

Option Specifications (sold separately)

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 280 g (9.9 oz.), Accessories: None



HIGH SPEED ANALOG UNIT U8976

(Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)

Measurement functions	No. of channels: 2, for voltage measurement
Input terminals	Isolated BNC connector (input impedance 1 MΩ, input capacitance 22 pF) Max. rated voltage to ground: 1000 V AC, DC (with input isolated from the unit, the maximum voltage that can be applied between input channel and chassis and between input channels without damage)
Measurement range	100, 200, 400 mV f.s. 1, 2, 4, 10, 20, 40, 100, 200, 400 V f.s., 12 ranges AC voltage for possible measurement/display: 280 V rms Low-pass filter: 5/500/5 k/1 MHz
Measurement resolution	1/1600 of measurement range (using 12-bit A/D conversion)
Maximum sampling rate	200 MS/s (simultaneous sampling in 2 channels)
Measurement accuracy	±0.5% f.s. (with filter 5 Hz, zero position accuracy included)
Frequency characteristics	DC to 30 MHz -3 dB (with AC coupling: 7 Hz to 30 MHz -3 dB)
Input coupling	AC/DC/GND
Maximum input voltage	400 V DC (with direct input), 1000 V DC (with 9665)

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 250 g (8.8 oz.), Accessories: None



ANALOG UNIT 8966

(Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)

Measurement functions	No. of channels: 2, for voltage measurement
Input terminals	Isolated BNC connector (input impedance 1 MΩ, input capacitance 30 pF) Max. rated voltage to ground: 300 V AC, DC (with input isolated from the unit, the maximum voltage that can be applied between input channel and chassis and between input channels without damage)
Measurement range	100, 200, 400 mV f.s. 1, 2, 4, 10, 20, 40, 100, 200, 400 V f.s., 12 ranges AC voltage for possible measurement/display: 280 V rms Low-pass filter: 5/50/500/5 k/500 kHz
Measurement resolution	1/2000 of measurement range (using 12-bit A/D conversion)
Maximum sampling rate	20 MS/s (simultaneous sampling across 2 channels)
Measurement accuracy	±0.5% f.s. (with filter 5 Hz, zero position accuracy included)
Frequency characteristics	DC to 5 MHz -3 dB (with AC coupling: 7 Hz to 5 MHz -3 dB)
Input coupling	AC/DC/GND
Maximum input voltage	400 V DC (the maximum voltage that can be applied across input pins without damage)

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 250 g (8.8 oz.), Accessories: None



4CH ANALOG UNIT U8975

(Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)

Measurement functions	No. of channels: 4, for voltage measurement
Input terminals	Isolated BNC connector (input impedance 1 MΩ, input capacitance 30 pF) Max. rated voltage to ground: 300 V AC, DC (with input isolated from the unit, the maximum voltage that can be applied between input channel and chassis and between input channels without damage)
Measurement range	4, 10, 20, 40, 100, 200 V f.s., 6 ranges AC voltage for possible measurement/display: 140 V rms Low-pass filter: 5/500/5 k/200 kHz
Measurement resolution	1/32,000 of measurement range (using 16-bit A/D conversion)
Maximum sampling rate	5 MS/s (simultaneous sampling in 4 channels)
Measurement accuracy	±0.1% f.s. (with filter 5 Hz, zero position accuracy included)
Frequency characteristics	DC to 2 MHz -3 dB
Input coupling	DC / GND
Maximum input voltage	200 V DC (the maximum voltage that can be applied across input pins without damage)

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 250 g (8.8 oz.), Accessories: None



4CH ANALOG UNIT U8978

(Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)

