



DEWETRON GmbH

Parking 4
8074 Grambach
Austria



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|-----------------------------------|
| AAT2640081 |
| Akkreditierung Austria 0632 |
| 10.06.2026 |

Kalibrierstelle für elektrische Messgrößen
Calibration body for electrical measurands

akkreditiert durch / accredited by
AKKREDITIERUNG AUSTRIA

Kalibrierzeichen
Calibration Mark

Kalibrierschein nach ISO/IEC 17025
Calibration certificate according to ISO/IEC 17025

Gegenstand
Object Multi channel thermocouple module

Hersteller
Manufacturer DEWETRON

Typ
Type XR-TH8

Herstellernummer
Serial number 00245678

Auftraggeber
Customer

Kalibriernummer
Order number AAT2640081

Anzahl der Seiten des Kalibrierscheines
Number of pages of the certificate 6

Datum der Kalibrierung
Date of calibration 10.06.2026

Dieser Kalibrierschein dokumentiert die Rückführbarkeit auf nationale Normale zur Darstellung der physikalischen Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI).

Akkreditierung Austria ist Unterzeichner der multilateralen Übereinkommen der European Co-operation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierscheine.

This calibration certificate documents the traceability to national standards, which realize the physical units of measurements according to the International system of Units (SI).

Akkreditierung Austria is a signatory to the multilateral agreements of the European Co-operation for Accreditation (EA) and of the International Laboratory Accreditation Cooperation (ILAC) for the mutual recognition of calibration certificates.

Dieser Kalibrierschein darf nur vollständig und unverändert weiterverbreitet werden. Auszüge oder Änderungen sind unzulässig. Kalibrierscheine ohne Unterschrift und Stempel haben keine Gültigkeit.

This calibration certificate may not be reproduced other than in full. Calibration certificates without signature and seal are not valid.

Stempel
Seal

Datum
Date

Zeichnungsberechtigter
Authorised person

Bearbeiter
Person responsible

10.06.2026

Daniel Kurzmann

Stefan Strohmaier

1. Kalibriergegenstand / Calibration object

Multi channel thermocouple module DEWETRON XR-TH8, S/N: 00245678

2. Kalibrierverfahren / Calibration procedure

Die Kalibrierung erfolgt durch Vergleich der durch die Kalibrierstelle / Normale dargestellten Werte mit den Ausgangsgrößen am Kalibriergegenstand beziehungsweise den am Kalibriergegenstand angezeigten Werten.
The calibration is made by comparing the readings from the laboratory / standards to the output of the calibration object respectively the values displayed on the calibration object.

Prüfroutine / *Calibration procedure*: XR-TH8_Akkred, Rev. 2.10

3. Messergebnisse / Measurement results

Die Kalibrierung im Rahmen der Akkreditierung umfasst die Messgrößen Gleichspannung, Wechselspannung, Gleichstrom, Wechselstrom und Gleichstromwiderstand.

Die Messergebnisse beziehen sich ausschließlich auf diesen Kalibriergegenstand zum Zeitpunkt der Kalibrierung.
The calibration scope of the accreditation contains the quantities direct voltage, alternating voltage, direct current, alternating current and direct current resistance.

The measurement results are exclusively linked to this calibration object at the time of calibration.

4. Messunsicherheit / Measurement uncertainty

Angegeben ist die erweiterte Messunsicherheit, die sich aus der Standardmessunsicherheit durch Multiplikation mit dem Erweiterungsfaktor $k=2$ ergibt. Sie wurde gemäß EA-4/02 ermittelt. Der Wert der Messgröße liegt im Regelfall mit einer Wahrscheinlichkeit von annähernd 95% im zugeordneten Werteintervall.

Ein Anteil für die Langzeitstabilität des Kalibriergegenstandes ist nicht enthalten.

The stated extended measurement uncertainty is derived from the standard uncertainty of measurement multiplied by the coverage factor $k=2$. It has been determined according to EA-4/02. The measured quantity is inside the corresponding value interval with a probability of approximately 95%.

A factor for the long time stability of the calibration object is not taken into account.

5. Umgebungsbedingungen / environmental conditions

Temperatur / *Temperature*: 22,8 °C

Rel. Luftfeuchte / *Rel. humidity*: 54,2 % r.H.

