DEWETRON GmbH

Parkring 4
8074 Grambach
Austria

AAT2560012
Akkreditierung Austria 0632
13.01.2025

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*	8 Channel Data Acquisition
Hersteller *Manufacturer*	DEWETRON
Typ *Type*	TRION3-1820-MULTI
Herstellernummer *Serial number*	A1234449
Auftraggeber *Customer*	
Kalibriernummer *Order number*	AAT2560012
Anzahl der Seiten des Kalibrierscheines *Number of pages of the certificate*	13
Datum der Kalibrierung *Date of calibration*	13.01.2025

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.

Stempel *Seal*	Datum *Date*	Zeichnungsberechtigter *Authorised person*	Bearbeiter *Person responsible*
	13.01.2025	Stefan Strohmaier	Nandor Nagy

1. Kalibriergegenstand / *Calibration object*

8 Channel Data Acquisition DEWETRON TRION3-1820-MULTI, S/N: A1234449

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*: TRION-18xx-MULTI_Akkred, Rev. 2.00

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:*	22,7 °C
Rel. Luftfeuchte / *Rel. humidity:*	34,7 % r.H.
Kalibrierort / *Place of calibration:*	DEWETRON GmbH, Parkring 4, 8074 Grambach, Austria

6. Auftragnummer / *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 accreditited 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 resonable period for repeating the calibration.

10. Verwendete Normale / Standards used

Asset	Description	Serial Number	Certificate No.	Cal Date	Due Date
5522A 02	5522A CALIBRATOR	6032901	SA01246868	9-Feb-2024	8-Feb-2025
Keysight 3458A 08	3458A Multimeter	MY59353022	E5042024	23-Apr-2024	23-Apr-2025

11. Testergebnisse / Test results

Kalibrierverfahren / calibration method:
CAL-KV-01_Gleichspannung_v1.0_2024-07-04.xlsx-02
CAL-KV-01_Gleichspannung_v1.0_2024-07-04.xlsx-05
CAL-KV-02_Wechselspannung_v1.0_2024-07-04.xlsx-02C
CAL-KV-02_Wechselspannung_v1.0_2024-07-04.xlsx-04C
CAL-KV-03 Gleichstromstärke v1.0 2024-07-04.xlsx-02C
CAL-KV-03_Gleichstromstärke_v1.0_2024-07-04.xlsx-07

Current Temperature of DMM and Calibrator
DMM: 39.6°C
Calibrator: 24.7°C

API version : 7.3.2.6198
Card type: TRION3-1820-MULTI-8-L0B
Model version: 01100
Firmware version : 52
Board temperature: 44.38degC
SN. of board: A1234449

Excitation Voltage Calibration
Accuracy: 0.03% of Value ±1.5mV

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 1	0.5000 V	0.499489 V	0.498350 V	0.501650 V	6.90 e-06 V	-0,000511 V	31%	Pass
Channel 1	1.0000 V	0.999952 V	0.998200 V	1.001800 V	11.00 e-06 V	-0,000048 V	2.67%	Pass
Channel 1	2.0000 V	2.000063 V	1.997900 V	2.002100 V	21.00 e-06 V	0,000063 V	3.02%	Pass
Channel 1	5.0000 V	4.999880 V	4.997000 V	5.003000 V	46.00 e-06 V	-0,000120 V	4%	Pass
Channel 1	10.0000 V	9.999926 V	9.995500 V	10.004500 V	87.00 e-06 V	-0,000074 V	1.64%	Pass
Channel 1	12.0000 V	11.999026 V	11.994900 V	12.005100 V	170.00 e-06 V	-0,000974 V	19.1%	Pass
Channel 1	24.0000 V	24.000488 V	23.991300 V	24.008700 V	300.00 e-06 V	0,000488 V	5.61%	Pass
Channel 2	0.5000 V	0.499075 V	0.498350 V	0.501650 V	6.90 e-06 V	-0,000925 V	56.1%	Pass
Channel 2	1.0000 V	0.999201 V	0.998200 V	1.001800 V	11.00 e-06 V	-0,000799 V	44.4%	Pass
Channel 2	2.0000 V	1.999289 V	1.997900 V	2.002100 V	21.00 e-06 V	-0,000711 V	33.9%	Pass
Channel 2	5.0000 V	4.999549 V	4.997000 V	5.003000 V	46.00 e-06 V	-0,000451 V	15%	Pass
Channel 2	10.0000 V	9.999544 V	9.995500 V	10.004500 V	87.00 e-06 V	-0,000456 V	10.1%	Pass
Channel 2	12.0000 V	11.999471 V	11.994900 V	12.005100 V	170.00 e-06 V	-0,000529 V	10.4%	Pass
Channel 2	24.0000 V	24.000366 V	23.991300 V	24.008700 V	300.00 e-06 V	0,000366 V	4.21%	Pass
Channel 3	0.5000 V	0.499223 V	0.498350 V	0.501650 V	6.90 e-06 V	-0,000777 V	47.1%	Pass
Channel 3	1.0000 V	0.999811 V	0.998200 V	1.001800 V	11.00 e-06 V	-0,000189 V	10.5%	Pass
Channel 3	2.0000 V	1.999750 V	1.997900 V	2.002100 V	21.00 e-06 V	-0,000250 V	11.9%	Pass
Channel 3	5.0000 V	4.999999 V	4.997000 V	5.003000 V	46.00 e-06 V	-0,000001 V	0.0484%	Pass
Channel 3	10.0000 V	10.000214 V	9.995500 V	10.004500 V	87.00 e-06 V	0,000214 V	4.76%	Pass
Channel 3	12.0000 V	11.999310 V	11.994900 V	12.005100 V	170.00 e-06 V	-0,000690 V	13.5%	Pass
Channel 3	24.0000 V	24.000598 V	23.991300 V	24.008700 V	300.00 e-06 V	0,000598 V	6.88%	Pass
Channel 4	0.5000 V	0.498865 V	0.498350 V	0.501650 V	6.90 e-06 V	-0,001135 V	68.8%	Pass
Channel 4	1.0000 V	0.999519 V	0.998200 V	1.001800 V	11.00 e-06 V	-0,000481 V	26.7%	Pass
Channel 4	2.0000 V	1.999702 V	1.997900 V	2.002100 V	21.00 e-06 V	-0,000298 V	14.2%	Pass
Channel 4	5.0000 V	4.999764 V	4.997000 V	5.003000 V	46.00 e-06 V	-0,000236 V	7.87%	Pass
Channel 4	10.0000 V	10.000294 V	9.995500 V	10.004500 V	87.00 e-06 V	0,000294 V	6.52%	Pass
Channel 4	12.0000 V	11.999526 V	11.994900 V	12.005100 V	170.00 e-06 V	-0,000474 V	9.3%	Pass
Channel 4	24.0000 V	24.001296 V	23.991300 V	24.008700 V	300.00 e-06 V	0,001296 V	14.9%	Pass
Channel 5	0.5000 V	0.500102 V	0.498350 V	0.501650 V	6.90 e-06 V	0,000102 V	6.19%	Pass
Channel 5	1.0000 V	0.999930 V	0.998200 V	1.001800 V	11.00 e-06 V	-0,000070 V	3.9%	Pass
Channel 5	2.0000 V	2.000161 V	1.997900 V	2.002100 V	21.00 e-06 V	0,000161 V	7.68%	Pass
Channel 5	5.0000 V	5.000305 V	4.997000 V	5.003000 V	46.00 e-06 V	0,000305 V	10.2%	Pass
Channel 5	10.0000 V	10.000140 V	9.995500 V	10.004500 V	87.00 e-06 V	0,000140 V	3.11%	Pass
Channel 5	12.0000 V	12.000070 V	11.994900 V	12.005100 V	170.00 e-06 V	0,000070 V	1.38%	Pass
Channel 5	24.0000 V	24.000988 V	23.991300 V	24.008700 V	300.00 e-06 V	0,000988 V	11.4%	Pass
Channel 6	0.5000 V	0.500267 V	0.498350 V	0.501650 V	6.90 e-06 V	0,000267 V	16.2%	Pass
Channel 6	1.0000 V	0.999811 V	0.998200 V	1.001800 V	11.00 e-06 V	-0,000189 V	10.5%	Pass
Channel 6	2.0000 V	1.999540 V	1.997900 V	2.002100 V	21.00 e-06 V	-0,000460 V	21.9%	Pass
Channel 6	5.0000 V	4.999869 V	4.997000 V	5.003000 V	46.00 e-06 V	-0,000131 V	4.36%	Pass
Channel 6	10.0000 V	10.000298 V	9.995500 V	10.004500 V	87.00 e-06 V	0,000298 V	6.62%	Pass
Channel 6	12.0000 V	11.999787 V	11.994900 V	12.005100 V	170.00 e-06 V	-0,000213 V	4.18%	Pass
Channel 6	24.0000 V	24.001001 V	23.991300 V	24.008700 V	300.00 e-06 V	0,001001 V	11.5%	Pass
Channel 7	0.5000 V	0.500193 V	0.498350 V	0.501650 V	6.90 e-06 V	0,000193 V	11.7%	Pass
Channel 7	1.0000 V	1.000330 V	0.998200 V	1.001800 V	11.00 e-06 V	0,000330 V	18.3%	Pass
Channel 7	2.0000 V	2.000105 V	1.997900 V	2.002100 V	21.00 e-06 V	0,000105 V	4.99%	Pass
Channel 7	5.0000 V	5.000208 V	4.997000 V	5.003000 V	46.00 e-06 V	0,000208 V	6.92%	Pass
Channel 7	10.0000 V	10.000297 V	9.995500 V	10.004500 V	87.00 e-06 V	0,000297 V	6.6%	Pass
Channel 7	12.0000 V	11.999388 V	11.994900 V	12.005100 V	170.00 e-06 V	-0,000612 V	12%	Pass
Channel 7	24.0000 V	24.000682 V	23.991300 V	24.008700 V	300.00 e-06 V	0,000682 V	7.84%	Pass
Channel 8	0.5000 V	0.499852 V	0.498350 V	0.501650 V	6.90 e-06 V	-0,000148 V	8.96%	Pass
Channel 8	1.0000 V	0.999724 V	0.998200 V	1.001800 V	11.00 e-06 V	-0,000276 V	15.4%	Pass
Channel 8	2.0000 V	1.999921 V	1.997900 V	2.002100 V	21.00 e-06 V	-0,000079 V	3.76%	Pass

