5	CAP 858 704 V1	CAP 858 709 V1
1"NPT	8	13.5 - 21.0	18.0 - 27.5	41	41	27.3	47.7	CAP 858 894 V1	CAP 858 899 V1
1"NPT	9	18.0 - 26.0	23.0 - 34.0	48	48	27.3	55.7	CAP 858 804 V1	CAP 858 809 V1
1 1/4"NPT	9	18.0 - 27.5	23.0 - 34.0	48	48	28.0	55	CAP 858 994 V1	CAP 858 999 V1
1 1/4"NPT	10	23.0 - 34.0	29.0 - 41.0	55	55	28.0	62	CAP 858 904 V1	CAP 858 909 V1
1 1/2"NPT	10	23.0 - 34.0	29.0 - 41.0	55	55	28.5	61.5	CAP 859 094 V1	CAP 859 099 V1
1 1/2"NPT	11	29.0 - 41.0	35.0 - 48.0	64	64	28.5	70.5	CAP 859 004 V1	CAP 859 009 V1
2"NPT	12	35.0 - 48.0	42.0 - 56.0	72	72	29.2	78.8	CAP 859 294 V1	CAP 859 299 V1
2"NPT	13	42.0 - 53.0	50.0 - 65.0	85	85	29.2	90.8	CAP 859 204 V1	CAP 859 209 V1
2 1/2"NPT	13	42.0 - 56.0	50.0 - 65.0	85	85	42.5	77.5	CAP 859 494 V1	CAP 859 499 V1
2 1/2"NPT	14	50.0 - 62.5	58.0 - 74.0	95	95	42.5	85.5	CAP 859 404 V1	CAP 859 409 V1
3"NPT	15	66.0 - 78.0	75.0 - 93.0	120	120	44.0	116	CAP 859 594 V1	CAP 859 599 V1
3"NPT	16	58.0 - 74.0	66.0 - 83.0	110	110	44.0	106	CAP 859 504 V1	CAP 859 509 V1
3 1/2"NPT	16	66.0 - 83.0	85.0 - 104.0	135	135	45.2	126.8	CAP 859 604 V1	CAP 859 609 V1
4"NPT	17	75.0 - 93.0	85.0 - 104.0	135	135	46.5	125.5	CAP 859 704 V1	CAP 859 709 V1

Please use sealing washers (see page 2.3.28).

For cable gland kits with washer and lock nut please add "K1" at the end of the order No.

Example: **CAP 858 994 V1 K1** contains a **ADE 4F -1 1/4" type 9 + 1 x MsNi lock nut 1 1/4" + 1 x green fibre gasket for 1 1/4"**

Dimension drawing



Type ADE 5F

Dimensions in mm