



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEx INE 12.0025X	issue No.:0	Certificate history:.....
Status:	Current		
Date of Issue:	2012-10-19	Page 1 of 3	
Applicant:	COOPER CAPRI S.A.S. 36-40 rue des Fontenils F - 41600 Nouan le Fuzelier France		
Electrical Apparatus: <i>Optional accessory:</i>	Cable gland type ADE...		
Type of Protection:	d, e, n and tb		
Marking:	Ex db IIC Ex eb IIC Ex db I Ex eb I Ex nRc IIC Ex tb IIIC IP66		
Approved for issue on behalf of the IECEx Certification Body:	Thierry HOUEIX		
Position:	Ex Certification Officer		
Signature: (for printed version)	<hr/>		
Date:	<hr/> 2012-10-19 <hr/>		

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

Certificate issued by:

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





IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2012-10-19

Issue No.: 0

Page 2 of 3

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

Manufacturing location(s):

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

STANDARDS:

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

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-15 : 2010 Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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

TEST & ASSESSMENT REPORTS:

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

Test Report:

[FR/INE/ExTR12.0022/00](#)

Quality Assessment Report:

[FR/LCI/QAR07.0002/03](#)



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2012-10-19

Issue No.: 0

Page 3 of 3

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

This serie of cable glands type ADE-1F₂, ADE-4F and ADE-6F are made in stainless steel, brass, bronze or aluminium alloy (group I excluded).
They are protected by flameproof enclosure, increased safety and dust protection. They can also be fitted on 'Ex p', 'Ex i' and 'Ex n' and "Ex m" equipment.
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.
These cable glands can be with elastomeric sealing ring in Neoprene or Silicone according to the range of service temperature.
These cable glands , in accordance with the type:

- are foreseen for armoured cables or non armoured cables,
- can be realised with a simple sealing ring or double sealing ring.

These cable glands with conical or cylindrical threaded joint get the protection degrees IP66 according to the IEC 60 529 standard.

CONDITIONS OF CERTIFICATION: YES as shown below:

- These cable glands are intended for use in a service temperature range different from -20°C to +80°C as indicated on the parameters relating to the safety.
- The clamping of the cables, for the cable entries version ADE1F₂ must be performed outside of the enclosure, nearby to the enclosure on which the cable glands are installed.



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: **2012-10-19**

Issue No.: **0**

Page 1 of 2

Annexe: IECEx INE 12.0025X_Annex.pdf

PARAMETERS RELATING TO THE SAFETY

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

- **For type ADE-1F₂ and 4F:**
from -30°C to 80°C for sealing ring in Neoprene.
from -60°C to 140°C for sealing ring in silicone.
- **For type ADE-6F:**
from -30°C to 80°C for sealing ring in silicone.

These cable glands are intended for use with the following threaded joints:

- **For cylindrical joint:**
from ISO M10 to ISO M110 for types ADE-4F and ADE-6F.
from ISO M10 to ISO M75 for types ADE-1F₂.
- **For conical joint:**
From 1/8" NPT to 4" NPT for types ADE-4F and ADE-6F.
From 1/8" NPT to 3" NPT for types ADE-1F₂.

MARKING

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

- 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.

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.



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: **2012-10-19**

Issue No.: **0**

Page 2 of 2

Annexe: IECEx INE 12.0025X_Annex.pdf

On the small cable glands the marking can be reduced at:

- 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.

ROUTINE EXAMINATIONS AND TESTS

None.



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:

IECEx INE 12.0025X

issue No.:1

Status:

Current

Certificate history:

Issue No. 1 (2013-2-20)
Issue No. 0 (2012-10-19)

Date of Issue:

2013-02-20

Page 1 of 4

Applicant:

COOPER CAPRI S.A.S.
36-40 rue des Fontenils
F - 41600 Nouan le Fuzelier
France

Electrical Apparatus:
Optional accessory:

Cable gland type ADE...

