

Type Approval Certificate



This is to certify that the undernoted product(s) has/have been tested in accordance with the relevant requirements of the GL Type Approval System.

Certificate No. 11 284 - 97 HH

Company TEMATEC GmbH
Löhestraße 37
53773 Hennef, GERMANY

Product Description Temperature Sensors

Type X11.99011-0732, -0791, -0798, -0652, -0653, -0726, -0727, -0792, -0793, -0804, -0805, -0496, -0497; X11.99411-0232, -0233

Environmental Category D, H

Technical Data / Range of Application	Type:	X11.99011-....	X11.99411-0232 X11.99411-0233
Measuring range :		-200 ... +150°C	-40 ... +125°C
Measuring sensor:		1 or 2 x Pt100	1 x Pt100
Max. insert length:		425mm	100mm
Mech. connection:		bayonet joint	screw-in thread
Electrical connection:		flexible cable	plug+socket
Response time z0.5:		23.7s	11.5s
z0.9:		67.4s	18.5s
Degree of protection:		IP 54	IP 65

Environmental category "H":

Vibration test for type X11.99411-0232, -0233: 5 ... 25 Hz amplitude = 5mm
25 ... 4.500 Hz acceleration = 16g

Test Standard Guidelines for the Performance of Type Approvals, Chapter 2, Edition 2003

Documents Test Report: no. B 21/1107-97 of MFPA Weimar, dated 12.12.1997
Drawings: no. D11.99011-0731, -0797, -0649, -0725, -0803, -0495 and
no. E11.99411-0231

Remarks None

Valid until 2011-08-13

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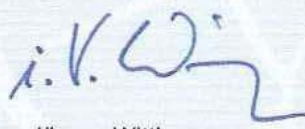
Type Approval Symbol



File No. I.D.02

Hamburg, 2009-02-11

Germanischer Lloyd


Jürgen Wittburg


Klaus-Peter Schröder

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Certificate No. 11 285 - 97 HH

Company TEMATEC GmbH
Löhestraße 37
53773 Hennef, GERMANY

Product Description Exhaust Gas Temperature Sensors

Type X11.99011-0208, -0209, -0210, -0211, -0848, -0212, -0213, -0214, -0215, -0849
X11.99011-0217, -0218, -0219, -0220, -0221, -0222, -0223, -0224

Environmental Category D, H

Technical Data / Range of Application
Measuring range: 0 ... 800°C
Measuring sensor: 1 x NiCr-Ni or 2 x NiCr-Ni, Type K
Max. insert length: 130mm
Protection tube: material no. 1.4828
Mechanical connection: screw-in thread, G1/2 or M20 x 1.5
Electrical connection: plastic-sheated cable, silicone-jacket protected
Response time: z0.5 = 27.9s, z0.9 = 62.6s

Environmental Category "H":
Vibration test with: 5 ... 25 Hz amplitude = 5mm
25 ... 4.500 Hz acceleration = 20g

Test Standard Guidelines for the Performance of Type Approvals, Chapter 2, Edition 2003

Documents Test Report: no. B 21/1107-97 of MFPA Weimar, dated 12.12.1997
Drawings: no. E11.99011-0207, no. E11.99011-0216

Remarks None

Valid until 2011-08-13

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This certificate is issued on the basis of "Guidelines for the Performance of Type Approvals Part 1, Procedure".