HIOKI

AC/DC CURRENT PROBE CT6833, CT6834
AC/DC CURRENT PROBE CT6830, CT6831
AC/DC CURRENT SENSOR CT7812, CT7822

NEW

Unrivaled sensing technology

HIOKI's new current sensor features a small size while delivering precise and reliable performance across a wide temperature range. Perfect for automotive testing, it simplifies installation in tight spaces, enhances measurement accuracy, and improves testing efficiency. Experience innovation that saves time and increases accuracy,.

CT6833	CT6834
200 A (RMS)	500 A (RMS)
Measurement accuracy ±0.07 % of reading	Frequency range DC to 50 kHz

CT6830 / CT7812	CT6831 / CT7822
2 A (RMS)	20 A (RMS)
Measurement accuracy ±0.3 % of reading	Frequency range DC to 100 kHz

CE

Half the size, twice the convenience

AC/DC CURRENT PROBE

CT6833, CT6834

Current probes for automotive certification testing

With its compact design, these sensors easily connect to cables in tight motor compartments, significantly reducing setup-time and enhancing overall efficiency.

- Current rating: **200 A** (CT6833), **500 A** (CT6834)
- Frequency range: **DC to 50 kHz**
- Accuracy: **±0.07% of reading**
- Operating Temperature: **-40°C to +85°C**

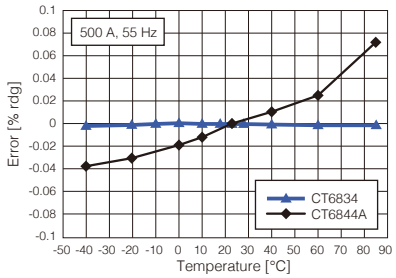
Maximum conductor diameter Φ20 mm

Easy lock mechanism with a single finger

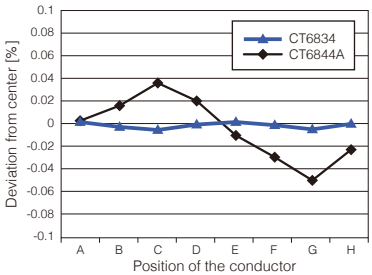
50% smaller than the previous model

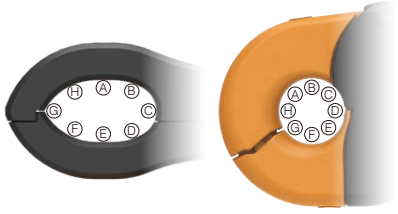
Advanced fluxgate technology that redefines measurement performance

Superior temperature stability

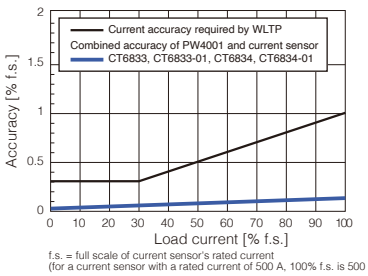


High reproducibility regardless of conductor position





Exceptional accuracy for WLTP across all current ranges



f.s. = full scale of current sensor's rated current
(for a current sensor with a rated current of 500 A, 100% f.s. is 500 A)

Precision fits in your hand

AC/DC CURRENT PROBE

CT6830, CT6831

AC/DC CURRENT SENSOR

CT7812, CT7822

The future standard in a compact size.

The CT6830, CT6831, CT7812, and CT7822 were developed with the concept of "easily clamp wires in tight spaces."
As the world's smallest zero-flux AC/DC current probes and sensors, these offer high accuracy with a lightweight design.

Maximum conductor diameter
Φ5 mm

- Current rating: **2 A** (CT6830, CT7812), **20 A** (CT6831, CT7822)
- Frequency range: **DC to 100 kHz**
- Accuracy: **±0.3% of reading**
- Operating Temperature: **-40°C to +85°C**

For precision power analyzer

CT6830 CT6831

For multichannel data logger

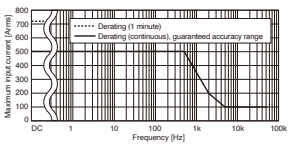
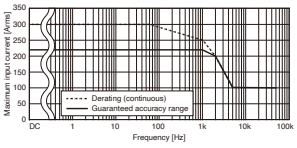
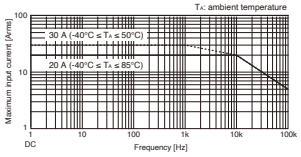
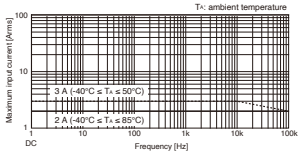
CT7812 CT7822

