



DET NORSKE VERITAS

TYPE APPROVAL CERTIFICATE

CERTIFICATE NO. E-8799
This Certificate consists of 6 pages

This is to certify that the
Electric Cable, Power Current
with type designation(s)
BOSTRIG-125 Type P, Mud resistant, ...PNBM-


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
IEEE 45-1998
IEEE 1580-2001
IEC 60332-3-22 (2000-10)

Application
Instrumentation and communication. Mud resistant.

Voltage class (kV)	0,6/1
Temp. class (°C)	95



Place and date
Høvik, 2007-12-19
for DET NORSKE VERITAS AS


Marit Laumann
Head of Section



Local Office
DNV New York

This Certificate is valid until
2011-12-31


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-8799

File No.: 827.10

Name and place of manufacturer:

Draka Cableteq USA

North Dighton

MA 02764

USA

Product description

Construction:

Conductor:

Insulation:

Shield:

Filler:

Inner sheath:

Metal covering:

Outer sheath:

Tinned stranded copper

XLPO (Type P)

Individual shield (I/S) and/or overall shield (OS)

Aluminium mylar with a drain wire

Tinned copper wire braid

Flame Retardant, non hygroscopic (as needed)

SP1 (Type N)

Bronze or Aluminium wire braid

Crosslinked Polyolefin SHF 2 (Type M)

Number of cores x conductor cross-section		Overall diameter		Type designation
mm ²	AWG	mm	Inches	
1 x 2 x 0,61	20	12,95	0,510	TP(OS)20PNBM-1
2 x 2 x 0,61	20	17,40	0,685	TP(I/S)20PNBM-2
3 x 2 x 0,61	20	17,78	0,700	TP(I/S)20PNBM-3
4 x 2 x 0,61	20	19,18	0,755	TP(I/S)20PNBM-4
5 x 2 x 0,61	20	22,48	0,885	TP(I/S)20PNBM-5
6 x 2 x 0,61	20	23,37	0,920	TP(I/S)20PNBM-6
7 x 2 x 0,61	20	23,37	0,920	TP(I/S)20PNBM-7
8 x 2 x 0,61	20	24,77	0,975	TP(I/S)20PNBM-8
10 x 2x 0,61	20	28,32	1,115	TP(I/S)20PNBM-10
12 x 2x 0,61	20	28,32	1,115	TP(I/S)20PNBM-12
16 x 2x 0,61	20	31,62	1,245	TP(I/S)20PNBM-16
19 x 2x 0,61	20	33,15	1,305	TP(I/S)20PNBM-19
20 x 2x 0,61	20	34,16	1,345	TP(I/S)20PNBM-20
24 x 2x 0,61	20	39,12	1,540	TP(I/S)20PNBM-24
25 x 2x 0,61	20	40,13	1,580	TP(I/S)20PNBM-25
1 x 2 x 0,96	18	13,59	0,535	TP(OS)18PNBM-1
2 x 2 x 0,96	18	18,54	0,730	TP(I/S)18PNBM-2
3 x 2 x 0,96	18	18,80	0,740	TP(I/S)18PNBM-3
4 x 2 x 0,96	18	20,32	0,800	TP(I/S)18PNBM-4
5 x 2 x 0,96	18	22,86	0,900	TP(I/S)18PNBM-5
6 x 2 x 0,96	18	24,38	0,960	TP(I/S)18PNBM-6
7 x 2 x 0,96	18	24,38	0,960	TP(I/S)18PNBM-7
8 x 2 x 0,96	18	28,70	1,130	TP(I/S)18PNBM-8