Kalibrierort / *Place of calibration*: DEWETRON GmbH, Parkring 4, 8074 Grambach, Austria

6. Auftragsnummer / Reference Number

7. Status / Status

PASS ()

AS-FOUND: Eingangskalibration / *Incoming calibration*

AS-LEFT: Ausgangskalibration / *Outgoing calibration*

FOUND/LEFT: Eingangskalibration erfüllt Herstellerspezifikation / *Incoming calibration according to manufacturer specifications*

PASS: Messergebnis liegt innerhalb der Herstellerspezifikationen (ohne Berücksichtigung der Messunsicherheiten) / *Measurement result is within manufacturer's specifications (without taking into account the measurement uncertainties)*

FAIL: Das Messergebnis liegt nicht innerhalb der Herstellerspezifikationen (ohne Berücksichtigung der Messunsicherheiten) / *Measurement result is out of manufacturer's specifications (without taking into account the measurement uncertainties)*

8. Verwendete Fußnoten / Used foot notes:

(1) Zusätzliche Messwerte außerhalb des akkreditierten Bereiches, es kann keine Konformitätsaussage getroffen werden.

(1) Additional measured values outside the accredited scope, a conformity statement cannot be made.

9. Kommentare / Comments

test

Für die Festlegung und Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.

The user is responsible for the definition and the compliance to a reasonable period for repeating the calibration.



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10. Verwendete Normale / Standards used

| <u>Asset</u> | <u>Description</u> | <u>Serial Number</u> | <u>Certificate No.</u> | <u>Cal Date</u> | <u>Due Date</u> |
|--------------|--------------------|----------------------|------------------------|-----------------|-----------------|
| 5522A 02 | 5522A CALIBRATOR | 6032901 | SA01506076 | 10-Feb-2026 | 10-Feb-2027 |



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11. Testergebnisse / Test results