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 8	5.0000 V	5.000312 V	4.997000 V	5.003000 V	46.00 e-06 V	0,000312 V	10.4%	Pass
Channel 8	10.0000 V	10.000648 V	9.995500 V	10.004500 V	87.00 e-06 V	0,000648 V	14.4%	Pass
Channel 8	12.0000 V	12.000327 V	11.994900 V	12.005100 V	170.00 e-06 V	0,000327 V	6.41%	Pass
Channel 8	24.0000 V	24.001415 V	23.991300 V	24.008700 V	300.00 e-06 V	0,001415 V	16.3%	Pass
Excitation Current Calibration								
Accuracy up to 5mA : 0.05% of Value ±2µA								
Accuracy above 5mA : 0.50% of Value ±5µA								
Channel 1	0.200mA	0.19958 mA	0.19790 mA	0.20210 mA	14.00 e-06 mA	-0,00042 mA	19.9%	Pass
Channel 1	1.000mA	0.99978 mA	0.99750 mA	1.00250 mA	42.00 e-06 mA	-0,00022 mA	8.64%	Pass
Channel 1	5.000mA	4.99945 mA	4.99550 mA	5.00450 mA	240.00 e-06 mA	-0,00055 mA	12.3%	Pass
Channel 1	20.000mA	20.03105 mA	19.89500 mA	20.10500 mA	1.80 e-03 mA	0,03105 mA	29.6%	Pass
Channel 1	30.000mA	30.01711 mA	29.84500 mA	30.15500 mA	2.30 e-03 mA	0,01711 mA	11%	Pass
Channel 1	42.000mA	42.00759 mA	41.78500 mA	42.21500 mA	3.00 e-03 mA	0,00759 mA	3.53%	Pass
Channel 1	54.000mA	53.99343 mA	53.72500 mA	54.27500 mA	3.70 e-03 mA	-0,00657 mA	2.39%	Pass
Channel 2	0.200mA	0.19964 mA	0.19790 mA	0.20210 mA	14.00 e-06 mA	-0,00036 mA	17.1%	Pass
Channel 2	1.000mA	0.99984 mA	0.99750 mA	1.00250 mA	42.00 e-06 mA	-0,00016 mA	6.56%	Pass
Channel 2	5.000mA	4.99974 mA	4.99550 mA	5.00450 mA	240.00 e-06 mA	-0,00026 mA	5.68%	Pass
Channel 2	20.000mA	20.02706 mA	19.89500 mA	20.10500 mA	1.80 e-03 mA	0,02706 mA	25.8%	Pass
Channel 2	30.000mA	30.00276 mA	29.84500 mA	30.15500 mA	2.30 e-03 mA	0,00276 mA	1.78%	Pass
Channel 2	42.000mA	41.99349 mA	41.78500 mA	42.21500 mA	3.00 e-03 mA	-0,00651 mA	3.03%	Pass
Channel 2	54.000mA	53.98294 mA	53.72500 mA	54.27500 mA	3.70 e-03 mA	-0,01706 mA	6.2%	Pass
Channel 3	0.200mA	0.20028 mA	0.19790 mA	0.20210 mA	14.00 e-06 mA	0,00028 mA	13.5%	Pass
Channel 3	1.000mA	1.00031 mA	0.99750 mA	1.00250 mA	42.00 e-06 mA	0,00031 mA	12.6%	Pass
Channel 3	5.000mA	5.00026 mA	4.99550 mA	5.00450 mA	240.00 e-06 mA	0,00026 mA	5.76%	Pass
Channel 3	20.000mA	20.02321 mA	19.89500 mA	20.10500 mA	1.80 e-03 mA	0,02321 mA	22.1%	Pass
Channel 3	30.000mA	30.00142 mA	29.84500 mA	30.15500 mA	2.30 e-03 mA	0,00142 mA	0.916%	Pass
Channel 3	42.000mA	41.99639 mA	41.78500 mA	42.21500 mA	3.00 e-03 mA	-0,00361 mA	1.68%	Pass
Channel 3	54.000mA	53.99458 mA	53.72500 mA	54.27500 mA	3.70 e-03 mA	-0,00542 mA	1.97%	Pass
Channel 4	0.200mA	0.19992 mA	0.19790 mA	0.20210 mA	14.00 e-06 mA	-0,00008 mA	4.04%	Pass
Channel 4	1.000mA	0.99991 mA	0.99750 mA	1.00250 mA	42.00 e-06 mA	-0,00009 mA	3.65%	Pass
Channel 4	5.000mA	4.99974 mA	4.99550 mA	5.00450 mA	240.00 e-06 mA	-0,00026 mA	5.82%	Pass
Channel 4	20.000mA	20.03092 mA	19.89500 mA	20.10500 mA	1.80 e-03 mA	0,03092 mA	29.4%	Pass
Channel 4	30.000mA	30.00746 mA	29.84500 mA	30.15500 mA	2.30 e-03 mA	0,00746 mA	4.81%	Pass
Channel 4	42.000mA	42.01266 mA	41.78500 mA	42.21500 mA	3.00 e-03 mA	0,01266 mA	5.89%	Pass
Channel 4	54.000mA	54.00716 mA	53.72500 mA	54.27500 mA	3.70 e-03 mA	0,00716 mA	2.6%	Pass
Channel 5	0.200mA	0.20032 mA	0.19790 mA	0.20210 mA	14.00 e-06 mA	0,00032 mA	15.2%	Pass
Channel 5	1.000mA	1.00020 mA	0.99750 mA	1.00250 mA	42.00 e-06 mA	0,00020 mA	8.04%	Pass
Channel 5	5.000mA	4.99931 mA	4.99550 mA	5.00450 mA	240.00 e-06 mA	-0,00069 mA	15.3%	Pass
Channel 5	20.000mA	20.02471 mA	19.89500 mA	20.10500 mA	1.80 e-03 mA	0,02471 mA	23.5%	Pass
Channel 5	30.000mA	30.01498 mA	29.84500 mA	30.15500 mA	2.30 e-03 mA	0,01498 mA	9.67%	Pass
Channel 5	42.000mA	42.01593 mA	41.78500 mA	42.21500 mA	3.00 e-03 mA	0,01593 mA	7.41%	Pass
Channel 5	54.000mA	54.01251 mA	53.72500 mA	54.27500 mA	3.70 e-03 mA	0,01251 mA	4.55%	Pass
Channel 6	0.200mA	0.20044 mA	0.19790 mA	0.20210 mA	14.00 e-06 mA	0,00044 mA	21.2%	Pass
Channel 6	1.000mA	1.00059 mA	0.99750 mA	1.00250 mA	42.00 e-06 mA	0,00059 mA	23.4%	Pass
Channel 6	5.000mA	5.00045 mA	4.99550 mA	5.00450 mA	240.00 e-06 mA	0,00045 mA	10%	Pass
Channel 6	20.000mA	20.03675 mA	19.89500 mA	20.10500 mA	1.80 e-03 mA	0,03675 mA	35%	Pass
Channel 6	30.000mA	30.01273 mA	29.84500 mA	30.15500 mA	2.30 e-03 mA	0,01273 mA	8.22%	Pass
Channel 6	42.000mA	42.01084 mA	41.78500 mA	42.21500 mA	3.00 e-03 mA	0,01084 mA	5.04%	Pass
Channel 6	54.000mA	54.00741 mA	53.72500 mA	54.27500 mA	3.70 e-03 mA	0,00741 mA	2.7%	Pass
Channel 7	0.200mA	0.20016 mA	0.19790 mA	0.20210 mA	14.00 e-06 mA	0,00016 mA	7.41%	Pass
Channel 7	1.000mA	1.00030 mA	0.99750 mA	1.00250 mA	42.00 e-06 mA	0,00030 mA	11.9%	Pass
Channel 7	5.000mA	4.99993 mA	4.99550 mA	5.00450 mA	240.00 e-06 mA	-0,00007 mA	1.53%	Pass
Channel 7	20.000mA	20.02285 mA	19.89500 mA	20.10500 mA	1.80 e-03 mA	0,02285 mA	21.8%	Pass
Channel 7	30.000mA	29.99404 mA	29.84500 mA	30.15500 mA	2.30 e-03 mA	-0,00596 mA	3.85%	Pass
Channel 7	42.000mA	41.98813 mA	41.78500 mA	42.21500 mA	3.00 e-03 mA	-0,01187 mA	5.52%	Pass
Channel 7	54.000mA	53.97067 mA	53.72500 mA	54.27500 mA	3.70 e-03 mA	-0,02933 mA	10.7%	Pass
Channel 8	0.200mA	0.20037 mA	0.19790 mA	0.20210 mA	14.00 e-06 mA	0,00037 mA	17.7%	Pass
Channel 8	1.000mA	1.00058 mA	0.99750 mA	1.00250 mA	42.00 e-06 mA	0,00058 mA	23.4%	Pass
Channel 8	5.000mA	5.00001 mA	4.99550 mA	5.00450 mA	240.00 e-06 mA	0,00001 mA	0.161%	Pass
Channel 8	20.000mA	20.03804 mA	19.89500 mA	20.10500 mA	1.80 e-03 mA	0,03804 mA	36.2%	Pass
Channel 8	30.000mA	30.02699 mA	29.84500 mA	30.15500 mA	2.30 e-03 mA	0,02699 mA	17.4%	Pass
Channel 8	42.000mA	42.02279 mA	41.78500 mA	42.21500 mA	3.00 e-03 mA	0,02279 mA	10.6%	Pass
Channel 8	54.000mA	54.01756 mA	53.72500 mA	54.27500 mA	3.70 e-03 mA	0,01756 mA	6.39%	Pass
Current Calibration								
Accurracy:								
+/-0.1% of reading +/-10µA								
Range: 0.03A								
################################								
Channel 1								
0A	0.000000 A	-0.000001 A	-0.000010 A	0.000010 A	24.00 e-09 A	-0,000001 A	5.87%	Pass
0.003A	0.003000 A	0.002999 A	0.002987 A	0.003013 A	420.00 e-09 A	-0,000001 A	6.92%	Pass
0.027A	0.027000 A	0.026997 A	0.026963 A	0.027037 A	3.70 e-06 A	-0,000003 A	7.03%	Pass
-0.027A	-0.027000 A	-0.026999 A	-0.027037 A	-0.026963 A	3.70 e-06 A	0,000001 A	2.25%	Pass
Channel 2								
0A	0.000000 A	-0.000002 A	-0.000010 A	0.000010 A	24.00 e-09 A	-0,000002 A	20.3%	Pass
0.003A	0.003000 A	0.002998 A	0.002987 A	0.003013 A	420.00 e-09 A	-0,000002 A	14.6%	Pass
0.027A	0.027000 A	0.026999 A	0.026963 A	0.027037 A	3.70 e-06 A	-0,000001 A	2.16%	Pass

