



Technical specifications SCOPE 1200

DSO channel

Measuring Unit/Part	Specification
Measurement Resolution	14 Bit DSO Operation 16 Bit DMM Operation with oversampling
Bandwidth	10 MHz (-3dB)
Maximum sampling rate	40 Msps per channel, no multiplexing
DSO Samples Memory	1Gbit (64MSamples) buffer
Channels	4 independent channels
Galvanic Isolation	Yes, no common grounds
Measurement input	Full Differential
Maximum voltage	350V AC, 500V DC (+20% overvoltage)
DSO Scale factors Volt/Div (Software)	2–200V
DSO Scale factors Time/Div (Software)	50ns–5h
Programmable hardware Filter (one per channel)	0–450 KHz
Coupling modes	GND AC DC
Trigger	Internal or external (source channel 1 2 3 4) Positive, negative, auto, autolevel, norm
Counter function	0.1Hz to 100kHz Channel source 1 2 3 4

Ohmmeter and diode tester (Channel 1)

Ohmmeter and Diode Tester Specification

Part	Specification
Resistor measurement range	0.1 Ω to 15 M Ω
Diode measurement	0V to 1.7V with constant current 1mA

Ohmmeter Accuracy

Range	0–15 M Ω	0,4%–2.0% measurement depending range
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SPI Channel Specification	
Part	Specification
Communication format	SPI, 4 wires bidirectional
SPI clock frequency	1MHz max.
Probe Power supply	5V, 200mA max.

Main Power Supply Unit	
Part	Specification
Power supply input voltage	8VDC to 19VDC nominal
Input power	30W max.
Main power supply sources	External AC/DC adapter, 100V-240VAC to 19VDC

General specifications	
Part	Specification
Operating system	32-bit edition of Windows XP (SP3), 32- or 64-bit edition of Windows Vista or Windows 7
Communication port	High Speed USB 2.0 (480Mbit/s)

Physical Properties	Description
Dimensions	140mm x 200mm x 60mm (W x D x H)
Case	Magnesium housing without ventilator
Weight	600g
Operating temperature range	0°C to +50°C
Protection class	IP-54
Air humidity	30% bis 95%
Operating height	max. 3048m ü. NN.
Storage temperature	-20°C bis +60°C

Probes, cables and adapters

Probes and adapters list

Probes	Description	
Universal Voltage probe	Range: Cable length:	Up to 600VDC 2.9 m
Temperature Probe	Temperature range: Technology: Cable length:	-20°C...+200°C Thermocouple 2.9 m
Ignition kV clip	Range: Cable length:	Up to 50 KV AC 2.9m
Pressure probe	Maximum range: Cable length:	Up to 100 bar 2.9m
AC/DC 100A Current probe	Current range: Overload capability: Resolution:	100A DC or AC pk 500A DC (1 min) ±1mA
AC/DC 1800A Current probe	Current range: Overload capability: Resolution:	1800A DC or AC pk 3000A < 10 ms ±100mA
Trigger probe	Type:	Inductive

Temperature Probe Specification

Property	Specification
Temperature range	-20 to +200 °C
Technology	Thermocouple
Resolution and Accuracy	± 1 K for < 0 °C ± 0,5 K for 0 °C to +40 °C ± 1 K for +40 °C to +100 °C ± 2 K for > +100 °C
T 99%	2 Sec @ Air 1/Sec

Ignition kV clip Specification:

Property	Specification
Type	kV Clamp
Voltage Range	+ -50 kV
Accuracy	50kV: ±15 % ± 1000V 20kV: ±15 % ± 400V 10kV: ±15 % ± 200V

100 bar Pressure Probe Specification:

Property	Specification
Pressure range	Up to 100 bar
Proof pressure	200 bar
Burst pressure	1000 bar
Fatigue life	100 million cycles min
Accuracy	Up to 24bar = 0.25% Between 30bar and 100bar = 1% Max
Operable temperature	-40 to 120°C

AC/DC Current 100A Probe Specification:

Property	Specification
Current Range	100A DC or AC pk
Overload Capability without Damage	500A DC (for 1 min)
Output sensitivity	50mV/A (w.r.t. 0V)
Accuracy (@ +23 °C, I < 10A)	±1% of reading ± 2mA
Resolution	±1mA
Error due to Earth's Magnetic Field	±0.5mV (±10mA) max
Warm up zero Drift	3 minutes max from switch ON
Zero Drift (+10 °C to +28 °C) over 5 hour cycle	±2mA typ per °C / 18mA typ
Zero Drift with time (after 3 mins, over 1 hour cycle)	±10mA max, ±8mA typ
Zero Drift with time (over 12 hour cycle)	±12mA max, ±10mA typ
Zero Drift with time (over 24 hour cycle)	±20mA max, ±15mA typ
Frequency Range	DC to 20kHz (- 0.5dB)
Remanence (0A →100A → 0A)	12mA max
Operating Temperature Range	0 to +60°C

AC/DC Current 1800A Probe Specification:

Property	Specification
Current range	1800A AC peak or DC
Overload Capability	2000A
Overload Capability without damage	3000A < 10 ms
Output Sensitivity	2.778 mV/A (w.r.t. 0 V)
DC Accuracy (0–1000A)	± 0.8% of reading ± 0.5A
DC Accuracy (1000–1500A)	± 1.8% of reading ± 0.5A
Overall Accuracy (1500–1800A)	± 5.0% of reading
Conductor Position Sensitivity (0–1000A)	± 1.7% of reading
Resolution	± 100 mA
Zero Offset (at +25°C)	± 10 mV max
Zero Drift (0°C to +50°C)	± 100 mA/°C
Maximum Conductor Size	32 mm diameter
Eternal zero correction	