Ex D Cable Glands

M20/25 non armored ADE 1F2
M20/25 armored ADE 4F

Documentation

SAMCON
Prozessleittechnik GmbH

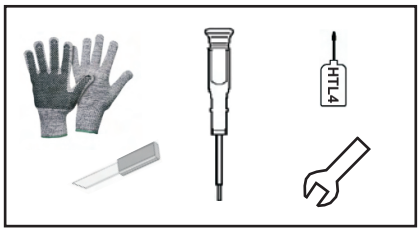
Content

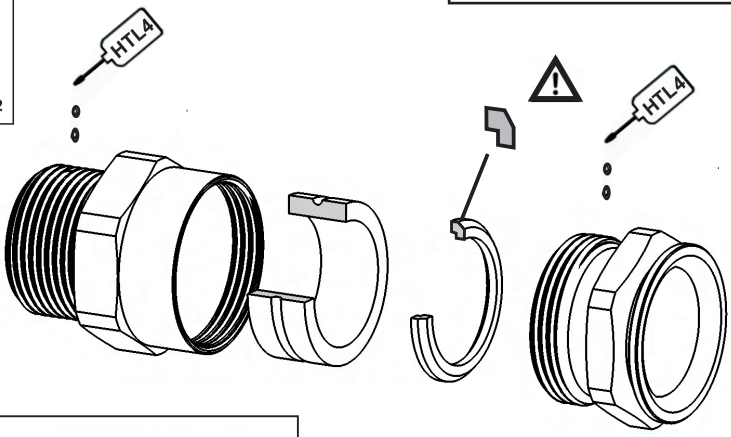
EATON
Powering Business Worldwide

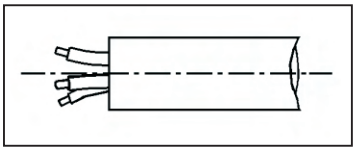
ADE 1F2

CAP184221

Edition 2015/04 C







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1/8"	M10	6,5
1/4"	M12	7,5
3/8"	M16	12,5
1/2"	M20	20
3/4"	M25	30
1"	M32	55
1"1/4	M40	75
1"1/2	M50	100
2"	M63	135
2"1/2	M75	175
3"	M90	300
3"1/2		400
4"	M110	480

ADE N°	ØA A (mm)	N/m □
3	2,75 - 5,5	6,5
4	4,5 - 8,5	7,5
5	7 - 12	12,5
6	10 - 16	20
7	13,5 - 21	30
8	18 - 27,5	55
9	23 - 34	75
10	29 - 41	100
11	35 - 48	135
12	42 - 56	175
13	50 - 65	240
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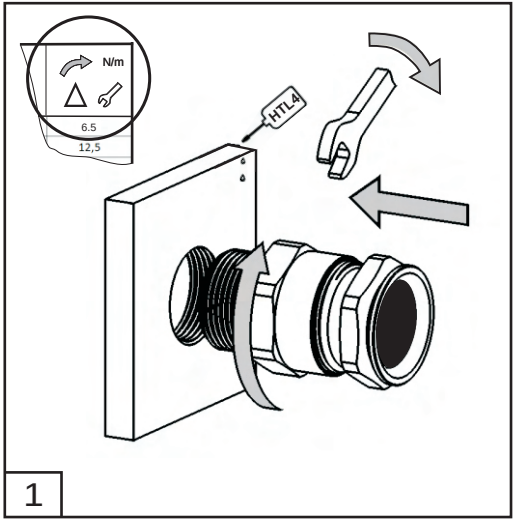
15	66 - 83	400
16	75 - 93	480
17	85 - 104	610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HTL4
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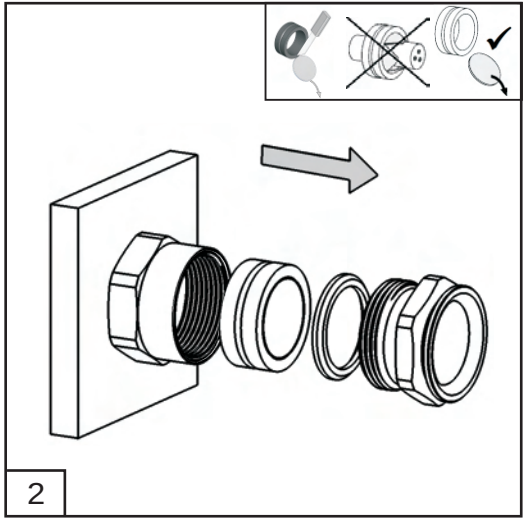
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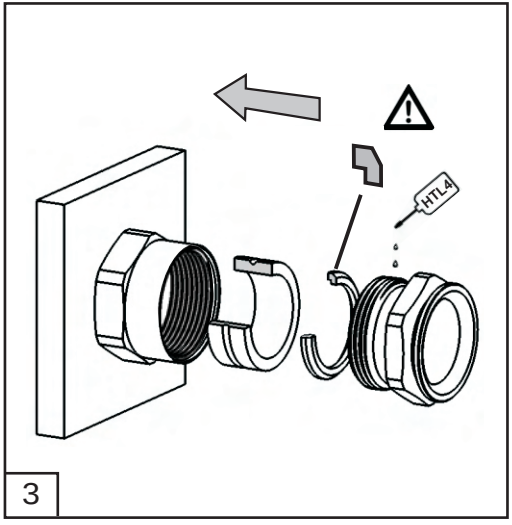
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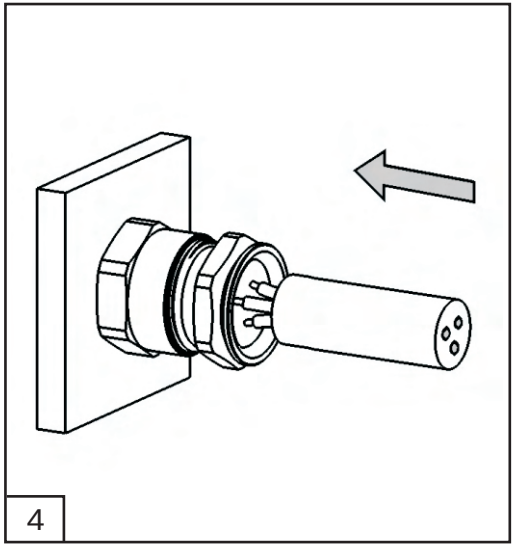
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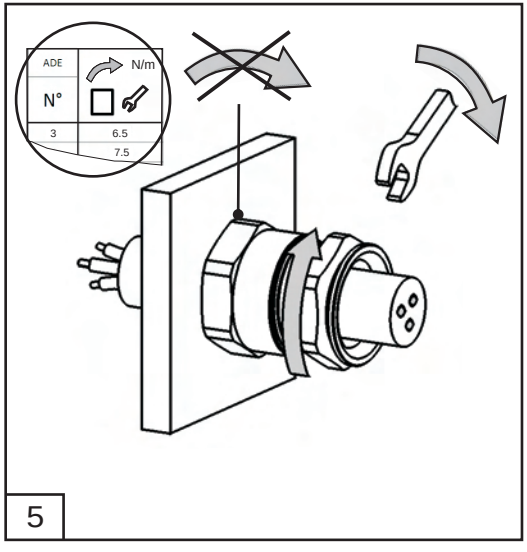
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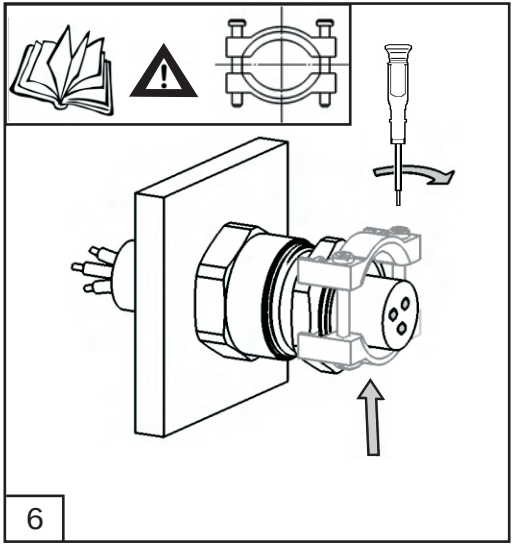
N°
N/m
3
6.5
7.5
5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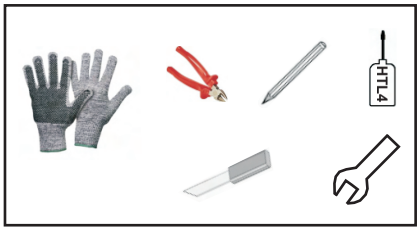
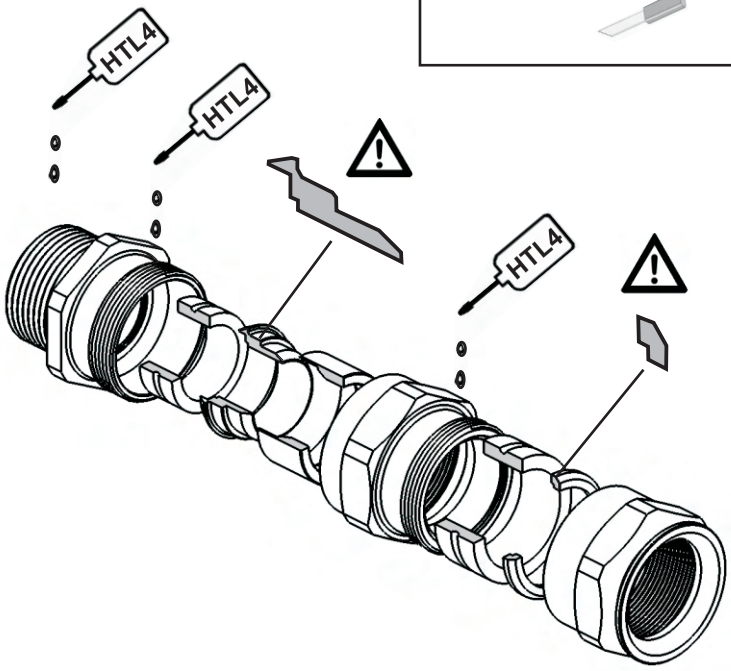
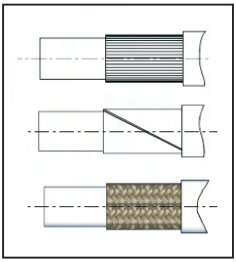
ADE 4F

CAP184223

Edition 2015/04 C







NPT	ISO	N/m Δ
1/8"	M10	6,5
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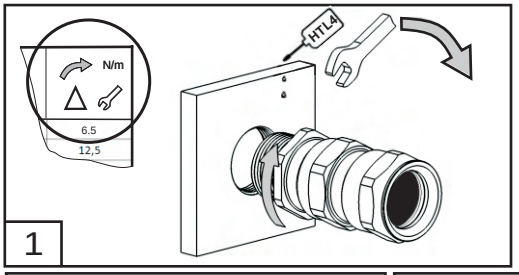
3/8"	M16	12,5
1/2"	M20	20
3/4"	M25	30
1"	M32	55
1"1/4	M40	75
1"1/2	M50	100
2"	M63	135
2"1/2	M75	175
3"	M90	300
3"1/2		400
4"	M110	480

ADE N°	A (mm)	B (mm)	C (mm)	N/m □
4	4,5 - 8,5	2,75 - 5,5	0,2 - 0,9	7,5
5	7 - 12	4,5 - 8	0,2 - 0,9	12,5
6	10 - 16	7 - 12	0,2 - 1,25	20
7	13,5 - 21	10 - 15,5	0,2 - 1,25	30
8	18 - 27,5	13,5 - 20,5	0,2 - 1,6	55
9	23 - 34	18 - 26	0,2 - 1,6	75
10	29 - 41	23 - 34	0,2 - 2,0	100
11	35 - 48	29 - 41	0,2 - 2,5	135
12	42 - 56	35 - 45	0,2 - 2,5	175
13	50 - 65	42 - 53	0,2 - 2,5	240
14	58 - 74	50 - 62,5	0,2 - 2,5	300
15	66 - 83	58 - 73	0,2 - 3,15	400
16	75 - 93	66 - 78	0,2 - 3,15	480
17	85 - 104	75 - 92	0,2 - 3,15	610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12,5
HTL4
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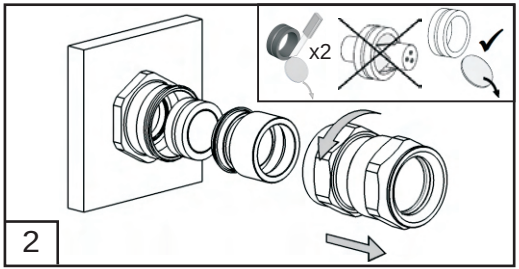
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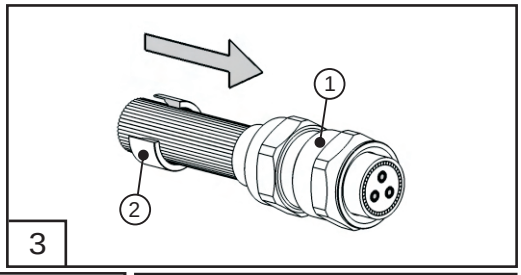
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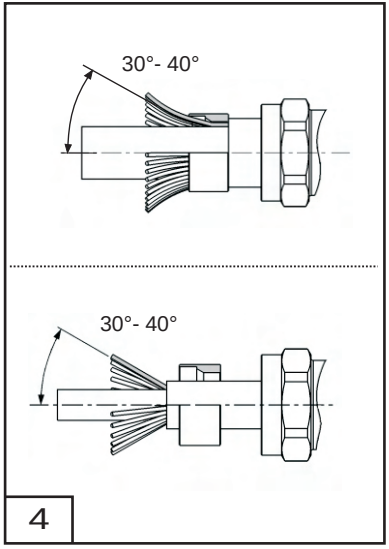
30°- 40°
30°- 40°
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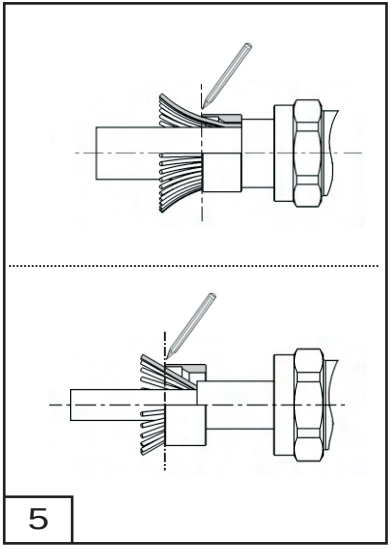
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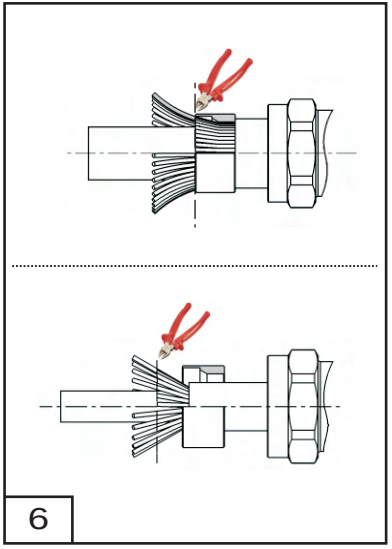
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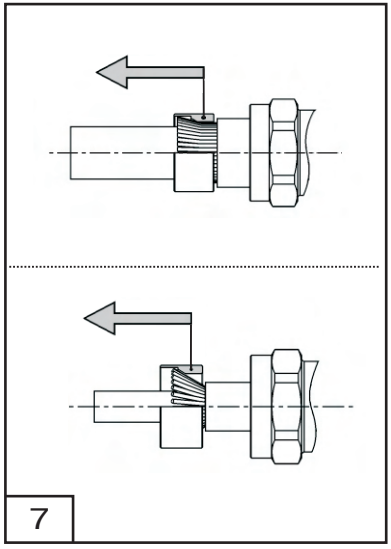
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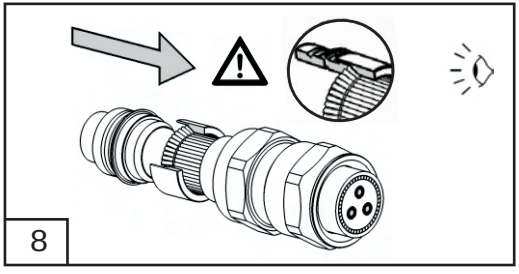
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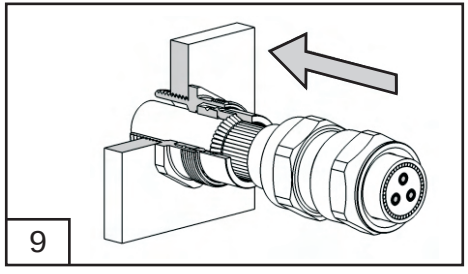
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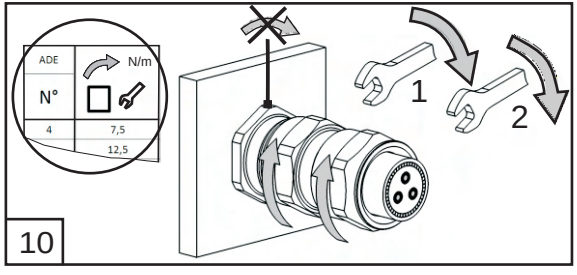
ADE
N°
N/m
4
7,5
12,5
1
2
10

