DNV·GL

Certificate No:
TAE00000Y3

TYPE APPROVAL CERTIFICATE

This is to certify:

That the Cable Gland

with type designation(s)
EX..C1, EX..C2, EX..C2S, EX..C3, EX..C4, EX..C5, EX..C6, EX././DV

Issued to
Kopex-Ex, Cable Management Products Ltd, ABB UK Ltd
Birmingham, United Kingdom

is found to comply with
Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards

Application :

Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.

This Certificate is valid until **2021-01-27**.
Issued at **Høvik** on **2016-01-28**

DNV GL local station: **Manchester**

Approval Engineer: **Marta Alonso Pontes**

for **DNV GL**

Digitally Signed By: Laumann, Marit
Location: DNV GL Høvik, Norway
Signing Date: 2016-01-28

Marit Laumann
Head of Section

This Certificate is subject to terms and conditions overleaf. Any significant change in design or construction may render this Certificate invalid.
The validity date relates to the Type Approval Certificate and not to the approval of equipment/systems installed.

Product description

Type	**EX..C1**
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2007, IEC 60079-31:2008, IEC 60079-7:2006, IEC 62444 :2010
Classification Hazardous area	Ex d IIC Gb/ Ex e IIC Gb/ Ex tb IIIC Db
Certification	CESI 13ATEX041X
Continuous operating temperature range	For Chloroprene rubber : -40°C to + 100°C (-40°C to + 80°C for KBALT) For Silicon rubber : -60°C to + 130 °C (-60°C to + 80°C for KBALT) Up to -20°C for galvanized carbon steel models
Ingress protection	IP66/IP68
Gland material	Brass, stainless steel or galvanized carbon steel
Seal material	Chloroprene rubber or silicon rubber
Cable type	Armoured
Gland sizes	Metric thread size:16,20,25,32,40,50,63,75,90 NPT thread size :3/8”,1/2”,3/4”,1”,1¼”,1½”,2”, 2½”, 3

Type	**EX..C2, EX..C6**
Design specification/ Compliance code	IEC/EN60079-0:2011(2012),IEC/EN60079-1:2007, IEC/EN60079-31:2008(2009), IEC60079-7 :2006, IEC/EN62444:2010(2013)
Classification Hazardous area	Ex e IIC Gb/ Ex d IIC Gb/ Ex tb IIIC Db IP66/68
Certification	IMQ 13 ATEX 018X, IECEx IMQ 13.0006X
Continuous operating temperature range	For Chloroprene rubber: -40°C to + 80°C For Silicon rubber: -60°C to + 80 °C
Ingress protection	IP66/68
Gland material	Aluminium, stainless steel, brass
Seal material	Chloroprene rubber or silicon rubber
Cable type	Not armoured
Gland sizes	Metric thread size:8,12,16,20,25,32,40,50,63,75,90,100, 110 NPT thread size:1/4”,3/8”,1/2”,3/4”,1”,1¼”,1½”,2”,2½”,3, 4”

Type	**EX..C2S**
Design specification/ Compliance code	IEC/EN60079-0:2011(2012), IEC/EN60079-31: 2008(2009), IEC60079-7:2006, IEC/EN62444:2010(2013)
Classification Hazardous area	Ex e IIC Gb/ Ex tb IIIC Db IP66/68
Certification	IMQ 13 ATEX 018X, IECEx IMQ 13.0006X
Continuous operating temperature range	For EPDM rubber: -40°C to + 80°C For Silicon rubber: -60°C to + 80°C
Ingress protection	IP66/68
Gland material	Aluminium, stainless steel, brass
Seal material	EPDM rubber or silicone
Cable type	Not armoured
Gland sizes	Metric thread size:12,16,20,25,32,40,50,63 NPT thread size:1/4”,3/8”,1/2”,3/4”,1”,1¼”,1½”,2”

