Certificate No: LR21176958TA
Issue Date: 26/01/2021
Expiry Date: 25/01/2026

Type Approval Certificate

This is to certify that the undernoted product(s) has/have been tested with satisfactory results in accordance with the relevant requirements of the Lloyd's Register Type Approval System.

Manufacturer **Twentsche Kabelfabriek B.V.**

Address Spinnerstraat 15, 7480 AA Haaksbergen, Netherlands

Type Cables

Description CU conductor (optional tinned), (HF90) XLHF FR insulated, copper braiding or metal laminated polyester tape and SHF 1 sheathed

Types:
CS90 mbzh MarineCom HALOGENFREE, type YOZc X-FR 150/250V
CS90 mbzh Marine2Com HALOGENFREE, type YOZ2c X-FR 150/250V
CS90 mbzh MarineCom HALOGENFREE, type YZafc X-FR 150/250V
CS90 mbzh Marine2Com HALOGENFREE, type YZ2afc X-FR 150/250V

Application Fixed instrumentation and communication wiring for Marine and Offshore installation

Specified Standard

Construction:	according IEC 60092-350, 60092-376
Conductor:	stranded copper to IEC 60228, class 2 round or class 5 round
Insulation:	XLHF FR (HF90) to IEC 60092-360 Fire resistant insulated
Inner covering:	Foil
Individual screen:	Pair/triple/quad metal laminated foil screening for Marine 2com only.
Braiding:	(tinned) copper wire braiding or metal laminated

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Henri Reekers

Snr Electrical Surveyor to Lloyd's Register EMEA
A member of the Lloyd's Register group

71 Fenchurch Street, London, EC3M 4BS, United Kingdom

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	polyester foil
Outer Sheath:	SHF 1 to IEC 60092-360
Flame Retardant:	to IEC 60332-3-22 Cat. A, IEC 60332-1
Halogen-acid content:	to IEC 60754-1
Smoke Density:	to IEC 61034
e resistant:	to IEC 60331-1: 2009 and IEC 60331- 2:2009

Ratings

Voltage rating:	150/250V/300V
Maximum rated conductor temp.:	90 °C

No.of pairs:	Cross Section Area (mm2)
1 to 37	0.5, 0.75, 1.0, 1.5, 2.5

No.of triples:	Cross Section Area (mm2)
1 to 24	0.5, 0.75, 1.0, 1.5, 2.5
No. of quads:	Cross Section Area (mm2)
1	0.5, 0.75, 1.0, 1.5, 2.5

This certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid Certificate.

Previous Version: 11/30001(E4)

The Design Appraisal Document PRJ11100304132/1 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

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