2 **Appareil ou système de protection destiné à être utilisé en atmosphères explosibles**
Equipment and protective systems intended for use in potentially explosive atmospheres

Directive 2014/34/UE
Directive 2014/34/EU

1 # ATTESTATION D'EXAMEN UE DE TYPE
EU-TYPE EXAMINATION CERTIFICATE

3 Numéro de l'attestation d'examen UE de type / *Number of the EU-Type Examination Certificate*

INERIS 12ATEX0032X INDICE / *ISSUE* : 06

4 Appareil ou système de protection / *Equipment or protective system*:

ENTRÉES DE CABLES TYPE ADE…
CABLE GLAND TYPE ADE…

5 Fabricant / *Manufacturer*: **Crouse-Hinds by EATON - Cooper Capri S.A.S.**

6 Adresse / *Address*: **36-40 rue des fontenils**
41600 Nouan-le-Fuzelier, FRANCE

7 Cet appareil ou système de protection et toute autre variante acceptable de celui-ci sont décrits dans l'annexe de la présente attestation et dans les documents descriptifs cités dans cette annexe.

This equipment or protective system and any acceptable variation thereto is specified in the Annex of this certificate and the descriptive documents therein referred to.

8 L'Ineris, organisme notifié et identifié sous le numéro 0080, conformément aux articles 17 and 21 de la directive 2014/34/UE du parlement européen et du conseil, datée du 26 février 2014, et accrédité par le Cofrac sous le n° 5-0045 dans le cadre de l'activité de certification de produits et services (portée disponible sur www.cofrac.fr) certifie que cet appareil ou système de protection répond aux exigences essentielles de sécurité et de santé en ce qui concerne la conception et la construction des appareils et des systèmes de protection destinés à être utilisés en atmosphères explosibles, décrites en annexe ii de la directive.

Ineris, notified body and identified under number 0080, in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, and accredited by COFRAC under number 5-0045 for certification of products and services (scope of accreditation available on the website www.cofrac.fr), certifies that this equipment or protective system fulfils the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the Directive.

Les procédures de certification sont disponibles sur www.ineris.fr.
The rules of certification are available on Ineris website on: www.ineris.fr.

Les examens et les essais sont consignés dans le rapport :
The examinations and the tests are recorded in report:

N° 035572

IM-1915AD - Mise en application le 06 mars 2020

Institut national de l'environnement industriel et des risques
Parc technologique Alata • BP 2 • F-60550 Verneuil-en-Halatte
www.ineris.fr
Établissement public à caractère industriel et commercial • RCS Compiègne B 381 984 921 - Siret 381 984 921 00019 • 7120B - TVA Intracom FR 73 381 984 921

9 Le respect des exigences essentielles de sécurité et de santé est assuré par :

The respect of the Essential Health and Safety Requirements has been assured by:

- la conformité à / *Conformity with:*

EN IEC 60079-0 :	2018
EN 60079-1 :	2014
EN IEC 60079-7 :	2015+A1:2018
EN 60079-31 :	2014

- les solutions spécifiques adoptées par le fabricant pour satisfaire aux exigences essentielles de sécurité et de santé décrites dans les documents descriptifs /

  Specific solutions adopted by the manufacturer to meet the Essential Health and Safety Requirements described in the descriptive documents

10 Si le signe X est placé à la suite du numéro de l'attestation d'examen UE de type, il indique que cet appareil ou système de protection est soumis à des conditions spéciales d'utilisation, mentionnées dans l'annexe de la présente attestation.

If the sign X is placed after the number of the EU type examination certificate, it indicates that this equipment and protective system is subject to the Specific Conditions of Use, mentioned in the annex of this certificate.

11 Cette attestation d'examen UE de type se rapporte uniquement à la conception, aux examens et essais de l'appareil ou système de protection spécifié conformément à la directive 2014/34/UE. D'autres exigences de cette directive s'appliquent à la fabrication et à la fourniture de cet appareil ou système de protection, celles-ci ne sont pas couvertes par cette attestation.

This EU-Type Examination Certificate relates only to the design, examinations and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These requirements are not covered by this certificate.

12 Le marquage de l'appareil ou du système de protection doit contenir :

The marking of the equipment or the protective system shall include the following:

Ex II 2 G D Ex I M2

Verneuil-en-Halatte, 2020-12-18

ATMOSPHÈRES EXPLOSIVES ORGANISME NOTIFIÉ INERIS NOTIFIED BODY EXPLOSIVE ATMOSPHERES

Signé électroniquement
Digitally signed by
Thierry HOUEIX
Ex Certification Officer
Délégué Certification

Le directeur général de l'Ineris
Par délégation
The Chief Executive Officer of Ineris
By delegation

IM-1915AD - Mise en application le 06 mars 2020

13 **A N N E X E**

15 DESCRIPTION DE L'APPAREIL OU DU SYSTÈME DE PROTECTION :

Entrées de câble types ADE… versions ADE-1F2, ADE-1F2 A, ADE-1F2 DS, ADE-1FC, ADE-4F, ADE-5F, ADE-6F, ADE-6FC, ADE-1FC ADCC (ADFC), ADE-1FC ADCS (ADFS), ADE-1F2 DS ADCH, ADE-1F2 ADCC et ADE-1F2 ADCS protégées par enveloppe antidéflagrante et sécurité augmentée pour le groupe IIC, et protection poussières IIIC.

De plus les entrées de câble versions ADE-1F2 A, ADE-1F2 DS, ADE-1FC (tailles 11 à 17), ADE-4F, ADE-5F, ADE-1FC ADCC (tailles 11 à 17), ADE-1FC ADCS (tailles 11 à 17), ADE-6FC (tailles 11 à 17) et ADE-1F2 DS ADCH sont protégées par enveloppe antidéflagrante et sécurité augmentée pour le groupe I.

Le joint fileté peut être cylindrique conformément à l'ISO 965/1 et l'ISO 965/3 ou conique NPT conformément à ANSI/ASME B1.20.1. Autres formes de filetages possibles (seulement pour Ex eb / Ex tb).

Ces entrées de câble, conformément au type, sont prévues pour des câbles avec ou sans armure, elles sont réalisées en acier inoxydable, laiton, bronze ou alliage d'aluminium ; le groupe I est exclu pour les alliages d'aluminium.

Les entrées de câble type ADE "Conduit" (versions ADCC ou ADCS) sont conçues avec une terminaison filetée destinée à être connectée sur un conduit fileté. Les versions ADCC / ADCS peuvent également être proposée pour les entrées de câble armées.

Les entrées de câble "ADE - Stopcap", option pour la version : ADE-1F2, ADE-1F2 A, ADE-1F2 DS, peuvent être utilisées pour fournir une protection externe du presse-étoupe en garantissant le mode de protection "Ex e" sans utilisation de câble.

Les entrées de câble "ADE-1F2 O-ring", sont une option pour les versions métriques et coniques, pour trous pleins ou filetés, avec un O-ring intégré dans une rainure d'un corps spécifique.

Les entrées de câble type ADE-1F2 DS "Hose" (version ADCH) sont conçues pour être connectées à un tuyau élastomère semi-rigide.

Ces entrées de câble présentent le degré de protection IP66 selon les normes EN/IEC 60529 pour les filetages coniques et aussi pour les filetages cylindriques sans rondelle d'étanchéité supplémentaire (joint d'étanchéité).

Lorsqu'elles sont fixées avec un contre-écrou au travers d'un trou lisse, le degré de protection IP66 dépend de la rugosité de la surface de contact sur l'équipement (Ra 0.4 µm maximum sans rondelle d'étanchéité et Ra 6,3 µm maximum avec rondelle d'étanchéité).

Les entrées de câble avec joint fileté conique sans rondelle d'étanchéité supplémentaire (joint d'étanchéité) et joint fileté cylindrique équipé de joint d'étanchéité en fibre rouge ou fibre verte (C4400 uniquement) offrent un degré de protection IPX8 selon les normes EN/IEC 60529.

La vérification du degré de protection IPX8 correspond à une immersion sous 30 mètres d'eau pendant 7 jours.

13 ***A N N E X***

15 DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM:

Cable glands type ADE… versions ADE-1F2, ADE-1F2 A, ADE-1F2 DS, ADE-1FC, ADE-4F, ADE-5F, ADE-6F, ADE-6FC, ADE-1FC ADCC (ADFC), ADE-1FC ADCS (ADFS), ADE-1F2 DS ADCH, ADE-1F2 ADCC and ADE-1F2 ADCS are protected by flameproof enclosure and increased safety for groups IIC and dust protection for group IIIC.

Furthermore, the versions ADE-1F2 A, ADE-1F2 DS, ADE-1FC (sizes 11 to 17), ADE-4F, ADE-5F, ADE-1FC ADCC (sizes 11 to 17), ADE-1FC ADCS (sizes 11 to 17), ADE-6FC (sizes 11 to 17) and ADE-1F2 DS ADCH are protected by flameproof enclosure and increased safety for group I.

The threaded joint can be cylindrical in accordance with the ISO 965/1 and ISO 965/3 or conical NPT in accordance with ANSI/ASME B1.20.1. Other possible thread forms (Ex eb / Ex tb only).

These cable glands are foreseen, in accordance with the type, for armoured cables or non-armoured cables, they are made in stainless steel, brass, bronze or aluminium alloy; group I excluded for aluminium alloy.

The cable glands types ADE "Conduit" (ADCC or ADCS versions) are designed with treaded termination intended to be connected on threaded conduit. The ADCC/ADCS cap nut version can also be proposed for armoured cable glands.

The cable glands "ADE – Stopcap", option for version : ADE-1F2, ADE-1F2 A, ADE-1F2 DS, can be used in order to provide an external cable gland protection by guaranteeing the "Ex e" protection mode without the use of cable.

The cable glands "ADE-1F2 O-ring", are option for metric & conical versions, for threaded or blank hole, with an O-ring embedded in a groove of a specific body.

The cable glands type ADE-1F2 DS "Hose" (ADCH version) are designed to be connected to a semi-rigid elastomeric hose.

These cable glands get the protection degrees IP66 according to EN/IEC 60529 standards for conical threaded joint and also for cylindrical threaded joint without additional sealing washer (gasket).

When fixed with locknut through a blank hole, the degree of protection IP66 depends on the roughness of the contact surface on the equipment (Ra 0.4 µm maximum without sealing washer and Ra 6.3 µm maximum with sealing washer).

Cable glands with conical threaded joint without additional sealing washer (gasket) and cylindrical threaded joint fitted with sealing washer in Red Fiber or Green Fiber (C4400 only) provide a protection degree IPX8 according to EN/IEC 60529 standards.

The verification of the protection degree IPX8 corresponds to an immersion under 30 meters of water for 7 days.

IM-1915AD - Mise en application le 06 mars 2020

PARAMETRES RELATIFS A LA SECURITÉ : | ***PARAMETERS RELATING TO THE SAFETY:***

ADE	**Taille / *Size***	**Température de service / *Service temperature (°C)***				**Joint fileté / *Threaded joint***		**Groupes / *Groups***	
Version	**N°**	**Avec Bague Néoprène / *With Neoprene Sealing Ring***	**Avec Bague Silicone / *With Silicone Sealing Ring***	**Avec Bague interne Silicone (Diaphragme) / *With Silicone Internal Sealing (Diaphragm)***	**Avec TSC Compound / *With TSC Compound***	**Cylindrique / *Cylindrical***	**Conique / *Conical***	**I**	**II & III**
ADE-1F2 **ADE-1F2 "Conduit"**	3 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	N/A	All Sizes
ADE-1F2 "Anchorage"	3 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-1F2 DS **ADE-1F2 DS "Hose"**	3 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-4F	4 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-5F	4 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-6F	5 to 11	N/A	N/A	-60 to + 80	N/A	M16 to M63	NPT 3/8" to NPT 2"	N/A	All Sizes
ADE-1FC **ADE-1FC "Conduit"**	4 to 16	X	X	N/A	-60 to + 80	M16 to M110	NPT 3/8" to NPT4"	N°11 to N°17	All Sizes
ADE-6FC	4 to 17	X	X	N/A	-60 to + 80	M16 to M110	NPT 3/8" to NPT4"	N°11 to N°17	All Sizes

N/A = Non applicable */ Not applicable*
X= Non pertinent pour les paramètres relatifs à la sécurité / *Not relevant for parameter relating to the safety*

IM-1915AD - Mise en application le 06 mars 2020

MARQUAGE :

Le marquage doit être lisible et indélébile ; il doit comporter les indications suivantes :

EATON-Crouse.Hinds.Series ou CCH-CAPRI
F – 41600 Nouan Le Fuzelier
ADE… (*)
INERIS 12ATEX0032X
(Année de construction)
⟨Ex⟩ II 2 G D
Ex db/eb IIC
Ex tb IIIC

⟨Ex⟩ I M2 (**)
Ex db I/Ex eb (**)

IP66
(type et taille du filetage)

(*) Le type est complété par les lettres et numéros correspondant aux variantes de fabrication.

