

TYPE APPROVAL CERTIFICATE

This is to certify:**That the Termination and Joint for Cable**

with type designation(s)

480TB, 484TB, 489TB, 800PB, 804PB, 809PB, 784TB, 909TB, 909PB, 152SR and 158LR

Issued to

NEXANS network solutions NV
Halle, Belgium

is found to comply with

DNV GL rules for classification – Ships, offshore units, and high speed and light craft**Application :****Products approved by this certificate are accepted for installation on all vessels classed by DNV GL.**Issued at **Høvik** on **2019-04-08**for **DNV GL**This Certificate is valid until **2022-12-21**.DNV GL local station: **Antwerp**Approval Engineer: **Nicolay Horn**

Trond Sjøvåg
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: **262.1-026315-1**
 Certificate No: **TAE00002HX**
 Revision No: **1**

Product description

Medium Voltage Outdoor / Indoor Connectors for 10 (12) kV, 15 (17.5) kV, 20 (24) kV, 30 (36) kV & 36 (42) kV, **60-69 (72.5) kV**. Types: 480TB, 484TB, 489TB, 800PB, 804PB, 809PB, **909TB, 909PB**, 784TB, 152SR and 158LR

480TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir* (A)	Conductor size (mm ²)	
			min	max
480TB/G	12	630	35	300
K480TB/G	24	630	35	300
M480TB/G	36	630	50	300
P480TB/G	42	630	50	240

*When using a copper (CU-2) or a bolted (UN-5) connector contact Ir = 1250A

484TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
484TB/G	12	1250	50	630
K484TB/G	24	1250	35	630
M484TB/G	36	1250	35	630
P484TB/G	42	1250	35	630

489TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
489TB/G	12	1250	630	1250
K489TB/G	24	1250	630	1250
M489TB/G	36	1250	630	1250
P489TB/G	42	1250	630	1250

800PB Separate coupling connector

Termination type	Voltage Um (kV)	Current Ir* (A)	Conductor size (mm ²)	
			min	max
800PB/G	12	630	35	630
K800PB/G	24	630	35	630
M800PB/G	36	630	50	630
P800PB/G	42	630	50	630

*When using a copper (CU-2) or a bolted (UN-5) connector contact Ir = 1250A

804PB Separate coupling connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
804PB/G	12	1250	50	630
K804PB/G	24	1250	35	630
M804PB/G	36	1250	35	630
P804PB/G	42	1250	35	630

Job Id: **262.1-026315-1**
 Certificate No: **TAE00002HX**
 Revision No: **1**

809PB Separate coupling connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
809PB/G	12	1250	630	1250
K809PB/G	24	1250	630	1250
M809PB/G	36	1250	630	1250
P809PB/G	42	1250	630	1250

784TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
784TB/G	12	800	50	630
K784TB/G	24	800	35	630
M784TB/G	36	800	35	630
P784TB/G	42	800	35	630

909TB Separate tee shape connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
909TB/G	12	2500	500	1200
K909TB/G	24	2500	400	1200
M909TB/G	36	2500	240	1200
P909TB/G	42	1250	240	1200
R909TB/G	72.5	1250*	95	1200

* When installed on an appropriate equipment bushing

909PB Separate coupling connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
909PB/G	12	2500	500	1200
K909PB/G	24	2500	400	1200
M909PB/G	36	2500	240	1200
P909PB/G	42	1250	240	1200
R909PB/G	72.5	1250*/1800**	95	1200

* When installed on an appropriate equipment bushing

** Daisy chain arrangement

152SR Separate straight connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
152SR/G	12	250	16	70
152SR	12	250	70	95
K152SR/G	24	250	16	25
K152SR	24	250	25	95

Job Id: **262.1-026315-1**
Certificate No: **TAE00002HX**
Revision No: **1**

158LR Separate elbow connector

Termination type	Voltage Um (kV)	Current Ir (A)	Conductor size (mm ²)	
			min	max
158LR/G	12	250	16	70
158LR	12	250	70	95
K158LR/G	24	250	16	25
K158LR	24	250	25	95

Application/Limitation

Installation has to be done in accordance with the installation instructions.
Use in net with voltages above 15 (17.5) kV to be accepted case by case.

Type Approval documentation

Technical info:

909TB Interface F Tee Connector, 909PB Coupling connector for 909TB, 480TB, 484TB and 489TB Interface C Tee Connector, 800PB, 804PB, 809PB Coupling connectors for 480TB, 484TB & 489TB, 784TB Interface E-5/8" Tee Connector, 152SR Interface A Straight Connector and 158LR Interface A Elbow Connector, all datasheets from Nexans.

Test reports:

Electrical Testing Laboratory Test Reports nos. TE 213 09 14 dated 2010-05-17, TE 213 11 05 dated 2011-05-26, TE 213 14 12 dated 2015-01-27, TE 213 13 16 dated 2014-02-05, TE 213 15 16 dated 2016-04-05, TE 213 16 16 dated 2017-12-04 & TE 213 18 07 dated 2018-06-13. RWE Test Certificate no. 09.10.25.256-1 dated 2009-12-20.

Tests carried out

Tested according to CENELEC HD 629 and IEC EN 61442 Ed. 2 (03/2005).

Marking of product

Nexans – Factory Identification – Product Description– Voltage class.

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