Type	**EX..C3**
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2007, IEC 60079-31:2008, IEC 60079-7:2006, IEC 62444 :2010
Classification Hazardous area	Exd IIC GB / Exe IIC Gb / Ex tb IIIC Db
Certification	CESI 13ATEX041X
Continuous operating temperature range	For Chloroprene rubber : -40°C to + 100°C (-40°C to + 80°C for KBALT) For Silicon rubber : -60°C to + 130 °C (-60°C to + 80°C for KBALT) Up to -20°C for galvanized carbon steel models
Ingress protection	IP66/68
Gland material	brass, stainless steel, galvanized carbon steel
Seal material	Chloroprene rubber or silicon rubber
Cable type	Not armoured
Gland sizes	Metric thread size:16,20,25,32,40,50,63,75,90 NPT thread size: 3/8", 1/2", 3/4", 1", 1¼",1½",2", 2½",3"

Type	**EX..C4**
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2007, IEC 60079-31:2008, IEC 60079-7:2006, IEC 62444 :2010
Classification Hazardous area	Exd IIC GB / Exe IIC Gb / Ex tb IIIC Db
Certification	CESI 14ATEX032X, IECEx CES 14.0013X
Continuous operating temperature range	60°C to + 60°C
Ingress protection	IP66
Gland material	Brass, Nickel plated brass, Stainless steel
Seal material	Silicon rubber
Cable type	Not armoured
Gland sizes	Metric thread size:20, 25, 32, 40, 60, 63 NPT thread size: 1/2", 3/4", 1", 1¼",1½",2"

Type	**EX..C5**
Design specification/ Compliance code	IEC 60079-0:2011, IEC 60079-1:2007, IEC 60079-31:2008, IEC 60079-7:2006, IEC 62444 :2010
Classification Hazardous area	Exd IIC GB / Exe IIC Gb / Ex tb IIIC Db
Certification	CESI 14ATEX032X, IECEx CES 14.0013X
Continuous operating temperature range	60°C to + 60°C
Ingress protection	IP66
Gland material	Brass, Nickel plated brass, Stainless steel
Seal material	Silicon rubber
Cable type	Steel wire armour or shielded cables
Gland sizes	Metric thread size:20, 25, 32, 40, 50, 63 NPT thread size: 1/2", 3/4", 1", 1¼",1½",2"

Type	**EX././DV drain valve**
Design specification/ Compliance code	IEC/EN60079-0:2011(2012), IEC/EN60079-7:2006(2007), IEC/EN60079-31:2008(2009)
Classification Hazardous area	Ex e IIC Gb/ Ex tb IIIC Db IP66
Certification	IMQ 13 ATEX 030 U, IECEx IMQ 14.0003U
Continuous operating temperature	-60°C to + 85°C

range	
Ingress protection	IP66
Gland material	Brass, stainless steel
Seal material	Silicon rubber
Cable type	
Gland sizes	Metric thread size:20,25 NPT thread size: 1/2”,3/4”

Application/Limitation

Hazardous areas cable glands & cable gland's accessories. Manufacturer's installation description and instructions shall be followed.
The information related to Ex certification from recognized test institution is given as information only. Applications where Ex certified equipment is required will in general be subject to approval case by case based on documentation as required in DNV rules.

Type Approval documentation

Documentation linked to App. Letter with Ref. MCANO381/PONT/262.1-018821-J-13 dated 06.02.2015
Datasheets : KA3-EX..C5 ASS-Y-M-m.16.05.14 and KA3-EX..C4 ASS-Y-M-m.16.05.14
Ex certificates listed in the tables

Tests carried out

Type tests in accordance with IEC/EN60079-0, IEC/EN60079-7, IEC/EN60079-31, IEC/EN60079-1 & IEC/EN 62444

Marking of product

Kopex-Ex – Type designation – Ex rating

Periodical assessment

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the periodical assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routines (RT) checked (if not available tests according to RT to be carried out)
- Review of type approval documentation
- Review of possible change in design, materials and performance
- Ensuring traceability between manufacturer’s product type marking and Type Approval Certificate.

Periodical assessment to be performed at least every second year.

END OF CERTIFICATE