



Lloyd's
Register

Type Approval Certificate Extension

This is to certify that Certificate No. 95/20018(E3) for the undernoted products is extended and renumbered as shown.

This certificate is issued to:

PRODUCER	Plöger Sensor GmbH
PLACE OF PRODUCTION	Feßlerstraße 3 22083 Hamburg Germany
DESCRIPTION	Thermocouples for diesel exhaust gas
TYPES	Type 8: with compression fitting TG 8 straight through TW 8 90° angled Type 21: TS 21 protection tube TG 21 measuring insert, straight through TW 21 measuring insert, 90° angled Type 21v: TS 21v protection tube TG 21 measuring insert, straight through TW 21 measuring insert, 90° angled Type 26: TS 26 protection tube TG 26 measuring insert, straight through TW 26 measuring insert, 90° angled

Certificate No.	95/20018(E4)
Issue Date	08 June 2015
Expiry Date	13 June 2020
Sheet	1 of 3



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TYPES CONTINUED

Type 26v: TS 26v protection tube
TG 26 measuring insert, straight through
TW 26 measuring insert, 90° angled

Type 29: TS 29 protection tube
TG 29 measuring insert, straight through
TW 29 measuring insert, 90° angled

APPLICATION

Marine, offshore and industrial applications for use in environmental categories ENV1, ENV2, ENV3 and ENV4 as defined in LR's Type Approval System, Test Specification Number 1 – 1996.

ADDITIONAL TESTS

Dry heat test (80 °C/16hrs)
Enclosure Test IP X7
Vibration test 40 – 2000Hz, endurance test at resonance
With acceleration of:
20 g for insertion length up to 150 mm
15 g for insertion length up to 200 mm (150 mm, Type 26)
10 g for insertion length up to 200 mm (Type 26)

STANDARD

Manufacturer's specification as listed in DAD

RATINGS

Thermocouples type J (Fe-CuNi) or type K (NiCr-Ni) with single element (J)/(K) or double element (2J)/(2K).

Measuring tolerance:
IEC 60584 class 2 for type J
IEC 60584 class 1 for type K

Compensation cable:
silicon cable / metal braiding

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RATINGS CONTINUED

Maximum temperature range:
up to 600°C for sensors of type J
up to 800°C for sensors of type K

Maximum temperature of connection part:
200°C for all types

Maximum insertion length:
200mm: Type 8, 21, 21v, 26, 26v
250mm: Type 29

Material of protection tube:
Steel 1.4541: for all types

"This Certificate is not valid for equipment, the design, ratings or operating parameters of which have been varied from the specimen tested. The manufacturer should notify Lloyd's Register EMEA of any modification or changes to the equipment in order to obtain a valid certificate."

The attached Design Appraisal Document No. HTS/ETS 31815-15 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 95/20018(E3) to which this extension should be attached.

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