Measurement functions	No. of channels: 4, for voltage measurement
Input terminals	Isolated BNC connector (input impedance 1 MΩ, input capacitance 30 pF) Max. rated voltage to ground: 30 V AC or 60V DC for direct input, 300 V AC, DC (CAT II) when combined with the 9665 (Between each input channel and the main unit, and between the input channels)
Measurement range	100, 200, 400 mV f.s. 1, 2, 4, 10, 20, 40 V f.s., 9 ranges Low-pass filter: 5/500/5 k/200 kHz
Measurement resolution	1/32,000 of measurement range (using 16-bit A/D conversion)
Maximum sampling rate	5 MS/s (simultaneous sampling in 4 channels)
Measurement accuracy	±0.3% f.s. (with filter 5 Hz, zero position accuracy included)
Frequency characteristics	DC to 2 MHz -3 dB
Input coupling	DC / GND
Maximum input voltage	40 V DC (with direct input), 400 V DC (with 9665)

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 260 g (9.2 oz.), Accessories: None



DIGITAL VOLTMETER UNIT MR8990

(Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and calibration, Accuracy guaranteed for 1 year)

Measurement functions	No. of channels: 2, for DC voltage measurement
Input terminals	Banana input connectors (Input resistance: 100 MΩ or higher with 100 mV f.s. to 10 V f.s. range, otherwise 10 MΩ) Max. rated voltage to ground: 300 V AC, DC (with input isolated from the unit, the maximum voltage that can be applied between input channel and chassis and between input channels without damage)
Measurement range	100, 1000 mV f.s. 10, 100, 1000 V f.s., 5 ranges
Measurement resolution	1/1,000,000 of measurement range (using 24-bit ΔΣ modulation A/D)
Integration Time	20 ms × NPLC (during 50 Hz), 16.67 ms × NPLC (during 60 Hz)
Response time	2 ms + 2x integration time or less (rise - f.s. → + f.s., fall + f.s. → - f.s.)
Basic measurement accuracy	±0.01% rdg. ±0.0025% f.s. (at range of 1000 mV f.s.)
Maximum input voltage	500 V DC (the maximum voltage that can be applied across input pins without damage)

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 250 g (8.8 oz.), Accessories: None



HIGH RESOLUTION UNIT 8968

(Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)

Measurement functions	No. of channels: 2, for voltage measurement
Input terminals	Isolated BNC connector (input impedance 1 MΩ, input capacitance 30 pF) Max. rated voltage to ground: 300 V AC, DC (with input isolated from the unit, the maximum voltage that can be applied between input channel and chassis and between input channels without damage)
Measurement range	100, 200, 400 mV f.s. 1, 2, 4, 10, 20, 40, 100, 200, 400 V f.s., 12 ranges AC voltage for possible measurement/display: 280 V rms Low-pass filter: 5/50/500/5 k/50 kHz
Anti-aliasing filter	Integrated filter for suppressing aliasing distortion caused by FFT processing (automatic cutoff frequency setting/OFF)
Measurement resolution	1/32,000 of measurement range (using 16-bit A/D conversion)
Maximum sampling rate	1 MS/s (simultaneous sampling across 2 channels)
Measurement accuracy	±0.3% f.s. (with filter 5 Hz, zero position accuracy included)
Frequency characteristics	DC to 100 kHz -3 dB (with AC coupling: 7 Hz to 100 kHz -3 dB)
Input coupling	AC/DC/GND
Maximum input voltage	400 V DC (the maximum voltage that can be applied across input pins without damage)

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 250 g (8.8 oz.), Accessories: None



DC/RMS UNIT 8972

(Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)