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
-0.027A	-0.027000 A	-0.027003 A	-0.027037 A	-0.026963 A	3.70 e-06 A	-0,000003 A	7.39%	Pass
Channel 3								
0A	0.000000 A	-0.000001 A	-0.000010 A	0.000010 A	24.00 e-09 A	-0,000001 A	13.1%	Pass
0.003A	0.003000 A	0.002998 A	0.002987 A	0.003013 A	420.00 e-09 A	-0,000002 A	11.5%	Pass
0.027A	0.027000 A	0.026997 A	0.026963 A	0.027037 A	3.70 e-06 A	-0,000003 A	7.75%	Pass
-0.027A	-0.027000 A	-0.027000 A	-0.027037 A	-0.026963 A	3.70 e-06 A	0,000000 A	0.901%	Pass
Channel 4								
0A	0.000000 A	-0.000002 A	-0.000010 A	0.000010 A	24.00 e-09 A	-0,000002 A	17.2%	Pass
0.003A	0.003000 A	0.002998 A	0.002987 A	0.003013 A	420.00 e-09 A	-0,000002 A	14%	Pass
0.027A	0.027000 A	0.026999 A	0.026963 A	0.027037 A	3.70 e-06 A	-0,000001 A	3.15%	Pass
-0.027A	-0.027000 A	-0.027003 A	-0.027037 A	-0.026963 A	3.70 e-06 A	-0,000003 A	7.12%	Pass
Channel 5								
0A	0.000000 A	-0.000003 A	-0.000010 A	0.000010 A	24.00 e-09 A	-0,000003 A	30.5%	Pass
0.003A	0.003000 A	0.002996 A	0.002987 A	0.003013 A	420.00 e-09 A	-0,000004 A	27.6%	Pass
0.027A	0.027000 A	0.026995 A	0.026963 A	0.027037 A	3.70 e-06 A	-0,000005 A	13.5%	Pass
-0.027A	-0.027000 A	-0.027002 A	-0.027037 A	-0.026963 A	3.70 e-06 A	-0,000002 A	5.32%	Pass
Channel 6								
0A	0.000000 A	-0.000001 A	-0.000010 A	0.000010 A	24.00 e-09 A	-0,000001 A	13.5%	Pass
0.003A	0.003000 A	0.002999 A	0.002987 A	0.003013 A	420.00 e-09 A	-0,000001 A	9.51%	Pass
0.027A	0.027000 A	0.027000 A	0.026963 A	0.027037 A	3.70 e-06 A	0,000000 A	1.17%	Pass
-0.027A	-0.027000 A	-0.027003 A	-0.027037 A	-0.026963 A	3.70 e-06 A	-0,000003 A	7.48%	Pass
Channel 7								
0A	0.000000 A	-0.000004 A	-0.000010 A	0.000010 A	24.00 e-09 A	-0,000004 A	39.8%	Pass
0.003A	0.003000 A	0.002997 A	0.002987 A	0.003013 A	420.00 e-09 A	-0,000003 A	26.1%	Pass
0.027A	0.027000 A	0.026997 A	0.026963 A	0.027037 A	3.70 e-06 A	-0,000003 A	6.85%	Pass
-0.027A	-0.027000 A	-0.027006 A	-0.027037 A	-0.026963 A	3.70 e-06 A	-0,000006 A	15.9%	Pass
Channel 8								
0A	0.000000 A	0.000000 A	-0.000010 A	0.000010 A	24.00 e-09 A	0,000000 A	0.666%	Pass
0.003A	0.003000 A	0.003000 A	0.002987 A	0.003013 A	420.00 e-09 A	0,000000 A	2.36%	Pass
0.027A	0.027000 A	0.027000 A	0.026963 A	0.027037 A	3.70 e-06 A	0,000000 A	0.721%	Pass
-0.027A	-0.027000 A	-0.027002 A	-0.027037 A	-0.026963 A	3.70 e-06 A	-0,000002 A	4.5%	Pass
Voltage Calibration								
Accuracy up to 10V:								
DC to 10kHz : 0.02% of reading +/-0.02% of Range +/-20µV								
>10kz to 100kHz : (0.005 % * f) of reading +/-0.02% of Range +/-20µV								
f: frequency in kHz								
Accuracy above 10V:								
DC to 5kHz : 0.02% of reading +/-0.02% of Range								
>5kz to 100kHz : (0.015 % * f) of reading +/-0.02% of Range								
All Tests done with appropriate Range								
SampleRate for Testsignals >1kHz: 2MS/s								
SampleRate for all other Tests: 100kS/s								
Range: 0.1V								
################################								
Test @ 0V DC								
Channel 1	0.000000 V	-0.000001 V	-0.000040 V	0.000040 V	3.40 e-06 V	-0,000001 V	2.78%	Pass
Channel 2	0.000000 V	0.000001 V	-0.000040 V	0.000040 V	3.40 e-06 V	0,000001 V	1.69%	Pass
Channel 3	0.000000 V	-0.000003 V	-0.000040 V	0.000040 V	3.40 e-06 V	-0,000003 V	6.74%	Pass
Channel 4	0.000000 V	0.000005 V	-0.000040 V	0.000040 V	3.40 e-06 V	0,000005 V	11.6%	Pass
Channel 5	0.000000 V	-0.000008 V	-0.000040 V	0.000040 V	3.40 e-06 V	-0,000008 V	19.9%	Pass
Channel 6	0.000000 V	0.000004 V	-0.000040 V	0.000040 V	3.40 e-06 V	0,000004 V	10.4%	Pass
Channel 7	0.000000 V	-0.000003 V	-0.000040 V	0.000040 V	3.40 e-06 V	-0,000003 V	7.71%	Pass
Channel 8	0.000000 V	0.000006 V	-0.000040 V	0.000040 V	3.40 e-06 V	0,000006 V	14.5%	Pass
Test @ 0.01V DC								
Channel 1	0.010000 V	0.009996 V	0.009958 V	0.010042 V	3.50 e-06 V	-0,000004 V	9.83%	Pass
Channel 2	0.010000 V	0.010000 V	0.009958 V	0.010042 V	3.50 e-06 V	0,000000 V	0.921%	Pass
Channel 3	0.010000 V	0.009996 V	0.009958 V	0.010042 V	3.50 e-06 V	-0,000004 V	8.82%	Pass
Channel 4	0.010000 V	0.010003 V	0.009958 V	0.010042 V	3.50 e-06 V	0,000003 V	7.06%	Pass
Channel 5	0.010000 V	0.009993 V	0.009958 V	0.010042 V	3.50 e-06 V	-0,000007 V	17.3%	Pass
Channel 6	0.010000 V	0.010004 V	0.009958 V	0.010042 V	3.50 e-06 V	0,000004 V	9.21%	Pass
Channel 7	0.010000 V	0.009995 V	0.009958 V	0.010042 V	3.50 e-06 V	-0,000005 V	11.9%	Pass
Channel 8	0.010000 V	0.010007 V	0.009958 V	0.010042 V	3.50 e-06 V	0,000007 V	16.7%	Pass
Test @ 0.09V DC								
Channel 1	0.090000 V	0.089996 V	0.089942 V	0.090058 V	4.10 e-06 V	-0,000004 V	6.9%	Pass
Channel 2	0.090000 V	0.090002 V	0.089942 V	0.090058 V	4.10 e-06 V	0,000002 V	3.91%	Pass
Channel 3	0.090000 V	0.089992 V	0.089942 V	0.090058 V	4.10 e-06 V	-0,000008 V	14.4%	Pass
Channel 4	0.090000 V	0.090004 V	0.089942 V	0.090058 V	4.10 e-06 V	0,000004 V	6.32%	Pass
Channel 5	0.090000 V	0.089990 V	0.089942 V	0.090058 V	4.10 e-06 V	-0,000010 V	16.8%	Pass
Channel 6	0.090000 V	0.090000 V	0.089942 V	0.090058 V	4.10 e-06 V	0,000000 V	0.46%	Pass
Channel 7	0.090000 V	0.089999 V	0.089942 V	0.090058 V	4.10 e-06 V	-0,000001 V	2.59%	Pass
Channel 8	0.090000 V	0.090004 V	0.089942 V	0.090058 V	4.10 e-06 V	0,000004 V	6.09%	Pass
Test @ -0.09V DC								
Channel 1	-0.090000 V	-0.090006 V	-0.090058 V	-0.089942 V	4.10 e-06 V	-0,000006 V	10.3%	Pass
Channel 2	-0.090000 V	-0.089995 V	-0.090058 V	-0.089942 V	4.10 e-06 V	0,000005 V	8.97%	Pass
Channel 3	-0.090000 V	-0.090006 V	-0.090058 V	-0.089942 V	4.10 e-06 V	-0,000006 V	9.54%	Pass
Channel 4	-0.090000 V	-0.089993 V	-0.090058 V	-0.089942 V	4.10 e-06 V	0,000007 V	11.8%	Pass