Number of cores x conductor cross-section		Overall diameter		Type designation
mm ²	AWG	mm	Inches	
10 x 2x 0,96	18	30,48	1,200	TP(I/S)18PNBM-10
12 x 2x 0,96	18	31,24	1,230	TP(I/S)18PNBM-12
14 x 2x 0,96	18	32,64	1,285	TP(I/S)18PNBM-14
16 x 2x 0,96	18	34,54	1,360	TP(I/S)18PNBM-16
20 x 2x 0,96	18	38,48	1,515	TP(I/S)18PNBM-20
24 x 2x 0,96	18	43,31	1,705	TP(I/S)18PNBM-24
1 x 2 x 1,23	16	13,59	0,535	TP(OS)16PNBM-1
2 x 2 x 1,23	16	18,92	0,745	TP(I/S)16PNBM-2
3 x 2 x 1,23	16	20,32	0,800	TP(I/S)16PNBM-3
4 x 2 x 1,23	16	22,73	0,895	TP(I/S)16PNBM-4
5 x 2 x 1,23	16	24,26	0,955	TP(I/S)16PNBM-5
6 x 2 x 1,23	16	25,91	1,020	TP(I/S)16PNBM-6
7 x 2 x 1,23	16	25,91	1,020	TP(I/S)16PNBM-7
8 x 2 x 1,23	16	29,72	1,170	TP(I/S)16PNBM-8
10 x 2x 1,23	16	31,24	1,230	TP(I/S)16PNBM-10
12 x 2x 1,23	16	32,51	1,280	TP(I/S)16PNBM-12
15 x 2x 1,23	16	36,20	1,425	TP(I/S)16PNBM-15
16 x 2x 1,23	16	37,08	1,460	TP(I/S)16PNBM-16
20 x 2x 1,23	16	40,13	1,580	TP(I/S)16PNBM-20
22 x 2x 1,23	16	41,91	1,650	TP(I/S)16PNBM-22
24 x 2x 1,23	16	46,48	1,830	TP(I/S)16PNBM-24
1 x 2 x 1,94	14	14,61	0,575	TP(OS)14PNBM-1



