



- (2) **Equipment and protective systems intended for use in potentially explosive atmospheres**
Directive 94/9/EC

(1) **EC-TYPE EXAMINATION CERTIFICATE**

- (3) Number of the EC type examination certificate: **INERIS 12ATEX0032X**

- (4) Equipment or protective system: **CABLE GLANDS TYPE ADE... versions:**

ADE-1F2 n° 3 to N° 13

ADE-4F n° 4 to N° 17

ADE-6F n° 5 to N° 11

- (5) Manufacturer: **COOPER CAPRI S.A.S**

- (6) Address: **36-40 rue des Fontenils
F - 41600 Nouan Le Fuzelier**

- (7) This equipment or protective system and any other acceptable alternative of this one are described in the annex of this certificate and the descriptive documents quoted in this annex.

- (8) INERIS, notified body and identified under number 0080, in accordance with article 9 of Council Directive 94/9/EC of the 23rd March 1994, certifies that this equipment or protective system fulfils the Essential of Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, described in annex II of the Directive.

The examinations and the tests are consigned in report No 026711/12.

- (9) The respect of the Essential Health and Safety Requirements is ensured by:

- conformity with:

EN 60079-0	:	2009	IEC 60079-0	:	2011
EN 60079-1	:	2007	IEC 60079-1	:	2007
EN 60079-7	:	2007	IEC 60079-7	:	2006
EN 60079-31	:	2009	IEC 60079-31	:	2008

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

- (10) Sign X, when it is placed following the Number of the EC type examination certificate, indicates that this equipment and protective system is subjected to the special conditions for safe use, mentioned in the annex of this certificate.
- (11) This EC type examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system, these are not covered by this certificate.
- (12) The marking of the equipment or the protective system will have to contain:

⊕ II 2 GD

⊕ IM2

Verneuil-en-Halatte, 2012.12.21



The Chief Executive Officer of INERIS,
By delegation
T. HOUeix
Ex Certification Officer

(13)

ANNEX

(14)

EC TYPE EXAMINATION CERTIFICATE N° INERIS 12ATEX0032X

(15)

DESCRIPTION OF THE EQUIPMENT OR THE PROTECTIVE SYSTEM

This ADE... cable glands type is made in stainless steel, brass, bronze or aluminum alloy (group I excluded).

They are protected by flameproof enclosure, increased safety and dust protection. They can also be fitted on 'Ex i', 'Ex m', 'Ex o', "Ex p" and "Ex q" 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 armored cables or non armored cables.
- Can be realized 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.

PARAMETERS RELATING TO THE SAFETY

These cable glands are intended with the following sizes and threaded joints:

- ADE-1F₂ cable glands series with single sealing ring for unarmored cable.
 - n°3 to n°13 for cable external diameter from 2,75 to 65 mm.
 - Cylindrical thread from M10 to M75 inclusive, according to ISO 965-1 & 965-3
 - Conical thread from NPT 1/8" to NPT 3" inclusive, according to ANSI/ASME B1.20.1.
- ADE-4F cable glands series with double sealing ring for armored or braided cable.
 - n°4 to n°17 for cable external diameter from 4,5 to 104 mm.
 - Cylindrical thread from M10 to M110 inclusive, according to ISO 965-1 & 965-3
 - Conical thread from NPT 1/8" to NPT 4" inclusive, according to ANSI/ASME B1.20.1.
- ADE-6F cable glands series with double sealing ring for armored or braided cable.
 - n°5 to n°11 for cable external diameter from 6 to 48 mm.
 - Cylindrical thread from M16 to M63 inclusive, according to ISO 965-1 & 965-3.
 - Conical thread from NPT 3/8" to NPT 2" inclusive, according to ANSI/ASME B1.20.1.

MARKING

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

CCH CAPRI

F - 41600 Nouan Le Fuzelier

ADE... (1)

INERIS 12ATEX0032X

(Year of construction)



II 2 GD

Ex db/eb IIC



I M2 (*)

Ex db I/Ex eb I(*)

Ex tb IIIC IP66

(Type and size of thread)

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

(*) Additional marking only for ADE-4F made in brass, bronze and stainless steel.

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.

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

CCH CAPRI

ADE...(1)

INERIS 12ATEX0032X

(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.

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.

ROUTINE EXAMINATIONS AND TESTS

None.

(16) DESCRIPTIVE DOCUMENTS

The descriptive document quoted hereafter constitutes the technical documentation of the equipment, subject of this certificate.

Certification file SRD/Certificates/INERIS/Files/ADE File Rev-I-0 (11 rubrics)
dated and signed on 2012.06.06.

(17) SPECIAL CONDITIONS FOR SAFE USE

These cable glands are intended 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.

- 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.

The other conditions are stipulated in the instructions.

(18) ESSENTIAL SAFETY AND HEALTH 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.

ADDITION(3) **INERIS 12ATEX0032X/01**(4) **CABLE GLANDS TYPE ADE-....**(5) **Made by COOPER CAPRI S.A.S****(15) PURPOSE OF THE ADDITION**

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 of IPX8 in accordance with EN/IEC 60529 for conical threaded joint without additional sealing washer (gasket) and for cylindrical threaded joint fitted with sealing washer. The verification of the protection degree IPX8 corresponds to an immersion under 30 meters of water during 7 days.