(**) Marquage additionnel seulement pour les versions laiton, bronze et acier inoxydable et en accord avec le tableau des paramètres relatifs à la sécurité.

Sur la bague d'étanchéité : numéro de la taille pour indiquer le diamètre minimal et maximal du câble.

La bague d'étanchéité est identifiée permettant à l'utilisateur de déterminer si la bague est appropriée à l'entrée de câble.

Lorsque l'espace est insuffisant sur les entrées de câbles le marquage peut être réduit jusqu'à :

EatonCHS ou CCH-CAPRI
ADE… (*)
INERIS 12ATEX0032X

(*) Le type est complété par les lettres et numéros correspondant aux variantes de fabrication.

Sur la bague d'étanchéité : numéro de la taille pour indiquer le diamètre minimal et maximal du câble.

La bague d'étanchéité est identifiée permettant à l'utilisateur de déterminer si la bague est appropriée à l'entrée de câble.

Note : Les entrées de câble de taille n°3 à 6 répondent aux exigences des modes de protection « Ex db, Ex eb, Ex tb», quand bien même elles ne sont pas spécifiquement marquées.

L'ensemble du marquage peut être réalisé dans la langue du pays d'utilisation.

L'appareil ou le système de protection doit aussi porter le marquage normalement prévu par les normes de construction qui le concernent.

MARKING:

Marking has to be readable and indelible; it has to include the following indications:

EATON-Crouse.Hinds.Series or CCH-CAPRI
F – 41600 Nouan Le Fuzelier
ADE… (*)
INERIS 12ATEX0032X
(Year of Construction)
⟨Ex⟩ *II 2 G D*
Ex db/eb IIC
Ex tb IIIC

⟨Ex⟩ *I M2 (**)*
Ex db I/Ex eb (**)

IP66
(Type and size of thread)

(*) Type is completed by letters and numbers corresponding to the manufactured variations.

(**) Additional marking only for brass, bronze and stainless steel versions, and in accordance with the table of the parameters relating to the safety.

On the sealing ring: size number to indicate the minimum and maximum cable diameters.

The sealing ring is identified allowing the user to determine if the ring is appropriate for the cable gland.

When there is insufficient space on the cable entries the marking can be reduced until :

EatonCHS or CCH-CAPRI
ADE…(*)
INERIS 12ATEX0032X

(*) Type is completed by letters and numbers corresponding to the manufactured variations.

On the sealing ring: size number to indicate the minimum and maximum cable diameters.

The sealing ring is identified allowing the user to determine if the ring is appropriate for the cable gland.

Note : Cable entries of size 3 to 6 meet the requirements of the protection modes "Ex db, Ex eb, Ex tb", even if they are not specifically marked.

Marking may be carried out in the language of the country of use.

The protective system or equipment has also to carry the marking normally stipulated by its construction standards.

IM-1915AD - Mise en application le 06 mars 2020

EXAMENS ET ESSAIS INDIVIDUELS :

Néant.

ROUTINE EXAMINATIONS AND TESTS:

None.

16 DOCUMENTS DESCRIPTIFS :

Les documents descriptifs cités ci-après, constituent la documentation technique de l'appareil, objet de la présente attestation.

16 DESCRIPTIVE DOCUMENTS:

The descriptive documents quoted hereafter constitute the technical documentation of the equipment, subject of this certificate.

Titre / *Title*	Réf. / *Ref.*	Rév. / *Rev.*	Date / *Date*
Certification file : ADE File Rev-I-6 Crouse-Hinds_byEaton 61 items		6	November 2020

17 CONDITIONS SPÉCIALES D'UTILISATION :

- Les gammes des températures maximales de service des presse-étoupes dans leurs intégralités doivent toujours être en conformité avec la température de service de la bague d'étanchéité interne, ou de la résine, et avec celle du joint d'étanchéité extérieure qui assure le degré de protection pour les joints filetés cylindriques.

Les gammes maximales de températures de service des bagues d'étanchéités internes, ou du composé sont :

- Pour les types ADE-1F2, ADE-1F2 A, ADE-1F2 DS, ADE-1F2 DS ADCH, ADE-1F2 ADCC, ADE-1F2 ADCS, ADE-4F et ADE-5F:

de -30°C à 80°C avec la bague d'étanchéité en Néoprène.

de -60°C à 140°C avec la bague d'étanchéité en Silicone.

- Pour le type ADE-6F:

de -60°C à 80°C avec la bague d'étanchéité interne (diaphragme) en Silicone.

- Pour les types ADE-1FC, ADE-1FC ADCC, ADE-1FC ADCS et ADE-6FC:

de -60°C à 80°C avec la résine TSC.

Les gammes maximales de températures de service des joints plats d'étanchéités extérieures sont :

Garniture	*Temperature de service (°C)*
Fibre rouge	*-30 à +80*
Néoprène R	*-35 à +100*
Néoprène C	*-40 à +80*
Nylon	*-30 à +75*
Fibres verte	*-60 à+140*
PTFE	*-60 à +140*

17 SPECIFIC CONDITIONS OF USE:

- *The maximum operating temperatures ranges of the entire cable glands must always be in accordance with the operating temperature of the internal sealing ring or compound and with the external sealing washer which ensure the degree of protection of the cylindrical threaded joint.*

Maximum operating temperature range for internal sealing ring or compound :

- For type ADE-1F2, ADE-1F2 A, ADE-1F2 DS, ADE-1F2 DS ADCH, ADE-1F2 ADCC, ADE-1F2 ADCS, ADE-4F and ADE-5F:

from -30°C to 80°C with sealing ring in Neoprene.

from -60°C to 140°C with sealing ring in Silicone.

- For type ADE-6F:

from -60°C to 80°C with internal sealing ring (diaphragm) in Silicone.

- For type ADE-1FC, ADE-1FC ADCC, ADE-1FC ADCS and ADE-6FC:

from -60°C to 80°C with TSC compound.

Maximum operating temperature range for external sealing washer:

Gasket	*Operating temperature (°C)*
Red fiber	*-30 to +80*
Neoprene R	*-35 to +100*
Neoprene C	*-40 to +80*
Nylon	*-30 to +75*
Green fibers	*-60 to +140*
PTFE	*-60 to +140*

IM-1915AD - Mise en application le 06 mars 2020

Les gammes maximales de températures de service des O-rings externes sont (pour les versions avec O-ring intégré dans une gorge) :

De -30 à + 80°C avec O-ring en Nitrile/Perbunan

De -60 à + 140°C avec O-ring en Silicone

- Pour les versions ADE-1F2, ADE-1F2 ADCC et ADE-1F2 ADCS l'utilisateur devra réaliser un amarrage du câble à proximité de l'enveloppe sur laquelle est installée l'entrée de câble. Le module d'amarrage Cooper Capri peut être utilisé.
- Pour la version ADE-6F, utilisée avec câble à tresse, l'utilisateur devra réaliser un amarrage du câble à proximité de l'enveloppe sur laquelle est installée l'entrée de câble. Le module d'amarrage Cooper Capri peut être utilisé.
- Quand des gaines externes « shrouds » sont utilisées, pour les risques de décharge électrostatique, l'utilisateur doit se reporter à la notice d'instruction

Les autres conditions d'utilisation sont définies dans la notice d'instructions.

Maximum operating temperature range for external O-ring (for version with an O-ring embedded in a groove):

From -30 to + 80°C with Nitrile/Perbunan O-ring

From -60 to + 140°C with Silicone O-ring

- *For ADE-1F2, ADE-1F2 ADCC and ADE-1F2 ADCS versions, the user shall provide additional clamping of the cable nearby to the enclosure on which the cable gland is installed. A Cooper Capri anchorage module can be used.*
- *For ADE-6F version, used with braided cable, the user shall provide additional clamping of the cable nearby to the enclosure on which the cable gland is installed. A Cooper Capri anchorage module can be used.*
- *When shrouds are used, for the risk from electrostatic discharge, the user shall read the instructions*

The other conditions of use are stipulated in the instructions.

18 EXIGENCES ESSENTIELLES DE SECURITE ET DE SANTE :

Le respect des exigences essentielles de sécurité et de santé est assuré par :

- La conformité aux normes listées au paragraphe (9).
- L'ensemble des dispositions adoptées par le constructeur et décrites dans les documents descriptifs.

18 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS:

The respect of the Essential Health and Safety Requirements is ensured by:

- *Conformity to the standards quoted in clause (9).*
- *All provisions adopted by the manufacturer and defined in the descriptive documents.*

19 REMARQUES :

Les indices 00 à 03 font référence à l'attestation d'examen CE de type n° INERIS INERIS **12ATEX0032X** et ses compléments émis précédemment conformément à la directive 94/9/CE.

Les modifications de l'indice 04 concernent :

- Ajout des versions "stocaps"
- Ajout des entrées de câble type ADE "Conduit"
- Mise à jour de la documentation du fabricant
- Application des normes EN 60079-1:2014, EN 60079-7:2015 et EN 60079-31:2014

Les modifications de l'indice 05 concernent :

- Ajout d'un nouveau type de garniture en fibre verte
- Mise à jour de la documentation du fabricant.
- Application de la EN IEC 60079-7:2015+A1:2018

Les modifications de l'indice 06 concernent :

- Mise à jour de la documentation du fabricant.
- Application de la EN IEC 60079-0:2018

19 REMARKS:

The issues 00 à 03 refer(s) to the EC-type examination certificate N° INERIS INERIS **12ATEX0032X** *and its additions issued previously according to the Directive 94/9/EC.*

The changes of the issue 04 are regarding:

- *Addition of "stocaps" versions*
- *Addition of cable glands cable glands types ADE "Conduit"*
- *Update of manufacturer documentations*
- *Application of standards EN 60079-1:2014, EN 60079-7:2015 and EN 60079-31:2014*

The changes of the issue 05 are regarding:

- *Addition of a new type of sealing washer (gasket) in green fiber*
- *Updating of manufacturer documentations.*
- *Application of EN IEC 60079-7: 2015+A1:2018*

The changes of the issue 06 are regarding:

- *Updating of manufacturer documentations.*
- *Application of EN IEC 60079-0:2018*

IM-1915AD - Mise en application le 06 mars 2020

IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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

Certificate No.: **IECEx INE 12.0025X**

Page 1 of 5

Status: **Current**

Issue No: 6

Date of Issue: 2020-12-18

Certificate history:

Issue 5 (2019-07-01)
Issue 4 (2017-07-21)
Issue 3 (2014-10-03)
Issue 2 (2014-02-28)
Issue 1 (2013-02-20)
Issue 0 (2012-10-19)

Applicant: **Crouse-Hinds by EATON - COOPER CAPRI S.A.S.**
36-40 rue des Fontenils
F - 41600 Nouan le Fuzelier
France

Equipment: **Cable gland type ADE...**

Optional accessory:

Type of Protection: **db, eb, nRc and tb**

Marking: For ADE-1F2, ADE-1F2 Anchorage, ADE-1F2 ADCC, ADE-1F2 ADCS, ADE-1F2 DS, ADE-1F2 DS ADCH, ADE-4F, ADE-5F, ADE-6F, ADE-1FC, ADE-1FC ADCC, ADE-1FC ADCS and ADE-6FC:
Ex db IIC Ex eb IIC
Ex nRc IIC
Ex tb IIIC IP66
Additional marking for brass, bronze and stainless steel versions, for ADE-1F2 DS, ADE-1F2 DS ADCH, ADE-4F, ADE-5F, ADE-1F2 Anchorage, ADE-1FC (N°11 to N°16), ADE-1FC ADCC (N°11 to N°16), ADE-1FC ADCS (N°11 to N°16) and ADE-6FC (N°11 to N°17):
Ex db I Ex eb I

Thierry HOUEIX

Approved for issue on behalf of the IECEx Certification Body:

Ex Certification Officer

Position:

Signature: (for printed version)

Digitally signed by Thierry HOUEIX

Date: 2020-12-18

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 www.iecex.com or use of this QR Code.

Certificate issued by:

INERIS
Institut National de l'Environnement Industriel et des Risques
BP n2 / Parc Technologique ALATA
F-60550 Verneuil-en-Halatte
France

INERIS
controlling risks for sustainable development

IECEx Certificate of Conformity

Manufacturer: **Crouse-Hinds by EATON - COOPER CAPRI S.A.S.**
36-40 rue des Fontenils
F - 41600 Nouan le Fuzelier
France

Additional manufacturing locations:

Cooper Electric (Changzhou) Co., Ltd.
N°189 Liuyanghe Road
Xinbei District
Changzhou Jiangsu
213031
China

Eaton Industries Middle East LLC
2nd Industrial City
Dammam
Eastern Province
KHOBAR 31952 (PO Box 3996)
Saudi Arabia

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-15:2010 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
Edition:4

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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 Reports:

FR/INE/ExTR12.0022/02
FR/INE/ExTR12.0022/03
FR/INE/ExTR12.0022/04
FR/INE/ExTR12.0022/05
FR/INE/ExTR12.0022/06

Quality Assessment Reports:

FR/LCI/QAR07.0002/12
GB/BAS/QAR07.0041/10
GB/BAS/QAR16.0002/03

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

Cable glands type ADE… versions ADE-1F2, ADE-1F2 A, ADE-1F2 DS, ADE-1FC, ADE-4F, ADE-5F, ADE-6F, ADE-6FC, ADE-1FC ADCC (ADFC), ADE-1FC ADCS (ADFS), ADE-1F2 DS ADCH, ADE-1F2 ADCC and ADE-1F2 ADCS are protected by flameproof enclosure and increased safety for groups IIC and dust protection for group IIIC.

Furthermore, the versions ADE-1F2 A, ADE-1F2 DS, ADE-1FC (sizes 11 to 17), ADE-4F, ADE-5F, ADE-1FC ADCC (sizes 11 to 17), ADE-1FC ADCS (sizes 11 to 17), ADE-6FC (sizes 11 to 17) and ADE-1F2 DS ADCH are protected by flameproof enclosure and increased safety for group I.

The threaded joint can be cylindrical in accordance with the ISO 965/1 and ISO 965/3 or conical NPT in accordance with ANSI/ASME B1.20.1. Other possible thread forms (Ex eb/Ex tb only).

These cable glands are foreseen, in accordance with the type, for armoured cables or non-armoured cables, they are made in stainless steel, brass, bronze or aluminium alloy; group I excluded for aluminium alloy.

The cable glands types ADE “Conduit” (ADCC or ADCS versions) are designed with treaded termination intended to be connected on threaded conduit. The ADCC/ADCS cap nut version can also be proposed for armoured cable glands.

The cable glands “ADE – Stopcap”, option for version : ADE-1F2, ADE-1F2 A, ADE-1F2 DS, can be used in order to provide an external cable gland protection by guaranteeing the "Ex e" protection mode without the use of cable.