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Number of cores x conductor cross-section		Overall diameter		Type designation
mm ²	AWG	mm	Inches	
2 x 2 x 1,94	14	20,70	0,815	TP(I/S)14PNBM-2
3 x 2 x 1,94	14	22,73	0,895	TP(I/S)14PNBM-3
4 x 2 x 1,94	14	24,51	0,965	TP(I/S)14PNBM-4
5 x 2 x 1,94	14	26,04	1,025	TP(I/S)14PNBM-5
6 x 2 x 1,94	14	28,83	1,135	TP(I/S)14PNBM-6
7 x 2 x 1,94	14	28,83	1,135	TP(I/S)14PNBM-7
8 x 2 x 1,94	14	30,73	1,210	TP(I/S)14PNBM-8
10 x 2 x 1,94	14	32,64	1,285	TP(I/S)14PNBM-10
12 x 2 x 1,94	14	36,58	1,440	TP(I/S)14PNBM-12
16 x 2 x 1,94	14	40,01	1,575	TP(I/S)14PNBM-16
20 x 2 x 1,94	14	45,59	1,795	TP(I/S)14PNBM-20
24 x 2 x 1,94	14	50,17	1,975	TP(I/S)14PNBM-24
1 x 3 x 0,96	18	13,72	0,540	TT(OS)18PNBM-1
2 x 3 x 0,96	18	19,81	0,780	TT(I/S)18PNBM-2
3 x 3 x 0,96	18	21,46	0,845	TT(I/S)18PNBM-3
4 x 3 x 0,96	18	23,50	0,925	TT(I/S)18PNBM-4
5 x 3 x 0,96	18	25,15	0,990	TT(I/S)18PNBM-5
6 x 3 x 0,96	18	27,81	1,095	TT(I/S)18PNBM-6
7 x 3 x 0,96	18	27,81	1,095	TT(I/S)18PNBM-7
8 x 3 x 0,96	18	29,72	1,170	TT(I/S)18PNBM-8
12 x 3 x 0,96	18	35,05	1,380	TT(I/S)18PNBM-12
16 x 3 x 0,96	18	39,75	1,565	TT(I/S)18PNBM-16
1 x 3 x 1,23	16	13,97	0,550	TT(OS)16PNBM-1
2 x 3 x 1,23	16	20,45	0,805	TT(I/S)16PNBM-2
3 x 3 x 1,23	16	22,48	0,885	TT(I/S)16PNBM-3
4 x 3 x 1,23	16	24,26	0,955	TT(I/S)16PNBM-4
5 x 3 x 1,23	16	26,16	1,030	TT(I/S)16PNBM-5
6 x 3 x 1,23	16	28,58	1,125	TT(I/S)16PNBM-6
8 x 3 x 1,23	16	32,64	1,285	TT(I/S)16PNBM-8
12 x 3 x 1,23	16	37,85	1,490	TT(I/S)16PNBM-12
16 x 3 x 1,23	16	41,53	1,635	TT(I/S)16PNBM-16
2 x 2 x 0,61	20	18,29	0,720	TP(I/S-OS)20PNBM-2
3 x 2 x 0,61	20	18,54	0,730	TP(I/S-OS)20PNBM-3
4 x 2 x 0,61	20	19,81	0,780	TP(I/S-OS)20PNBM-4
5 x 2 x 0,61	20	22,61	0,890	TP(I/S-OS)20PNBM-5
6 x 2 x 0,61	20	23,50	0,925	TP(I/S-OS)20PNBM-6
7 x 2 x 0,61	20	23,50	0,925	TP(I/S-OS)20PNBM-7
8 x 2 x 0,61	20	24,89	0,980	TP(I/S-OS)20PNBM-8
10 x 2 x 0,61	20	28,45	1,120	TP(I/S-OS)20PNBM-10
12 x 2 x 0,61	20	28,45	1,120	TP(I/S-OS)20PNBM-12
16 x 2 x 0,61	20	31,75	1,250	TP(I/S-OS)20PNBM-16
20 x 2 x 0,61	20	34,29	1,350	TP(I/S-OS)20PNBM-20
24 x 2 x 0,61	20	39,24	1,545	TP(I/S-OS)20PNBM-24
2 x 2 x 0,96	18	19,94	0,785	TP(I/S-OS)18PNBM-2
3 x 2 x 0,96	18	21,46	0,845	TP(I/S-OS)18PNBM-3
4 x 2 x 0,96	18	22,73	0,895	TP(I/S-OS)18PNBM-4
5 x 2 x 0,96	18	23,62	0,930	TP(I/S-OS)18PNBM-5
6 x 2 x 0,96	18	25,15	0,990	TP(I/S-OS)18PNBM-6
7 x 2 x 0,96	18	25,91	1,020	TP(I/S-OS)18PNBM-7
8 x 2 x 0,96	18	29,97	1,180	TP(I/S-OS)18PNBM-8
10 x 2 x 0,96	18	31,62	1,245	TP(I/S-OS)18PNBM-10