Measurement functions	No. of channels: 2, for voltage measurement, DC/RMS selectable
Input terminals	Isolated BNC connector (input impedance 1 MΩ, input capacitance 30 pF) Max. rated voltage to ground: 300 V AC, DC (with input isolated from the unit, the maximum voltage that can be applied between input channel and chassis and between input channels without damage)
Measurement range	100, 200, 400 mV f.s. 1, 2, 4, 10, 20, 40, 100, 200, 400 V f.s., 12 ranges AC voltage for possible measurement/display: 280 V rms Low-pass filter: 5/50/500/5 k/100 kHz
Measurement resolution	1/2000 of measurement range (using 12-bit A/D conversion)
Maximum sampling rate	1 MS/s (simultaneous sampling across 2 channels)
Measurement accuracy	±0.5% f.s. (with filter 5 Hz, zero position accuracy included)
RMS measurement	RMS accuracy: ±1% f.s. (DC, 30 Hz to 1 kHz) ±3% f.s. (1 kHz to 100 kHz) Response time: SLOW 5 s (rise time from 0 to 90% of full scale), MID 800 ms (rise time from 0 to 90% of full scale), FAST 100 ms (rise time from 0 to 90% of full scale) Crest factor: 2
Frequency characteristics	DC to 400 kHz -3 dB (with AC coupling: 7 Hz to 400 kHz -3 dB)
Input coupling	AC/DC/GND
Maximum input voltage	400 V DC (the maximum voltage that can be applied across input pins without damage)

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 230 g (8.1 oz.), Accessories: None



HIGH-VOLTAGE UNIT U8974

(Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)

Measurement functions	No. of channels: 2, for voltage measurement, DC/RMS selectable
Input terminals	Banana input terminal (input impedance: 4 MΩ, input capacitance: 5 pF) Max. rated voltage to ground: 1000 V AC, DC for measurement category III, 600 V AC, DC for measurement category IV (Between each input channel and the main unit, and between the input channels)
Measurement range	4, 10, 20, 40, 100, 200, 400, 1000 V f.s. (DC mode), 8 ranges 10, 20, 40, 100, 200, 400, 1000 V f.s. (RMS mode), 7 ranges Low-pass filter: 5/50/500/5 k/50 kHz
Measurement resolution	1/32,000 of measurement range (using 16-bit A/D conversion)
Maximum sampling rate	1 MS/s
Measurement accuracy	±0.25% f.s. (with filter 5 Hz, zero position accuracy included)
RMS measurement	RMS accuracy: ±1.5% f.s. (DC, 30 Hz to 1 kHz), ±3% f.s. (1 kHz to 100 kHz) Response time: High speed 150 ms, medium speed 500 ms, low speed 2.5 s
Frequency characteristics	DC to 100 kHz -3 dB
Input coupling	DC / GND
Maximum input voltage	1000 V DC, 700 V AC

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 245 g (8.6 oz.), Accessories: CONVERSION CABLE L9769 × 2 (cable length 60 cm (1.97 ft.))



STRAIN UNIT U8969

(Accuracy at 23 ±5°C/73 ±9°F, 80% RH or less after 30 minutes of warm-up time and auto-balance; Accuracy guaranteed for 1 year)

Measurement functions	No. of channels: 2, for distortion measurement (electronic auto-balancing, balance adjustment range within ±10,000 μe or less)
Input terminals	NDIS connector EPRC07-R9FNDIS (via CONVERSION CABLE L9769, NDIS connector PRC03-12A10-7M10.5) Max. rated voltage to ground: 30 V AC rms or 60 V DC (with input isolated from the main unit, the maximum voltage that can be applied between input channel and chassis, and between input channels without damage)
Suitable transducer	Strain gauge converter, Bridge impedance: 120 Ω to 1 kΩ, Bridge voltage: 2 V ±0.05 V, Gauge rate: 2.0
Measurement range	400, 1000, 2000, 4000, 10,000, 20,000 μe f.s., 6 ranges Low-pass filter: 5/10/100/1 kHz
Measurement resolution	1/25,000 of measurement range (using 16-bit A/D conversion)
Maximum sampling rate	200 kS/s (simultaneous sampling across 2 channels)
Measurement accuracy	±0.5% f.s. ±4 μe (5 Hz filter ON)
Frequency characteristics	DC to 20 kHz +1/-3 dB

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 190 g (6.7 oz.), Accessories: None