Application

Pinpoint ECU issues in completed-vehicle testing

The compact CT7812 (2 A) and CT7822 (20 A) sensors access intricate wiring with ease and ensure stable, high-accuracy current measurements. Combined with the LR8450 Data Logger, they record CAN signals and current data simultaneously, enabling quick issue identification.

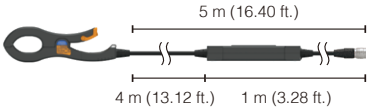
High-accuracy clamp current sensors

	CT6834, CT6834-01	CT6833, CT6833-01	CT6831, CT7822	CT6830, CT7812
Appearance				
Rated current	500 A AC/DC	200 A AC/DC	20 A AC/DC	2 A AC/DC
Frequency band	DC to 50 kHz	DC to 50 kHz	DC to 100 kHz	DC to 100 kHz
Diameter of measurable conductors	Max. ϕ 20 mm (0.79 in.)	Max. ϕ 20 mm (0.79 in.)	Max. ϕ 5 mm (0.20 in.)	Max. ϕ 5 mm (0.20 in.)
Accuracy (Sensor only (amplitude) ±(% of reading + % of full scale) Full scale is the rated current of sensor)	DC : ±0.07% ±0.01% DC < f < 16 Hz : ±0.15% ±0.01% 16 Hz ≤ f ≤ 66 Hz : ±0.07% ±0.007% 66 Hz < f ≤ 100 Hz : ±0.07% ±0.007% 100 Hz < f ≤ 500 Hz : ±0.1% ±0.01% 500 Hz < f ≤ 1 kHz : ±0.25% ±0.02% 1 kHz < f ≤ 20 kHz : ±(0.25 × f)% ±0.02%	DC : ±0.07% ±0.01% DC < f < 16 Hz : ±0.15% ±0.01% 16 Hz ≤ f ≤ 66 Hz : ±0.07% ±0.007% 66 Hz < f ≤ 100 Hz : ±0.07% ±0.007% 100 Hz < f ≤ 500 Hz : ±0.1% ±0.01% 500 Hz < f ≤ 1 kHz : ±0.25% ±0.02% 1 kHz < f ≤ 20 kHz : ±(0.25 × f)% ±0.02%	DC : ±0.3% ±0.10% DC < f ≤ 66 Hz : ±0.3% ±0.01% (CT6831) : ±0.3% ±0.05% (CT7822) 66 Hz < f ≤ 500 Hz : ±0.3% ±0.02% (CT6831) : ±0.3% ±0.05% (CT7822) 500 Hz < f ≤ 1 kHz : ±0.5% ±0.05% 1 kHz < f ≤ 5 kHz : ±1.0% ±0.10% 5 kHz < f ≤ 10 kHz : ±5.0% ±0.10% 10 kHz < f ≤ 100 kHz : ±30% ±0.02%	DC : ±0.3% ±0.10% DC < f ≤ 66 Hz : ±0.3% ±0.05% 66 Hz < f ≤ 500 Hz : ±0.3% ±0.05% 500 Hz < f ≤ 1 kHz : ±0.5% ±0.05% 1 kHz < f ≤ 5 kHz : ±1.0% ±0.10% 5 kHz < f ≤ 10 kHz : ±5.0% ±0.10% 10 kHz < f ≤ 100 kHz : ±30% ±0.02%
Operating temperature	Sensor: -40°C to 85°C (-40°F to 185°F), 80% RH or less Relay box: -25°C to 50°C (-77°F to 122°F), 80% RH or less	Sensor: -40°C to 85°C (-40°F to 185°F), 80% RH or less Relay box: -25°C to 50°C (-77°F to 122°F), 80% RH or less	Sensor: -40°C to 85°C (-40°F to 185°F), 80% RH or less Relay box: -25°C to 50°C (-77°F to 122°F), 80% RH or less	Sensor: -40°C to 85°C (-40°F to 185°F), 80% RH or less Relay box: -25°C to 50°C (-77°F to 122°F), 80% RH or less
Dimensions	Sensor: approx. 149W × 46H × 16.5D mm (approx. 5.87W × 1.81H × 0.65D in.) Relay box: approx. 126W × 57H × 20.5D mm (approx. 4.96W × 2.24H × 0.81D in.)	Sensor: approx. 149W × 46H × 16.5D mm (approx. 5.87W × 1.81H × 0.65D in.) Relay box: approx. 126W × 57H × 20.5D mm (approx. 4.96W × 2.24H × 0.81D in.)	Sensor: approx. 76.5W × 23.4H × 14.2D mm (approx. 3.00W × 0.92H × 0.56D in.) Relay box: approx. 80W × 20H × 26.5D mm (approx. 3.15W × 0.79H × 1.04D in.)	Sensor: approx. 76.5W × 23.4H × 14.2D mm (approx. 3.00W × 0.92H × 0.56D in.) Relay box: approx. 80W × 20H × 26.5D mm (approx. 3.15W × 0.79H × 1.04D in.)
Connector type	HIOKI ME15W	HIOKI ME15W	CT6831: HIOKI ME15W CT7822: HIOKI PL14	CT6833: HIOKI ME15W CT7812: HIOKI PL14
Cable length	CT6834: approx. 5 m (16.40 ft.) including relay box CT6834-01: approx. 10 m (32.81 ft.) including relay box	CT6833: approx. 5 m (16.40 ft.) including relay box CT6833-01: approx. 10 m (32.81 ft.) including relay box	Between sensor and relay box: approx. 4 m (13.12 ft.) Between relay box and output connector: approx. 0.2 m (0.66 ft.)	Between sensor and relay box: approx. 4 m (13.12 ft.) Between relay box and output connector: approx. 0.2 m (0.66 ft.)
Weight	CT6834: approx. 500 g (17.64 oz.) CT6834-01: approx. 710 g (25.05 oz.)	CT6833: approx. 500 g (17.64 oz.) CT6833-01: approx. 710 g (25.05 oz.)	CT6831: approx. 160 g (5.64 oz.) CT7822: approx. 140 g (4.94 oz.)	CT6830: approx. 160 g (5.64 oz.) CT7812: approx. 140 g (4.94 oz.)
Derating properties				