Number of cores x conductor cross-section		Overall diameter		Type designation
mm ²	AWG	mm	Inches	
12 x 2x 0,96	18	32,13	1,265	TP(I/S-OS)18PNBM-12
14 x 2x 0,96	18	33,53	1,320	TP(I/S-OS)18PNBM-14
16 x 2x 0,96	18	36,58	1,440	TP(I/S-OS)18PNBM-16
20 x 2x 0,96	18	38,61	1,520	TP(I/S-OS)18PNBM-20
24 x 2x 0,96	18	44,70	1,760	TP(I/S-OS)18PNBM-24
2 x 2 x 1,23	16	20,45	0,805	TP(I/S-OS)16PNBM-2
3 x 2 x 1,23	16	22,48	0,885	TP(I/S-OS)16PNBM-3
4 x 2 x 1,23	16	23,37	0,920	TP(I/S-OS)16PNBM-4
5 x 2 x 1,23	16	24,51	0,965	TP(I/S-OS)16PNBM-5
6 x 2 x 1,23	16	26,04	1,025	TP(I/S-OS)16PNBM-6
7 x 2 x 1,23	16	26,04	1,025	TP(I/S-OS)16PNBM-7
8 x 2 x 1,23	16	30,61	1,205	TP(I/S-OS)16PNBM-8
10 x 2x 1,23	16	31,37	1,235	TP(I/S-OS)16PNBM-10
12 x 2x 1,23	16	32,64	1,285	TP(I/S-OS)16PNBM-12
16 x 2x 1,23	16	37,21	1,465	TP(I/S-OS)16PNBM-16
20 x 2x 1,23	16	40,26	1,585	TP(I/S-OS)16PNBM-20
24 x 2x 1,23	16	46,61	1,835	TP(I/S-OS)16PNBM-24
2 x 2 x 1,94	14	20,83	0,820	TP(I/S-OS)14PNBM-2
3 x 2 x 1,94	14	22,86	0,900	TP(I/S-OS)14PNBM-3
4 x 2 x 1,94	14	24,64	0,970	TP(I/S-OS)14PNBM-4
5 x 2 x 1,94	14	26,16	1,030	TP(I/S-OS)14PNBM-5
6 x 2 x 1,94	14	28,96	1,140	TP(I/S-OS)14PNBM-6
7 x 2 x 1,94	14	28,96	1,140	TP(I/S-OS)14PNBM-7
8 x 2 x 1,94	14	30,86	1,215	TP(I/S-OS)14PNBM-8
10 x 2x 1,94	14	32,77	1,290	TP(I/S-OS)14PNBM-10
12 x 2x 1,94	14	36,70	1,445	TP(I/S-OS)14PNBM-12
16 x 2x 1,94	14	40,13	1,580	TP(I/S-OS)14PNBM-16
20 x 2x 1,94	14	45,72	1,800	TP(I/S-OS)14PNBM-20
24 x 2x 1,94	14	50,29	1,980	TP(I/S-OS)14PNBM-24
14 x 2x 1,00	18	47,50	1,870	TP(I/S-OBS)18PNBM-14
2 x 3 x 0,96	18	19,94	0,785	TT(I/S-OS)18PNBM-2
3 x 3 x 0,96	18	20,83	0,820	TT(I/S-OS)18PNBM-3
4 x 3 x 0,96	18	23,62	0,930	TT(I/S-OS)18PNBM-4
5 x 3 x 0,96	18	25,27	0,995	TT(I/S-OS)18PNBM-5
6 x 3 x 0,96	18	27,94	1,100	TT(I/S-OS)18PNBM-6
7 x 3 x 0,96	18	27,94	1,100	TT(I/S-OS)18PNBM-7
8 x 3 x 0,96	18	29,85	1,175	TT(I/S-OS)18PNBM-8
12 x 3x 0,96	18	36,58	1,440	TT(I/S-OS)18PNBM-12
16 x 3x 0,96	18	39,88	1,570	TT(I/S-OS)18PNBM-16
2 x 3 x 1,23	16	20,57	0,810	TT(I/S-OS)16PNBM-2
3 x 3 x 1,23	16	22,61	0,890	TT(I/S-OS)16PNBM-3
4 x 3 x 1,23	16	24,38	0,960	TT(I/S-OS)16PNBM-4
5 x 3 x 1,23	16	26,29	1,035	TT(I/S-OS)16PNBM-5
6 x 3 x 1,23	16	28,70	1,130	TT(I/S-OS)16PNBM-6
8 x 3 x 1,23	16	31,24	1,230	TT(I/S-OS)16PNBM-8
12 x 3x 1,23	16	37,97	1,495	TT(I/S-OS)16PNBM-12
16 x 3x 1,23	16	41,66	1,640	TT(I/S-OS)16PNBM-16
2 x 2 x 0,61	20	17,27	0,680	TP(OS)20PNBM-2

