DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-8378
This Certificate consists of 3 pages

This is to certify that the

Low Voltage Cable

with type designation(s)

BXOI & BXOI (i) 250 V

Holder of certificate

Draka Marine, Oil & Gas International

Houston, TX 77032, United States

is found to comply with

Det Norske Veritas' Rules for Classification of Ships, High Speed & Light Craft and Det Norske Veritas' Offshore Standards
IEC 60092-3
IEC 60331-21 (1999-04)
IEC 60331-31 (2002-07)
IEC 60332-3-22 (2000-10)
IEC 60754-1 (1994-01)
IEC 60754-2 (1997-04)
IEC 61034-2 (2005-04)

Application

Instrumentation and communication. Fire resistant. Flame retardant. Halogen free. Low smoke.

Voltage class (V)	250
Temp. class (°C)	90

Place and date
Høvik, 2007-05-11
for DET NORSKE VERITAS AS

Frode Berntsen
Head of Section

DET NORSKE VERITAS * 1864 *

Local Office
DNV Oslo

This Certificate is valid until
2011-06-30

Ivar Bull
Surveyor

Notice: 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.

Cert. No.: E-8378
File No.: 827.20

Name and place of manufacturer:

Draka Norsk Kabel AS
Drammen, Norway

Product description

Type:	BXOI and BXOI (i) 250 V
Construction:	
Conductors:	Tinned, stranded copper
Core insulation:	Mica-tape + XLPE
Inner covering:	PETP-tape (BXOI only)
Metal covering:	Copper wire braid
Outer sheath:	SHF1

Number of cores x conductor cross-section	Overall diameter	Overall diameter
	BXOI	BXOI (i)
mm^2	mm	mm
1 x 2 x 0,75	5,5±0,5	5,5±0,5
1 x 4 x 0,75	7,0±0,5	-
2 x 2 x 0,75	10,0±0,8	10,5±0,8
4 x 2 x 0,75	12,0±0,8	12,5±0,8
7 x 2 x 0,75	15,0±0,8	15,5±0,8
10 x 2 x 0,75	19,5±0,8	21,0±1,0
14 x 2 x 0,75	21,5±1,0	23,0±1,0
19 x 2 x 0,75	23,5±1,0	25,5±1,0
24 x 2 x 0,75	27,5±1,0	30,5±1,5

Number of cores x conductor cross-section	Overall diameter	Overall diameter
	BXOI	BXOI (i)
mm^2	mm	mm
1 x 2 x 1,5	6,5±0,5	6,5±0,5
1 x 4 x 1,5	8,0±0,5	-
2 x 2 x 1,5	11,5±0,8	12,5±0,8
4 x 2 x 1,5	14,0±0,8	15,0±0,8
7 x 2 x 1,5	17,5±0,8	18,5±0,8
10 x 2 x 1,5	23,0±1,0	24,5±1,0
14 x 2 x 1,5	25,5±1,0	27,0±1,0
19 x 2 x 1,5	27,5±1,0	30,0±1,5
24 x 2 x 1,5	32,5±1,5	36,0±1,5

Application/Limitation

This type of cable is fire resistant in accordance with IEC Publication 60331-21 and 60331-31.

The requirements of SOLAS Amendments Chapter II-1, Part D, Reg. 45, 5.2 (provision to be taken to limit Fire Propagation along Bunches of Cables or Wires) are fulfilled without any additional measures.

Type Approval documentation

Data sheets: BXOI_250V.doc dated 2002-09-30
BXOI(i)_250V.doc dated 2002-09-30
Test report: no.00-45, 21245 and 00-12 dated 00-03-16 and 837500 and 837508 dated 00-03-14.

Tests carried out

Type tests according to IEC 60092-3, IEC 60331-21, IEC 60331-31, IEC 60332-3-22, IEC 60754-1/2 and IEC 61034-1/2.

Marking of product

Product marking: DRAKA NORSK KABEL or DRAKA 01 - BXOI or BXOI (i)- Size - 250 V

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