LOGIC UNIT 8973

Measurement functions	No. of channels: 16 channels (4 ch/1 probe connector × 4 connectors)
Input terminals	Mini DIN connector (for HIOKI logic probes only), Compatible logic probes: 9320-01, 9327, MR9321-01

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 250 g (8.8 oz.), Accessories: None



3CH CURRENT UNIT U8977 (Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)	
Measurement functions	No. of channels: 3, Current measurement with optional current sensor
Input terminals	Dedicated connector terminal (ME15W) (input impedance 1 MΩ, common GND with recorder)
Compatible current sensors	9272-05, CT6841-05, CT6843-05, CT6844-05, CT6845-05, CT6846-05, CT6862-05, CT6863-05, 9709-05, CT6904, CT6865-05, CT6875, CT6876, CT6877 (Direct connection) CT7631, CT7636, CT7642, CT7731, CT7736, CT7742, CT7044, CT7045, CT7046 (Connection using optional CONVERSION CABLE CT9920)
Measurement range	- Directly connected current sensor: Automatically identify rating of compatible current sensors Using 9272-05 (20 A), CT6841A: 2 A/ 4 A/ 10 A/ 20 A/ 40 A/ 100 A f.s. Using CT6862-05, CT6872: 4 A/ 10 A/ 20 A/ 40 A/ 100 A/ 200 A f.s. Using 9272-05 (200 A), CT6843A, CT6863-05, CT6873: 20 A/ 40 A/ 100 A/ 200 A/ 400 A/ 1000 A f.s. Using CT6844A, CT6845A, CT6904A, CT6875A: 40 A/ 100 A/ 200 A/ 400 A/ 1000 A/ 2000 A f.s. Using CT6846A, CT6876A: 100 A/ 200 A/ 400 A/ 1000 A/ 2000 A/ 4000 A f.s. Using CT6877A: 200 A/ 400 A/ 1000 A/ 2000 A/ 4000 A/ 10000 A f.s. - Current sensors connected using CT9920: Select conversion rate or model using CT7631, CT7731: 200 A Using CT7636, CT7736: 200 A/ 400 A/ 1000 A Using CT7642, CT7742: 2000 A/ 4000 A Using CT7044, CT7045, CT7046: 2000 A/ 4000 A/ 10000 A *The measurable range is limited by the connected sensor(s). Please check your current sensors' specifications.
Measurement accuracy (with 5 Hz filter ON) Note: Add the accuracy and attributes of the current sensor being used.	±0.3% f.s. Frequency characteristics: DC to 2 MHz ±3 dB
Measurement resolution	1/32,000 of measurement range (using 16-bit A/D conversion)
Maximum sampling rate	5 MS/s (simultaneous sampling in 3 channels)
Other functions	Input coupling: DC/GND, Low-pass filter: 5/500/5 k/200 kHz

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 230 g (8.1 oz.), Accessories: None



CHARGE UNIT U8979 (Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)	
Measurement functions	No. of channels: 2, for acceleration measurement
Input terminals	Voltage input / pre-amp embedded input: Metal BNC connector (Under voltage input: input impedance 1 MΩ, input capacitance 200 pF or less) Charge input: Miniature connector (#10-32UNF) Max. rated voltage to ground: 30 V AC or 60 V DC (with input isolated from the main unit, the maximum voltage that can be applied between input channel and chassis, and between input channels without damage) *Voltage input terminal GND and charge input terminal GND for the same channel are shared.
Suitable transducer	Charge output type acceleration detector Pre-amp embedded acceleration detector (IEPE type)
Measurement range	1 (m/s ²) to 200 k (m/s ²) f.s., 12 ranges x 6 types Charge input sensitivity: 0.1 to 10 pC/(m/s ²) Pre-amp embedded sensor input sensitivity: 0.1 to 10 mV/(m/s ²) Amplitude accuracy: ±2% f.s. Frequency characteristics: 1(1.5) to 50 kHz -3 dB (charge input) Low-pass filter: 500/5 kHz Pre-amp supply power: 3.5 mA ±20%, 22 V ±5% Maximum input charge: ±500 pC (6 ranges on high sensitivity side), 50,000 pC (6 ranges on low sensitivity side)
Measurement range	10 mV to 40 V f.s., 12 ranges, DC amplitude accuracy: ±0.5% f.s. Frequency characteristics: DC to 50 kHz -3 dB (with DC coupling), 1 Hz to 50 kHz -3 dB (with AC coupling) Low-pass filter: 5/500/5 kHz, input coupling: AC/DC/GND Maximum input voltage: 40 V DC
Measurement resolution	1/25,000 of measurement range (using 16-bit A/D conversion)
Maximum sampling rate	200 kS/s
Anti-aliasing filter	Integrated filter for suppressing aliasing distortion caused by FFT processing (automatic cutoff frequency setting/OFF)
TEDS	IEEE 1451.4 class 1 support (Support for sensor information reading and automatic sensitivity setting)