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 5	-0.090000 V	-0.090012 V	-0.090058 V	-0.089942 V	4.10 e-06 V	-0,000012 V	20.9%	Pass
Channel 6	-0.090000 V	-0.089991 V	-0.090058 V	-0.089942 V	4.10 e-06 V	0,000009 V	15.9%	Pass
Channel 7	-0.090000 V	-0.090013 V	-0.090058 V	-0.089942 V	4.10 e-06 V	-0,000013 V	22%	Pass
Channel 8	-0.090000 V	-0.089986 V	-0.090058 V	-0.089942 V	4.10 e-06 V	0,000014 V	23.4%	Pass
Test @ 0.01V_RMS @ 1000Hz								
Channel 1	0.010000 V	0.010000 V	0.009958 V	0.010042 V	10.00 e-06 V	0,000000 V	0.476%	Pass
Channel 2	0.010000 V	0.010000 V	0.009958 V	0.010042 V	10.00 e-06 V	0,000000 V	0.238%	Pass
Channel 3	0.010000 V	0.010000 V	0.009958 V	0.010042 V	10.00 e-06 V	0,000000 V	0.0397%	Pass
Channel 4	0.010000 V	0.010000 V	0.009958 V	0.010042 V	10.00 e-06 V	0,000000 V	0.952%	Pass
Channel 5	0.010000 V	0.010000 V	0.009958 V	0.010042 V	10.00 e-06 V	0,000000 V	0.714%	Pass
Channel 6	0.010000 V	0.010000 V	0.009958 V	0.010042 V	10.00 e-06 V	0,000000 V	0.77%	Pass
Channel 7	0.010000 V	0.010001 V	0.009958 V	0.010042 V	10.00 e-06 V	0,000001 V	1.67%	Pass
Channel 8	0.010000 V	0.010000 V	0.009958 V	0.010042 V	10.00 e-06 V	0,000000 V	1.15%	Pass
Test @ 0.07V_RMS @ 50Hz								
Channel 1	0.070000 V	0.070001 V	0.069946 V	0.070054 V	23.00 e-06 V	0,000001 V	1.98%	Pass
Channel 2	0.070000 V	0.069999 V	0.069946 V	0.070054 V	23.00 e-06 V	-0,000001 V	2.16%	Pass
Channel 3	0.070000 V	0.069997 V	0.069946 V	0.070054 V	23.00 e-06 V	-0,000003 V	5.37%	Pass
Channel 4	0.070000 V	0.070000 V	0.069946 V	0.070054 V	23.00 e-06 V	0,000000 V	0.432%	Pass
Channel 5	0.070000 V	0.069999 V	0.069946 V	0.070054 V	23.00 e-06 V	-0,000001 V	2.1%	Pass
Channel 6	0.070000 V	0.069996 V	0.069946 V	0.070054 V	23.00 e-06 V	-0,000004 V	8.33%	Pass
Channel 7	0.070000 V	0.070003 V	0.069946 V	0.070054 V	23.00 e-06 V	0,000003 V	5.8%	Pass
Channel 8	0.070000 V	0.069996 V	0.069946 V	0.070054 V	23.00 e-06 V	-0,000004 V	7.04%	Pass
Test @ 0.07V_RMS @ 50000Hz								
Channel 1	0.070000 V	0.069944 V	0.069785 V	0.070215 V	70.00 e-06 V	-0,000056 V	26.1%	Pass
Channel 2	0.070000 V	0.069953 V	0.069785 V	0.070215 V	70.00 e-06 V	-0,000047 V	21.7%	Pass
Channel 3	0.070000 V	0.069939 V	0.069785 V	0.070215 V	70.00 e-06 V	-0,000061 V	28.5%	Pass
Channel 4	0.070000 V	0.069954 V	0.069785 V	0.070215 V	70.00 e-06 V	-0,000046 V	21.3%	Pass
Channel 5	0.070000 V	0.069940 V	0.069785 V	0.070215 V	70.00 e-06 V	-0,000060 V	27.7%	Pass
Channel 6	0.070000 V	0.069947 V	0.069785 V	0.070215 V	70.00 e-06 V	-0,000053 V	24.8%	Pass
Channel 7	0.070000 V	0.069944 V	0.069785 V	0.070215 V	70.00 e-06 V	-0,000056 V	25.9%	Pass
Channel 8	0.070000 V	0.069951 V	0.069785 V	0.070215 V	70.00 e-06 V	-0,000049 V	23%	Pass
Test @ 0.07V RMS @ 100000Hz								
Channel 1	0.070000 V	0.069833 V	0.069610 V	0.070390 V	77.00 e-06 V	-0,000167 V	42.8%	Pass
Channel 2	0.070000 V	0.069853 V	0.069610 V	0.070390 V	77.00 e-06 V	-0,000147 V	37.7%	Pass
Channel 3	0.070000 V	0.069824 V	0.069610 V	0.070390 V	77.00 e-06 V	-0,000176 V	45.1%	Pass
Channel 4	0.070000 V	0.069855 V	0.069610 V	0.070390 V	77.00 e-06 V	-0,000145 V	37.2%	Pass
Channel 5	0.070000 V	0.069833 V	0.069610 V	0.070390 V	77.00 e-06 V	-0,000167 V	42.8%	Pass
Channel 6	0.070000 V	0.069848 V	0.069610 V	0.070390 V	77.00 e-06 V	-0,000152 V	39%	Pass
Channel 7	0.070000 V	0.069841 V	0.069610 V	0.070390 V	77.00 e-06 V	-0,000159 V	40.9%	Pass
Channel 8	0.070000 V	0.069852 V	0.069610 V	0.070390 V	77.00 e-06 V	-0,000148 V	38%	Pass
Range: 1V								
################################								
Test @ 0.1V DC								
Channel 1	0.100000 V	0.099970 V	0.099760 V	0.100240 V	4.20 e-06 V	-0,000030 V	12.3%	Pass
Channel 2	0.100000 V	0.099917 V	0.099760 V	0.100240 V	4.20 e-06 V	-0,000083 V	34.6%	Pass
Channel 3	0.100000 V	0.099937 V	0.099760 V	0.100240 V	4.20 e-06 V	-0,000063 V	26.2%	Pass
Channel 4	0.100000 V	0.099933 V	0.099760 V	0.100240 V	4.20 e-06 V	-0,000067 V	27.8%	Pass
Channel 5	0.100000 V	0.099865 V	0.099760 V	0.100240 V	4.20 e-06 V	-0,000135 V	56.2%	Pass
Channel 6	0.100000 V	0.099943 V	0.099760 V	0.100240 V	4.20 e-06 V	-0,000057 V	23.8%	Pass
Channel 7	0.100000 V	0.099859 V	0.099760 V	0.100240 V	4.20 e-06 V	-0,000141 V	58.9%	Pass
Channel 8	0.100000 V	0.099978 V	0.099760 V	0.100240 V	4.20 e-06 V	-0,000022 V	9.14%	Pass
Test @ 0.9V DC								
Channel 1	0.900000 V	0.899933 V	0.899600 V	0.900400 V	15.00 e-06 V	-0,000067 V	16.8%	Pass
Channel 2	0.900000 V	0.899947 V	0.899600 V	0.900400 V	15.00 e-06 V	-0,000053 V	13.3%	Pass
Channel 3	0.900000 V	0.899879 V	0.899600 V	0.900400 V	15.00 e-06 V	-0,000121 V	30.3%	Pass
Channel 4	0.900000 V	0.899943 V	0.899600 V	0.900400 V	15.00 e-06 V	-0,000057 V	14.3%	Pass
Channel 5	0.900000 V	0.899831 V	0.899600 V	0.900400 V	15.00 e-06 V	-0,000169 V	42.3%	Pass
Channel 6	0.900000 V	0.899929 V	0.899600 V	0.900400 V	15.00 e-06 V	-0,000071 V	17.7%	Pass
Channel 7	0.900000 V	0.899837 V	0.899600 V	0.900400 V	15.00 e-06 V	-0,000163 V	40.7%	Pass
Channel 8	0.900000 V	0.899956 V	0.899600 V	0.900400 V	15.00 e-06 V	-0,000044 V	11%	Pass
Test @ -0.9V DC								
Channel 1	-0.900000 V	-0.900041 V	-0.900400 V	-0.899600 V	15.00 e-06 V	-0,000041 V	10.3%	Pass
Channel 2	-0.900000 V	-0.900098 V	-0.900400 V	-0.899600 V	15.00 e-06 V	-0,000098 V	24.5%	Pass
Channel 3	-0.900000 V	-0.900055 V	-0.900400 V	-0.899600 V	15.00 e-06 V	-0,000055 V	13.7%	Pass
Channel 4	-0.900000 V	-0.900100 V	-0.900400 V	-0.899600 V	15.00 e-06 V	-0,000100 V	25.1%	Pass
Channel 5	-0.900000 V	-0.900136 V	-0.900400 V	-0.899600 V	15.00 e-06 V	-0,000136 V	34%	Pass
Channel 6	-0.900000 V	-0.900069 V	-0.900400 V	-0.899600 V	15.00 e-06 V	-0,000069 V	17.2%	Pass
Channel 7	-0.900000 V	-0.900197 V	-0.900400 V	-0.899600 V	15.00 e-06 V	-0,000197 V	49.3%	Pass
Channel 8	-0.900000 V	-0.900025 V	-0.900400 V	-0.899600 V	15.00 e-06 V	-0,000025 V	6.17%	Pass
Test @ 0.7V_RMS @ 50Hz								
Channel 1	0.700000 V	0.699986 V	0.699640 V	0.700360 V	200.00 e-06 V	-0,000014 V	3.89%	Pass
Channel 2	0.700000 V	0.700019 V	0.699640 V	0.700360 V	200.00 e-06 V	0,000019 V	5.28%	Pass
Channel 3	0.700000 V	0.699962 V	0.699640 V	0.700360 V	200.00 e-06 V	-0,000038 V	10.6%	Pass
Channel 4	0.700000 V	0.700026 V	0.699640 V	0.700360 V	200.00 e-06 V	0,000026 V	7.31%	Pass
Channel 5	0.700000 V	0.699971 V	0.699640 V	0.700360 V	200.00 e-06 V	-0,000029 V	8.15%	Pass
Channel 6	0.700000 V	0.700005 V	0.699640 V	0.700360 V	200.00 e-06 V	0,000005 V	1.39%	Pass
Channel 7	0.700000 V	0.700011 V	0.699640 V	0.700360 V	200.00 e-06 V	0,000011 V	3.06%	Pass
Channel 8	0.700000 V	0.700000 V	0.699640 V	0.700360 V	200.00 e-06 V	0,000000 V	3.08e-011%	Pass
Test @ 0.7V_RMS @ 50000Hz								
Channel 1	0.700000 V	0.699723 V	0.698030 V	0.701970 V	700.00 e-06 V	-0,000277 V	14.1%	Pass