The cable glands “ADE-1F2 O-ring”, are option for metric & conical versions, for threaded or blank hole, with an O-ring embedded in a groove of a specific body.

The cable glands type ADE-1F2 DS “Hose” (ADCH version) are designed to be connected to a semi-rigid elastomeric hose.

These cable glands get the protection degrees IP66 according to IEC 60529 standard for conical threaded joint and also for cylindrical threaded joint without additional sealing washer (gasket).

When fixed with locknut through a blank hole, the degree of protection IP66 depends on the roughness of the contact surface on the equipment (Ra 0.4 µm maximum without sealing washer and Ra 6.3 µm maximum with sealing washer).

Cable glands with conical threaded joint without additional sealing washer (gasket) and cylindrical threaded joint fitted with sealing washer in Red Fiber or Green Fiber (C4400 only) provide a protection degree IPX8 according to IEC 60529. The verification of the protection degree IPX8 corresponds to an immersion under 30 meters of water during 7 days.

SPECIFIC CONDITIONS OF USE: YES as shown below:
The maximum operating temperatures ranges of the entire cable glands must always be in accordance with the operating temperature of the internal sealing ring or compound and with the external sealing washer which ensure the degree of protection.

- Maximum operating temperature range for internal sealing ring or compound :

For type ADE-1F2, ADE-1F2 A, ADE-1F2 DS, ADE-1F2 DS ADCH, ADE-1F2 ADCC, ADE-1F2 ADCS, ADE-4F and ADE-5F:
- from -30°C to 80°C with sealing ring in Neoprene.
- from -60°C to 140°C with sealing ring in Silicone.

For type ADE-6F:
- from -60°C to 80°C with internal sealing ring (diaphragm) in Silicone.

For type ADE-1FC, ADE-1FC ADCC, ADE-1FC ADCS and ADE-6FC:
- from -60°C to 80°C with TSC compound.

- Maximum operating temperature range for external sealing washer :

Gasket	Red fiber	Neoprene R	Neoprene C	Nylon	Green fiber	PTFE
Temperature °C	-30 to +80	-35 to +100	-40 to +80	-30 to +75	-60 to +140	-60 to +140

- Maximum operating temperature range for external O-ring (for version with an O-ring embedded in a groove) :
- from -30°C to + 80°C with Nitrile/Perbunan O-ring
- from -60°C to + 140°C with Silicone O-ring

- For ADE-1F2, ADE-1F2 ADCC and ADE-1F2 ADCS, version, the user shall provide additional clamping of the cable nearby to the enclosure on which the cable gland is installed. A Cooper Capri anchorage module can be used.

- For ADE-6F version, used with braided cable, the user shall provide additional clamping of the cable nearby to the enclosure on which the cable gland is installed. A Cooper Capri anchorage module can be used.

- When shrouds are used, for the risk from electrostatic discharge, the user shall read the instructions.

The other conditions of use are stipulated in the instructions.

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Purpose of the issue 1 of IECEx INE 12.0025X:
• Addition of the following cable glands with sealing ring:
- ADE-1F2 sizes N°14 to 17 and ADE-1F2 anchorage sizes N°3 to 17
- ADE-5F sizes N°4 to 17
• Addition of the following cable glands with TSC compound:
- ADE-1FC sizes N°4 to 16
- ADE-6FC sizes N°5 to 17
• Addition IP68

Purpose of the issue 2 of IECEx INE 12.0025X:
• New version of cable gland ADE... : ADE-1F2 DS
- n°3 to n°17, for cable Ø 2,75 to 104 mm
- Cylindrical thread M10 to M110
- Conical thread NPT 3/8" to NPT 4”
• Modification of the operating temperatures :
- For ADE-6F : -60°C to +80°C with internal sealing ring (diaphragm) in Silicone.
• Addition of new external sealing washers with their own operating temperatures following :
- From -30°C à +75°C for sealing washer in white mat nylon
- From -35°C to +100°C for sealing washer in black Neoprene R
- From -40°C to +80°C for sealing washer in black Neoprene C
- From -60°C to +140°C for sealing washer in white PTFE

Purpose of the issue 3 of IECEx INE 12.0025X:
• Update of the manufacturer’s details : Crouse-Hinds by EATON – Cooper Capri SAS – 36 rue des Fontenils – F – 41600 NOUAN-LE-FUZELIER.
• Addition of an alternative site of production : Cooper Electric (Changzhou) Co., Ltd. N°189 Liuyanghe Road, Xinbei District, Changzhou Jiangsu, 213031 CHINA.

Purpose of the issue 4 of IECEx INE 12.0025X:
• Addition of “stocaps” versions
• Addition of cable glands cable glands types ADE “Conduit”
• Update of manufacturer documentations

Purpose of the issue 5 of IECEx INE 12.0025X:
•Addition of a new type of sealing washer (gasket) in green fiber
•Update of manufacturer documentations.
•Application of IEC 60079-0:2017 and IEC 60079-7:2015 5th ed. + AMD1:2017 standards

Purpose of the issue 6 of IECEx INE 12.0025X:
• Addition of a manufacturing plant (assembly only) Eaton Industries Middle East LLC Saudi Arabia
• Update of Drawings.
• Update of descriptive file.

Annex:

IECEx INE 12.0025X-06_Annex.pdf

IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Issue No.: 06

Annex: IECEx INE 12.0025X-06_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

These cable glands are intended for use in the following service temperature:

ADE	Size	Service Temperature °C				Threaded joint		Groups	
version	N°	With Neoprene Sealing Ring	With Silicone Sealing Ring	With Silicone Internal Sealing (Diaphragm)	With TSC Compound	Cylindrical	Conical	I	II & III
ADE-1F2 **ADE-1F2 "Conduit"**	3 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	N/A	All Sizes
ADE-1F2 "Anchorage"	3 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-1F2 DS **ADE-1F2 DS "Hose"**	3 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-4F	4 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-5F	4 to 17	-30 to + 80	-60 to + 140	N/A	N/A	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-6F	5 to 11	N/A	N/A	-60 to + 80	N/A	M16 to M63	NPT 3/8" to NPT 2"	N/A	All Sizes
ADE-1FC **ADE-1FC "Conduit"**	4 to 16	X	X	N/A	-60 to + 80	M16 to M110	NPT 3/8" to NPT4"	N°11 to N°17	All Sizes
ADE-6FC	4 to 17	X	X	N/A	-60 to + 80	M16 to M110	NPT 3/8" to NPT4"	N°11 to N°17	All Sizes

N/A = Not applicable

X= Not relevant for parameter relating to the safety

IECEx Certificate of Conformity

Annex: IECEx INE 12.0025X-06_Annex.pdf

MARKING

Marking has to be readable and indelible; it has to include the following indications:

- EATON-Crouse.Hinds.Series or CCH-CAPRI
- ADE…(1)
- IECEx INE 12.0025X
- Ex db/eb IIC
- Ex db I / Ex eb I(*)
- Ex tb IIIC IP66
- Ex nRc IIC
- (Type and size of thread)

(1) Type is completed by letters and numbers corresponding to the manufactured variations.

(*) Additional marking only for brass, bronze and stainless-steel versions, and in accordance with the table of the parameters relating to the safety.

On the sealing ring: size number to indicate the minimum and maximum cable diameters.

The sealing ring is identified allowing the user to determine if the ring is appropriate for the cable gland.

When there is insufficient space on the cable entries the marking can be reduced until :

- EatonCHS or CCH-CAPRI
- ADE…(1)
- IECEx INE 12.0025X

(1) Type is completed by letters and numbers corresponding to the manufacturer variations.

On the sealing ring: size number to indicate the minimum and maximum cable diameters.

The sealing ring is identified allowing the user to determine if the ring is appropriate for the cable gland.

Note : Cable entries of size 3 to 6 meet the requirements of the protection modes "Ex db, Ex eb, Ex tb, nRc", even if they are not specifically marked.

ROUTINE EXAMINATIONS AND TESTS

None.

CERTIFICATE OF COMPLIANCE

Certificate Number	E310130
Report Reference	E310130-20070615
Date	2021-September-10

Issued to:

COOPER CAPRI SAS
Ledger 4302
36-40 rue des Fontenils
NOUAN LE FUZELIER 41600 FR

This is to certify that representative samples of

CABLE FITTINGS FOR USE IN ZONE CLASSIFIED HAZARDOUS LOCATIONS

See Addendum Page for Product Designation(s).

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety:

ANSI/UL 2225, "CABLES AND CABLE FITTINGS FOR USE IN HAZARDOUS (CLASSIFIED) LOCATIONS."
CSA C22.2 NO. 60079-0:19, EXPLOSIVE ATMOSPHERES - PART 0: EQUIPMENT - GENERAL REQUIREMENTS.
CSA C22.2 NO. 60079-7:16, EXPLOSIVE ATMOSPHERES - PART 7: EQUIPMENT PROTECTION BY INCREASED SAFETY “E”.

Additional Information:

See the UL Online Certifications Directory at https://iq.ulprospector.com for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL’s Follow-Up Services.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number	E310130
Report Reference	E310130-20070615
Date	2021-September-10

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements

USL Series ADE followed by 1, 1A, 2, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 0, 1, 2, or 3, followed by NPN, SSN, BZN, or ALN; ADE-1F2, -1F2-A (Anchorage), or –1F2-DS followed by No. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17. For use in Class I, Zone 1, AEx e II Hazardous Areas. For use with unarmored TC-ER-HL cable. Thread sizes 1/2 to 4 in. NPT inclusive or M20 to M110 inclusive.

USL Series ADE followed by 1, 1A, 2, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 0, 1, 2, or 3, followed by NPN, SSN, BZN, or ALN; ADE -1F2, -1F2-A (Anchorage), or -1F2-DS followed by No. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17. For use in Class I, Zone 2, AEx e II Hazardous Areas. For use with unarmored ITC (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER, TC-ER-HL, and TC (tray cable). Thread sizes 1/2 to 4 in. NPT inclusive or M20 to M110 inclusive.

USL Series ADE followed by 4 or 5, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 1, 2, or 3, followed by NPN, SSN, BZN, or ALN; ADE -4F or -5F followed by No. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17. For use in Class I, Zone 2, AEx e II Hazardous Areas. For use with ITC (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER-HL, and TC (tray cable) having SWA wire armor construction. Thread sizes 1/2 to 4 in. NPT inclusive or M20 to M110 inclusive.

USL Series ADE followed by 6, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 1, 2, or 3, followed by NPS, SSS, BZS, or ALS; ADE -6F followed by No. 5, 6, 7, 8, 9, 10 or 11. For use in Class I, Zone 2, AEx e II Hazardous Areas. For use with ITC (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER-HL, and TC (tray cable) having SWA wire armor construction. Thread sizes 1/2 to 2 in. NPT inclusive or M20 to M63 inclusive.

USL Series ADE6C, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 0, 1, 2, or 3, followed by BZ, NP, or SS, followed by SCN; ADE-6FC followed by No. 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17. For use in Class I, Zone 2, AEx de II Hazardous Areas. For use with ITC (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER-HL, and TC (tray cable) having SWA wire armor construction. Provided with epoxy seal, Type TSC, manufactured by Cooper Crouse Hinds. Thread sizes 1/2 to 4 in. NPT inclusive or M20 to M110 inclusive.

USL Series ADE1C, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 0, 1, 2, or 3, followed by NP or SS, followed by SCN; ADE -1FC followed by No. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15 or 16. For use in

Bruce Mahrenholz, Director North American Certification Program

UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number	E310130
Report Reference	E310130-20070615
Date	2021-September-10

Class I, Zone 2, AEx de II Hazardous Areas. For use with unarmored ITC (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER-HL, and TC (tray cable). Provided with epoxy seal, Type TSC, manufactured by Cooper Crouse Hinds. Thread sizes 1/2 to 4 in. NPT inclusive or M20 to M110 inclusive.

CNL Series ADE followed by 1, 1A, 2, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 0, 1, 2, or 3, followed by NPN, SSN, BZN, or ALNADE followed by -1F2, -1F2-A (Anchorage), or -1F2-DS followed by No. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17. For use in Class I, Zone 2, Ex e II Hazardous Areas. For use with unarmored (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER-HL, TC-ER and TC (tray cable). Thread sizes 1/2 to 4 in. NPT inclusive or M20 to M110 inclusive.

CNL Series ADE followed by 4 or 5, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 1, 2, or 3, followed by NPN, SSN, BZN, or ALN; ADE -4F or -5F followed by No. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 or 17. For use in Class I, Zone 2, Ex e II Hazardous Areas. For use with ITC (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER-HL, and TC (tray cable) having SWA wire armor construction. Thread sizes 1/2 to 4 in. NPT inclusive or M20 to M110 inclusive.

CNL Series ADE followed by 6, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 1, 2, or 3, followed by NPS, SSS, BZS, or ALS; ADE -6F followed by No. 5, 6, 7, 8, 9, 10 or 11. For use in Class I, Zone 2, Ex e II Hazardous Areas. For use with ITC (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER-HL, and TC (tray cable) having SWA wire armor construction. Thread sizes 1/2 to 2 in. NPT inclusive or M20 to M63 inclusive.

CNL Series ADE1C, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 0, 1, 2, or 3, followed by NP or SS, followed by SCN; ADE -1FC followed by No. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, or 16. For use in Class I, Zone 2, Ex de II Hazardous Areas. For use with unarmored ITC (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER-HL, and TC (tray cable). Provided with epoxy seal, Type TSC, manufactured by Cooper Crouse Hinds. Thread sizes 1/2 to 4 in. NPT inclusive or M20 to M110 inclusive.

CNL Series ADE6C, followed by M20, M25, M32, M40, M50, M63, M75, M90, M110, N050, N075, N100, N125, N150, N200, N250, N300, N350, N400, followed by 0, 1, 2, or 3, followed by BZ, NP, or SS, followed by SCN; ADE -6FC followed by No. 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, or 17. For use in Class I, Zone 2, Ex de II, Hazardous Areas. For use with ITC (instrumentation tray cable), MV(+) (medium voltage cable), PLTC (power limited tray cable), TC-ER-HL, and TC (tray cable) having SWA wire armor construction. Provided with epoxy seal, Type TSC, manufactured by Cooper Crouse Hinds. Thread sizes 1/2 to 4 in. NPT inclusive or M20 to M110 inclusive.

Note- + Denotes that single conductor Type MV cables must be of the metallic-armored or shielded type.

