

HIOKI



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

NEW



Unrivalled 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

CT6831

CT7812

CT7822

2 A(RMS) 20 A(RMS)

Measurement accuracy ± 0.3 % of reading Frequency range DC to 100 kHz



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: $\pm 0.07\%$ of reading
- Operating Temperature: -40°C to $+85^{\circ}\text{C}$

50% smaller than the previous model

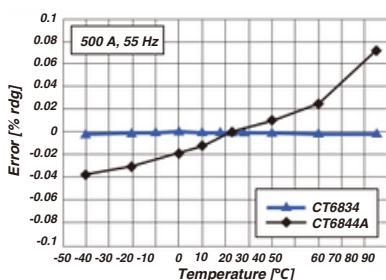
$\Phi 20\text{ mm}$

Maximum conductor diameter
 $\Phi 20\text{ mm}$

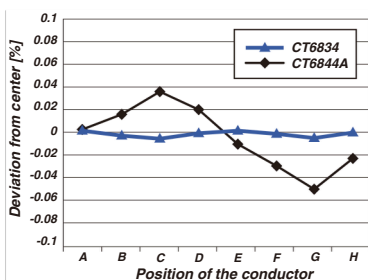
Easy lock mechanism with a single finger

Advanced fluxgate technology that redefines measurement performance

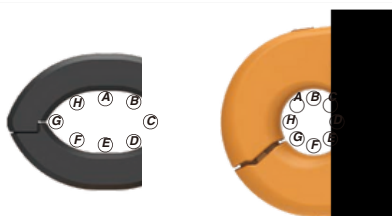
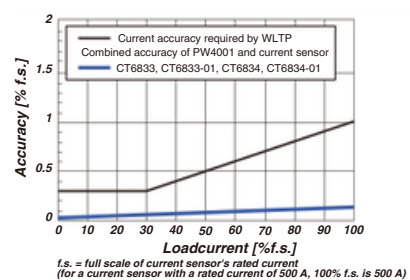
Superior temperature stability



High reproducibility regardless of conductor position



Exceptional accuracy for WLTP across all current ranges



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





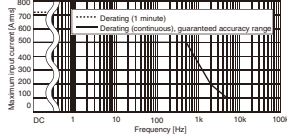
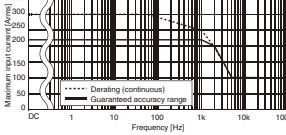
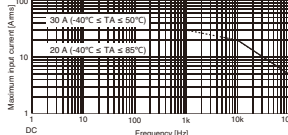
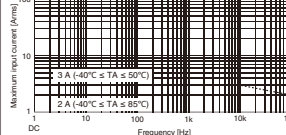


Application

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.