| Test Description | True Value | Test Result | Lower limit | Upper limit | Exp Uncert | Error | % of Tol | Status |
|---|-------------|-------------|-------------|-------------|-------------|-------------|------------|--------|
| Current Temperature Calibrator: 26.34°C | | | | | | | | |
| Kalibrierverfahren / calibration method: CAL-KV-01 Gleichspannung v1.0 2024-07-04.xlsx-02 CAL-KV-06_Temperatursimulation_v1.1_2026-06-09.xlsx-02C | | | | | | | | |
| Asset type: XR-TH8 Serial Number: 00245678 Firmware Revision: 2.53 Module temperature: 26.00 degC | | | | | | | | |
| Conversions between voltage and temperature according to IEC 60584 | | | | | | | | |
| DC Voltage Calibration DC Accuracy 0.02% of reading +/-9uV | | | | | | | | |
| Sample Rate 10S/s | | | | | | | | |
| 0.140000 V @ CH1 | 0.140000 V | 0.139998 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000002 V | 6.31% | Pass |
| 0.140000 V @ CH2 | 0.140000 V | 0.139998 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000002 V | 6.31% | Pass |
| 0.140000 V @ CH3 | 0.140000 V | 0.139999 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000001 V | 2.7% | Pass |
| 0.140000 V @ CH4 | 0.140000 V | 0.139999 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000001 V | 3.6% | Pass |
| 0.140000 V @ CH5 | 0.140000 V | 0.140000 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | 0,000000 V | 0.901% | Pass |
| 0.140000 V @ CH6 | 0.140000 V | 0.139999 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000001 V | 2.7% | Pass |
| 0.140000 V @ CH7 | 0.140000 V | 0.139998 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000002 V | 5.41% | Pass |
| 0.140000 V @ CH8 | 0.140000 V | 0.139997 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000003 V | 8.11% | Pass |
| 0.070000 V @ CH1 | 0.070000 V | 0.070000 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | 0,000000 V | 1.45% | Pass |
| 0.070000 V @ CH2 | 0.070000 V | 0.070000 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | 0,000000 V | 6.03e-011% | Pass |
| 0.070000 V @ CH3 | 0.070000 V | 0.069999 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | -0,000001 V | 5.8% | Pass |
| 0.070000 V @ CH4 | 0.070000 V | 0.069999 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | -0,000001 V | 2.9% | Pass |
| 0.070000 V @ CH5 | 0.070000 V | 0.069999 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | -0,000001 V | 5.8% | Pass |
| 0.070000 V @ CH6 | 0.070000 V | 0.069999 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | -0,000001 V | 5.8% | Pass |
| 0.070000 V @ CH7 | 0.070000 V | 0.069998 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | -0,000002 V | 8.7% | Pass |
| 0.070000 V @ CH8 | 0.070000 V | 0.069998 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | -0,000002 V | 10.1% | Pass |
| 0.000000 V @ CH1 | 0.000000 V | -0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 3.7% | Pass |
| 0.000000 V @ CH2 | 0.000000 V | 0.000001 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000001 V | 14.8% | Pass |
| 0.000000 V @ CH3 | 0.000000 V | -0.000001 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | -0,000001 V | 7.41% | Pass |
| 0.000000 V @ CH4 | 0.000000 V | -0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 3.7% | Pass |
| 0.000000 V @ CH5 | 0.000000 V | -0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 3.7% | Pass |
| 0.000000 V @ CH6 | 0.000000 V | 0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 0% | Pass |
| 0.000000 V @ CH7 | 0.000000 V | 0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 0% | Pass |
| 0.000000 V @ CH8 | 0.000000 V | 0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 3.7% | Pass |
| -0.070000 V @ CH1 | -0.070000 V | -0.070001 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000001 V | 4.35% | Pass |
| -0.070000 V @ CH2 | -0.070000 V | -0.070002 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000002 V | 8.7% | Pass |
| -0.070000 V @ CH3 | -0.070000 V | -0.070003 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000003 V | 14.5% | Pass |
| -0.070000 V @ CH4 | -0.070000 V | -0.070001 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000001 V | 5.8% | Pass |
| -0.070000 V @ CH5 | -0.070000 V | -0.070001 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000001 V | 4.35% | Pass |
| -0.070000 V @ CH6 | -0.070000 V | -0.070002 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000002 V | 10.1% | Pass |
| -0.070000 V @ CH7 | -0.070000 V | -0.070003 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000003 V | 13% | Pass |
| -0.070000 V @ CH8 | -0.070000 V | -0.070001 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000001 V | 2.9% | Pass |
| -0.140000 V @ CH1 | -0.140000 V | -0.140002 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000002 V | 4.5% | Pass |
| -0.140000 V @ CH2 | -0.140000 V | -0.140001 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000001 V | 3.6% | Pass |
| -0.140000 V @ CH3 | -0.140000 V | -0.140001 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000001 V | 2.7% | Pass |
| -0.140000 V @ CH4 | -0.140000 V | -0.140000 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | 0,000000 V | 0.901% | Pass |
| -0.140000 V @ CH5 | -0.140000 V | -0.140002 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000002 V | 4.5% | Pass |
| -0.140000 V @ CH6 | -0.140000 V | -0.140003 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000003 V | 9.01% | Pass |
| -0.140000 V @ CH7 | -0.140000 V | -0.140002 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000002 V | 5.41% | Pass |
| -0.140000 V @ CH8 | -0.140000 V | -0.140002 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000002 V | 4.5% | Pass |
| Sample Rate 100S/s | | | | | | | | |
| 0.140000 V @ CH1 | 0.140000 V | 0.139998 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000002 V | 4.5% | Pass |
| 0.140000 V @ CH2 | 0.140000 V | 0.139998 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000002 V | 6.31% | Pass |
| 0.140000 V @ CH3 | 0.140000 V | 0.139997 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000003 V | 8.11% | Pass |
| 0.140000 V @ CH4 | 0.140000 V | 0.139995 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000005 V | 13.5% | Pass |
| 0.140000 V @ CH5 | 0.140000 V | 0.139998 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000002 V | 5.41% | Pass |
| 0.140000 V @ CH6 | 0.140000 V | 0.139997 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000003 V | 8.11% | Pass |
| 0.140000 V @ CH7 | 0.140000 V | 0.139997 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000003 V | 9.01% | Pass |
| 0.140000 V @ CH8 | 0.140000 V | 0.139998 V | 0.139963 V | 0.140037 V | 5.10 e-06 V | -0,000002 V | 5.41% | Pass |
| 0.070000 V @ CH1 | 0.070000 V | 0.070000 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | 0,000000 V | 0% | Pass |
| 0.070000 V @ CH2 | 0.070000 V | 0.070000 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | 0,000000 V | 1.45% | Pass |