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 250 g (8.8 oz.), Accessories: None



FREQ UNIT 8970 (Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)	
Measurement functions	No. of channels: 2, for voltage input based frequency measurement, rotation, power frequency, integration, pulse duty ratio, pulse width
Input terminals	Isolated BNC connector (input impedance 1 MΩ, input capacitance 30 pF), Max. rated voltage to ground: 300 V AC, DC (with input isolated from the unit, the maximum voltage that can be applied between input channel and chassis and between input channels without damage)
Frequency mode	Measurement range: Between DC to 100 kHz (minimum pulse width 2 μs), 20 Hz to 100 kHz f.s., 8 ranges Accuracy: ±0.1% f.s. (exclude 100 kHz range), ±0.7% f.s. (100 kHz range)
Rotation mode	Measurement range: Between 0 to 2 million rotations/minute (minimum pulse width 2 μs), 2 kr/min to 2 Mr/min f.s., 7 ranges Accuracy: ±0.1% f.s. (exclude 2 Mr/min range), ±0.7% f.s. (2 Mr/min range)
Power frequency mode	Measurement range: 50 Hz (40 to 60 Hz), 60 Hz (50 to 70 Hz), 400 Hz (390 to 410 Hz), 3 ranges Accuracy: ±0.03 Hz (50, 60 Hz), ±0.1 Hz (400 Hz range)
Integration mode	Measurement range: 40 k-counts f.s. to 20 M-counts f.s. 6 ranges Accuracy: ±0.0025% f.s.
Duty ratio mode	Measurement range: Between 10 Hz to 100 kHz (minimum pulse width 2 μs), 100% f.s. Accuracy: ±1% (10 to 10 kHz), ±4% (10 k to 100 kHz)
Pulse width mode	Measurement range: Between 2 μs to 2 s, 10 ms to 2 s f.s. Accuracy: ±0.1% f.s.
Measurement resolution	0.0025% f.s. (Integration mode), 0.01% f.s. (exclude integration, power frequency mode), 0.01 Hz (power frequency mode)
Input voltage range and threshold level	±10 V to ±400 V, 6 ranges, selectable threshold level at each range
Other functions	Slope, Level, Hold, Smoothing, Low-pass filter, Switchable DC/AC input coupling, Frequency dividing, Integration over-range keep/return

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 250 g (8.8 oz.), Accessories: CONVERSION CABLE 9318 x 2 (To connect the current sensor to the 8971)