Type of Protection:

d, e, n and tb

Marking:

For ADE-1F2, ADE-1F2 anchorage, ADE-4F, ADE-5F, ADE-6F, ADE-1FC 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-4F, ADE-5F, ADE-1F2 Anchorage, ADE-1FC (N°11 to N°16) and ADE-6FC (N°11 to N°17):
Ex db I Ex eb I

*Approved for issue on behalf of the IECEx
Certification Body:*

Thierry HOUEIX

Position:

Ex Certification Officer

*Signature:
(for printed version)*

Date:

2013-03-28

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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



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2013-02-20

Issue No.: 1

Page 2 of 4

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

Additional Manufacturing location
(s):

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

STANDARDS:

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

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-15 : 2010 Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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

TEST & ASSESSMENT REPORTS:

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

Test Report:
[FR/INE/ExTR12.0022/01](#)

Quality Assessment Report:
[FR/LCI/QAR07.0002/04](#)



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2013-02-20

Issue No.: 1

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

ADE cable glands are made in stainless steel, brass, bronze or aluminium alloy (group I excluded), providing a protection degrees IP66 according to IEC 60529 for conical threaded joint and without additional sealing washer (gasket) for cylindrical threaded joint.

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 maxi).

Cable glands with conical threaded joint without additional sealing washer (gasket) and cylindrical threaded joint fitted with sealing washer providing 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.

They are protected by flameproof enclosure, increased safety and dust protection. Furthermore, they also may be fitted on 'Ex i', 'Ex m', 'Ex n', 'Ex o', 'Ex p' and 'Ex q' equipment.

CONDITIONS OF CERTIFICATION: YES as shown below:

- These cable glands are intended in the following service temperature:
 - For type ADE-1F2, 4F and 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 -30°C to 80°C with internal sealing ring (diaphragm) in Silicone.
 - For type ADE-1FC and 6FC:
 - from -30°C to 80°C with TSC compound.
- For ADE-1F2 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.



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: **2013-02-20**

Issue No.: **1**

Page 4 of 4

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Issue 01:

- 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



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2013-02-20

Issue No.: 01

Page 1 of 3

Annexe: IECEx INE 12.0025X_Issue01-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	
		With Neoprene Sealing Ring	With Silicone Sealing Ring	With Silicone Internal Sealing (Diaphragm)	With TSC Compound	Cylindrical	Conical	I	II & III
ADE-1F2	3 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	X	All Sizes
ADE-1F2 Anchorage	3 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-4F	4 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-5F	4 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-6F	5 to 11	X	X	-30 to +80	X	M16 to M63	NPT 3/8" to NPT 2"	X	All Sizes
ADE-1FC	4 to 16	X	X	X	-60 to +80	M16 to M110	NPT 3/8" to NPT 4"	No. 11 to No. 17	All Sizes
ADE-6FC	4 to 17	X	X	X	-60 to +80	M16 to M110	NPT 3/8" to NPT 4"	No. 11 to No. 17	All Sizes



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: **2013-02-20**

Issue No.: 01

Page 2 of 3

Annexe: IECEx INE 12.0025X_Issue01-Annex.pdf

MARKING

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

- 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, for:

- ADE-1F2-Anchorage, ADE4F, ADE-5F,
- ADE-1FC (No.11 up to No.16) and ADE-6FC (No.11 up to No.17).

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.



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: **2013-02-20**

Issue No.: 01

Page 3 of 3

Annexe: IECEx INE 12.0025X_Issue01-Annex.pdf

On the small cable glands the marking can be reduced at:

- 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.

ROUTINE EXAMINATIONS AND TESTS

None.