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11. Testergebnisse / Test results

| Test Description | True Value | Test Result | Lower limit | Upper limit | Exp Uncert | Error | % of Tol | Status |
|-------------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|--------|
| 0.070000 V @ CH3 | 0.070000 V | 0.070002 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | 0,000002 V | 7.25% | Pass |
| 0.070000 V @ CH4 | 0.070000 V | 0.070000 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | 0,000000 V | 1.45% | Pass |
| 0.070000 V @ CH5 | 0.070000 V | 0.070000 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | 0,000000 V | 1.45% | Pass |
| 0.070000 V @ CH6 | 0.070000 V | 0.070001 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | 0,000001 V | 5.8% | Pass |
| 0.070000 V @ CH7 | 0.070000 V | 0.069999 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | -0,000001 V | 4.35% | Pass |
| 0.070000 V @ CH8 | 0.070000 V | 0.069998 V | 0.069977 V | 0.070023 V | 4.00 e-06 V | -0,000002 V | 7.25% | Pass |
| 0.000000 V @ CH1 | 0.000000 V | -0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 3.7% | Pass |
| 0.000000 V @ CH2 | 0.000000 V | 0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 0% | Pass |
| 0.000000 V @ CH3 | 0.000000 V | -0.000002 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | -0,000002 V | 18.5% | Pass |
| 0.000000 V @ CH4 | 0.000000 V | -0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 3.7% | Pass |
| 0.000000 V @ CH5 | 0.000000 V | -0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 3.7% | Pass |
| 0.000000 V @ CH6 | 0.000000 V | -0.000002 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | -0,000002 V | 22.2% | Pass |
| 0.000000 V @ CH7 | 0.000000 V | 0.000000 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | 0,000000 V | 3.7% | Pass |
| 0.000000 V @ CH8 | 0.000000 V | -0.000001 V | -0.000009 V | 0.000009 V | 3.40 e-06 V | -0,000001 V | 11.1% | Pass |
| -0.070000 V @ CH1 | -0.070000 V | -0.070001 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000001 V | 4.35% | Pass |
| -0.070000 V @ CH2 | -0.070000 V | -0.070001 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000001 V | 4.35% | Pass |
| -0.070000 V @ CH3 | -0.070000 V | -0.070002 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000002 V | 8.7% | Pass |
| -0.070000 V @ CH4 | -0.070000 V | -0.070002 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000002 V | 10.1% | Pass |
| -0.070000 V @ CH5 | -0.070000 V | -0.070004 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000004 V | 17.4% | Pass |
| -0.070000 V @ CH6 | -0.070000 V | -0.070003 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000003 V | 11.6% | Pass |
| -0.070000 V @ CH7 | -0.070000 V | -0.070003 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000003 V | 14.5% | Pass |
| -0.070000 V @ CH8 | -0.070000 V | -0.070002 V | -0.070023 V | -0.069977 V | 4.00 e-06 V | -0,000002 V | 8.7% | Pass |
| -0.140000 V @ CH1 | -0.140000 V | -0.140000 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | 0,000000 V | 7.5e-011% | Pass |
| -0.140000 V @ CH2 | -0.140000 V | -0.140001 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000001 V | 3.6% | Pass |
| -0.140000 V @ CH3 | -0.140000 V | -0.140001 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000001 V | 1.8% | Pass |
| -0.140000 V @ CH4 | -0.140000 V | -0.139999 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | 0,000001 V | 3.6% | Pass |
| -0.140000 V @ CH5 | -0.140000 V | -0.140002 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000002 V | 5.41% | Pass |
| -0.140000 V @ CH6 | -0.140000 V | -0.140004 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000004 V | 10.8% | Pass |
| -0.140000 V @ CH7 | -0.140000 V | -0.140000 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | 0,000000 V | 0% | Pass |
| -0.140000 V @ CH8 | -0.140000 V | -0.140001 V | -0.140037 V | -0.139963 V | 5.10 e-06 V | -0,000001 V | 2.7% | Pass |

