

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Cable Ties**

with type designation(s)

Ball Lock (YLS), Releasable (YRL), Ladder Type (YLD)

Issued to

**Thomas & Betts European Centre SA/NV
Zaventem, Belgium**

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Product(s) approved by this certificate is/are accepted for installation on all vessels classed by DNV GL.**

Type	Material	Suitable for open deck
Ball Lock (YLS)	See page 2	Yes
Releasable (YRL)	See page 2	Yes
Ladder Type (YLD)	See page 2	Yes

Issued at **Hamburg** on **2018-01-01**This Certificate is valid until **2022-12-31**.for **DNV GL**DNV GL local station: **Antwerp**Approval Engineer: **Maik Gagern**

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Arne Schaarmann
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: **262.1-007190-4**
Certificate No: **TAE000032Z**

Bearer of the Certificate

Thomas & Betts European Centre SA/NV
Hoge Wei 27
1930 Zaventem, Belgium

Product description

Cable ties of Ball Lock, Releasable- and Ladder-type.
Made of stainless steel 316, with or without coating.
Coating material: Thermosetting polyester.

Roller Ball type:	Metallic	Composite (coated)
Loop tensile strength, 4,6mm width	450 N	450 N
Loop tensile strength, 7,9mm width	1150 N	534 N
Max. tested operating temperature	300 °C	165 °C
Min. tested operating temperature	-	- 40 °C
Min. tested installation temperature	-	- 40 °C

Part no. (uncoated)	Part no. (coated)	Length [mm]	Width [mm]	Thickness [mm]
YLS-4.6-XXXXB	YLS-4.6-XXXXBC	100 - 1600	4,6	0,26
YLS-7.9-XXXXB	YLS-7.9-XXXXBC	100 - 1600	7,9	0,26

(XXXX represents Length)

Releasable type:	Metallic	Composite (coated)
Loop tensile strength, 5 mm width	1300 N	1300 N
Loop tensile strength, 10 mm width	2200 N	2200 N
Max. tested operating temperature	300 °C	165 °C
Min. tested operating temperature	-	- 40 °C
Min. tested installation temperature	-	- 40 °C

Part no. (uncoated)	Part no. (coated)	Length [mm]	Width [mm]	Thickness [mm]
YRL-5-XXXX-B	YRL-5-XXXX-BC	150 - 1600	5	0,7
YRL-10-XXXX-B	YRL-10-XXXX-BC	150 - 1600	10	0,7

(XXXX represents Length)

Ladder type:	Metallic	Composite (coated)
Loop tensile strength, 7 mm width	450 N	450 N
Max. tested operating temperature	300 °C	165 °C
Min. tested operating temperature	-	- 40 °C
Min. tested installation temperature	-	- 40 °C

Part no. (uncoated)	Part no. (coated)	Length [mm]	Width [mm]	Thickness [mm]
YLD-7-XXXX-B	YLD-7-XXXX-BC	100 - 1600	7	0,3

(XXXX represents Length)

Application/Limitation

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For fixing of cables, outdoor and indoor, onboard ships and mobile offshore units.

Type Approval documentation

Tests carried out

Type tests according to IEC 62275: Installation test. Minimum installation temperature test. Minimum operation temperature test. Loop tensile strength test for cable ties retaining 100% strength after testing. Vibration test. Resistance to UV light. Resistance to corrosion.

Marking of product

Type / catalogue number - Length / Width - Coated / uncoated – Quantity
The marking is placed on each minimum pack quantity only.

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) checked (if not available tests according to RT to 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