

FCS-1000

(EL0193)

SOLID-CORE FLUX GATE CURRENT SENSOR 1.000A DC PRIMARY

DATASHEET



The UHACS sensor series delivers revenue-grade measurement accuracy for most applications when paired with our PRO Series meters.

Based on advanced active sensing technology, UHACS sensors provide the exceptional linearity and stability required for utility-grade metering across today's diverse energy landscape.

TECHNICAL SPECIFICATIONS

GENERAL CHARACTERISTICS

Primary Nominal current DC	$\pm 1,000\text{A DC}$
Linear measuring range (1min)	$1.1 \times I_n$
Primary overload current	$\pm 1,100\text{A DC @ 1 min}$
Nominal output signals	$\pm 40\text{mA}$
Supply voltage	$\pm 15\text{V DC } (\pm 5\%)$
Current consumption (Max)	$\pm 670\text{mA}$
Galvanic isolation	$5\text{kV RMS / min @ 50Hz}$
Conversion ratio (A/mA)	$1,000 : 40$
Weight	$4.0 \text{ kg } (\pm 0.2 \text{ kg})$
Protection of Case	IP65

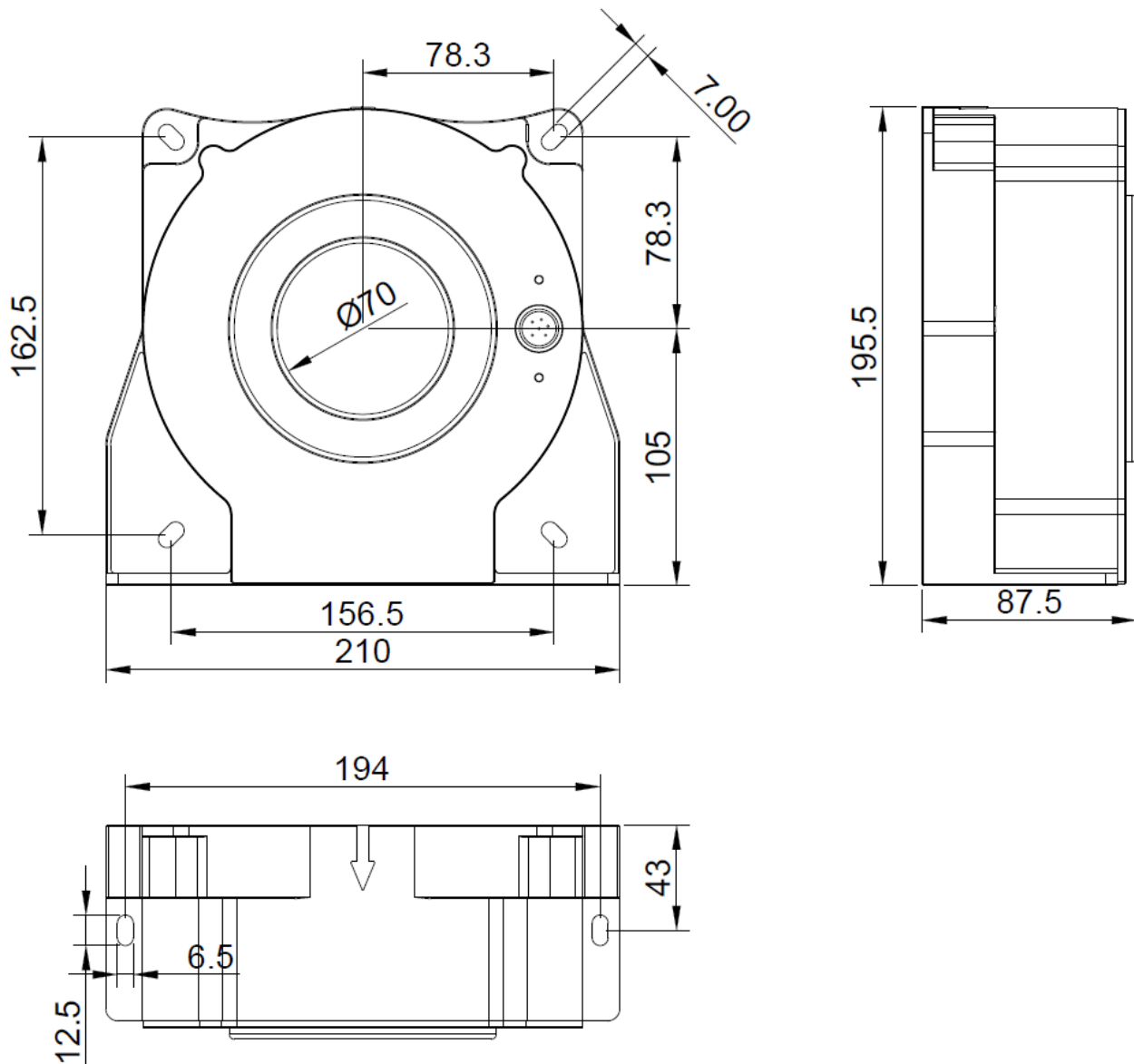
ACCURACY

Zero offset current	$\pm 1 \mu\text{A } (@25^\circ\text{C})$
Offset temperature coefficient	25 ppm / K
Measuring resistance	250Ω
Response time	$\pm 20 \mu\text{s (di/dt of } 100\text{A}/\mu\text{s rise to } 90\% I_n)$
Accuracy	$0.1\% (I_n - 0.05 I_n)$
Linearity	0.02%
Bandwidth (-3dB) / BW	DC-20kHz

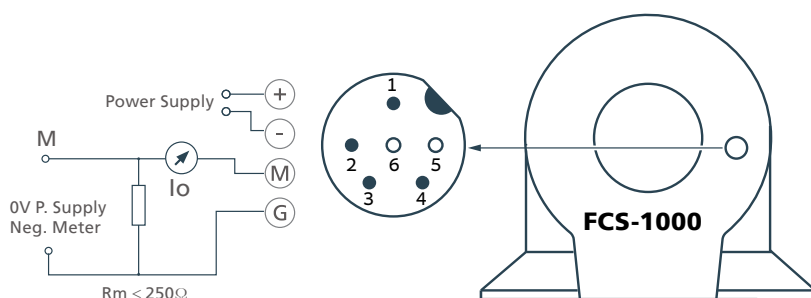
ENVIRONMENTAL

Operating temperature	$-40^\circ\text{C} \sim +85^\circ\text{C}$
Storage temperature	$-55^\circ\text{C} \sim +95^\circ\text{C}$

DIMENSIONS (MM)



WIRING SENSORS



Pins

1:	+15V (+)
2:	-15V (-)
3:	0V / Neg. Output (G)
4:	Pos. Output (M)
5:	N/A
6:	N/A

IMPORTANT NOTES



- **Incorrect connection may lead to the damage of the sensor.** Connect the terminals of power source and output respectively and correctly. **Please pay special attention to the 0V / Negative Current Output connection.**
- The best accuracy can be achieved when the window is fully filled with bus-bar (current carrying conductor).
- The current sensor is not allowed to be used when the secondary output is open-circuited, that is, when the primary has current or the sensor is powered on, the secondary output terminal is not allowed to be disconnected; only when the bus has no current and the sensor is not powered on, the current output terminal of the sensor can be disconnected . Otherwise, high voltage may be induced and there is a danger of electric shock or equipment damage.
- When you need to move the product, please be sure to cut off the power first and unplug all the connecting cables connected to it.