CURRENT UNIT 8971 (Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)	
Measurement functions	No. of channels: 2, Current measurement with optional current sensor
Input terminals	Sensor connector (input impedance 1 MΩ, exclusive connector for current sensor via conversion cable the 9318, common GND with recorder)
Compatible current sensors	CT6862, CT6863, 9709, CT6865, CT6841, CT6843, CT6844, CT6845, CT6846, 9272-10 (To connect to the 8971 via the CONVERSION CABLE 9318)
Measurement range	Using 9272-10 (20 A), CT6841A: 2 A/ 4 A/ 10 A/ 20 A/ 40 A/ 100 A f.s. Using CT6862-05, CT6872: 4 A/ 10 A/ 20 A/ 40 A/ 100 A/ 200 A f.s. Using 9272-05 (200 A), CT6843A, CT6863-05, CT6873: 20 A/ 40 A/ 100 A/ 200 A/ 400 A/ 1000 A f.s. Using CT6844A, CT6845A, CT6846A, CT6875A, CT6876A: 40 A/100 A/200 A/400 A/1000 A/2000 A f.s. How to connect to 8971: use Conversion Cable 9318 + Conversion Cable CT9901 *The measurable range is limited by the connected sensor(s). Please check your current sensors' specifications.
Measurement accuracy (with 5 Hz filter ON) Note: Add the accuracy and attributes of the current sensor being used.	±0.65% f.s. RMS accuracy: ±1% f.s. (DC, 30 Hz to 1 kHz), ±3% f.s. (1 kHz to 10 kHz) RMS response time: 100 ms (rise time from 0 to 90% of full scale) Crest factor: 2 Frequency characteristics: DC to 100 kHz ±3 dB (with AC coupling; 7 Hz to 100 kHz)
Measurement resolution	1/2000 of measurement range (using 12-bit A/D conversion)
Maximum sampling rate	1 MS/s (simultaneous sampling across 2 channels)
Other functions	Input coupling: AC/DC/GND, Low-pass filter: 5/50/500/5 k/50 kHz

Dimensions/mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 204.5 mm (8.05 in.) D, approx. 240 g (8.5 oz.), Accessories: Ferrite clamp x 2



TEMP UNIT 8967 (Accuracy at 23 ±5°C/73 ±9°F, 20 to 80% RH after 30 minutes of warm-up time and zero adjustment; Accuracy guaranteed for 1 year)	
Measurement functions	No. of channels: 2, for temperature measurement with thermocouple (voltage measurement not available)
Input terminals	Thermocouple input: Push-button terminal block, Recommended wire diameter: single-wire 0.14 to 1.5 mm ² , braided wire 0.14 to 1.0 mm ² (conductor wire diameter φ0.18 mm (0.01 in) or more), AWG 26 to 16 Input impedance: min. 5 MΩ (with line fault detection ON/OFF) Max. rated voltage to ground: 300 V AC, DC (with input isolated from the unit, the maximum voltage that can be applied between input channel and chassis and between input channels without damage)
Temperature measurement range	200°C (392°F) f.s. (-100°C to 200°C (-148°F to 392°F)), 1000°C (1832°F) f.s. (-200°C to 1000°C (-328°F to 1832°F)), 2000°C (3632°F) f.s. (-200°C to 2000°C (-328°F to 3632°F)), 3 ranges Note: Upper and lower limit values depend on the thermocouple Measurement resolution: 1/20,000 of measurement range (using 16-bit A/D conversion)
Thermocouple range (JIS C 1602-1995) (ASTM E-988-96)	K: -200°C to 1350°C (-328°F to 2462°F), J: -200°C to 1100°C (-328°F to 2012°F), E: -200°C to 800°C (-328°F to 1472°F), T: -200°C to 400°C (-328°F to 752°F), N: -200°C to 1300°C (-328°F to 2372°F), R: 0°C to 1700°C (32°F to 3092°F), S: 0°C to 1700°C (32°F to 3092°F), B: 400°C to 1800°C (752°F to 3272°F), W (WR5-26): 0 to 2000°C (32°F to 3632°F) Reference junction compensation: internal/external (switchable), line fault detection ON/OFF possible
Data refresh rate	3 methods, Fast: 1.2 ms (digital filter OFF), Normal: 100 ms (digital filter 50/60 Hz), Slow: 500 ms (digital filter 10 Hz) Thermocouple K, J, E, T, N: ±0.1% f.s. ±1°C (±1.8°F), (±0.1% f.s. ±2°C (±3.6°F) at -200°C to 0°C (-328°F to 32°F)) Thermocouple R, S, B, W: ±0.1% f.s. ±3.5°C (±6.3°F) (at 0°C (32°F) to less than 400°C (752°F)); However, no accuracy guarantee at less than 400°C (752°F) for B), ±0.1% f.s. ±3°C (±5.4°F) (at 400°C or more) Reference junction compensation [RJC] accuracy: ±1.5°C (±2.7°F) (added to measurement accuracy with internal reference junction compensation)