Bruce Mahrenholz, Director North American Certification Program

UL LLC

Powering Business Worldwide

EU/UK-Declaration of Conformity
EU/UK-Konformitätserklärung
EU/UK-Déclaration de conformité

We/Wir/Nous

Crouse-Hinds by EATON - Cooper Capri SAS, 36-40 rue des Fontenils, F-41600 Nouan-Le-Fuzelier France

Declare under our sole responsibility that products:
Angeben in alleiniger Verantwortung, dass den Produkten:
Déclarons sous notre seule responsabilité que les produits:

ADE 1F2, 1F2 A, 1F2 DS, 1F2 ADCC, 1F2 ADCS, 1FC ADCC (ADFC), 1FC ADCS (ADFS), 1F2 DS ADCH, 4F, 5F, 6F, 1FC, 6FC

INERIS12ATEX0032X	Notified Body 0081 - LCIE 00 ATEX Q 8005
CML 21UKEX1302X	Approved Body 2503 - CML 21UKQAN14172

Comply with the following EU/UK directives, their corresponding harmonized/designated standards and other normative documents:
den folgenden EU-Richtlinien, den entsprechenden harmonisierten Normen und anderen normativen Dokumenten entspricht:
Se conforment aux directives européennes et aux normes harmonisées (ou autre document normatif) suivantes :

Terms of the Directive	Title and date of issue of standards
2014/34/EU Equipment and protective systems intended for use in potentially explosive atmospheres Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen Appareils et systèmes de protection destinés à être utilisés en atmosphères explosibles	**EN IEC 60079-0:2018** Explosive atmospheres - Part 0: Equipment -General requirements Explosionsgefährdete Bereiche - Teil 0: Betriebsmittel – Allgemeine Anforderungen Atmosphères explosives - Partie 0: Matériel - Exigences générales
SI 2016 No. 1107 HEALTH AND SAFETY The Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations	**EN 60079-1:2014** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d" Explosionsfähige Atmosphäre - Teil 1: Geräteschutz durch druckfeste Kapselung "d" Atmosphères explosives - Partie 1: Protection du matériel par enveloppes antidéflagrantes "d"
	EN IEC 60079-7:2015/A1:2018 Explosive atmospheres – Part 7 : Equipment protection by increased safety "e" Explosionsfahige Atmosphäre – Teil 7 : Geräteschutz durch erhöhte Sicherheit "e" Atmosphères explosives Partie 7 : Protection du matériel par sécurité augmentée "e"
	EN 60079-31:2014 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t" Explosionsfähige Atmosphäre - Teil 31: Geräte-Staubexplosionsschutz durch Gehäuse "t" Atmosphères explosives - Partie 31 : Protection du matériel contre l'inflammation des poussières par enveloppe "t"
	EN IEC 60079-15:2019 Explosive atmospheres - Part 15: Equipment Equipment protection by "n" Explosionsfähige Atmosphäre - Teil 15: Ausrüstung Geräteschutz "n" Atmosphères explosives - Partie 15 : Protection du matériel par mode de protection « n »

EU type examination certificate and Quality notification does not apply to category 3
EU-Baumusterprüfbescheinigung und Qualitätsmitteilung gilt nicht für Kategorie 3
L'attestation d'examen UE de type de type et la notification qualité ne s'appliquent pas à la catégorie 3

Place and date
Ort und Datum
Lieu et date

Samuel MAUGER
Product certification manager
Cooper Capri SAS
Nouan-le-Fuzelier, 2022.01.27

Nick HUGGONSON
Quality Manager
Cooper Capri SAS
Nouan-le-Fuzelier, 2022.01.27

Certificado de Conformidade Ex

Ex Certificate of Conformity

Modelo com Avaliação do Sistema de Gestão da Qualidade do Processo de Produção e Ensaios no Produto (5)

Model with Assessment of Quality Management System of Production Process and Test on Product (5)

Certificado Nº: *Certificate Nº:*	NCC 19.0065 X — Revisão/*issue* nº.: 2
Data de emissão inicial: *Initial issued date:*	**09/07/2019** — Certificado de Conformidade válido somente acompanhado das páginas de 1 a 5 *Certificate valid only accompanied of pages 1 through 5*
Data de validade: *Validity date:*	**17/06/2028**
Solicitante: *Applicant:*	**Crouse-hinds by EATON - COOPER CAPRI S.A.S** 36-40 rue des Fontenils, F - 41600 Nouan le Fuzelier, França
Fabricante: *Manufacturer:*	**Crouse-hinds by EATON - COOPER CAPRI S.A.S** 36-40 rue des Fontenils, F - 41600 Nouan le Fuzelier, França
Produto: *Product:*	**Prensa-cabos, ADE...**
Marca Comercial: *Trademark:*	N/A
Tipo principal de proteção: *Main type of protection:*	**d, e, n, t**
Marcação: *Marking:*	*Para ADE-1F2, ADE-1F2 de ancoragem, ADE-1F2 ADCC, ADE-1F2 ADCS, ADE-1F2 DS, ADE-1F2 DS ADCH, ADE-4F, ADE-5F, ADE-6F, ADE-1FC, ADE-1FC ADCC, ADE-1FC ADCS e ADE-6FC:* Ex db IIC Ex eb IIC Ex nRc IIC Ex tb IIIC IP66 *Marcação adicional para versões em latão, bronze e aço inoxidável, para ADE-1F2 DS, ADE-1F2 DS ADCH, ADE-4F, ADE-5F, ADE-1F2 de ancoragem, ADE-1FC (Nº 11 a Nº 16), ADE -1FC ADCC (Nº 11 a Nº 16), ADE-1FC ADCS (Nº 11 a Nº 16) e ADE-6FC (Nº 11 a Nº 17):* Ex db I Ex eb I

Aprovado para emissão em conformidade com o regulamento e normas aplicáveis
Approved for issue in conformity with rule and applicable standards

ISAIAS TEIXEIRA DO CARMO JUNIOR:35136947845

Assinado de forma digital por ISAIAS TEIXEIRA DO CARMO JUNIOR:35136947845
Dados: 2022.06.17 09:41:15 -03'00'

Posição:
Position:

Isaias Teixeira do Carmo Júnior
Gerente de Processos
Process Manager

Certificado emitido conforme requisitos da avaliação da conformidade de equipamentos elétricos para atmosferas explosivas, anexo às Portarias Inmetro nº. 115 de 21 de março de 2022.

Certificate issued in according to Brazilian requirements attached to INMETRO's Ordinance nº. 115 issued on March 21th, 2022.

1. Este certificado somente pode ser reproduzido com todas as folhas.
   This certificate may only be reproduced in full.
2. Este certificado não é transferível e é de propriedade do organismo emissor.
   This certificate is not transferable and remains the property of the issuing body.
3. A situação e autenticidade deste certificado podem ser verificadas no website oficial do Inmetro.
   The Status and authenticity of this certificate may be verified by visiting the website of the Inmetro.
4. Este certificado de conformidade foi emitido por um organismo de certificação acreditado pela Cgcre - Coordenação Geral de Acreditação.
   This certificate of conformity was issued by a certification body accredited by Cgcre.

Certificado emitido por:
Certificate issued by:

NCC Certificações do Brasil Ltda.
Acreditação Cgcre n° 0034 (16/10/2003)
Av. Orosimbo Maia, nº 360, Campinas, SP, Brasil, CEP 13010-211
CNPJ nº 16.587.151/0001-28
www.ncc.com.br

Certificado de Conformidade Ex

Ex Certificate of Conformity

Modelo com Avaliação do Sistema de Gestão da Qualidade do Processo de Produção e Ensaios no Produto (5)

Model with Assessment of Quality Management System of Production Process and Test on Product (5)

Certificado Nº: *Certificate Nº:* NCC 19.0065 X Revisão/*issue* nº.: 2

Data de emissão inicial: *Initial issued date:* **09/07/2019**

Certificado de Conformidade válido somente acompanhado das páginas de 1 a 5
Certificate valid only accompanied of pages 1 through 5

Unidades fabris adicionais: *Additional manufacturing locations:* **N/A**

Este certificado é emitido como uma verificação que amostras, representativas da linha de produção, foram avaliadas e ensaiadas e atenderam às normas relacionadas abaixo, e que o sistema de gestão da qualidade do fabricante, relativo aos produtos Ex cobertos por este certificado, foi avaliado e atendeu aos requisitos do Regulamento Inmetro. Este certificado é concedido sujeito às condições previstas no Regulamento Inmetro.

This certificate is issued as verification that samples, representative of production, were assessed and tested and found to comply with the standards listed below and that the manufacturer's quality management system, relating to the Ex products covered by this certificate, was assessed and found to comply with the Inmetro Regulation. This certificate is granted subject to the conditions as set out in Inmetro Rules.

NORMAS:

STANDARDS:

O produto e quaisquer variações aceitáveis para ele especificados na relação deste certificado e documentos mencionados atendem às seguintes normas:

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

ABNT NBR IEC 60079-0:2013 Versão corrigida em 2016	Atmosferas Explosivas – Parte 0: Equipamentos – Requisitos gerais.
ABNT NBR IEC 60079-1:2016	Atmosferas Explosivas – Parte 1: Proteção de equipamento por invólucro à prova de explosão "d".
ABNT NBR IEC 60079-7:2018	Atmosferas Explosivas – Parte 7: Proteção de equipamentos por segurança aumentada "e".
ABNT NBR IEC 60079-15:2019	Atmosferas Explosivas – Parte 15: Proteção de equipamento por tipo de proteção "n".
ABNT NBR IEC 60079-31:2014	Atmosferas Explosivas – Parte 31: Proteção de equipamentos contra ignição de poeira por invólucros "t".

As normas relacionadas não se referem aos equipamentos e componentes Ex certificados e utilizados na montagem completa.

Este certificado **não** indica conformidade com outros requisitos de segurança e desempenho elétrico além daqueles expressamente incluídos nas normas relacionadas acima.

The standards listed does not refer to the certified Ex equipment and components used in the whole assembly.

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

RELATÓRIOS DE ENSAIO:

TEST REPORTS:

Amostras do(s) produto(s) relacionado(s) passaram com sucesso nos ensaios registrados em:

Samples of the product(s) listed have successfully met the test requirements as recorded in:

Tabela / *Table* 1 - Relatório(s) de ensaio

Identificação *Identification*	**Emissão** *Emission*	**Laboratório** *Laboratory*
FR/INE/ExTR12.0022/00	15/10/2012	INERIS
FR/INE/ExTR12.0022/01	22/01/2013	INERIS
FR/INE/ExTR12.0022/02	06/02/2014	INERIS
FR/INE/ExTR12.0022/03	11/09/2014	INERIS
FR/INE/ExTR12.0022/04	21/07/2017	INERIS
FR/INE/ExTR12.0022/05	01/07/2019	INERIS
FR/INE/ExTR12.0022/06	18/12/2020	INERIS

Relatório de auditoria / Relatório de Avaliação da Qualidade:

Audit report / Quality Assessment Report:

Data da auditoria: 01/02/2022

Certificado de Conformidade Ex

Ex Certificate of Conformity

Modelo com Avaliação do Sistema de Gestão da Qualidade do Processo de Produção e Ensaios no Produto (5)

Model with Assessment of Quality Management System of Production Process and Test on Product (5)

Certificado Nº: *Certificate Nº:* NCC 19.0065 X Revisão/*issue* nº.: 2

Data de emissão inicial: *Initial issued date:* **09/07/2019**

Certificado de Conformidade válido somente acompanhado das páginas de 1 a 5
Certificate valid only accompanied of pages 1 through 5

DESCRIÇÃO:

DESCRIPTION:

Produtos e sistemas abrangidos por este certificado são como segue:

Products and systems covered by this certificate are as follows:

Os prensa-cabos modelo ADE, versões ADE-1F2, ADE-1F2 A, ADE-1F2 DS, ADE-1FC, ADE-4F, ADE-5F, ADE-6F, ADE- 6FC, ADE-1FC ADCC (ADFC), ADE- 1FC ADCS (ADFS), ADE-1F2 DS ADCH, ADE-1F2 ADCC e ADE-1F2 ADCS possuem os tipos de proteção Ex “db”, “eb”, “nRc” para os grupos IIC e “tb” para o grupo IIIC.

Alternativamente as versões ADE-1F2 A, ADE-1F2 DS, ADE-1FC (tamanhos 11 a 17), ADE-4F, ADE-5F, ADE-1FC ADCC (tamanhos 11 a 17), ADE-1FC ADCS (tamanhos 11 a 17), ADE-6FC (tamanhos 11 a 17) e ADE-1F2 DS ADCH possuem os tipos de proteção Ex “db”, “eb” para o grupo I.

A junta roscada pode ser cilíndrica de acordo com as normas ISO 965/1 e ISO 965/3 ou cônico NPT conforme a norma ANSI/ASME B1.20.1.

Os prensa-cabos podem ser, de acordo com o modelo, para cabos blindados ou cabos não blindados e são fabricados em aço inoxidável, latão, bronze ou liga de alumínio, exceto para o grupo I no qual é excluído fabricação em liga de alumínio.

Os prensa cabos tipo ADE “conduíte” (versões ADCC ou ADCS) são projetados a ser conectada em conduítes com rosca.

Os prensa cabos “ADE - *Stopcap*”, opção para a versão: ADE-1F2, ADE-1F2 A, ADE-1F2 DS, podem ser utilizados para fornecer uma proteção externa do prensa cabos, garantindo o tipo de proteção "Ex e" sem uso de cabo.

Os prensa cabos “*O-ring* ADE-1F2”, são opcionais para versões métricas, para furos roscados ou liso, com um O-ring embutido em uma ranhura de um corpo específico.

Os prensa-cabos do tipo ADE-1F2 DS “Mangueira” (versão ADCH) são projetadas para serem conectadas a uma mangueira elastomérica semirrígida.

Estes prensa cabos são adequados ao grau de proteção IP66 para juntas roscadas cônicas e também para juntas roscadas cilíndricas sem anel de vedação adicional (gaxeta).

Quando fixado com contra porca através de um furo liso, o grau de proteção IP66 depende da rugosidade da superfície de contato no equipamento (R_a 0,4 µm no máximo sem anel de vedação e R_a 6,3 µm no máximo com anel de vedação).

O prensa cabos com junta roscada cônica sem anel de vedação adicional (gaxeta) e junta cilíndrica roscada com anel de vedação em Fibra Vermelha ou Fibra Verde é adequado ao grau de proteção IPX8: profundidade até 30 metros, período até 7 dias.

