



MARINE DIVISION

Certificate number: 31069/A0 BV

File number: ACE1/817/1

Product code: 2505H

*This certificate is not valid when presented without the full attached schedule composed of 7 sections*

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## TYPE APPROVAL CERTIFICATE

*This certificate is issued to*

**Prysmian Kabel und Systeme GmbH**  
Neustadt bei Coburg - GERMANY

*for the type of product*

### INSTRUMENTATION AND COMMUNICATION CABLES

100V  
M-02Y(ST)CHX

#### Requirements:

Bureau Veritas Rules for the Classification of Steel Ships

IEC 60092-350, IEC 60811, IEC 60754-1/2, IEC 60332-1-2, IEC 60332-3-24, IEC 61034-1/2.

*This certificate is issued to attest that BUREAU VERITAS did undertake the relevant approval procedures for the product identified above which was found to comply with the relevant requirements mentioned above.*

**This certificate will expire on: 07 Sep 2017**

**For BUREAU VERITAS,**

At BV HAMBURG, on 07 Sep 2012,

Dirk Hoepfner



This certificate remains valid until the date stated above, unless cancelled or revoked, provided the conditions indicated in the subsequent page(s) are complied with and the product remains satisfactory in service. This certificate will not be valid if the applicant makes any changes or modifications to the approved product, which have not been notified to, and agreed in writing with BUREAU VERITAS. Should the specified regulations or standards be amended during the validity of this certificate, the product(s) is/are to be re-approved prior to it/they being placed on board vessels to which the amended regulations or standards apply. This certificate is issued within the scope of the General Conditions of BUREAU VERITAS Marine Division available on the internet site www.veristar.com. Any Person not a party to the contract pursuant to which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgement, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

## THE SCHEDULE OF APPROVAL

### 1. PRODUCT DESCRIPTION:

Flame retardant, Low smoke and Halogen Free Marine and Offshore Communication cables.

#### 1.1 - Specifications:

**Rated voltage:** 100V  
**Temperature range:** -35/+80°C  
**Flame retardant:** IEC 60332-1-2 and IEC 60332-3-24 (Cat. C)  
**Halogen Free:** IEC 60754-1/2  
**Low smoke:** IEC 61034-1/2  
**Resistance to chemicals:** VG 95218 part 2.

#### 1.2 - Construction:

**Conductor:** 7 bare copper wires according to DIN 40500 part 4.  
**Insulation:** Polyethylene foam (cellular HDPE)  
**Multi layer Screen:** 1. Layer : Laminated aluminium foil.  
 2. Layer : Tinner copper wire braid.  
**Inner sheath:** Halogen free polymer (HM4)  
**Outer sheath:** Halogen free, cross-linked polymer.

#### 1.3 - Product Range:

Type	Number of Pair/Core	Cross-Sect. (mm²)
M-02Y(ST)CHX	1x2	0.35

### 2. DOCUMENTS AND DRAWINGS:

Prysmian Cables & Systems technical data; Version 1.21, dated 2008/08/19.  
 Prysmian Cables & Systems product description N°50 PS 116, dated 2004/11/08.  
 Prysmian Cables & Systems drawing N°3036.

### 3. TEST REPORTS:

PRYSMIAN Kable und Systeme GmbH :  
 - Test Report N° 017/11, dated 2011/07/05.  
 - Test Report N° TP 3/010/10, dated 2011/11/18.

### 4. APPLICATION / LIMITATION:

4.1 - BUREAU VERITAS Rules for the Classification of Steel Ships.

### 5. PRODUCTION SURVEY REQUIREMENTS:

5.1 - The cables are to be manufactured, examined and tested by **Prysmian Kabel und Systeme GmbH** in accordance with the type described in this certificate and Bureau Veritas Rules for the Classification of Steel Ships.

5.2 - Production sites are to be recognized by Bureau Veritas as per NR320 for HBV products. To this end **Prysmian Kabel und Systeme GmbH** has to make the necessary arrangements for a Society's Surveyor to perform visits and product audits at the production sites.

5.3 - **Prysmian Kabel und Systeme GmbH** has declared to Bureau Veritas that the type of product described in this certificate may be manufactured at the following production site:

**Prysmian Kabel und Systeme GmbH**  
**Austrasse 99**  
**96465 Neustadt bei Coburg**  
**GERMANY**

### 6. MARKING OF PRODUCT:

The cable shall be marked on the surface outer sheath, in a durable legible and visible manner, with the following information through the length of cable:

- 1) - Voltage grade
- 2) - Cable symbol and temperature range
- 3) - Number of conductors and conductor size
- 4) - Applicable standard(s) to flame retardant and fire resistance if any
- 5) - Manufacturer's name or trade mark
- 6) - Year of manufacture.

**7. OTHERS:**

This approval is given on the understanding that the Society reserves the right to require check tests to be carried out on the cables at any time and that:

**Prysmian Kabel und Systeme GmbH  
Austrasse 99  
96465 Neustadt bei Coburg  
GERMANY**

will accept full responsibility for informing shipbuilders, ship-owners or their sub-contractors of the proper methods of use and general maintenance of the cables and the conditions of this approval.

**\*\*\* END OF CERTIFICATE \*\*\***