Dimensions and mass: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 250 g (8.8 oz.), Accessories: None



ARBITRARY WAVEFORM GENERATOR UNIT U8793 (Accuracy at 23 ±5°C/73 ±9°F, 80% rh or less after 30 minutes or more of warm-up time; Power supply frequency range of installed MEMORY RECORDER at 50 Hz/60 Hz ±2 Hz; Accuracy guaranteed for 1 year)	
Output terminal	Number of channels: 2, SMB terminal (Output impedance: 1 Ω or less) Max. rated voltage to ground: 33 V rms AC or 70 V DC
Output voltage range	-10 V to 15 V (Amplitude setting range: 0 V to 20 V p-p, Setting resolution: 1 mV)
Max. output current	10 mA (Allowable load resistance: 1.5 kΩ or more)
FG function	DC, Sine wave, Square wave, Pulse wave, Triangular wave, Ramp wave, Output frequency: 10 Hz to 100 kHz
Arbitrary waveform generator mode	Waveforms measured by MR8847A, etc., generated by Hioki Model 7075 or SF8000, CSV waveforms D/A refresh rate: 2 MHz (using 16-bit D/A)
Sweep function	Frequency, Amplitude, Offset, Duty (Pulse only)
Program function	Max. 128 steps (Number of loops for each step, Number of total loops)
Other	Self-test function (Voltage), External input/output control

Dimensions and weight: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 230 g (8.1 oz.), Accessories: none



WAVEFORM GENERATOR UNIT MR8790 (Accuracy at 23 ±5°C [73 ±9°F], 80% rh after 30 minutes of warm-up time; accuracy guaranteed for 1 year)	
Output terminal	Number of channels: 4, SMB terminal (output impedance: 1 Ω or less) Max. rated voltage to ground: 30 V rms AC or 60 V DC
Output voltage range	-10 V to 10 V (amplitude setting range: 0 V to 20 V p-p, setting resolution: 1 mV)
Max. output current	5 mA
Output function	DC, sine wave (output frequency range: 1 Hz to 20 kHz)
Accuracy	Amplitude accuracy: ±0.25% of setting ±2 mV p-p (1 Hz to 10 kHz) Offset accuracy: ±3 mV DC output accuracy: ±0.6 mV
Other	Self-test function (voltage, current)

Dimensions and weight: approx. 106 mm (4.17 in.) W x 19.8 mm (0.78 in.) H x 196.5 mm (7.74 in.) D, approx. 230 g (8.1 oz.), Accessories: none



PULSE GENERATOR UNIT MR8791 (Accuracy at 23 ±5°C [73 ±9°F], 80% rh or less with no condensation; accuracy guaranteed for 1 year)	
Output terminal	Number of channels: 8, Connector: D-sub, half-pitch, 50-pin Max. rated voltage to ground: 30 V rms AC or 60 V DC (between unit and output channels) Logic output, open collector output
Output mode 1	Pattern output: read frequency: 10 Hz to 120 kHz, 2,048 logic patterns Pulse output: frequency 0.1 Hz to 20 kHz, duty 0.1% to 99.9% Logic output voltage level: 0 V to 5 V (high level: 3.8 V or more, low level: 0.8 V or less)
Output mode 2	Open collector output: 50 V absolute maximum rated voltage for collector/emitter Overcurrent protection: 100 mA
Other	Self-test function