



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. **E-11674**

This is to certify that the
Cable Gland

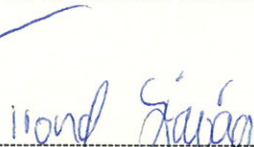
with type designation(s)
EXIOS & EXIOS BARRIER

Manufactured by
Hummel AG
Denzlingen, Germany

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

Application
Hazardous areas cable glands & cable gland's accessories. The manufacturer's installation description to be followed.

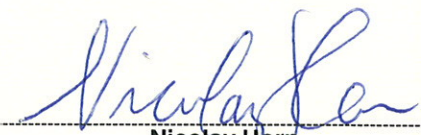
Høvik, 2012-04-27
for Det Norske Veritas AS


for **Marit Laumann**
Head of Section



DNV local office:
Essen

This Certificate is valid until
2016-06-30


Nicolay Horn
Surveyor

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.

If any person suffers loss or damage which is proved to have been caused by any negligent act or omission of Det Norske Veritas, then Det Norske Veritas shall pay compensation to such person for his proved direct loss or damage. However, the compensation shall not exceed an amount equal to ten times the fee charged for the service in question, provided that the maximum compensation shall never exceed USD 2 million. In this provision "Det Norske Veritas" shall mean the Foundation Det Norske Veritas as well as all its subsidiaries, directors, officers, employees, agents and any other acting on behalf of Det Norske Veritas.



Certificate No.: E-11674
File No.: 828.90
Job Id.: 262.1-011893-1

Product description

Type	EXIOS
Design Specification / Compliance Code	EN/IEC60079-0:2009, EN/IEC60079-1:2007, EN/IEC60079-7:2007, IEC/EN 60079-31:2009, IEC 60529
Classification Hazardous Area	II 2G Ex de IIC Gb / II 1D Ex ta IIIC Da
Certification	ATEX: No. BVS 10 ATEX E062X & IECEX: No. BVS 10.0078X
Continuous operating temperature range	- 60 to +105°C
Ingress protection	IP66, IP67 & IP68 (5 bar).
Gland material	Brass
Seal material	Black neoprene or Red silicon
Cable type	Braided, Armoured or Unarmoured
Gland sizes	Metric thread size: 16, 20, 25, 32, 40, 50, 63, 75 NPT thread size: 3/8", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3"
Optional accessories	PVC Shroud, Locknut, Earth tag, IP washer, Serrated washer.

Type	EXIOS BARRIER
Design Specification / Compliance Code	EN/IEC60079-0:2009, EN/IEC60079-1:2007, EN/IEC60079-7:2007, IEC/EN 60079-31:2009, IEC 60529
Classification Hazardous Area	I M2 Ex d I Mb / Ex e I Mb II 2G Ex d/e IIC / Gb / Ex e IIC Gb II 1D Ex ta IIIC Da IP 66 / 67 / 68
Certification	ATEX: No. Sira ATEX 1110x & IECEX: No. 11.0044 X
Continuous operating temperature range	- 60 to +85°C
Ingress protection	IP66, IP67 & IP68 (5 bar).
Gland material	Brass
Seal material	Black neoprene or Red silicon
Cable type	Braided, Armoured or Unarmoured
Gland sizes	Metric thread size: 20, 25, 32, 40, 50, 63, 75. NPT thread size: 3/8", 3/4", 1/2", 3/4", 1", 1 1/4", 1 1/2", 2", 2 1/2", 3".
Optional accessories	PVC Shroud, Locknut, Earth tag, IP washer, Serrated washer.

Application/Limitation

Manufacturer's application instructions to be followed. Manufacturer's assembly instructions to be followed.

The information related to Ex certification from recognised 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 for cable glands

Technical info:	"HUMMEL-Setting Standard" brochure for EXIOS / HUMMEL-Setting Standard" brochure for EXIOS Barrier
Drawings:	
EXIOS	EXIOS M20x1,5 Art.no. 1.605.200052 dated 2010-06-17 & EXIOS NTP 1/2" Art. no. 1.605.1200.71 dated 2010-07-16
EXIOS BARRIER	EXIOS Compound M20x1,5 Art. no. E-10010830 dated 2011-04-11 & EXIOS Compound NPT 1/2" Art. No. E-11010365 dated 2011-04-11.

Test reports/Certificates:

DEKRA Test and Assessment report no. BVS PP 10.2198 EG dated 2010-07-21
DEKRA IECEX Certificate of Conformity no. IECEX BVS 10.0078X dated 2010-11-21
Sira Assessment Report no. R23555A/00 dated 2011/09
Sira IECEX Certificate of Conformity no. IECEX SIR 11.0044X dated 2011-10-14
Sira EC Type-Examination Certificate no. Sira 11ATEX1110x undated.



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Tests carried out

Type tests in according to IEC / EN 60079-0, IEC / EN 60079-1, IEC / EN 60079-7, IEC / EN 60079-31 & IEC / EN 60529.

Marking of product

Name of manufacturer – type designation – Ex rating.

Certificate Retention Survey

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

The main elements of the survey are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Production Sample Tests (PST) and Routines (RT) checked (if not available tests according to PST and 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.

Survey to be performed at least every second year.

END OF CERTIFICATE