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 2	0.700000 V	0.699760 V	0.698030 V	0.701970 V	700.00 e-06 V	-0,000240 V	12.2%	Pass
Channel 3	0.700000 V	0.699700 V	0.698030 V	0.701970 V	700.00 e-06 V	-0,000300 V	15.2%	Pass
Channel 4	0.700000 V	0.699771 V	0.698030 V	0.701970 V	700.00 e-06 V	-0,000229 V	11.6%	Pass
Channel 5	0.700000 V	0.699720 V	0.698030 V	0.701970 V	700.00 e-06 V	-0,000280 V	14.2%	Pass
Channel 6	0.700000 V	0.699747 V	0.698030 V	0.701970 V	700.00 e-06 V	-0,000253 V	12.8%	Pass
Channel 7	0.700000 V	0.699759 V	0.698030 V	0.701970 V	700.00 e-06 V	-0,000241 V	12.3%	Pass
Channel 8	0.700000 V	0.699759 V	0.698030 V	0.701970 V	700.00 e-06 V	-0,000241 V	12.2%	Pass
Test @ 0.7V_RMS @ 100000Hz								
Channel 1	0.700000 V	0.699029 V	0.696280 V	0.703720 V	700.00 e-06 V	-0,000971 V	26.1%	Pass
Channel 2	0.700000 V	0.699091 V	0.696280 V	0.703720 V	700.00 e-06 V	-0,000909 V	24.4%	Pass
Channel 3	0.700000 V	0.699030 V	0.696280 V	0.703720 V	700.00 e-06 V	-0,000970 V	26.1%	Pass
Channel 4	0.700000 V	0.699101 V	0.696280 V	0.703720 V	700.00 e-06 V	-0,000899 V	24.2%	Pass
Channel 5	0.700000 V	0.699049 V	0.696280 V	0.703720 V	700.00 e-06 V	-0,000951 V	25.6%	Pass
Channel 6	0.700000 V	0.699040 V	0.696280 V	0.703720 V	700.00 e-06 V	-0,000960 V	25.8%	Pass
Channel 7	0.700000 V	0.699062 V	0.696280 V	0.703720 V	700.00 e-06 V	-0,000938 V	25.2%	Pass
Channel 8	0.700000 V	0.699065 V	0.696280 V	0.703720 V	700.00 e-06 V	-0,000935 V	25.1%	Pass
Range: 3V								
################################								
Test @ 0.3V DC								
Channel 1	0.300000 V	0.299979 V	0.299320 V	0.300680 V	8.90 e-06 V	-0,000021 V	3.09%	Pass
Channel 2	0.300000 V	0.299890 V	0.299320 V	0.300680 V	8.90 e-06 V	-0,000110 V	16.2%	Pass
Channel 3	0.300000 V	0.299870 V	0.299320 V	0.300680 V	8.90 e-06 V	-0,000130 V	19.1%	Pass
Channel 4	0.300000 V	0.299830 V	0.299320 V	0.300680 V	8.90 e-06 V	-0,000170 V	25%	Pass
Channel 5	0.300000 V	0.299862 V	0.299320 V	0.300680 V	8.90 e-06 V	-0,000138 V	20.3%	Pass
Channel 6	0.300000 V	0.299865 V	0.299320 V	0.300680 V	8.90 e-06 V	-0,000135 V	19.9%	Pass
Channel 7	0.300000 V	0.299710 V	0.299320 V	0.300680 V	8.90 e-06 V	-0,000290 V	42.6%	Pass
Channel 8	0.300000 V	0.299878 V	0.299320 V	0.300680 V	8.90 e-06 V	-0,000122 V	18%	Pass
Test @ 2.7V DC								
Channel 1	2.700000 V	2.699960 V	2.698840 V	2.701160 V	41.00 e-06 V	-0,000040 V	3.45%	Pass
Channel 2	2.700000 V	2.699933 V	2.698840 V	2.701160 V	41.00 e-06 V	-0,000067 V	5.75%	Pass
Channel 3	2.700000 V	2.699860 V	2.698840 V	2.701160 V	41.00 e-06 V	-0,000140 V	12.1%	Pass
Channel 4	2.700000 V	2.699893 V	2.698840 V	2.701160 V	41.00 e-06 V	-0,000107 V	9.2%	Pass
Channel 5	2.700000 V	2.699760 V	2.698840 V	2.701160 V	41.00 e-06 V	-0,000240 V	20.7%	Pass
Channel 6	2.700000 V	2.699870 V	2.698840 V	2.701160 V	41.00 e-06 V	-0,000130 V	11.2%	Pass
Channel 7	2.700000 V	2.699850 V	2.698840 V	2.701160 V	41.00 e-06 V	-0,000150 V	12.9%	Pass
Channel 8	2.700000 V	2.699887 V	2.698840 V	2.701160 V	41.00 e-06 V	-0,000113 V	9.77%	Pass
Test @ -2.7V DC								
Channel 1	-2.700000 V	-2.700027 V	-2.701160 V	-2.698840 V	41.00 e-06 V	-0,000027 V	2.3%	Pass
Channel 2	-2.700000 V	-2.700130 V	-2.701160 V	-2.698840 V	41.00 e-06 V	-0,000130 V	11.2%	Pass
Channel 3	-2.700000 V	-2.700080 V	-2.701160 V	-2.698840 V	41.00 e-06 V	-0,000080 V	6.9%	Pass
Channel 4	-2.700000 V	-2.700147 V	-2.701160 V	-2.698840 V	41.00 e-06 V	-0,000147 V	12.6%	Pass
Channel 5	-2.700000 V	-2.700110 V	-2.701160 V	-2.698840 V	41.00 e-06 V	-0,000110 V	9.48%	Pass
Channel 6	-2.700000 V	-2.700030 V	-2.701160 V	-2.698840 V	41.00 e-06 V	-0,000030 V	2.59%	Pass
Channel 7	-2.700000 V	-2.700307 V	-2.701160 V	-2.698840 V	41.00 e-06 V	-0,000307 V	26.4%	Pass
Channel 8	-2.700000 V	-2.700037 V	-2.701160 V	-2.698840 V	41.00 e-06 V	-0,000037 V	3.16%	Pass
Test @ 2.1V RMS @ 50Hz								
Channel 1	2.100000 V	2.100010 V	2.098960 V	2.101040 V	460.00 e-06 V	0,000010 V	0.962%	Pass
Channel 2	2.100000 V	2.100040 V	2.098960 V	2.101040 V	460.00 e-06 V	0,000040 V	3.85%	Pass
Channel 3	2.100000 V	2.099960 V	2.098960 V	2.101040 V	460.00 e-06 V	-0,000040 V	3.85%	Pass
Channel 4	2.100000 V	2.100010 V	2.098960 V	2.101040 V	460.00 e-06 V	0,000010 V	0.962%	Pass
Channel 5	2.100000 V	2.099980 V	2.098960 V	2.101040 V	460.00 e-06 V	-0,000020 V	1.92%	Pass
Channel 6	2.100000 V	2.099950 V	2.098960 V	2.101040 V	460.00 e-06 V	-0,000050 V	4.81%	Pass
Channel 7	2.100000 V	2.100030 V	2.098960 V	2.101040 V	460.00 e-06 V	0,000030 V	2.88%	Pass
Channel 8	2.100000 V	2.099970 V	2.098960 V	2.101040 V	460.00 e-06 V	-0,000030 V	2.88%	Pass
Test @ 2.1V_RMS @ 50000Hz								
Channel 1	2.100000 V	2.099620 V	2.094130 V	2.105870 V	2.30 e-03 V	-0,000380 V	6.47%	Pass
Channel 2	2.100000 V	2.099687 V	2.094130 V	2.105870 V	2.30 e-03 V	-0,000313 V	5.34%	Pass
Channel 3	2.100000 V	2.099610 V	2.094130 V	2.105870 V	2.30 e-03 V	-0,000390 V	6.64%	Pass
Channel 4	2.100000 V	2.099680 V	2.094130 V	2.105870 V	2.30 e-03 V	-0,000320 V	5.45%	Pass
Channel 5	2.100000 V	2.099640 V	2.094130 V	2.105870 V	2.30 e-03 V	-0,000360 V	6.13%	Pass
Channel 6	2.100000 V	2.099590 V	2.094130 V	2.105870 V	2.30 e-03 V	-0,000410 V	6.98%	Pass
Channel 7	2.100000 V	2.099643 V	2.094130 V	2.105870 V	2.30 e-03 V	-0,000357 V	6.08%	Pass
Channel 8	2.100000 V	2.099630 V	2.094130 V	2.105870 V	2.30 e-03 V	-0,000370 V	6.3%	Pass
Test @ 2.1V_RMS @ 100000Hz								
Channel 1	2.100000 V	2.099223 V	2.088880 V	2.111120 V	2.30 e-03 V	-0,000777 V	6.98%	Pass
Channel 2	2.100000 V	2.099373 V	2.088880 V	2.111120 V	2.30 e-03 V	-0,000627 V	5.64%	Pass
Channel 3	2.100000 V	2.099320 V	2.088880 V	2.111120 V	2.30 e-03 V	-0,000680 V	6.12%	Pass
Channel 4	2.100000 V	2.099427 V	2.088880 V	2.111120 V	2.30 e-03 V	-0,000573 V	5.16%	Pass
Channel 5	2.100000 V	2.099400 V	2.088880 V	2.111120 V	2.30 e-03 V	-0,000600 V	5.4%	Pass
Channel 6	2.100000 V	2.099300 V	2.088880 V	2.111120 V	2.30 e-03 V	-0,000700 V	6.29%	Pass
Channel 7	2.100000 V	2.099363 V	2.088880 V	2.111120 V	2.30 e-03 V	-0,000637 V	5.73%	Pass
Channel 8	2.100000 V	2.099333 V	2.088880 V	2.111120 V	2.30 e-03 V	-0,000667 V	6%	Pass
Range: 10V								
################################								
Test @ 1V DC								
Channel 1	1.000000 V	1.000103 V	0.997780 V	1.002220 V	17.00 e-06 V	0,000103 V	4.65%	Pass
Channel 2	1.000000 V	0.999937 V	0.997780 V	1.002220 V	17.00 e-06 V	-0,000063 V	2.85%	Pass
Channel 3	1.000000 V	1.000050 V	0.997780 V	1.002220 V	17.00 e-06 V	0,000050 V	2.25%	Pass
Channel 4	1.000000 V	0.999642 V	0.997780 V	1.002220 V	17.00 e-06 V	-0,000358 V	16.1%	Pass
Channel 5	1.000000 V	0.999842 V	0.997780 V	1.002220 V	17.00 e-06 V	-0,000158 V	7.12%	Pass