Características técnicas:

Parâmetros relativos à segurança

Os prensa-cabos destinam-se a utilização na seguinte temperatura de serviço:

Tabela / *Table* 2 – Tipos

ADE	Tamanho	Temperatura de serviço (°C)				Junta roscada		Grupos	
Versão	Nº	Com anel de vedação de neoprene	Com anel de vedação de silicone	Com vedação interna de silicone (diafragma)	Com Composto TSC	Cilíndrica	Cônica	I	II & III
ADE-1F2 ADE-1F2 “Conduíte”	3 a 17	- 30 a + 80	- 60 a + 140	N/A	N/A	M10 a M110	1/8“ NPT a 4” NPT	N/A	Todos os tamanhos
ADE-1F2 “Ancoragem”	3 a 17	- 30 a + 80	- 60 a + 140	N/A	N/A	M10 a M110	1/8“ NPT a 4” NPT	Todos os tamanhos	Todos os tamanhos
ADE-1F2 DS ADE-1F2 DS “Mangueira”	3 a 17	- 30 a + 80	- 60 a + 140	N/A	N/A	M10 a M110	1/8“ NPT a 4” NPT	Todos os tamanhos	Todos os tamanhos
ADE-4F	4 a 17	- 30 a + 80	- 60 a + 140	N/A	N/A	M10 a M110	1/8“ NPT a 4” NPT	Todos os tamanhos	Todos os tamanhos
ADE-5F	4 a 17	- 30 a + 80	- 60 a + 140	N/A	N/A	M10 a M110	1/8“ NPT a 4” NPT	Todos os tamanhos	Todos os tamanhos
ADE-6F	5 a 11	N/A	N/A	- 60 a + 80	N/A	M16 a M63	3/8“ NPT a 2” NPT	N/A	Todos os tamanhos
ADE-1FC ADE-1FC “Conduíte”	4 a 16	X	X	N/A	- 60 a + 80	M16 a M110	3/8“ NPT a 4” NPT	Nº 11 a Nº 17	Todos os tamanhos
ADE-6FC	4 a 17	X	X	N/A	- 60 a + 80	M16 a M110	3/8“ NPT a 4” NPT	Nº 11 a Nº 17	Todos os tamanhos

Certificado de Conformidade Ex

Ex Certificate of Conformity

Modelo com Avaliação do Sistema de Gestão da Qualidade do Processo de Produção e Ensaios no Produto (5)

Model with Assessment of Quality Management System of Production Process and Test on Product (5)

Certificado Nº:
Certificate Nº:

NCC 19.0065 X

Revisão/*issue* nº.: 2

Data de emissão inicial:
Initial issued date:

09/07/2019

Certificado de Conformidade válido somente acompanhado das páginas de 1 a 5
Certificate valid only accompanied of pages 1 through 5

Código de Barras (GTIN):

N/A

CONDIÇÕES DE CERTIFICAÇÃO:

CONDITIONS OF CERTIFICATION:

Este certificado é válido apenas para o produto de modelo idêntico ao produto efetivamente ensaiado. Quaisquer modificações no projeto, bem como a utilização de componentes e/ou materiais diferentes daqueles definidos pela documentação descritiva do produto, sem a prévia autorização da NCC, invalidarão este certificado.

This certificate is valid only for the model of product identical to effectively tested. Any changes in the project, and the use of components and / or materials different from those defined by the descriptive documentation of the product, without the prior permission of the NCC, will invalidate this certificate.

O usuário tem responsabilidade de assegurar que o produto será instalado/utilizado em atendimento às instruções do fabricante e às normas pertinentes em instalações elétricas em atmosferas explosivas.

The user is responsible for ensuring that the product must be installed / used according the manufacturer's instructions and the relevant standards in electrical installations in explosive atmospheres.

As atividades de instalação, inspeção, manutenção, reparo, revisão e recuperação dos equipamentos são de responsabilidade dos usuários e devem ser executadas de acordo com os requisitos das normas técnicas vigentes e com recomendações do fabricante.

The installation activities, inspection, maintenance, repair, overhaul and recovery of equipment are the responsibility of users and must be implemented in accordance with the requirements of current technical standards and manufacturer's recommendations.

Por se tratar de um processo de certificação cujo solicitante não é estabelecido legalmente no Brasil, o usuário deverá arcar diretamente com as responsabilidades técnica, civil e penal, de acordo com a legislação vigente, e o fabricante é responsável pelo atendimento ao requisito de tratamento de reclamações.

This is a certification process whose applicant is not legally established in Brazil, the user must directly bear the technical, civil and criminal responsibilities, in accordance with current legislation, and the manufacturer is responsible for meeting the requirement for treatment of claims.

Condições específicas de utilização segura:

Specific conditions for safe use:

As faixas de temperaturas máximas de operação de todos os prensa cabos devem estar sempre de acordo com a temperatura de operação do anel de vedação interno ou composto e com o anel de vedação externa que garante o grau de proteção.

Faixa máxima de temperatura de operação para anel de vedação interno ou composto:

Para as versões ADE-1F2, ADE-1F2 A, ADE-1F2 DS, ADE-1F2 DS ADCH, ADE-1F2 ADCC, ADE-1F2 ADCS, ADE-4F e ADE-5F:

- de - 30 °C a + 80 °C com anel de vedação em Neoprene.
- de - 60 °C a + 140 °C com anel de vedação em silicone.

Para o tipo ADE-6F:

- de - 60 °C a + 80 °C com anel de vedação interno (diafragma) em silicone.

Para os tipos ADE-1FC, ADE-1FC ADCC, ADE-1FC ADCS e ADE-6FC:

- de - 60 °C a + 80 °C com composto TSC

Faixa da temperatura de serviço das juntas de vedação externa:

Vedação	Fibra vermelha	Neoprene R	Neoprene C	Nylon	Fibra verde	PTFE
Temperatura (°C)	- 30 a + 80	- 35 a + 100	- 40 a + 80	- 30 a + 75	- 60 a + 140	- 60 a + 140

Faixa máxima de temperatura de operação para o O-ring externo (para versão com um anel de vedação embutido em uma ranhura):

- de - 30 °C a + 80 °C com O-ring de Nitrilo/ Perbunan
- de – 60 °C a + 140 °C com O-ring de silicone

Para as versões ADE-1F2, ADE-1F2 ADCC e ADE-1F2 ADCS, o usuário deve fornecer fixação adicional do cabo próximo ao involucro no qual o prensa cabo está instalado. Um módulo de ancoragem Cooper Capri pode ser utilizado.

Para a versão ADE-6F, utilizada com cabo trançado, o usuário deve fornecer fixação adicional do cabo próximo ao involucro no qual o prensa cabo está instalado. Um módulo de ancoragem Cooper Capri pode ser utilizado.

Quando as blindagens são utilizadas para evitar o risco de descarga eletrostática, o usuário deve ler as instruções.

Certificado de Conformidade Ex

Ex Certificate of Conformity

Modelo com Avaliação do Sistema de Gestão da Qualidade do Processo de Produção e Ensaios no Produto (5)

Model with Assessment of Quality Management System of Production Process and Test on Product (5)

Certificado Nº:
Certificate Nº:

NCC 19.0065 X

Revisão/*issue* nº.: 2

Data de emissão inicial:
Initial issued date:

09/07/2019

Certificado de Conformidade válido somente acompanhado das páginas de 1 a 5
Certificate valid only accompanied of pages 1 through 5

DOCUMENTAÇÃO CONTROLADA, DESCRITIVA DO PRODUTO (CONFIDENCIAL):

DESCRIPTIVE CONTROLLED DOCUMENTS OF THE PRODUCT (CONFIDENTIAL):

Tabela / *Table* 3 – Documentação descritiva

Identificação *Identification*	Revisão *Issue*	Identificação *Identification*	Revisão *Issue*	Identificação *Identification*	Revisão *Issue*
2170241 A	0	ADE 1F2 NPT ADCC	I-0	ADE 1F2 NPT	I-5
ADE Descriptive Documents	I-6	ADE File	I-4	ADE-1F2 ISO ADCC	I-1
ADE-1F2 ISO	I-6	ADE-1F2-A ISO	I-5	ADE-1F2-A NPT	I-4
ADE-1F2-DS ISO	I-5	ADE-1F2-DS NPT	I-4	ADE-1FC 4-10 ISO	I-6
ADE-1FC 4-10 NPT	I-5	ADE-1FC 11-16 ISO	I-6	ADE-1FC 11-16 NPT	I-5
ADE-4F ISO	I-6	ADE-4F NPT	I-5	ADE-5F ISO	I-5
ADE-5F NPT	I-4	ADE-6F 5-11 ISO	I-5	ADE-6F 5-11 NPT	I-4
ADE-6FC 5-11 ISO	I-6	ADE-6FC 5-11 NPT	I-5	ADE-6FC 12-17 ISO	I-6
ADE-6FC 12-17 NPT	I-5	Green Fiber-Gasket	I-3	Head File	I-5
Neoprene 2018	I-3	Red Fiber-Gasket	I-3	Silicone 10740	I-3
STOPCAP	I-0	TSC Compound	I-3	CAP184249	03/2021
2190145	B	Package Label	2	2120038	K
2210010	A	-	-	-	-

REGISTRO DE AVALIAÇÃO DA CONFORMIDADE TÉCNICA E DETALHES DE REVISÕES DO CERTIFICADO:

TECHNICAL CONFORMITY ASSESSMENT REGISTER AND DETAILS OF CERTIFICATE ISSUES:

Tabela / *Table* 4 – Histórico do certificado

Revisão *Revision*	Data de revisão *Revision date*	Certificado *Certificate*	Descrição *Description*	Processo *Process*	Fluig
0	09/07/2019	NCC 19.0065 X	Emissão inicial	50436/18.1	512206 (BPM)
1	04/11/2020	NCC 19.0065 X	Inclusão de um novo modelo de gaxeta de fibra verde e atualização da documentação descritiva.	50436/18.1.M1	661066 (BPM)
2	17/06/2022	NCC 19.0065 X	Recertificação e atualização da documentação descritiva.	50436/18.1.Re1	62897

Government of India
Ministry of Commerce & Industry
Petroleum & Explosives Safety Organisation (PESO)
5th Floor, A-Block, CGO Complex, Seminary Hills,
Nagpur - 440006

E-mail : **explosives@explosives.gov.in**
Phone/Fax No : **0712 -2510248, Fax-2510577**

Approval No : A/P/HQ/TN/104/5883 (P477264) Dated : **17/07/2020**

To,

M/s. CROUSE-HINDS BY EATON - COOPER CAPRI S.A.S,
36-40 RUE DES FONTENILS,NOUN LE FRUZELIER
41600
FRANCE

Sub : Approval of Flame Proof, Increased Safety Type Ele under Petroleum Rules 2002- Regarding.

Sir(s),

Please refer to your letter No. **OIN515733** dated **16/06/2020** on the subject.

The following Ex electrical equipment(s) manufactured by you according to **IEC 60079-0 : 2017, IEC 60079-1 : 2014-06, IEC 60079-15 : 2010, IEC 60079-31 : 2013, IEC 60079-7 : 2017,** standards and covered under **INERIS** Test reports mentioned below is/are approved for use in **Zone 1** of Gas **IIC** hazardous areas coming under the the Petroleum Rules, 2002 administered by this Organization.

Sr. No	Description	Safety Protection	Equipment reference Number	Test Agency			Drawing no
				Name	Certificate No.	Certificate Date	
1	CABLE GLANDS - ADE SERIES	Ex db IIC	**P477264/1**	INERIS	IEXEx INE 12.0025X	01/07/2019	as per test report

This Approval is granted subject to observance of the following conditions:-

1)The design and construction of the equipment shall be strictly in accordance with description, condition and drawings as mentioned in the INERIS Test Reports referred to above.

2)The equipment shall be used only with approved type of accessories and associated apparatus.

3)Each equipment shall be marked either by raised lettering cast integrally or by plate attached permanently to the main structure to indicate conspicuously:-

(a) Name of the manufacturer
(b) Name and number by which the equipment is identified.
(c) Number & date of the test report of the INERIS applicable to the equipment.
(d) Equipment reference number of this letter by which use of apparatus is approved.
(e) Protection level.

4) A certificate to the effect that the equipment has been manufactured strictly in accordance with the drawing referred to in the INERIS Test report and is identical with the one tested and certified at INERIS shall be furnished with each equipment.
5) The customer shall be supplied with a copy of this letter, an extract of the conditions and maintenence schedule, if any, recommended by INERIS in their test reports and copy of instructions booklet detailing operation & maintenance of the equipment so as to maintain its Flame Proof characterestics.
6) The After sales service and maintanance of subject equipment shall be looked after by your representative MTLInstruments, 36 Nehru Street Sholinganallur

This approval also covers the permissible variations as approved under the INERIS test reports referred above. This approval is liable to be cancelled if any of the conditions of the approval is violated or not complied with . The approval may also be amended or withdrawn at any time, if considered necessary in the interest of safety.

The field performance report from actual users/your customers of the subject equipment may please be collected and furnished to this office for verification and record on annual basis.

The Approval is Valid upto **31/12/2024**

Yours faithfully,

(K Srinivasa Rao)
Controller of Explosives
For Chief Controller of Explosives
Nagpur

Copy to :
1. Jt. Chief Controller of Explosives, South Circle Office, CHENNAI
2. MTLInstruments,36 Nehru Street Sholinganallur

for Chief Controller of Explosives
Nagpur

(For more information regarding status,fees and other details please visit our website http://peso.gov.in)

This is System Generated document. Signature is not required.

Note:- Please submit the revalidation application one month before the date of Expiry of approval otherwise approval will be treated as cancelled and a fresh application for approval will be considered for the approval.

中国国家强制性产品认证证书

证书编号：2020322313001353

认证委托人名称：	EATON COOPER CAPRI SAS
认证委托人地址：	36 rue des fontenils 41600 Nouan le Fuzelier France
生产者名称：	EATON COOPER CAPRI SAS
生产者地址：	36 rue des fontenils 41600 Nouan le Fuzelier France
生产企业名称：	EATON COOPER CAPRI SAS
生产企业地址：	36 rue des fontenils 41600 Nouan le Fuzelier France
产品名称：	电缆引入装置
系列、规格、型号：	ADE 系列
标准：	GB/T 3836.1-2021、GB/T 3836.2-2021、GB/T 3836.3-2021、GB/T 3836.8-2021、GB/T 3836.31-2021

认证模式：型式试验+初始工厂检查+获证后监督

上述产品符合 CNCA-C23-01:2019 《强制性产品认证实施规则 防爆电气》的要求，特发此证。

产品相关信息详见附件。

发证日期：2023 年 04 月 29 日　　有效期至：2025 年 09 月 14 日

首次发证日期：2020 年 09 月 15 日

证书有效期内本证书的有效性依据发证机构的定期监督获得保持。

本证书的相关信息可通过国家认监委网站 www.cnca.gov.cn 查询

批准：

上海仪器仪表自控系统检验测试所有限公司

http://www.sitiias.com.cn　　中国•上海•漕宝路103号200233　　电话：+86 21 64510844

S 0012443

CERTIFICATE FOR CHINA COMPULSORY PRODUCT CERTIFICATION

CERTIFICATE NO: 2020322313001353

APPLICANT:	EATON COOPER CAPRI SAS
ADDRESS:	36 rue des fontenils 41600 Nouan le Fuzelier France
MANUFACTURER:	EATON COOPER CAPRI SAS
ADDRESS:	36 rue des fontenils 41600 Nouan le Fuzelier France
FACTORY:	EATON COOPER CAPRI SAS
ADDRESS:	36 rue des fontenils 41600 Nouan le Fuzelier France
PRODUCT:	Cable Gland
SERIES,SPECIFICATION,MODEL:	ADE series
STANDARDS:	GB/T 3836.1-2021、GB/T 3836.2-2021、GB/T 3836.3-2021、GB/T 3836.8-2021、GB/T 3836.31-2021

Type of Certification: Type test + Initial inspection + Surveillance inspection
This is to certify that the above mentioned product(s)complies with the requirements of implementation rules for compulsory certification (REFNO. CNCA-C23-01:2019).
Refer to the attachment for detailed information.