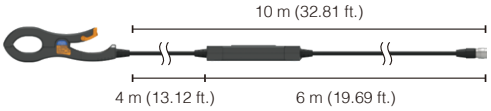
Custom cable lengths are also available. Please inquire with your Hioki distributor.

Cable lengths

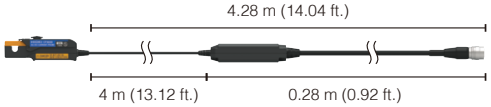
CT6833, CT6834



CT6833-01, CT6834-01



CT6830, CT6831, CT7812, CT7822



Options

CT6830, CT6831, CT6833, CT6834, CT6833-01, CT6834-01			
POWER ANALYZER	PW8001	CURRENT UNIT	U8977
POWER ANALYZER	PW4001	POWER MESUREMENT MODULE	M7103
POWER ANALYZER	PW6001		
POWER ANALYZER	PW3390		

Connector type
HIOKI ME15W
(12-pin terminal)

External power supplies and connection cords

Sensor Unit CT9555
Power supply for current sensor (1ch, with waveform output)

Sensor Unit CT9556
Power supply for current sensor (1ch, with waveform/RMS output. Waveform and RMS outputs can be used simultaneously)

Sensor Unit CT9557
Power supply for current sensor (4ch, with additive function, waveform/RMS output. Waveform and RMS outputs can be used simultaneously)

Connection Cord L9217
BNC with insulation on both ends of the cord, 1.6 m (5.25 ft.)

Connection Cord 9165
BNC with metal on both ends of the cord, used for metallic BNC terminals, 1.5 m (4.92 ft.)

Extention cable CT9902
HIOKI ME15W (12 pin) - HIOKI ME15W (12 pin) connector, 5 m (16.40 ft.)*
*Connects up to 2 cables

CT7812, CT7822	
CURRENT MODULE	U8556
WIRELESS CURRENT MODULE	LR8536

Connector type
HIOKI PL14

HIOKI E.E. CORPORATION

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