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 6	1.000000 V	0.999980 V	0.997780 V	1.002220 V	17.00 e-06 V	-0,000020 V	0.901%	Pass
Channel 7	1.000000 V	0.999997 V	0.997780 V	1.002220 V	17.00 e-06 V	-0,000003 V	0.12%	Pass
Channel 8	1.000000 V	1.000057 V	0.997780 V	1.002220 V	17.00 e-06 V	0,000057 V	2.55%	Pass
Test @ -1V DC								
Channel 1	-1.000000 V	-1.000133 V	-1.002220 V	-0.997780 V	17.00 e-06 V	-0,000133 V	6.01%	Pass
Channel 2	-1.000000 V	-0.999957 V	-1.002220 V	-0.997780 V	17.00 e-06 V	0,000043 V	1.92%	Pass
Channel 3	-1.000000 V	-1.000360 V	-1.002220 V	-0.997780 V	17.00 e-06 V	-0,000360 V	16.2%	Pass
Channel 4	-1.000000 V	-1.000300 V	-1.002220 V	-0.997780 V	17.00 e-06 V	-0,000300 V	13.5%	Pass
Channel 5	-1.000000 V	-1.000560 V	-1.002220 V	-0.997780 V	17.00 e-06 V	-0,000560 V	25.2%	Pass
Channel 6	-1.000000 V	-1.000263 V	-1.002220 V	-0.997780 V	17.00 e-06 V	-0,000263 V	11.9%	Pass
Channel 7	-1.000000 V	-1.000460 V	-1.002220 V	-0.997780 V	17.00 e-06 V	-0,000460 V	20.7%	Pass
Channel 8	-1.000000 V	-0.999996 V	-1.002220 V	-0.997780 V	17.00 e-06 V	0,000004 V	0.195%	Pass
Test @ 3V DC								
Channel 1	3.000000 V	3.000040 V	2.997380 V	3.002620 V	45.00 e-06 V	0,000040 V	1.53%	Pass
Channel 2	3.000000 V	3.000013 V	2.997380 V	3.002620 V	45.00 e-06 V	0,000013 V	0.509%	Pass
Channel 3	3.000000 V	2.999923 V	2.997380 V	3.002620 V	45.00 e-06 V	-0,000077 V	2.93%	Pass
Channel 4	3.000000 V	2.999577 V	2.997380 V	3.002620 V	45.00 e-06 V	-0,000423 V	16.2%	Pass
Channel 5	3.000000 V	2.999857 V	2.997380 V	3.002620 V	45.00 e-06 V	-0,000143 V	5.47%	Pass
Channel 6	3.000000 V	2.999847 V	2.997380 V	3.002620 V	45.00 e-06 V	-0,000153 V	5.85%	Pass
Channel 7	3.000000 V	2.999890 V	2.997380 V	3.002620 V	45.00 e-06 V	-0,000110 V	4.2%	Pass
Channel 8	3.000000 V	2.999953 V	2.997380 V	3.002620 V	45.00 e-06 V	-0,000047 V	1.78%	Pass
Test @ 5V DC								
Channel 1	5.000000 V	5.000000 V	4.996980 V	5.003020 V	110.00 e-06 V	0,000000 V	0%	Pass
Channel 2	5.000000 V	4.999913 V	4.996980 V	5.003020 V	110.00 e-06 V	-0,000087 V	2.87%	Pass
Channel 3	5.000000 V	4.999883 V	4.996980 V	5.003020 V	110.00 e-06 V	-0,000117 V	3.86%	Pass
Channel 4	5.000000 V	4.999750 V	4.996980 V	5.003020 V	110.00 e-06 V	-0,000250 V	8.28%	Pass
Channel 5	5.000000 V	4.999580 V	4.996980 V	5.003020 V	110.00 e-06 V	-0,000420 V	13.9%	Pass
Channel 6	5.000000 V	4.999920 V	4.996980 V	5.003020 V	110.00 e-06 V	-0,000080 V	2.65%	Pass
Channel 7	5.000000 V	5.000020 V	4.996980 V	5.003020 V	110.00 e-06 V	0,000020 V	0.662%	Pass
Channel 8	5.000000 V	5.000010 V	4.996980 V	5.003020 V	110.00 e-06 V	0,000010 V	0.331%	Pass
Test @ -5V DC								
Channel 1	-5.000000 V	-4.999913 V	-5.003020 V	-4.996980 V	110.00 e-06 V	0,000087 V	2.87%	Pass
Channel 2	-5.000000 V	-5.000103 V	-5.003020 V	-4.996980 V	110.00 e-06 V	-0,000103 V	3.42%	Pass
Channel 3	-5.000000 V	-5.000010 V	-5.003020 V	-4.996980 V	110.00 e-06 V	-0,000010 V	0.331%	Pass
Channel 4	-5.000000 V	-5.000407 V	-5.003020 V	-4.996980 V	110.00 e-06 V	-0,000407 V	13.5%	Pass
Channel 5	-5.000000 V	-5.000100 V	-5.003020 V	-4.996980 V	110.00 e-06 V	-0,000100 V	3.31%	Pass
Channel 6	-5.000000 V	-5.000363 V	-5.003020 V	-4.996980 V	110.00 e-06 V	-0,000363 V	12%	Pass
Channel 7	-5.000000 V	-5.000477 V	-5.003020 V	-4.996980 V	110.00 e-06 V	-0,000477 V	15.8%	Pass
Channel 8	-5.000000 V	-5.000180 V	-5.003020 V	-4.996980 V	110.00 e-06 V	-0,000180 V	5.96%	Pass
Test @ 7V DC								
Channel 1	7.000000 V	7.000040 V	6.996580 V	7.003420 V	140.00 e-06 V	0,000040 V	1.17%	Pass
Channel 2	7.000000 V	7.000030 V	6.996580 V	7.003420 V	140.00 e-06 V	0,000030 V	0.877%	Pass
Channel 3	7.000000 V	6.999673 V	6.996580 V	7.003420 V	140.00 e-06 V	-0,000327 V	9.55%	Pass
Channel 4	7.000000 V	6.999797 V	6.996580 V	7.003420 V	140.00 e-06 V	-0,000203 V	5.95%	Pass
Channel 5	7.000000 V	6.999510 V	6.996580 V	7.003420 V	140.00 e-06 V	-0,000490 V	14.3%	Pass
Channel 6	7.000000 V	6.999987 V	6.996580 V	7.003420 V	140.00 e-06 V	-0,000013 V	0.39%	Pass
Channel 7	7.000000 V	6.999867 V	6.996580 V	7.003420 V	140.00 e-06 V	-0,000133 V	3.9%	Pass
Channel 8	7.000000 V	7.000023 V	6.996580 V	7.003420 V	140.00 e-06 V	0,000023 V	0.682%	Pass
Test @ 9V DC								
Channel 1	9.000000 V	8.999883 V	8.996180 V	9.003820 V	170.00 e-06 V	-0,000117 V	3.05%	Pass
Channel 2	9.000000 V	9.000003 V	8.996180 V	9.003820 V	170.00 e-06 V	0,000003 V	0.0873%	Pass
Channel 3	9.000000 V	8.999530 V	8.996180 V	9.003820 V	170.00 e-06 V	-0,000470 V	12.3%	Pass
Channel 4	9.000000 V	8.999653 V	8.996180 V	9.003820 V	170.00 e-06 V	-0,000347 V	9.08%	Pass
Channel 5	9.000000 V	8.999483 V	8.996180 V	9.003820 V	170.00 e-06 V	-0,000517 V	13.5%	Pass
Channel 6	9.000000 V	8.999737 V	8.996180 V	9.003820 V	170.00 e-06 V	-0,000263 V	6.89%	Pass
Channel 7	9.000000 V	9.000030 V	8.996180 V	9.003820 V	170.00 e-06 V	0,000030 V	0.785%	Pass
Channel 8	9.000000 V	8.999813 V	8.996180 V	9.003820 V	170.00 e-06 V	-0,000187 V	4.89%	Pass
Test @ -9V DC								
Channel 1	-9.000000 V	-8.999903 V	-9.003820 V	-8.996180 V	170.00 e-06 V	0,000097 V	2.53%	Pass
Channel 2	-9.000000 V	-9.000247 V	-9.003820 V	-8.996180 V	170.00 e-06 V	-0,000247 V	6.46%	Pass
Channel 3	-9.000000 V	-8.999797 V	-9.003820 V	-8.996180 V	170.00 e-06 V	0,000203 V	5.32%	Pass
Channel 4	-9.000000 V	-9.000293 V	-9.003820 V	-8.996180 V	170.00 e-06 V	-0,000293 V	7.68%	Pass
Channel 5	-9.000000 V	-9.000023 V	-9.003820 V	-8.996180 V	170.00 e-06 V	-0,000023 V	0.611%	Pass
Channel 6	-9.000000 V	-9.000113 V	-9.003820 V	-8.996180 V	170.00 e-06 V	-0,000113 V	2.97%	Pass
Channel 7	-9.000000 V	-9.000423 V	-9.003820 V	-8.996180 V	170.00 e-06 V	-0,000423 V	11.1%	Pass
Channel 8	-9.000000 V	-9.000163 V	-9.003820 V	-8.996180 V	170.00 e-06 V	-0,000163 V	4.28%	Pass
Test @ 1V_RMS @ 50Hz								
Channel 1	1.000000 V	1.000003 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000003 V	0.15%	Pass
Channel 2	1.000000 V	1.000020 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000020 V	0.901%	Pass
Channel 3	1.000000 V	1.000013 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000013 V	0.601%	Pass
Channel 4	1.000000 V	1.000040 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000040 V	1.8%	Pass
Channel 5	1.000000 V	0.999999 V	0.997780 V	1.002220 V	260.00 e-06 V	-0,000001 V	0.045%	Pass
Channel 6	1.000000 V	1.000060 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000060 V	2.7%	Pass
Channel 7	1.000000 V	1.000077 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000077 V	3.45%	Pass
Channel 8	1.000000 V	1.000043 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000043 V	1.95%	Pass
Test @ 1V RMS @ 1000Hz								
Channel 1	1.000000 V	1.000003 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000003 V	0.135%	Pass
Channel 2	1.000000 V	1.000010 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000010 V	0.45%	Pass
Channel 3	1.000000 V	1.000010 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000010 V	0.45%	Pass
Channel 4	1.000000 V	1.000040 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000040 V	1.8%	Pass

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 5	1.000000 V	0.999992 V	0.997780 V	1.002220 V	260.00 e-06 V	-0,000008 V	0.375%	Pass
Channel 6	1.000000 V	1.000060 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000060 V	2.7%	Pass
Channel 7	1.000000 V	1.000080 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000080 V	3.6%	Pass
Channel 8	1.000000 V	1.000050 V	0.997780 V	1.002220 V	260.00 e-06 V	0,000050 V	2.25%	Pass
Test @ 5V_RMS @ 50Hz								
Channel 1	5.000000 V	5.000130 V	4.996980 V	5.003020 V	1.70 e-03 V	0,000130 V	4.3%	Pass
Channel 2	5.000000 V	5.000160 V	4.996980 V	5.003020 V	1.70 e-03 V	0,000160 V	5.3%	Pass
Channel 3	5.000000 V	5.000077 V	4.996980 V	5.003020 V	1.70 e-03 V	0,000077 V	2.54%	Pass
Channel 4	5.000000 V	5.000173 V	4.996980 V	5.003020 V	1.70 e-03 V	0,000173 V	5.74%	Pass
Channel 5	5.000000 V	5.000013 V	4.996980 V	5.003020 V	1.70 e-03 V	0,000013 V	0.442%	Pass
Channel 6	5.000000 V	5.000160 V	4.996980 V	5.003020 V	1.70 e-03 V	0,000160 V	5.3%	Pass
Channel 7	5.000000 V	5.000340 V	4.996980 V	5.003020 V	1.70 e-03 V	0,000340 V	11.3%	Pass
Channel 8	5.000000 V	5.000230 V	4.996980 V	5.003020 V	1.70 e-03 V	0,000230 V	7.62%	Pass
Test @ 5V_RMS @ 1000Hz								
Channel 1	5.000000 V	4.999817 V	4.996980 V	5.003020 V	1.70 e-03 V	-0,000183 V	6.07%	Pass
Channel 2	5.000000 V	4.999860 V	4.996980 V	5.003020 V	1.70 e-03 V	-0,000140 V	4.64%	Pass
Channel 3	5.000000 V	4.999777 V	4.996980 V	5.003020 V	1.70 e-03 V	-0,000223 V	7.4%	Pass
Channel 4	5.000000 V	4.999877 V	4.996980 V	5.003020 V	1.70 e-03 V	-0,000123 V	4.08%	Pass
Channel 5	5.000000 V	4.999707 V	4.996980 V	5.003020 V	1.70 e-03 V	-0,000293 V	9.71%	Pass
Channel 6	5.000000 V	4.999910 V	4.996980 V	5.003020 V	1.70 e-03 V	-0,000090 V	2.98%	Pass
Channel 7	5.000000 V	5.000003 V	4.996980 V	5.003020 V	1.70 e-03 V	0,000003 V	0.11%	Pass
Channel 8	5.000000 V	4.999980 V	4.996980 V	5.003020 V	1.70 e-03 V	-0,000020 V	0.662%	Pass
Test @ 7V_RMS @ 50Hz								
Channel 1	7.000000 V	7.000097 V	6.996580 V	7.003420 V	2.10 e-03 V	0,000097 V	2.83%	Pass
Channel 2	7.000000 V	7.000203 V	6.996580 V	7.003420 V	2.10 e-03 V	0,000203 V	5.95%	Pass
Channel 3	7.000000 V	7.000050 V	6.996580 V	7.003420 V	2.10 e-03 V	0,000050 V	1.46%	Pass
Channel 4	7.000000 V	7.000190 V	6.996580 V	7.003420 V	2.10 e-03 V	0,000190 V	5.56%	Pass
Channel 5	7.000000 V	6.999967 V	6.996580 V	7.003420 V	2.10 e-03 V	-0,000033 V	0.975%	Pass
Channel 6	7.000000 V	7.000203 V	6.996580 V	7.003420 V	2.10 e-03 V	0,000203 V	5.95%	Pass
Channel 7	7.000000 V	7.000477 V	6.996580 V	7.003420 V	2.10 e-03 V	0,000477 V	13.9%	Pass
Channel 8	7.000000 V	7.000057 V	6.996580 V	7.003420 V	2.10 e-03 V	0,000057 V	1.66%	Pass
Test @ 7V RMS @ 1000Hz								
Channel 1	7.000000 V	6.999583 V	6.996580 V	7.003420 V	2.10 e-03 V	-0,000417 V	12.2%	Pass
Channel 2	7.000000 V	6.999670 V	6.996580 V	7.003420 V	2.10 e-03 V	-0,000330 V	9.65%	Pass
Channel 3	7.000000 V	6.999577 V	6.996580 V	7.003420 V	2.10 e-03 V	-0,000423 V	12.4%	Pass
Channel 4	7.000000 V	6.999683 V	6.996580 V	7.003420 V	2.10 e-03 V	-0,000317 V	9.26%	Pass
Channel 5	7.000000 V	6.999577 V	6.996580 V	7.003420 V	2.10 e-03 V	-0,000423 V	12.4%	Pass
Channel 6	7.000000 V	6.999750 V	6.996580 V	7.003420 V	2.10 e-03 V	-0,000250 V	7.31%	Pass
Channel 7	7.000000 V	7.000050 V	6.996580 V	7.003420 V	2.10 e-03 V	0,000050 V	1.46%	Pass
Channel 8	7.000000 V	6.999673 V	6.996580 V	7.003420 V	2.10 e-03 V	-0,000327 V	9.55%	Pass
Test @ 7V RMS @ 50000Hz								
Channel 1	7.000000 V	6.997557 V	6.980480 V	7.019520 V	7.00 e-03 V	-0,002443 V	12.5%	Pass
Channel 2	7.000000 V	6.997730 V	6.980480 V	7.019520 V	7.00 e-03 V	-0,002270 V	11.6%	Pass
Channel 3	7.000000 V	6.997593 V	6.980480 V	7.019520 V	7.00 e-03 V	-0,002407 V	12.3%	Pass
Channel 4	7.000000 V	6.997913 V	6.980480 V	7.019520 V	7.00 e-03 V	-0,002087 V	10.7%	Pass
Channel 5	7.000000 V	6.997780 V	6.980480 V	7.019520 V	7.00 e-03 V	-0,002220 V	11.4%	Pass
Channel 6	7.000000 V	6.997927 V	6.980480 V	7.019520 V	7.00 e-03 V	-0,002073 V	10.6%	Pass
Channel 7	7.000000 V	6.998213 V	6.980480 V	7.019520 V	7.00 e-03 V	-0,001787 V	9.15%	Pass
Channel 8	7.000000 V	6.998183 V	6.980480 V	7.019520 V	7.00 e-03 V	-0,001817 V	9.31%	Pass
Test @ 7V_RMS @ 100000Hz								
Channel 1	7.000000 V	6.993437 V	6.962980 V	7.037020 V	9.40 e-03 V	-0,006563 V	17.7%	Pass
Channel 2	7.000000 V	6.994243 V	6.962980 V	7.037020 V	9.40 e-03 V	-0,005757 V	15.6%	Pass
Channel 3	7.000000 V	6.994210 V	6.962980 V	7.037020 V	9.40 e-03 V	-0,005790 V	15.6%	Pass
Channel 4	7.000000 V	6.994810 V	6.962980 V	7.037020 V	9.40 e-03 V	-0,005190 V	14%	Pass
Channel 5	7.000000 V	6.994630 V	6.962980 V	7.037020 V	9.40 e-03 V	-0,005370 V	14.5%	Pass
Channel 6	7.000000 V	6.994790 V	6.962980 V	7.037020 V	9.40 e-03 V	-0,005210 V	14.1%	Pass
Channel 7	7.000000 V	6.995017 V	6.962980 V	7.037020 V	9.40 e-03 V	-0,004983 V	13.5%	Pass
Channel 8	7.000000 V	6.995113 V	6.962980 V	7.037020 V	9.40 e-03 V	-0,004887 V	13.2%	Pass
Range: 30V								
################################								
Test @ 3V DC								
Channel 1	3.000000 V	3.000540 V	2.993400 V	3.006600 V	45.00 e-06 V	0,000540 V	8.18%	Pass
Channel 2	3.000000 V	2.999553 V	2.993400 V	3.006600 V	45.00 e-06 V	-0,000447 V	6.77%	Pass
Channel 3	3.000000 V	2.999380 V	2.993400 V	3.006600 V	45.00 e-06 V	-0,000620 V	9.39%	Pass
Channel 4	3.000000 V	2.999460 V	2.993400 V	3.006600 V	45.00 e-06 V	-0,000540 V	8.18%	Pass
Channel 5	3.000000 V	2.998220 V	2.993400 V	3.006600 V	45.00 e-06 V	-0,001780 V	27%	Pass
Channel 6	3.000000 V	2.999747 V	2.993400 V	3.006600 V	45.00 e-06 V	-0,000253 V	3.84%	Pass
Channel 7	3.000000 V	2.996160 V	2.993400 V	3.006600 V	45.00 e-06 V	-0,003840 V	58.2%	Pass
Channel 8	3.000000 V	3.000373 V	2.993400 V	3.006600 V	45.00 e-06 V	0,000373 V	5.66%	Pass
Test @ 27V DC								
Channel 1	27.000000 V	26.998667 V	26.988600 V	27.011400 V	460.00 e-06 V	-0,001333 V	11.7%	Pass
Channel 2	27.000000 V	26.999367 V	26.988600 V	27.011400 V	460.00 e-06 V	-0,000633 V	5.56%	Pass
Channel 3	27.000000 V	26.998267 V	26.988600 V	27.011400 V	460.00 e-06 V	-0,001733 V	15.2%	Pass
Channel 4	27.000000 V	27.000400 V	26.988600 V	27.011400 V	460.00 e-06 V	0,000400 V	3.51%	Pass
Channel 5	27.000000 V	26.996400 V	26.988600 V	27.011400 V	460.00 e-06 V	-0,003600 V	31.6%	Pass
Channel 6	27.000000 V	27.000667 V	26.988600 V	27.011400 V	460.00 e-06 V	0,000667 V	5.85%	Pass
Channel 7	27.000000 V	26.996967 V	26.988600 V	27.011400 V	460.00 e-06 V	-0,003033 V	26.6%	Pass
Channel 8	27.000000 V	27.000100 V	26.988600 V	27.011400 V	460.00 e-06 V	0,000100 V	0.877%	Pass
Test @ -27V DC								
Channel 1	-27.000000 V	-26.998800 V	-27.011400 V	-26.988600 V	460.00 e-06 V	0,001200 V	10.5%	Pass