Valid from: April 29, 2023 **Valid until:**September 14, 2025

Date of original certification: September 15, 2020

The validity of this certificate is subject to positive result of the periodic surveillance by issuing certification body until the expiry date.

This certificate is available through CNCA's website: www.cnca.gov.cn

APPROVAL:

Guo AiHua

上海仪器仪表自控系统检验测试所有限公司

Shanghai Inspection and Testing Institute of Instruments and Automation Systems Co., Ltd.

http://www.sitiias.com.cn Building 9,103 Cao Bao Road, Shanghai 200233,China Tel: +86 21 64510844

S 0009115

中国国家强制性产品认证证书

证书编号：2020322313001353

附　件

产品名称：电缆引入装置

型号规格：ADE *a* *b* *c*

*a*代表产品类型：可为 1F2、1F2A、1F2 DS、1FC、4F、5F、6F、6FC、1FCADCC（ADFC）、1FCADCS（ADFS）、1F2DSADCH、1F2ADCC、1F2ADCS；

*b*代表螺纹类型：可为 M10、M12、M20、M25、M32、M40、M50、M63、M75、M90、M110、NPT 1/8", NPT1/4", NPT3/8", NPT1/2", NPT3/4", NPT1", NPT1"1/4, NPT1"1/2, NPT 2", NPT2"1/2, NPT3", NPT3"1/2, NPT4";

*c*代表密封圈尺寸：可为n° 03~n° 17。

防爆标志：Ex db IIC Gb Ex eb IIC Gb Ex nR IIC Gc Ex tb IIIC Db

电气参数：/

相关报告编号：2022S17402-010178

使用条件：

1．特殊（限制）使用条件：当产品为 ADE-1F2 系列或 ADE-6F 系列时，不具备足够夹紧措施，用户应提供夹紧措施以防电缆受到拉力或扭矩。

2．其他相关信息：

1）产品外壳防护等级为 IP66。

2）产品最大工作温度范围：-60℃~+140℃。

ADE-1F2、ADE-1F2A、ADE-1F2 DS、ADE-4F、ADE-5F 系列使用氯丁橡胶，工作温度范围-30℃~+80℃；使用硅橡胶，工作温度范围-60℃~+140℃

ADE-6F 系列使用内部密封圈隔膜硅胶，工作温度范围-60℃~+80℃

ADE-1FC、ADE-6FC 系列使用 TS 化合物工作问范围-60℃~+80℃

批　准：

上海仪器仪表自控系统检验测试所有限公司

上海仪器仪表自控系统检验测试所有限公司

http://www.sitiias.com.cn　中国•上海•漕宝路103号200233　电话：+86 21 64510844

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

СЕРТИФИКАТ СООТВЕТСТВИЯ

№ ЕАЭС RU C-FR.АД07.В.04354/22

Серия RU № 0276076

ОРГАН ПО СЕРТИФИКАЦИИ Орган по сертификации Общество с ограниченной ответственностью «Центр Сертификации «ВЕЛЕС». Место нахождения (адрес юридического лица): 195009, РОССИЯ, город Санкт-Петербург, улица Академика Лебедева, дом 12, корпус 2, литера А, этаж 2, комната 26. Адрес места осуществления деятельности: 195009, РОССИЯ, город Санкт-Петербург, улица Академика Лебедева, дом 12 корпус 2 литер А, помещения № 6-9. Уникальный номер записи об аккредитации в реестре аккредитованных лиц № RA.RU.10АД07. Дата решения об аккредитации: 24.03.2016. Телефон: +74952211810. Адрес электронной почты: info@velessert.ru

ЗАЯВИТЕЛЬ ОБЩЕСТВО С ОГРАНИЧЕННОЙ ОТВЕТСТВЕННОСТЬЮ "МИР ТЕХНОЛОГИЙ"
Место нахождения (адрес юридического лица) и адрес места осуществления деятельности: 117041, Россия, город Москва, улица Адмирала Руднева, дом 4, этаж 6, помещение IV, офис 613
Основной государственный регистрационный номер 1187746469096.
Телефон: 74954814150. Адрес электронной почты: MirTekhnologiy@gmail.com

ИЗГОТОВИТЕЛЬ «Crouse Hinds by Eaton – Cooper Capri S.A.S.»
Место нахождения (адрес юридического лица) и адрес места осуществления деятельности по изготовлению продукции: Франция, 36-40 rue des Fontenils, F – 41600 Nouan le Fuzelier

ПРОДУКЦИЯ Кабельные вводы типа ADE
Маркировка взрывозащиты согласно приложению (бланки №№ 0784289 - 0784293). Продукция изготовлена в соответствии с Directive 2014/34/EC и технической документации изготовителя для работы во взрывоопасных средах.

Серийный выпуск

КОД ТН ВЭД ЕАЭС 8538909901, 8538909908

СООТВЕТСТВУЕТ ТРЕБОВАНИЯМ
Технического регламента Таможенного союза "О безопасности оборудования для работы во взрывоопасных средах" (ТР ТС 012/2011)

СЕРТИФИКАТ СООТВЕТСТВИЯ ВЫДАН НА ОСНОВАНИИ Протокола испытаний № 5105ИЛПМВ от 14.03.2022 года, выданного Испытательным центром Общества с ограниченной ответственностью «ПРОММАШ ТЕСТ» (уникальный номер записи об аккредитации в реестре аккредитованных лиц RA.RU.21BC05)
акта анализа состояния производства от 11.11.2021 года, выданного Органом по сертификации Общество с ограниченной ответственностью «Центр Сертификации «ВЕЛЕС»
Руководства по эксплуатации № CAP184250, технического описания, чертежей

Схема сертификации: 1с

ДОПОЛНИТЕЛЬНАЯ ИНФОРМАЦИЯ Срок хранения – 20 лет. Назначенный срок службы – 25 лет. При хранении необходимо избегать прямого воздействия солнечного света. Рекомендуемая влажность менее 65%. Анализ состояния производства проведен с помощью дистанционной оценки. Стандарты, обеспечивающие соблюдение требований Технического регламента Таможенного союза ТР ТС 012/2011 "О безопасности оборудования для работы во взрывоопасных средах": согласно приложениям - бланки №№ 0784289 - 0784293

СРОК ДЕЙСТВИЯ С 14.03.2022 **ПО** 13.03.2027 **ВКЛЮЧИТЕЛЬНО**

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Родзивонская Галина Александровна (Ф.И.О.)

М.П.

Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы)) (подпись) Шатило Андрей Алексеевич (Ф.И.О.)

АО «Опцион», Москва, 2019 г., «Б». Лицензия № 05-05-09/003 ФНС РФ. ТЗ № 938. Тел.: (495) 726-47-42, www.opcion.ru

ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

ПРИЛОЖЕНИЕ

К СЕРТИФИКАТУ СООТВЕТСТВИЯ № ЕАЭС RU C-FR.АД07.В.04354/22

Серия RU № 0784289

1. Назначение и область применения

Сертификат соответствия распространяется на кабельные вводы типа ADE (далее по тексту – «кабельные вводы»), предназначенные для ввода кабеля в оболочку электрооборудования, а также для уплотнения и фиксации гибких кабелей с резиновой и пластмассовой изоляцией.

Область применения для групп II и III – взрывоопасные зоны классов 1 и 2 по ГОСТ IEC 60079-10-1-2011, взрывоопасные зоны классов 21 и 22 по ГОСТ IEC 60079-10-2-2011 согласно маркировке взрывозащиты оборудования, ГОСТ IEC 60079-14-2011 и другим нормативным документам, регламентирующим применение оборудования в потенциально взрывоопасных средах.

Область применения для группы I – в подземных выработках угольных шахт и рудников, опасных по газу (метану) и угольной пыли согласно маркировке взрывозащиты оборудования.

2. Описание оборудования и средств обеспечения взрывозащиты

Кабельные вводы типа ADE предусмотрены для бронированных или небронированных кабелей.

Кабельные вводы с различными типами резьбы для небронированных кабелей состоят из: корпуса, который крепится к оболочке электрооборудования с помощью резьбы; внутреннего уплотнительного кольца; нажимной муфты для закрепления кабеля; внешнего уплотнительного кольца для уплотнения мест соединения ввода и оболочки, дополнительного закрепляющего устройства Cooper Capri.

Кабельные вводы с различными типами резьбы для бронированных кабелей состоят из: корпуса кабельного ввода; внутреннего уплотнительного кольца для обеспечения взрывозащиты корпуса кабельного ввода для зажима брони; зажимного кольца брони; внешнего уплотнительного кольца для обеспечения степени защиты от внешних воздействий IP; гайки внешнего уплотнительного кольца; дополнительного закрепляющего устройства Cooper Capri.

Кабельные вводы с различными типами резьбы для бронированных кабелей с заливкой компаундом состоят из: корпуса кабельного ввода; гильзы для заливки компаундом; корпуса кабельного ввода для зажима брони; зажимного кольца брони; внешнего уплотнительного кольца для обеспечения степени защиты от внешних воздействий IP; гайки внешнего уплотнительного кольца.

Кабельные вводы типа ADE могут быть изготовлены из нержавеющей стали, латуни, бронзы или алюминиевого сплава. Кабельные вводы типа ADE для группы I не могут быть изготовлены из алюминиевого сплава.

Кабельные вводы типа ADE с дополнительным внешним уплотнительным кольцом, в зависимости от применяемого материала внешнего уплотнительного кольца, имеют диапазон температур окружающей среды при эксплуатации, °С:

- 30 °С ... + 75 °С - для внешнего уплотнительного кольца из белого матового нейлона;
- 35 °С ... + 100 °С - для внешнего уплотнительного кольца из черного неопрена R;
- 40 °С … + 80 °С - для внешнего уплотнительного кольца из черного неопрена C;
- 60 °С ...+ 140 °С - для внешнего уплотнительного кольца из белого PTFE.

Ex-маркировка и степень защиты от внешних воздействий кабельных вводов представлены в таблице 2.1.

Таблица 2.1

Наименование оборудования	Маркировка взрывозащиты	Степень защиты от внешних воздействий по ГОСТ 14254-2015
ADE-1F2, ADE-1F2 ADCC, ADE-1F2 ADCS	1Ex d IIC Gb X 1Ex e IIC Gb X 2Ex nR IIC Gc X	IP66 или IP68

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Водзинская Галина Александровна (Ф.И.О.)

М.П.

Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы)) (подпись) Шагило Андрей Алексеевич (Ф.И.О.)

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ЕВРАЗИЙСКИЙ ЭКОНОМИЧЕСКИЙ СОЮЗ

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	Ex tb IIIC Db X	
ADE-1F2 с закрепляющим устройством	1Ex d IIC Gb X 1Ex e IIC Gb X 2Ex nR IIC Gc X Ex tb IIIC Db X PB Ex d I Mb X РП Ex e I Mc X	IP66 или IP68
ADE-1F2 DS, ADE-1F2 DS ADCH	1Ex d IIC Gb X 1Ex e IIC Gb X 2Ex nR IIC Gc X Ex tb IIIC Db X PB Ex d I Mb X РП Ex e I Mc X	IP66 или IP68
ADE-4F	1Ex d IIC Gb X 1Ex e IIC Gb X 2Ex nR IIC Gc X Ex tb IIIC Db X PB Ex d I Mb X РП Ex e I Mc X	IP66 или IP68
ADE-5F	1Ex d IIC Gb X 1Ex e IIC Gb X 2Ex nR IIC Gc X Ex tb IIIC Db X PB Ex d I Mb X РП Ex e I Mc X	IP66 или IP68
ADE-6F	1 Ex d IIC Gb X 1Ex e IIC Gb X, 2Ex nR IIC Gc X Ex tb IIIC Db X	IP66 или IP68
ADE-1FC, ADE-1FC ADCC (ADFC), ADE-1FC ADCS (ADFS)	1Ex d IIC Gb X 1Ex e IIC Gb X 2Ex nR IIC Gc X Ex tb IIIC Db X PB Ex d I Mb X РП Ex e I Mc X	IP66 или IP68
ADE-6FC	1Ex d IIC Gb X 1Ex e IIC Gb X 2Ex nR IIC Gc X Ex tb IIIC Db X PB Ex d I Mb X РП Ex e I Mc X	IP66 или IP68

Основные технические параметры кабельных вводов приведены в таблице 2.2.

Таблица 2.2

ADE	Размер	Диапазон температур окружающей среды				Тип резьбы		Группы	
Исполнение	№	с неопреновым внутренним уплотнительным кольцом	с силиконовым внутренним уплотнительным кольцом	с силиконовым внутренним уплотнительным кольцом (диафрагмой)	с компаундом TSC	цилиндрическая	коническая	I	II и III
ADE-1F2, ADE-1F2 ADCC, ADE-1F2 ADCS	3 - 17	- 30 °C ... +80°C	-60°C ...+140°C	-	-	M10 - M110	NPT1/8'' - NPT 4''	-	Все размеры
ADE-1F2 с кабельным зажимом	3 - 17	- 30 °C ... +80°C	-60°C ...+140°C	-	-	M10 - M110	NPT1/8'' - NPT 4''	Все размеры	Все размеры
ADE-1F2 DS, ADE-	3 - 17	- 30 °C ... +80°C	-60°C ...+140°C	-	-	M10 - M110	NPT3/8'' - NPT 4''	Все размеры	Все размеры

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Розивонтина Александровна (Ф.И.О.)

М.П.

Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы)) (подпись) Шатило Андрей Алексеевич (Ф.И.О.)

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1F2 DS ADCH									
ADE-4F	4 – 17	- 30 °C ... +80°C	-60°C ...+140°C	-	-	M10 - M110	NPT1/8'' – NPT 4''	Все размеры	Все размеры
ADE-5F	4 – 17	- 30 °C ... +80°C	-60°C ...+140°C	-	-	M10 – M110	NPT1/8'' – NPT 4''	Все размеры	Все размеры
ADE-6F	5 - 11	-	-	- 60 °C ... +80°C	-	M16 - M63	NPT3/8'' – NPT 2''	-	Все размеры
ADE-1FC, ADE-1FC ADCC (ADFC), ADE-1FC ADCS (ADFS)	4 - 16	-	-	-	-60°C ...+80°C	M16 – M110	NPT3/8'' – NPT 4''	11 - 17	Все размеры
ADE-6FC	4 - 17	-	-	-	-60°C ...+80°C	M16 – M110	NPT3/8'' – NPT 4''	11 - 17	Все размеры

Взрывозащищенность кабельных вводов обеспечивается выполнением требований ТР ТС 012/2011, ГОСТ 31610.0-2014 (IEC 60079-0:2011) и видами взрывозащиты: взрывонепроницаемая оболочка "d" по ГОСТ IEC 60079-1-2011, повышенная защита вида «е» по ГОСТ Р МЭК 60079-7-2012, оболочка с ограниченным пропуском газов «nR» по ГОСТ 31610.15-2014, защита от воспламенения пыли оболочками "t" по ГОСТ IEC 60079-31-2013.