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx INE 12.0025X issue No.: 2

Status: Current

Date of Issue: 2014-02-28 Page 1 of 4

Certificate history:
Issue No. 2 (2014-2-28)
Issue No. 1 (2013-2-20)
Issue No. 0 (2012-10-19)

Applicant: COOPER CAPRI S.A.S.
36-40 rue des Fontenils
F - 41600 Nouan le Fuzelier
France

Electrical Apparatus: Cable gland type ADE...
Optional accessory:

Type of Protection: d, e, n and tb

Marking: For ADE-1F2, ADE-1F2 Anchorage, ADE-1F2 DS, ADE-4F, ADE-5F, ADE-6F, ADE-1FC 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-4F, ADE-5F, ADE-1F2 Anchorage, ADE-1FC (N°11 to N°16) and ADE-6FC (N°11 to N°17):
Ex db I Ex eb I

Approved for issue on behalf of the IECEx
Certification Body:

Thierry HOUÉIX

Position:

Ex Certification Officer

Signature:
(for printed version)

Date:

2014-02-28



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Institut National de l'Environnement Industriel
et des Risques
BP n°2
Parc Technologique ALATA
F-60550 Verneuil-En-Halatte
France

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(scope of accreditation is available on website www.cofrac.fr)



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2014-02-28

Issue No.: 2

Page 2 of 4

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

Additional Manufacturing location
(s):

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

STANDARDS:

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

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-15 : 2010 Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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

TEST & ASSESSMENT REPORTS:

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

Test Report:

[FR/INE/ExTR12.0022/02](#)

Quality Assessment Report:

[FR/LCI/QAR07.0002/05](#)



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2014-02-28

Issue No.: 2

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

ADE cable glands are made in stainless steel, brass, bronze or aluminium alloy (group I excluded), providing a protection degrees IP66 according to IEC 60529 for conical threaded joint and without additional sealing washer (gasket) for cylindrical threaded joint.

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 maxi without sealing washer and Ra 6.3 µm maxi 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 providing 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.

They are protected by flameproof enclosure, increased safety and dust protection. Furthermore, they also may be fitted on 'Ex i', 'Ex m', 'Ex n', 'Ex o', 'Ex p' and 'Ex q' equipment.

CONDITIONS OF CERTIFICATION: 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, 4F and 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 and 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

- For ADE-1F2 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.



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2014-02-28

Issue No.: 2

Page 4 of 4

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



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2014-02-28

Issue No.: 02

Page 1 of 3

Annexe: IECEx INE 12.0025X-02_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	
		With Neoprene Sealing Ring	With Silicone Sealing Ring	With Silicone Internal Sealing (Diaphragm)	With TSC Compound	Cylindrical	Conical	I	II & III
ADE-1F2	3 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	X	All Sizes
ADE-1F2 Anchorage	3 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-1F2 DS	3 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-4F	4 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-5F	4 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-6F	5 to 11	X	X	-60 to + 80	X	M16 to M63	NPT 3/8" to NPT 2"	X	All Sizes
ADE-1FC	4 to 16	X	X	X	-60 to + 80	M16 to M110	NPT 3/8" to NPT 4"	N° 11 to N° 17	All Sizes
ADE-6FC	4 to 17	X	X	X	-60 to + 80	M16 to M110	NPT 3/8" to NPT 4"	N° 11 to N° 17	All Sizes



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2014-02-28

Issue No.: 02

Page 2 of 3

Annexe: IECEx INE 12.0025X-02_Annex.pdf

MARKING

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

- CCH-CAPRI
- ADE...(1)
- IECEx INE 12.0025X
- Ex db/eb IIC
- Ex db I / Ex eb I(*)
- Ex tb IIC 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, for ADE-1F2 Anchorage, ADE-1F2 DS, ADE4F, ADE-5F, ADE-1FC and ADE-6FC.

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.



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2014-02-28

Issue No.: 02

Page 3 of 3

Annexe: IECEx INE 12.0025X-02_Annex.pdf

On the small cable glands the marking can be reduced at:

- 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.

ROUTINE EXAMINATIONS AND TESTS

None.