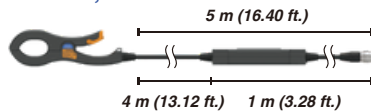
High-accuracy clamp current sensors

	CT6834, CT6834-01	CT6833, CT6833-01	CT6831, CT7822	CT6830, CT7812
Appearance			 ME15W PL14	 ME15W PL14
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. \varnothing 20 mm (0.79 in.)	Max. \varnothing 20 mm (0.79 in.)	Max. \varnothing 5 mm (0.20 in.)	Max. \varnothing 5 mm (0.20 in.)
Accuracy	DC : $\pm 0.07\% \pm 0.01\%$ DC < f < 16 Hz : $\pm 0.15\% \pm 0.01\%$ 16 Hz \leq f \leq 66 Hz : $\pm 0.07\% \pm 0.007\%$ 100 Hz < f \leq 500 Hz : $\pm 0.07\% \pm 0.007\%$ 500 Hz < f \leq 1 kHz : $\pm 0.1\% \pm 0.01\%$ 1 kHz < f \leq 20 kHz : $\pm 0.1\% \pm 0.01\%$ Sensor: -40°C to 85°C (-40°F to 185°F), 80% RH or less : $\pm 0.25\% \times f$ Relay box: -25°C to 50°C (-77°F to 122°F), 80% RH or less : $\pm 0.25\% \times f$	DC : $\pm 0.07\% \pm 0.01\%$ DC < f < 16 Hz : $\pm 0.15\% \pm 0.01\%$ 16 Hz \leq f \leq 66 Hz : $\pm 0.07\% \pm 0.007\%$ 100 Hz < f \leq 500 Hz : $\pm 0.07\% \pm 0.007\%$ 500 Hz < f \leq 1 kHz : $\pm 0.1\% \pm 0.01\%$ 1 kHz < f \leq 20 kHz : $\pm 0.1\% \pm 0.01\%$ Sensor: -40°C to 85°C (-40°F to 185°F), 80% RH or less : $\pm 0.25\% \times f$ Relay box: -25°C to 50°C (-77°F to 122°F), 80% RH or less : $\pm 0.25\% \times f$	DC : $\pm 0.3\% \pm 0.10\%$ DC < f \leq 66 Hz : $\pm 0.3\% \pm 0.01\%$ (CT6831) 66 Hz < f \leq 500 Hz : $\pm 0.3\% \pm 0.05\%$ (CT7822) 500 Hz < f \leq 1 kHz : $\pm 0.3\% \pm 0.05\%$ (CT7822) 1 kHz < f \leq 5 kHz : $\pm 0.5\% \pm 0.05\%$ 5 kHz < f \leq 10 kHz : $\pm 0.5\% \pm 0.05\%$ 10 kHz < f \leq 100 kHz : $\pm 5.0\% \pm 0.10\%$	DC : $\pm 0.3\% \pm 0.10\%$ DC < f \leq 66 Hz : $\pm 0.3\% \pm 0.05\%$ 66 Hz < f \leq 500 Hz : $\pm 0.3\% \pm 0.05\%$ 500 Hz < f \leq 1 kHz : $\pm 0.5\% \pm 0.05\%$ 1 kHz < f \leq 5 kHz : $\pm 1.0\% \pm 0.10\%$ 5 kHz < f \leq 10 kHz : $\pm 5.0\% \pm 0.10\%$ 10 kHz < f \leq 100 kHz : $\pm 30\% \pm 0.02\%$
Operating temperature	Sensor: approx. 149W \times 46H \times 16.5D mm (approx. 5.87W \times 1.81H \times 0.65D in.) Relay box: approx. 126W \times 57H \times 20.5D mm (approx. 4.96W \times 2.24H \times 0.81D in.) HIOKI ME15W	Sensor: approx. 149W \times 46H \times 16.5D mm (approx. 5.87W \times 1.81H \times 0.65D in.) Relay box: approx. 126W \times 57H \times 20.5D mm (approx. 4.96W \times 2.24H \times 0.81D in.) HIOKI ME15W	Sensor: approx. 76.5W \times 23.4H \times 14.2D mm (approx. 3.00W \times 0.92H \times 0.56D in.) Relay box: approx. 80W \times 20H \times 26.5D mm (approx. 3.15W \times 0.79H \times 1.04D in.) CT6831: HIOKI ME15W CT7822: HIOKI PL14	Sensor: approx. 76.5W \times 23.4H \times 14.2D mm (approx. 3.00W \times 0.92H \times 0.56D in.) Relay box: approx. 80W \times 20H \times 26.5D mm (approx. 3.15W \times 0.79H \times 1.04D in.) CT6830: HIOKI ME15W CT7812: HIOKI PL14
Dimensions	mm (approx. 4.96W \times 2.24H \times 0.81D in.)	mm (approx. 4.96W \times 2.24H \times 0.81D in.)	mm (approx. 3.00W \times 0.92H \times 0.56D in.)	mm (approx. 3.00W \times 0.92H \times 0.56D in.)
Connector type	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	CT6831: HIOKI ME15W CT7822: HIOKI PL14 Between sensor and relay box: approx. 4 m (13.12 ft.) Between relay box and output connector: approx. 0.2 m (0.66 ft.)	CT6830: HIOKI ME15W CT7812: HIOKI PL14 Between sensor and relay box: approx. 4 m (13.12 ft.) Between relay box and output connector: approx. 0.2 m (0.66 ft.)
Cable length	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				

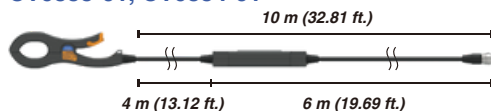
Custom cable lengths are also available. Please inquire with your Hioki distributor.

Cable lengths

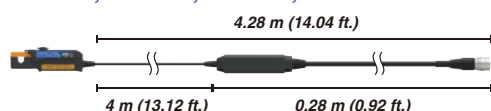
CT6833, CT6834



CT6833-01, CT6834-01








CT6830, CT6831, CT7812, CT7822



Options

CT6830, CT6831, CT6833, CT6834, CT6833-01, CT6834-01			
POWER ANALYZER	PW800	CURRENT UNIT	U8977
POWER ANALYZER	PW400	POWER MEASUREMENT MODULE	M7103
POWER ANALYZER	PW600		
POWER ANALYZER	PW339		

External power supplies and connection cords

	Unit		Unit			
Sensor CT9555	Power supply for current (1 ch, with waveform output)	Sensor CT9557	Power supply for current (4 ch, with additive function, waveform/RMS output. Waveform and RMS outputs can be used simultaneously)	Connection Cord L9217	Connection Cord 9165	Extension cable CT9902
Sensor Unit CT9556	Power supply for current sensor with waveform/RMS output. Waveform and RMS outputs can be used simultaneously			BNC with insulation on both ends of the cord, 1.6 m (5.25 ft.)	BNC with metal on both ends of the cord, used for metallic BNC terminals, 1.5 m (4.92 ft.)	HIOKI ME15W (12 pin) - HIOKI ME15W (12 pin) connector, 5 m (16.40 ft.) *Connects up to 2 cables
				CT7812, CT7822		
				CURRENT MODULE		
				UPPER CURRENT MODULE	U8556	
				LOWER CURRENT MODULE	LR8536	

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