

# TYPE APPROVAL CERTIFICATE

**This is to certify:****That the Data transmission cables and systems**with type designation(s)  
**Draka OceanLine™ OLF02 Break-out Cable**Issued to  
**Draka Comteq Slovakia, s.r.o.**  
**Záborské Prešovský, Slovakia**is found to comply with  
**DNV GL rules for classification – Ships, offshore units, and high speed and light craft****Application :****Tight buffered Fibre Optical Cable for indoor use.****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2017-07-14**This Certificate is valid until **2022-07-05**.DNV GL local station: **Site Office Komarno**Approval Engineer: **Ivar Bull**for **DNV GL**

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**Andreas Kristoffersen**  
**Head of Section**

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.



Job Id: **262.1-026347-1**  
Certificate No: **TAE000024Y**

## Product description

Draka OceanLine™ OLF02 Break-out Cable

Indoor / outdoor break-out cable with tight buffer, 2 – 24 fibres.

Construction 2– 24 tight buffered fibers stranded together around Central FRP strength member  
Buffer material: LSFR Compound  
Strength member Aramid yarns  
Outer sheath SHF1 Halogen free. UV stabilized.

Fiber types:

Fiber type	9/125	50/125-OM2	50/125 OM3	62,5/125 OM1	50/125 OM4	50/125 OM5
Prysmian Data sheet	C03	C34	C31	C02	C32	C39

For more details please see datasheet.

## Application/Limitation

Min. Installation temperature : -20°C to + 70°C  
Operation temperature : -25°C to + 70°C  
Storage temperature : -40°C to + 70°C

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

### Tests carried out

Standard	Release	General description	Limitation
IEC 60092-360	2014-04	Electrical installations in ships - Part 360: Insulating and sheathing materials for shipboard and offshore units, power, control, instrumentation and telecommunication cables.	
IEC 60332-3-24	2009-02	Tests on electric and optical fibre cables under fire conditions – Part 3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables – Category C	Charred portion of sample does not exceed 2,5m above bottom edge of burner.
IEC 60754-2	2011-11	Test on gases evolved during combustion of materials from cables – Determination of the degree of acidity of gases evolved during the combustion of materials taken from electric cables by measuring pH and conductivity	Halogen free: pH > 4,3 Conductivity < 10µS/mm
IEC 61034-1/2	2005-04	Measurement of smoke density of cables burning under defined conditions – Test apparatus, procedure and requirements	Low smoke

## Marking of product

Common text for Draka/Prysmian standard cable:

Draka OceanLine™ OLF02 I B LSHF-FR ES9 2.0 <fibre count> <Fibre type><Fibre brand><Item No>15 <Batch Number><Meter mark> J-V(ZN)HH <fibre count> <Fibre family> <Mode field

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diameter> /125 <Transmission Class> IEC60332-3-22/24

Example:

Draka OceanLine™ OLF02 I B LSHF-FR ES9 2.0 4 OM2B MaxCap-BB-OM2 6xxxxxxx 15 "Batch number" - "meter marking" M J-V(ZN)HH 4 G50/125 OM2 IEC60332-3-22/24.

### **Periodical assessment**

The scope of the periodical assessment is to verify that the conditions stipulated for the Type approval are complied with and that no alterations are made to the product design or choice of materials.

The main elements of the assessment are:

- Inspection on factory samples, selected at random from the production line (where practicable)
- Results from Routine tests (RT) and selected type tests (ref. to applicable class programs) checked (if not available these tests shall 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.

Periodical assessment is to be performed after 2 years and after 3.5 years. A renewal assessment will be performed at renewal of the certificate.

END OF CERTIFICATE