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx INE 12.0025X issue No.:3

Status: **Current**

Date of Issue: **2014-10-03**

Page 1 of 4

Certificate history:

Issue No. 3 (2014-10-3)
Issue No. 2 (2014-2-28)
Issue No. 1 (2013-2-20)
Issue No. 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

Electrical Apparatus: **Cable gland type ADE...**
Optional accessory:

Type of Protection: **d, e, n and tb**

Marking: For ADE-1F2, ADE-1F2 Anchorage, ADE-1F2 DS, ADE-4F, ADE-5F, ADE-6F, ADE-1FC 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-4F, ADE-5F, ADE-1F2 Anchorage, ADE-1FC (N°11 to N°16) and ADE-6FC (N°11 to N°17):
Ex db I Ex eb I

Approved for issue on behalf of the IECEx
Certification Body:

Thierry HOUÉIX

Position:

Ex Certification Officer

Signature:
(for printed version)

Date:

2014-10-03

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

Certificate issued by:

INERIS
Institut National de l'Environnement Industriel
et des Risques
BP n°2
Parc Technologique ALATA
F-60550 Verneuil-En-Halatte
France

INERIS

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IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2014-10-03

Issue No.: 3

Page 2 of 4

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

Additional Manufacturing location
(s):

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

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

STANDARDS:

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

IEC 60079-0 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2007-04 Edition: 6	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-15 : 2010 Edition: 4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2008 Edition: 1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
IEC 60079-7 : 2006-07 Edition: 4	Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

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

TEST & ASSESSMENT REPORTS:

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

Test Report:

FR/INE/ExTR12.0022/02

FR/INE/ExTR12.0022/03

Quality Assessment Report:

GB/BAS/QAR07.0041/05

FR/LCI/QAR07.0002/06



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2014-10-03

Issue No.: 3

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

ADE cable glands are made in stainless steel, brass, bronze or aluminium alloy (group I excluded), providing a protection degrees IP66 according to IEC 60529 for conical threaded joint and without additional sealing washer (gasket) for cylindrical threaded joint.

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 maxi without sealing washer and Ra 6.3 µm maxi 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 providing 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.

They are protected by flameproof enclosure, increased safety and dust protection. Furthermore, they also may be fitted on 'Ex i', 'Ex m', 'Ex n', 'Ex o', 'Ex p' and 'Ex q' equipment.

CONDITIONS OF CERTIFICATION: 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 , 4F and 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 and 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

- For ADE-1F2 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.



IECEx Certificate of Conformity

Certificate No.: IECEx INE 12.0025X

Date of Issue: 2014-10-03

Issue No.: 3

Page 4 of 4

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.



IECEx Certificate of Conformity

Certificate No.:

IECEx INE 12.0025X

Issue No.: 3

Page 1 of 3

Annexe: IECEx INE 12.0025X-03_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	
		With Neoprene Sealing Ring	With Silicone Sealing Ring	With Silicone Internal Sealing (Diaphragm)	With TSC Compound	Cylindrical	Conical	I	II & III
version	N°								
ADE-1F2	3 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	X	All Sizes
ADE-1F2 Anchorage	3 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-1F2 DS	3 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-4F	4 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-5F	4 to 17	-30 to + 80	-60 to + 140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All Sizes	All Sizes
ADE-6F	5 to 11	X	X	-60 to + 80	X	M16 to M63	NPT 3/8" to NPT 2"	X	All Sizes
ADE-1FC	4 to 16	X	X	X	-60 to + 80	M16 to M110	NPT 3/8" to NPT 4"	N° 11 to N° 17	All Sizes
ADE-6FC	4 to 17	X	X	X	-60 to + 80	M16 to M110	NPT 3/8" to NPT 4"	N° 11 to N° 17	All Sizes



IECEx Certificate of Conformity

Certificate No.:

IECEx INE 12.0025X

Issue No.: 3

Page 2 of 3

Annexe: IECEx INE 12.0025X-03_Annex.pdf

MARKING

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

- 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, for ADE-1F2 Anchorage, ADE-1F2 DS, ADE4F, ADE-5F, ADE-1FC and ADE-6FC.

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.



IECEx Certificate of Conformity

Certificate No.:

IECEx INE 12.0025X

Issue No.: 3

Page 3 of 3

Annexe: IECEx INE 12.0025X-03_Annex.pdf

On the small cable glands the marking can be reduced at:

- 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.

ROUTINE EXAMINATIONS AND TESTS

None.