PARAMETERS RELATING TO THE SAFETY

The parameters are replaced by the followings:

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 and 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 N°
ADE-1F2 Anchorage	3 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All N°	All N°
ADE-4F	4 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All N°	All N°
ADE-5F	4 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All N°	All N°
ADE-6F	5 to 11	X	X	-30 to +80	X	M16 to M63	NPT 3/8" to NPT 2"	X	All N°
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 N°
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 N°

MARKING

The marking is replaced by the following:

CCH-CAPRI

F - 41600 Nouan Le Fuzelier

ADE...(1)

INERIS 12ATEX0032X

(Year of construction)

 II 2 GD

Ex db/eb IIC

 I M2 (*)

Ex db I / Ex eb I(*)

Ex tb IIIC IP66

(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 (N°11 up to N°16) and ADE-6FC (N°11 up to N°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.

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

CCH-CAPRI

ADE...(1)

INERIS 12ATEX0032X

(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.

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.

ROUTINE EXAMINATIONS AND TESTS

None.

(16) **DESCRIPTIVE DOCUMENTS**

The descriptive document quoted hereafter constitutes the technical documentation describing the modifications of the equipment, subject of this present addition.

- Certification file SRD/Certificates/INERIS/Files/ADE File Rev-I-1 (26 rubrics) dated and signed on 2013.01.16.

(17) **SPECIAL CONDITIONS FOR SAFE USE**

The special conditions for safe use are replaced by the followings:

- 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.

(18) **ESSENTIAL SAFETY AND HEALTH REQUIREMENTS**

The respect of the Essential Health and Safety Requirements is unchanged.

Verneuil-en-Halatte, 2013.03.29



The Chief Executive Officer of INERIS
By delegation
T. HOUEIX
Ex Certification Officer

ADDITION

- (3) INERIS 12ATEX0032X/02
- (4) CABLE GLANDS TYPE ADE-...
- (5) Made by COOPER CAPRI S.A.S

(15) PURPOSE OF THE ADDITION

- Application of the EN 60079-0: 2012 standard.
- New version of cable gland ADE-1F2 DS :
 - o n° 3 to n° 17, for cable Ø 2,75 to 104 mm
 - o Cylindrical thread M10 to M110
 - o Conical thread NPT 3/8" to NPT 4"
- Modification of the operating temperatures for the type ADE-6F :
 - o -60°C to +80°C with internal sealing ring (diaphragm) in Silicone
- Addition of new external sealing washers with their own operating temperatures following :
 - o -30°C to +75°C for sealing washer in white mat nylon
 - o -35°C to +100°C for sealing washer in black Neoprene R
 - o -40°C to +80°C for sealing washer in black Neoprene C
 - o -60°C to +140°C for sealing washer in white PTFE

PARAMETERS RELATING TO THE SAFETY

The parameters relating to the safety are modified as follows:

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 and 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 N°
ADE-1F2 Anchorage	3 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All N°	All N°
ADE-1F2 DS	3 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All N°	All N°

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 and III
ADE-4F	4 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All N°	All N°
ADE-5F	4 to 17	-30 to +80	-60 to +140	X	X	M10 to M110	NPT 1/8" to NPT 4"	All N°	All N°
ADE-6F	5 to 11	X	X	-60 to +80	X	M16 to M63	NPT 3/8" to NPT 2"	X	All N°
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 N°
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 N°

MARKING

The marking is modified as follow for the new type:

CCH-CAPRI

F - 41600 Nouan Le Fuzelier

ADE-1F2 DS

INERIS 12ATEX0032X

(Year of construction)

Ex II 2 GD

Ex db/eb IIC

Ex I M2

Ex db I / Ex eb I (*)

Ex tb IIIC IP66

(Type and size of thread)

(*) Additional marking only for brass, bronze and stainless steel versions.

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

CCH-CAPRI

ADE-F2 DS

INERIS 12ATEX0032X

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.

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.

ROUTINE EXAMINATIONS AND TESTS

None.

(16) DESCRIPTIVE DOCUMENTS

The descriptive documents quoted hereafter constitute the technical documentation describing the modification of the equipment, subject of this present addition.

- Certification file SRD/Certificates/INERIS/Files/ADE File Rev-I-2 (32 rubrics)
dated and signed on 2014.01.20

(17) SPECIAL CONDITIONS FOR SAFE USE

The special conditions for safe use are modified as follows:

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 , 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 :

Sealing washer	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.

(18) ESSENTIAL SAFETY AND HEALTH REQUIREMENTS

The respect of the Essential Health and Safety Requirements is completed as follows:

- Conformity to the standards quoted in clause (15).
- All provisions adopted by the manufacturer and defined in the descriptive documents.

Verneuil-en-Halatte, 2014.02.21



The Chief Executive Officer of INERIS
By delegation
T. HOUeix
Ex Certification Officer