



Lloyd's
Register

Type Approval Certificate Extension

This is to certify that Certificate No. 95/20019 (E4) 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	Resistance Thermometers PT100, PT1000
TYPES	Type 14: TKh 14 wall-mounted Type 21: TS 21 protection tube TK 21 measuring insert Type 29: TS 29 protection tube TKm 29 measuring insert Type 38: TG 38 protection tube steel 1.4571 Type 130: TG 130 with adjustable bayonet fittings Type 140: TKb 140 wall-mounted Type 147: TGK 147 protection tube Teflon (PTFE) Type 165: TK 165 protection tube TF 7 measuring insert
Certificate No.	95/20019 (E5)
Issue Date	08 June 2015
Expiry Date	13 June 2020
Sheet	1 of 3

Lloyd's Register EMEA
71 Fenchurch Street, London EC3M 4BS



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TYPES CONTINUED

- Type 166: TK 166 with compression fittings
- Type 167: TK 167 protection tube
TF 7 measuring insert
- Type 179: TG 179 with compression fittings
- Type 211: TW 211 with connection plug

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 2 with acceleration of 8g

STANDARD

Manufacturer's specification as listed in DAD

RATINGS

Resistance Thermometers PT100, PT1000 with single resistance (P) or double resistance (2P)

Measuring tolerance:

- IEC 60751 class AA or
- IEC 60751 class B

Connecting cable:

- 2-wire technique
- 3-wire technique
- 4-wire technique

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RATINGS CONTINUED

Maximum temperature range:

- -50°C up to 80°C: Types 14, 140
- -50°C up to 200°C: Types 21, 29, 38, 130, 147, 165, 166, 167, 179, 211

Maximum temperature of connection part:

- 80°C

Maximum insertion length:

- 150mm: Type 211
- 250mm: Types 21, 29, 165, 166, 167
- 25m: Types 130, 147, 179
- 80m: Type 38

Material of protection tube:

- Steel 1.4541: Types 21, 29, 130, 140, 165, 166, 179
- Steel 1.4571: Types 38, 167, 211
- Teflon (PTFE): Type 147

"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 31817-15 and its supplementary Type Approval Terms and Conditions form part of this Certificate.

All other details remain as the previous Certificate No. 95/20019 (E4) to which this extension should be attached.

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