Внесение изготовителем в конструкцию и техническую документацию изменений, влияющих на взрывозащищенность и соответствие кабельных вводов требованиям ТР ТС 012/2011, возможно только по согласованию с органом по сертификации ООО «Центр Сертификации «ВЕЛЕС».

Данный сертификат соответствия подтверждает соответствие требованиям взрывобезопасности ТР ТС 012/2011 и не рассматривает любые другие виды безопасности при эксплуатации кабельных вводов.

3. Оборудование соответствует требованиям:

ТР ТС 012/2011	Технический регламент Таможенного союза «О безопасности оборудования для работы во взрывоопасных средах».
ГОСТ 31610.0-2014 (IEC 60079-0:2011)	Взрывоопасные среды. Часть 0. Оборудование. Общие требования.
ГОСТ IEC 60079-1-2011	Взрывоопасные среды. Часть 1. Оборудование с видом взрывозащиты "взрывонепроницаемые оболочки "d".
ГОСТ Р МЭК 60079-7-2012	Взрывоопасные среды. Часть 7. Оборудование. Повышенная защита вида «е».
ГОСТ 31610.15-2014	Взрывоопасные среды. Часть 15. Оборудование с видом взрывозащиты "n".
ГОСТ IEC 60079-31-2013	Взрывоопасные среды. Часть 31. Оборудование с защитой от воспламенения пыли оболочками "t".

4. Маркировка

Маркировка, нанесенная на оборудование, должна включать следующие данные:

4.1 наименование предприятия-изготовителя или его зарегистрированный товарный знак;

4.2 обозначение типа оборудования;

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Кудрявцева Галина Александровна (Ф.И.О.)

М.П.

Эксперт (эксперт-аудитор) (эксперты (эксперты-аудиторы)) (подпись) Шатилов Андрей Алексеевич (Ф.И.О.)

АО «Опцион», Москва, 2020 г., «Б». ТЗ № 334.

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4.3 порядковый номер оборудования по системе нумерации предприятия-изготовителя;

4.4 специальный знак взрывобезопасности Ex в соответствии с ТР ТС 012/2011;

4.5 Ex-маркировка согласно таблице 2.1;

4.6 наименование и/или знак органа по сертификации и номер сертификата соответствия;

4.7 единый знак обращения продукции на рынке государств-членов Евразийского экономического союза;

4.8 предупредительные надписи;

4.9 другую информацию, которая имеет значение для безопасного применения оборудования, если это требуется нормативной документации и технической документацией изготовителя (диапазон температур окружающей среды, степень защиты оболочки, электрические параметры и т.д.).

5. Специальные условия применения

Знак «X» в конце Ex-маркировки указывает на специальные условия применения оборудования:

5.1. При установке и эксплуатации кабельных вводов потребитель должен обеспечить соответствующую защиту от внешних воздействий между корпусом оборудования и кабельным вводом.

5.2. В оборудовании группы I не допускается устанавливать кабельные вводы, изготовленные из алюминиевого сплава.

5.3. Кабельные вводы ADE-1F2, ADE-1F2 A, ADE-1F2 DS, ADE-1F2 DS ADCH, ADE-1F2 ADCC, ADE-1F2 ADCS, ADE-4F, ADE-5F предназначены для применения в диапазоне температур: от минус 30°C до +80°C с внутренними уплотнительными кольцами из неопрена и от минус 60°C до +140°C с внутренним уплотнительным кольцом из силикона.

5.4. Кабельные вводы ADE-6F предназначены для применения в диапазоне температур от минус 60°C до +80°C с внутренним уплотнительным кольцом из силикона.

5.5. Кабельные вводы ADE-1FC, ADE-6FC, ADE1FC ADCC (ADFC), ADE-1FC ADCS (ADFS) с компаундом TSC предназначены для применения в диапазоне температур от минус 60°C до +80°C.

5.6. Кабельные вводы с дополнительным внешним уплотнительным кольцом применяются в диапазоне температур:

Материал уплотнительного кольца	Диапазон рабочих температур
Прокладка из красного волокна	от – 30 °C до + 80 °C
Неопрен R	от – 35 °C до + 100 °C
Неопрен C	от – 40 °C до + 80 °C
Нейлон	от – 30 °C до + 75 °C
Белый PTFE	от – 60 °C до + 140 °C
Прокладка из зеленого волокна	от – 60 °C до + 140 °C

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Ролзивон Татьяна Александровна (Ф.И.О.)

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5.7. Кабельные вводы с дополнительным внешним О-образным кольцом (установленным в канавку корпуса кабельного ввода) применяются в диапазоне температур: от минус 30 °С до +80 °С уплотнительным кольцом из бутадиен-нитрильного каучука/пербунана и от минус 60 °С до + 140 °С с уплотнительным кольцом из силикона.

5.8. Для кабельных вводов ADE-1F2, ADE-1F2 ADCC, ADE-1F2 ADCS и ADE-6F (с экранированным кабелем) потребитель должен обеспечить дополнительный зажим кабеля рядом с корпусом, на котором установлен кабельный ввод. Может использоваться кабельный зажим Cooper Capri.

5.9. Если в кабельных вводах используются корпуса с риском электростатического разряда, потребитель должен ознакомится с условиями применения, указанными в инструкции по эксплуатации.

Руководитель (уполномоченное лицо) органа по сертификации (подпись) Разживина Татьяна Александровна (Ф.И.О.)

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АО «Опцион», Москва, 2020 г., «Б». ТЗ № 334.

제 2015-BO-0249-1 호 (앞쪽)

안 전 인 증 서

COOPER CAPRI S.A.S

36-40 Rue des Fontenils F-41600 Nouan le Fuzelier France

위 사업장에서 제조하는 아래의 품목이 산업안전보건법 제34조 및 같은 법 시행규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전 · 보건 기준에 적합하므로 안전인증표시의 사용을 인증합니다.

품 목

Non Armoured Cable Gland

형식 · 모델/용량 · 등급/인증번호

형식·모델	인증번호
ADE-1F2 (Anchorage)	15-AV4BO-0249

Ex d IIC, Ex e II,Ex nR II, Ex tD A21 IP 66

용량·등급: 1인치 이하

ADE No: 3~7(인증서 뒤쪽 참조)

사용온도 : -30℃ ~ +80℃(네오프렌), -60℃~+140℃(실리콘)

인 증 기 준

방호장치 안전인증 고시(고용노동부고시 제2016-54호)

인 증 조 건

(뒤쪽)참조

2015.05.05 최초 교부

2015.05.25 인증서 방폭구조별 통합 및 크기(인치)별 분리

Conduit version 옵션추가(ADCC/ADCS)

2018년 05월 25일

한국산업안전보건공단 이사장

인 증 조 건

1. 제조공장: **'COOPER CAPRI S.A.S'**, 36-40 Rue des Fontenils F-41600 Nouan le Fuzelier France 에서 생산하는 제품에 한함

2. 제품개요

- 탄성 실링 링에 의한 조임을 이용하는 비외장 케이블글랜드임

3. 인증범위: 본 제품의 동일형식은 아래와 같음

TYPE	ADE No.	MALE THREAD SIZE		Anchorage (Option)	ADCC/ADCS (Option) FEMALE CONNECTOR SIZE			CABLE SEALING RANGEISO(NPT)
		ISO	NPT		ISO	NPT	BSPP(PF)	OUTER SHEATH MIN-MAX
ADE 1F2 (Anchorage/ ADCC/ADCS) 1인치이하 ADE No.3~7	3	M10	1/8"	O	-	-	-	2.75 - 5.5
		M12	-	O	M20	1/2"	1/2"	
		-	1/4"	O	-	-	-	
		M16	-	O	M20	1/2"	1/2"	
		-	3/8"	O	-	-	-	
		M20	1/2"	O	M20	1/2"	1/2"	
	4	M12	1/4"	O	M20	1/2"	1/2"	4.5 - 8.0
		M16	3/8"	O	M20	1/2"	1/2"	4.5 - 8.5
		M20	1/2"	O	M20	1/2"	1/2"	
	5	M16	3/8"	O	M20	1/2"	1/2"	7.0 - 12.0
		M20	1/2"	O	M20	1/2"	1/2"	
		M25	-	O	-	-	-	
		-	3/4"	O	M20	1/2"	1/2"	
	6	M20	1/2"	O	M20	1/2"	1/2"	10.0 - 16.0(15.5)
					M25	3/4"	3/4"	
		M25	3/4"	O	M25	3/4"	3/4"	10.0 - 16.0
	7	M25	3/4"	O	M25	3/4"	3/4"	13.5 - 20.5
					M32	1"	1"	
		M32	1"	O	M32	1"	1"	13.5 - 21.0

4. 안전한 사용을 위한 조건

- 제조자가 제공한 사용방법 설명서(ADE 한글메뉴얼)를 준수하여 설치할 것
- ADCC 및 ADCS version의 경우 용기주변 케이블에 대해 추가적인 클램핑을 할 것

5. 인증(변경)사항

- 4개의 방폭구조(d, e, nR, tD) 인증서 동시 기재 및 크기(인치)별 인증서 분리
- Conduit version 옵션추가(ADCC/ADCS)

6. 그 밖의 사항

- 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은자의 의무사항을 준수 할 것

제 2015-BO-0251-1 호 (앞쪽)

안 전 인 증 서

COOPER CAPRI S.A.S

36-40 Rue des Fontenils F-41600 Nouan le Fuzelier France

위 사업장에서 제조하는 아래의 품목이 산업안전보건법 제34조 및 같은 법 시행규칙 제58조의4제4항에 따른 안전인증 심사 결과 안전·보건 기준에 적합하므로 안전인증표시의 사용을 인증합니다.

품 목

Non Armoured Cable Gland

형식·모델/용량·등급/인증번호

형식·모델	인증번호
ADE-1F2 (Anchorage)	15-AV4BO-0251

Ex d IIC, Ex e II,Ex nR II, Ex tD A21 IP 66

용량·등급: 1인치 초과 2인치 이하

ADE No: 8~10(인증서 뒤쪽 참조)

사용온도 : -30℃ ~ +80℃(네오프렌), -60℃~+140℃(실리콘)

인 증 기 준

방호장치 안전인증 고시(고용노동부고시 제2016-54호)

인 증 조 건

(뒤쪽)참조

2015.05.07 최초 교부

2015.05.25 인증서 방폭구조별 통합 및 크기(인치)별 분리

Conduit version 옵션추가(ADCC/ADCS)

2018년 05월 25일

한국산업안전보건공단 이사장

(뒤 쪽)

인 증 조 건

1. 제조공장: **'COOPER CAPRI S.A.S'**, 36-40 Rue des Fontenils F-41600 Nouan le Fuzelier France 에서 생산하는 제품에 한함

2. 제품개요

- 탄성 실링 링에 의한 조임을 이용하는 비외장 케이블글랜드임

3. 인증범위: 본 제품의 동일형식은 아래와 같음

TYPE	ADE No.	MALE THREAD SIZE		Anchorage (Option)	ADCC/ADCS (Option) FEMALE CONNECTOR SIZE			CABLE SEALING RANGEISO(NPT)
		ISO	NPT		ISO	NPT	BSPP(PF)	OUTER SHEATH MIN-MAX
ADE 1F2 (Anchorage/ ADCC/ADCS) 1인치초과 2인치이하 ADE No.8~10	8	M32	1"	O	M32	1"	1"	18.0 - 27.5(26.0)
					M40	1 1/4"	1 1/4"	
		M40	1 1/4"	O	M40	1 1/4"	1 1/4"	18.0 - 27.5
	9	M40	1 1/4"	O	M40	1 1/4"	1 1/4"	23.0 - 34.0
					M50	1 1/2"	1 1/2"	
		M50	1 1/2"	O	M50	1 1/2"	1 1/2"	
	10	M50	1 1/2"	O	M50	1 1/2"	1 1/2"	29.0 - 41.0
		M63	2"	O	-	-	-	

4. 안전한 사용을 위한 조건

- 제조자가 제공한 사용방법 설명서(ADE 한글메뉴얼)를 준수하여 설치할 것
- ADCC 및 ADCS version의 경우 용기주변 케이블에 대해 추가적인 클램핑을 할 것

5. 인증(변경)사항

- 4개의 방폭구조(d, e, nR, tD) 인증서 동시 기재 및 크기(인치)별 인증서 분리
- Conduit version 옵션추가(ADCC/ADCS)

6. 그 밖의 사항

- 안전인증품의 품질관리, 확인심사 수검, 변경사항 신고 등 인증 받은자의 의무사항을 준수 할 것

제 2015-BO-0252-1 호 (앞쪽)

안 전 인 증 서

COOPER CAPRI S.A.S

36-40 Rue des Fontenils F-41600 Nouan le Fuzelier France

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품 목

Non Armoured Cable Gland

형식·모델/용량·등급/인증번호

형식·모델	인증번호
ADE-1F2 (Anchorage)	15-AV4BO-0252
Ex d IIC, Ex e II,Ex nR II, Ex tD A21 IP 66	
용량·등급	2인치 초과 4인치 이하
	ADE No: 11~17(인증서 뒤쪽 참조)
사용온도 : -30℃ ~ +80℃(네오프렌), -60℃~+140℃(실리콘)	

인 증 기 준

방호장치 안전인증 고시(고용노동부고시 제2016-54호)

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TYPE	ADE No.	MALE THREAD SIZE		Anchorage (Option)	ADCC/ADCS (Option) FEMALE CONNECTOR SIZE			CABLE SEALING RANGEISO(NPT)
		ISO	NPT		ISO	NPT	BSPP(PF)	OUTER SHEATH MIN-MAX
ADE 1F2 (Anchorage/ ADCC/ADCS) 2인치초과 4인치이하 ADE No.11~17	11	M50	2"	O	-	-	-	35.0 - 45.0(48.0)
			-	-	M50	1 1/2"	1 1/2"	
					M63	2"	2"	35.0 - 45.0
		M63	2"	O	M63	2"	2"	35.0 - 48.0
		-	2 1/2"	O	-	-	-	
	12	M63	2"	O	M63	2"	2"	42.0 - 56.0(53.0)
					M75	2 1/2"	2 1/2"	
		M75 *	-	-	M75	2 1/2"	2 1/2"	42.0 - 56.0
		-	2 1/2"	O	M75	2 1/2"	2 1/2"	
	13	M75	2 1/2"	O	M75	2 1/2"	2 1/2"	50.0 - 65.0(62.5)
					M90	3"	3"	
			3"	O	-	-	-	50.0 - 65.0
	14	M90	3"	O	M90	3"	3"	58.0 - 74.0
	15	M90	3"	O	M90	3"	3"	66.0 - 83.0(78.0)
		-	3 1/2"	O	M90	3 1/2"	3 1/2"	66.0 - 78.0
	16	M110	3 1/2"	O	M110	3 1/2"	3 1/2"	75.0 - 93.0(92.0)
		-	4"	O	-	-	-	75.0 - 93.0
	17	M110	4"	O	M110	4"	4"	85.0 - 104.0

4. 안전한 사용을 위한 조건

- 제조자가 제공한 사용방법 설명서(ADE 한글메뉴얼)를 준수하여 설치할 것
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Notes

SAMCON

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