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 2	-27.000000 V	-27.000133 V	-27.011400 V	-26.988600 V	460.00 e-06 V	-0,000133 V	1.17%	Pass
Channel 3	-27.000000 V	-26.999733 V	-27.011400 V	-26.988600 V	460.00 e-06 V	0,000267 V	2.34%	Pass
Channel 4	-27.000000 V	-27.001300 V	-27.011400 V	-26.988600 V	460.00 e-06 V	-0,001300 V	11.4%	Pass
Channel 5	-27.000000 V	-27.001667 V	-27.011400 V	-26.988600 V	460.00 e-06 V	-0,001667 V	14.6%	Pass
Channel 6	-27.000000 V	-27.000333 V	-27.011400 V	-26.988600 V	460.00 e-06 V	-0,000333 V	2.92%	Pass
Channel 7	-27.000000 V	-27.004467 V	-27.011400 V	-26.988600 V	460.00 e-06 V	-0,004467 V	39.2%	Pass
Channel 8	-27.000000 V	-26.998500 V	-27.011400 V	-26.988600 V	460.00 e-06 V	0,001500 V	13.2%	Pass
Test @ 21V_RMS @ 50Hz								
Channel 1	21.000000 V	20.999367 V	20.989800 V	21.010200 V	4.70 e-03 V	-0,000633 V	6.21%	Pass
Channel 2	21.000000 V	21.000400 V	20.989800 V	21.010200 V	4.70 e-03 V	0,000400 V	3.92%	Pass
Channel 3	21.000000 V	20.999400 V	20.989800 V	21.010200 V	4.70 e-03 V	-0,000600 V	5.88%	Pass
Channel 4	21.000000 V	21.000967 V	20.989800 V	21.010200 V	4.70 e-03 V	0,000967 V	9.48%	Pass
Channel 5	21.000000 V	20.999100 V	20.989800 V	21.010200 V	4.70 e-03 V	-0,000900 V	8.82%	Pass
Channel 6	21.000000 V	21.000600 V	20.989800 V	21.010200 V	4.70 e-03 V	0,000600 V	5.88%	Pass
Channel 7	21.000000 V	21.000200 V	20.989800 V	21.010200 V	4.70 e-03 V	0,000200 V	1.96%	Pass
Channel 8	21.000000 V	20.999600 V	20.989800 V	21.010200 V	4.70 e-03 V	-0,000400 V	3.92%	Pass
Test @ 21V RMS @ 50000Hz								
Channel 1	21.000000 V	21.022867 V	20.836500 V	21.163500 V	36.00 e-03 V	0,022867 V	14%	Pass
Channel 2	21.000000 V	20.994933 V	20.836500 V	21.163500 V	36.00 e-03 V	-0,005067 V	3.1%	Pass
Channel 3	21.000000 V	20.963833 V	20.836500 V	21.163500 V	36.00 e-03 V	-0,036167 V	22.1%	Pass
Channel 4	21.000000 V	20.945333 V	20.836500 V	21.163500 V	36.00 e-03 V	-0,054667 V	33.4%	Pass
Channel 5	21.000000 V	20.963433 V	20.836500 V	21.163500 V	36.00 e-03 V	-0,036567 V	22.4%	Pass
Channel 6	21.000000 V	21.031033 V	20.836500 V	21.163500 V	36.00 e-03 V	0,031033 V	19%	Pass
Channel 7	21.000000 V	20.996033 V	20.836500 V	21.163500 V	36.00 e-03 V	-0,003967 V	2.43%	Pass
Channel 8	21.000000 V	20.974133 V	20.836500 V	21.163500 V	36.00 e-03 V	-0,025867 V	15.8%	Pass
Test @ 21V RMS @ 100000Hz								
Channel 1	21.000000 V	21.055833 V	20.679000 V	21.321000 V	36.00 e-03 V	0,055833 V	17.4%	Pass
Channel 2	21.000000 V	20.992767 V	20.679000 V	21.321000 V	36.00 e-03 V	-0,007233 V	2.25%	Pass
Channel 3	21.000000 V	20.934500 V	20.679000 V	21.321000 V	36.00 e-03 V	-0,065500 V	20.4%	Pass
Channel 4	21.000000 V	20.891233 V	20.679000 V	21.321000 V	36.00 e-03 V	-0,108767 V	33.9%	Pass
Channel 5	21.000000 V	20.936333 V	20.679000 V	21.321000 V	36.00 e-03 V	-0,063667 V	19.8%	Pass
Channel 6	21.000000 V	21.068033 V	20.679000 V	21.321000 V	36.00 e-03 V	0,068033 V	21.2%	Pass
Channel 7	21.000000 V	21.006100 V	20.679000 V	21.321000 V	36.00 e-03 V	0,006100 V	1.9%	Pass
Channel 8	21.000000 V	20.958733 V	20.679000 V	21.321000 V	36.00 e-03 V	-0,041267 V	12.9%	Pass
Range: 100V								
################################								
Test @ 10V DC								
Channel 1	10.000000 V	10.001633 V	9.978000 V	10.022000 V	190.00 e-06 V	0,001633 V	7.42%	Pass
Channel 2	10.000000 V	9.998500 V	9.978000 V	10.022000 V	190.00 e-06 V	-0,001500 V	6.82%	Pass
Channel 3	10.000000 V	9.999010 V	9.978000 V	10.022000 V	190.00 e-06 V	-0,000990 V	4.5%	Pass
Channel 4	10.000000 V	9.997780 V	9.978000 V	10.022000 V	190.00 e-06 V	-0,002220 V	10.1%	Pass
Channel 5	10.000000 V	9.997970 V	9.978000 V	10.022000 V	190.00 e-06 V	-0,002030 V	9.23%	Pass
Channel 6	10.000000 V	9.998420 V	9.978000 V	10.022000 V	190.00 e-06 V	-0,001580 V	7.18%	Pass
Channel 7	10.000000 V	9.993930 V	9.978000 V	10.022000 V	190.00 e-06 V	-0,006070 V	27.6%	Pass
Channel 8	10.000000 V	9.998907 V	9.978000 V	10.022000 V	190.00 e-06 V	-0,001093 V	4.97%	Pass
Test @ 90V DC								
Channel 1	90.000000 V	89.997900 V	89.962000 V	90.038000 V	2.40 e-03 V	-0,002100 V	5.53%	Pass
Channel 2	90.000000 V	89.998033 V	89.962000 V	90.038000 V	2.40 e-03 V	-0,001967 V	5.18%	Pass
Channel 3	90.000000 V	89.997233 V	89.962000 V	90.038000 V	2.40 e-03 V	-0,002767 V	7.28%	Pass
Channel 4	90.000000 V	89.999067 V	89.962000 V	90.038000 V	2.40 e-03 V	-0,000933 V	2.46%	Pass
Channel 5	90.000000 V	89.993267 V	89.962000 V	90.038000 V	2.40 e-03 V	-0,006733 V	17.7%	Pass
Channel 6	90.000000 V	89.999833 V	89.962000 V	90.038000 V	2.40 e-03 V	-0,000167 V	0.439%	Pass
Channel 7	90.000000 V	89.996900 V	89.962000 V	90.038000 V	2.40 e-03 V	-0,003100 V	8.16%	Pass
Channel 8	90.000000 V	89.997900 V	89.962000 V	90.038000 V	2.40 e-03 V	-0,002100 V	5.53%	Pass
Test @ -90V DC								
Channel 1	-90.000000 V	-89.995000 V	-90.038000 V	-89.962000 V	2.40 e-03 V	0,005000 V	13.2%	Pass
Channel 2	-90.000000 V	-89.999467 V	-90.038000 V	-89.962000 V	2.40 e-03 V	0,000533 V	1.4%	Pass
Channel 3	-90.000000 V	-89.998900 V	-90.038000 V	-89.962000 V	2.40 e-03 V	0,001100 V	2.89%	Pass
Channel 4	-90.000000 V	-90.002300 V	-90.038000 V	-89.962000 V	2.40 e-03 V	-0,002300 V	6.05%	Pass
Channel 5	-90.000000 V	-90.000100 V	-90.038000 V	-89.962000 V	2.40 e-03 V	-0,000100 V	0.263%	Pass
Channel 6	-90.000000 V	-89.999767 V	-90.038000 V	-89.962000 V	2.40 e-03 V	0,000233 V	0.614%	Pass
Channel 7	-90.000000 V	-90.005167 V	-90.038000 V	-89.962000 V	2.40 e-03 V	-0,005167 V	13.6%	Pass
Channel 8	-90.000000 V	-89.997533 V	-90.038000 V	-89.962000 V	2.40 e-03 V	0,002467 V	6.49%	Pass
Test @ 70V_RMS @ 50Hz								
Channel 1	70.000000 V	70.004733 V	69.966000 V	70.034000 V	19.00 e-03 V	0,004733 V	13.9%	Pass
Channel 2	70.000000 V	70.006433 V	69.966000 V	70.034000 V	19.00 e-03 V	0,006433 V	18.9%	Pass
Channel 3	70.000000 V	70.006833 V	69.966000 V	70.034000 V	19.00 e-03 V	0,006833 V	20.1%	Pass
Channel 4	70.000000 V	70.008767 V	69.966000 V	70.034000 V	19.00 e-03 V	0,008767 V	25.8%	Pass
Channel 5	70.000000 V	70.005100 V	69.966000 V	70.034000 V	19.00 e-03 V	0,005100 V	15%	Pass
Channel 6	70.000000 V	70.008867 V	69.966000 V	70.034000 V	19.00 e-03 V	0,008867 V	26.1%	Pass
Channel 7	70.000000 V	70.010700 V	69.966000 V	70.034000 V	19.00 e-03 V	0,010700 V	31.5%	Pass
Channel 8	70.000000 V	70.006900 V	69.966000 V	70.034000 V	19.00 e-03 V	0,006900 V	20.3%	Pass
Test @ 70V_RMS @ 50000Hz								
Channel 1	70.000000 V	69.932133 V	69.455000 V	70.545000 V	110.00 e-03 V	-0,067867 V	12.5%	Pass
Channel 2	70.000000 V	69.837233 V	69.455000 V	70.545000 V	110.00 e-03 V	-0,162767 V	29.9%	Pass
Channel 3	70.000000 V	69.737433 V	69.455000 V	70.545000 V	110.00 e-03 V	-0,262567 V	48.2%	Pass
Channel 4	70.000000 V	69.673833 V	69.455000 V	70.545000 V	110.00 e-03 V	-0,326167 V	59.8%	Pass
Channel 5	70.000000 V	69.739267 V	69.455000 V	70.545000 V	110.00 e-03 V	-0,260733 V	47.8%	Pass
Channel 6	70.000000 V	69.958467 V	69.455000 V	70.545000 V	110.00 e-03 V	-0,041533 V	7.62%	Pass
Channel 7	70.000000 V	69.840667 V	69.455000 V	70.545000 V	110.00 e-03 V	-0,159333 V	29.2%	Pass

