

# TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the DNV GL Type Approval System.

Certificate No.	<b>58 879 - 08 HH</b>
Company	<b>Reichle &amp; De-Massari AG</b> <b>Binzstrasse 32</b> <b>8620 Wetzikon, SWITZERLAND</b>
Product Description	<b>Halogen free foam-PE insulated and FRNC sheathed twisted pairs data transmission cables</b>
Type	<b>R&amp;M freenet S/FTP Cat 7</b>
Environmental Category	<b>None</b>
Technical Data / Range of Application	<b>R&amp;M freenet S/FTP Cat 7</b> <b>Conductor:</b> Bare copper wire, 0,56mm (AWG 23) <b>Insulation:</b> Foam skin PE diameter 1,4 mm <b>Twisting:</b> 2 cores to the pair <b>Pair screen:</b> Al-laminated plastic foil <b>Cable lay up:</b> 4 pairs (PIMF) to the core <b>Screen:</b> Copper braid, tinned <b>Sheath:</b> FRNC, thermoplastic copolymer (SHF1) <b>Electrical properties:</b> Loop resistance: $\leq 150 \Omega / \text{km}$ Mutal capacitance: Nom. 43 nF/km at 800 Hz Character. Impedance: 100 $\Omega$ More propertiees according to Draka data sheet <b>Mechanical properties:</b> Temperature range: -20°C to +60°C (operating) Bending radius: $\geq 30 \text{ mm}$ <b>Application limitations:</b> The R&M freenet S/FTP CAT 7 900 Mhz. Cable can be used for non-essential data communications. <b>Place of production:</b> Draka Comteq / Cable Solutions EMEA, Wohlauser Str.15 D-90475 Nürnberg  <b>Measures for limitation of the propagation of fire along cable bundles are required (fire stops) in case of installation deviation mentioned in IEC 60332-3-24</b>
Test Standard	<b>EN 50173-1:2002; EN 50288-4-2:2003; IEC 11801:2002; IEC 61156-5:2002 IEC 60332-1:1993; IEC 60332-3-24:2000; IEC 60754-2:1997; IEC 61034:1997</b>
Documents	<b>Test report : Draka Comteq reference 2006035_DA_summery, dated of 19.09.2006</b>
Remarks	<b>This certificate is issued on the basis of GL Guidelines for the Performance of Type Approvals, Chapter 1 - Procedure (VI-7-1), Edition 2007.</b>

Valid until **2017-01-10**

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File No. **I.N.01**

**Hamburg, 2015-03-10**

Type Approval Symbol