Thermocouple Typ K
 Accuracy 0°C to 100°C Range: +/-0.4 °C

| CHANNEL | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.16 °C | 99.86 °C | -0.40 °C | 99.60 °C | 0.40 °C | 100.40 °C | 330.00 e-03 °C | 330.00 e-03 °C | -0,16 °C | -0,14 °C | 39.2% | 35% | Pass | Pass |
|-----------|------------------|--------------------|---------|-----------|----------|----------|----------|----------|---------|-----------|----------------|----------------|----------|----------|-------|-------|------|------|
| CHANNEL 1 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.16 °C | 99.86 °C | -0.40 °C | 99.60 °C | 0.40 °C | 100.40 °C | 330.00 e-03 °C | 330.00 e-03 °C | -0,16 °C | -0,14 °C | 39.2% | 35% | Pass | Pass |
| CHANNEL 2 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.12 °C | 99.92 °C | -0.40 °C | 99.60 °C | 0.40 °C | 100.40 °C | 330.00 e-03 °C | 330.00 e-03 °C | -0,12 °C | -0,08 °C | 30% | 20% | Pass | Pass |
| CHANNEL 3 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.18 °C | 99.89 °C | -0.40 °C | 99.60 °C | 0.40 °C | 100.40 °C | 330.00 e-03 °C | 330.00 e-03 °C | -0,18 °C | -0,11 °C | 45.8% | 27.5% | Pass | Pass |
| CHANNEL 4 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.12 °C | 99.89 °C | -0.40 °C | 99.60 °C | 0.40 °C | 100.40 °C | 330.00 e-03 °C | 330.00 e-03 °C | -0,12 °C | -0,11 °C | 30% | 27.5% | Pass | Pass |
| CHANNEL 5 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.11 °C | 99.93 °C | -0.40 °C | 99.60 °C | 0.40 °C | 100.40 °C | 330.00 e-03 °C | 330.00 e-03 °C | -0,11 °C | -0,07 °C | 26.7% | 17.5% | Pass | Pass |
| CHANNEL 6 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.17 °C | 99.89 °C | -0.40 °C | 99.60 °C | 0.40 °C | 100.40 °C | 330.00 e-03 °C | 330.00 e-03 °C | -0,17 °C | -0,11 °C | 42.5% | 27.5% | Pass | Pass |
| CHANNEL 7 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.08 °C | 99.93 °C | -0.40 °C | 99.60 °C | 0.40 °C | 100.40 °C | 330.00 e-03 °C | 330.00 e-03 °C | -0,08 °C | -0,07 °C | 20% | 17.5% | Pass | Pass |
| CHANNEL 8 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.10 °C | 99.95 °C | -0.40 °C | 99.60 °C | 0.40 °C | 100.40 °C | 330.00 e-03 °C | 330.00 e-03 °C | -0,10 °C | -0,05 °C | 25% | 13.3% | Pass | Pass |

Thermocouple Typ J
 Accuracy 0°C to 100°C Range: +/-0.3 °C

| CHANNEL | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.01 °C | 99.95 °C | -0.30 °C | 99.70 °C | 0.30 °C | 100.30 °C | 250.00 e-03 °C | 250.00 e-03 °C | -0,01 °C | -0,05 °C | 3.33% | 16.7% | Pass | Pass |
|-----------|------------------|--------------------|---------|-----------|----------|----------|----------|----------|---------|-----------|----------------|----------------|----------|----------|-------|-------|------|------|
| CHANNEL 1 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.01 °C | 99.95 °C | -0.30 °C | 99.70 °C | 0.30 °C | 100.30 °C | 250.00 e-03 °C | 250.00 e-03 °C | -0,01 °C | -0,05 °C | 3.33% | 16.7% | Pass | Pass |
| CHANNEL 2 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.03 °C | 99.95 °C | -0.30 °C | 99.70 °C | 0.30 °C | 100.30 °C | 250.00 e-03 °C | 250.00 e-03 °C | -0,03 °C | -0,05 °C | 10% | 16.7% | Pass | Pass |
| CHANNEL 3 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.07 °C | 99.90 °C | -0.30 °C | 99.70 °C | 0.30 °C | 100.30 °C | 250.00 e-03 °C | 250.00 e-03 °C | -0,07 °C | -0,10 °C | 23.3% | 32.2% | Pass | Pass |
| CHANNEL 4 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.07 °C | 99.86 °C | -0.30 °C | 99.70 °C | 0.30 °C | 100.30 °C | 250.00 e-03 °C | 250.00 e-03 °C | -0,07 °C | -0,14 °C | 23.3% | 45.6% | Pass | Pass |
| CHANNEL 5 | 0.00 °C @ 10 S/s | 100.00 °C @ 10 S/s | 0.00 °C | 100.00 °C | -0.03 °C | 99.91 °C | -0.30 °C | 99.70 °C | 0.30 °C | 100.30 °C | 250.00 e-03 °C | 250.00 e-03 °C | -0,03 °C | -0,09 °C | 10% | 30% | Pass | Pass |