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status
Channel 8	70.000000 V	69.763900 V	69.455000 V	70.545000 V	110.00 e-03 V	-0,236100 V	43.3%	Pass
Test @ 70V RMS @ 100000Hz								
Channel 1	70.000000 V	70.255067 V	68.930000 V	71.070000 V	220.00 e-03 V	0,255067 V	23.8%	Pass
Channel 2	70.000000 V	70.051633 V	68.930000 V	71.070000 V	220.00 e-03 V	0,051633 V	4.83%	Pass
Channel 3	70.000000 V	69.858900 V	68.930000 V	71.070000 V	220.00 e-03 V	-0,141100 V	13.2%	Pass
Channel 4	70.000000 V	69.721500 V	68.930000 V	71.070000 V	220.00 e-03 V	-0,278500 V	26%	Pass
Channel 5	70.000000 V	69.870900 V	68.930000 V	71.070000 V	220.00 e-03 V	-0,129100 V	12.1%	Pass
Channel 6	70.000000 V	70.283500 V	68.930000 V	71.070000 V	220.00 e-03 V	0,283500 V	26.5%	Pass
Channel 7	70.000000 V	70.100967 V	68.930000 V	71.070000 V	220.00 e-03 V	0,100967 V	9.44%	Pass
Channel 8	70.000000 V	69.956533 V	68.930000 V	71.070000 V	220.00 e-03 V	-0,043467 V	4.06%	Pass

non-accredited
functional board tests

Excitation Monitor Check		
Channel 1 @1V Excitation	Pass	(1)
Channel 2 @1V Excitation	Pass	(1)
Channel 3 @1V Excitation	Pass	(1)
Channel 4 @1V Excitation	Pass	(1)
Channel 5 @1V Excitation	Pass	(1)
Channel 6 @1V Excitation	Pass	(1)
Channel 7 @1V Excitation	Pass	(1)
Channel 8 @1V Excitation	Pass	(1)
Channel 1 @24V Excitation	Pass	(1)
Channel 2 @24V Excitation	Pass	(1)
Channel 3 @24V Excitation	Pass	(1)
Channel 4 @24V Excitation	Pass	(1)
Channel 5 @24V Excitation	Pass	(1)
Channel 6 @24V Excitation	Pass	(1)
Channel 7 @24V Excitation	Pass	(1)
Channel 8 @24V Excitation	Pass	(1)
Channel 1 @5mA Excitation	Pass	(1)
Channel 2 @5mA Excitation	Pass	(1)
Channel 3 @5mA Excitation	Pass	(1)
Channel 4 @5mA Excitation	Pass	(1)
Channel 5 @5mA Excitation	Pass	(1)
Channel 6 @5mA Excitation	Pass	(1)
Channel 7 @5mA Excitation	Pass	(1)
Channel 8 @5mA Excitation	Pass	(1)
Channel 1 @20mA Excitation	Pass	(1)
Channel 2 @20mA Excitation	Pass	(1)
Channel 3 @20mA Excitation	Pass	(1)
Channel 4 @20mA Excitation	Pass	(1)
Channel 5 @20mA Excitation	Pass	(1)
Channel 6 @20mA Excitation	Pass	(1)
Channel 7 @20mA Excitation	Pass	(1)
Channel 8 @20mA Excitation	Pass	(1)
Highpass Filter Check		
AC - Coupling: 0.16Hz		
Channel 1	Pass	(1)
Channel 2	Pass	(1)
Channel 3	Pass	(1)
Channel 4	Pass	(1)
Channel 5	Pass	(1)
Channel 6	Pass	(1)
Channel 7	Pass	(1)
Channel 8	Pass	(1)
CMRR Check		
@ 50Hz		
Channel 1	Pass	(1)
Channel 2	Pass	(1)
Channel 3	Pass	(1)
Channel 4	Pass	(1)
Channel 5	Pass	(1)
Channel 6	Pass	(1)
Channel 7	Pass	(1)
Channel 8	Pass	(1)
@ 1kHz		
Channel 1	Pass	(1)
Channel 2	Pass	(1)
Channel 3	Pass	(1)
Channel 4	Pass	(1)
Channel 5	Pass	(1)
Channel 6	Pass	(1)
Channel 7	Pass	(1)
Channel 8	Pass	(1)
Bridge-Completion and Shunt Check		

11. Testergebnisse / Test results

Test Description	True Value	Test Result	Lower limit	Upper limit	Exp Uncert	Error	% of Tol	Status	
120R Quarter Bridge Completion									
Channel 1								Pass	(1)
Channel 2								Pass	(1)
Channel 3								Pass	(1)
Channel 4								Pass	(1)
Channel 5								Pass	(1)
Channel 6								Pass	(1)
Channel 7								Pass	(1)
Channel 8								Pass	(1)
350R Quarter Bridge Completion									
Channel 1								Pass	(1)
Channel 2								Pass	(1)
Channel 3								Pass	(1)
Channel 4								Pass	(1)
Channel 5								Pass	(1)
Channel 6								Pass	(1)
Channel 7								Pass	(1)
Channel 8								Pass	(1)
1000R Quarter Bridge Completion									
Channel 1								Pass	(1)
Channel 2								Pass	(1)
Channel 3								Pass	(1)
Channel 4								Pass	(1)
Channel 5								Pass	(1)
Channel 6								Pass	(1)
Channel 7								Pass	(1)
Channel 8								Pass	(1)
Shunt Resistor function check									
Channel 1								Pass	(1)
Channel 2								Pass	(1)
Channel 3								Pass	(1)
Channel 4								Pass	(1)
Channel 5								Pass	(1)
Channel 6								Pass	(1)
Channel 7								Pass	(1)
Channel 8								Pass	(1)
IEPE Check									
IEPE Current Excitation 10mA									
Channel 1								Pass	(1)
Channel 2								Pass	(1)
Channel 3								Pass	(1)
Channel 4								Pass	(1)
Channel 5								Pass	(1)
Channel 6								Pass	(1)
Channel 7								Pass	(1)
Channel 8								Pass	(1)
IEPE Compliance Voltage									
Channel 1								Pass	(1)
Channel 2								Pass	(1)
Channel 3								Pass	(1)
Channel 4								Pass	(1)
Channel 5								Pass	(1)
Channel 6								Pass	(1)
Channel 7								Pass	(1)
Channel 8								Pass	(1)
AUX-Input Check									
External Reference								Pass	(1)
Hardware Check (Selftest)								Pass	(1)
Hardware Check (Excitation Test)								Pass	(1)
47.5 °C @ BoardTemp	47.5 °C	49.1 °C	37.5 °C	57.5 °C		1,6 °C	15.6%	Pass	(1)

Ende des Kalibrierscheines / *End of Calibration Certificate*