11. Testergebnisse / Test results

| Test Description | True Value | Test Result | Lower limit | Upper limit | Exp Uncert | Error | % of Tol | Status |
|--|------------|-------------|-------------|-------------|----------------|----------|----------|----------|
| CHANNEL 6 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.11 °C | -0.30 °C | 0.30 °C | 250.00 e-03 °C | -0,11 °C | 36.7% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.84 °C | 99.70 °C | 100.30 °C | 250.00 e-03 °C | -0,16 °C | 53.3% | Pass |
| CHANNEL 7 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.15 °C | -0.30 °C | 0.30 °C | 250.00 e-03 °C | -0,15 °C | 50% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.82 °C | 99.70 °C | 100.30 °C | 250.00 e-03 °C | -0,18 °C | 60% | Pass Inc |
| CHANNEL 8 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.07 °C | -0.30 °C | 0.30 °C | 250.00 e-03 °C | -0,07 °C | 23.3% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.87 °C | 99.70 °C | 100.30 °C | 250.00 e-03 °C | -0,13 °C | 43.3% | Pass |
| Thermocouple Typ T Accuracy 0°C to 100°C Range: +/-0.4 °C | | | | | | | | |
| CHANNEL 1 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.18 °C | -0.40 °C | 0.40 °C | 310.00 e-03 °C | -0,18 °C | 45% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.81 °C | 99.60 °C | 100.40 °C | 310.00 e-03 °C | -0,19 °C | 47.5% | Pass |
| CHANNEL 2 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.10 °C | -0.40 °C | 0.40 °C | 310.00 e-03 °C | -0,10 °C | 25% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.88 °C | 99.60 °C | 100.40 °C | 310.00 e-03 °C | -0,12 °C | 30% | Pass |
| CHANNEL 3 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.11 °C | -0.40 °C | 0.40 °C | 310.00 e-03 °C | -0,11 °C | 26.7% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.87 °C | 99.60 °C | 100.40 °C | 310.00 e-03 °C | -0,13 °C | 31.7% | Pass |
| CHANNEL 4 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.12 °C | -0.40 °C | 0.40 °C | 310.00 e-03 °C | -0,12 °C | 30% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.83 °C | 99.60 °C | 100.40 °C | 310.00 e-03 °C | -0,17 °C | 42.5% | Pass |
| CHANNEL 5 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.02 °C | -0.40 °C | 0.40 °C | 310.00 e-03 °C | -0,02 °C | 5% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.92 °C | 99.60 °C | 100.40 °C | 310.00 e-03 °C | -0,08 °C | 20% | Pass |
| CHANNEL 6 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.07 °C | -0.40 °C | 0.40 °C | 310.00 e-03 °C | -0,07 °C | 17.5% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.90 °C | 99.60 °C | 100.40 °C | 310.00 e-03 °C | -0,10 °C | 25% | Pass |
| CHANNEL 7 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.10 °C | -0.40 °C | 0.40 °C | 310.00 e-03 °C | -0,10 °C | 25% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.88 °C | 99.60 °C | 100.40 °C | 310.00 e-03 °C | -0,12 °C | 30% | Pass |
| CHANNEL 8 | | | | | | | | |
| 0.00 °C @ 10 S/s | 0.00 °C | -0.12 °C | -0.40 °C | 0.40 °C | 310.00 e-03 °C | -0,12 °C | 30% | Pass |
| 100.00 °C @ 10 S/s | 100.00 °C | 99.86 °C | 99.60 °C | 100.40 °C | 310.00 e-03 °C | -0,14 °C | 35% | Pass |
| Interface Test | | | | | | | | |
| RS-485 Interface | | | | | | | | Pass (1) |
| CAN Interface | | | | | | | | Pass (1) |
| 25.00 °C @ ModuleTemp | 25.00 °C | 26.29 °C | 20.00 °C | 30.00 °C | | 1,29 °C | 25.8% | Pass (1) |

Ende des Kalibrierscheines / End of Calibration Certificate

