

FCS-1000 DATASHEET

Solid Core UHACS - Ultra High Accuracy Current Sensor

This UHACS has a high gain and measurement accuracy in the full bandwidth range, due to the application of the multi-point zero-flux technology system and high-frequency ripple sensing channel on top of currently existing DC sensor technology.



TECHNICAL SPECIFICATIONS

GENERAL CHARACTERISTICS

Primary Nominal current DC	± 1000A DC
Linear measuring range (1min)	1.1 x IPN_DC
Primary Nominal current AC	± 707 AC (refers to AC effective value)
Nominal output signals	±40mA
Supply voltage	±15VDC (±5%)
Current consumption	±600mA
Galvanic isolation	5KV RMS/50Hz/min
Conversion ratio (A/mA)	1000:40
Weight	3.20 ± 0.2 kg
Protection of Case	IP65



ACCURACY

Zero offset current	±1 µA (@25 °C)
Offset temperature coefficient	50 ppm / K
Measuring resistance	250 Ohm
Response time	1µs (di/dt of 100A/µs rise to 90% Ipn)
Accuracy	0,1% (Ipn - 0,05 Ipn)
Linearity	0,02% FS

ENVIRONMENTAL

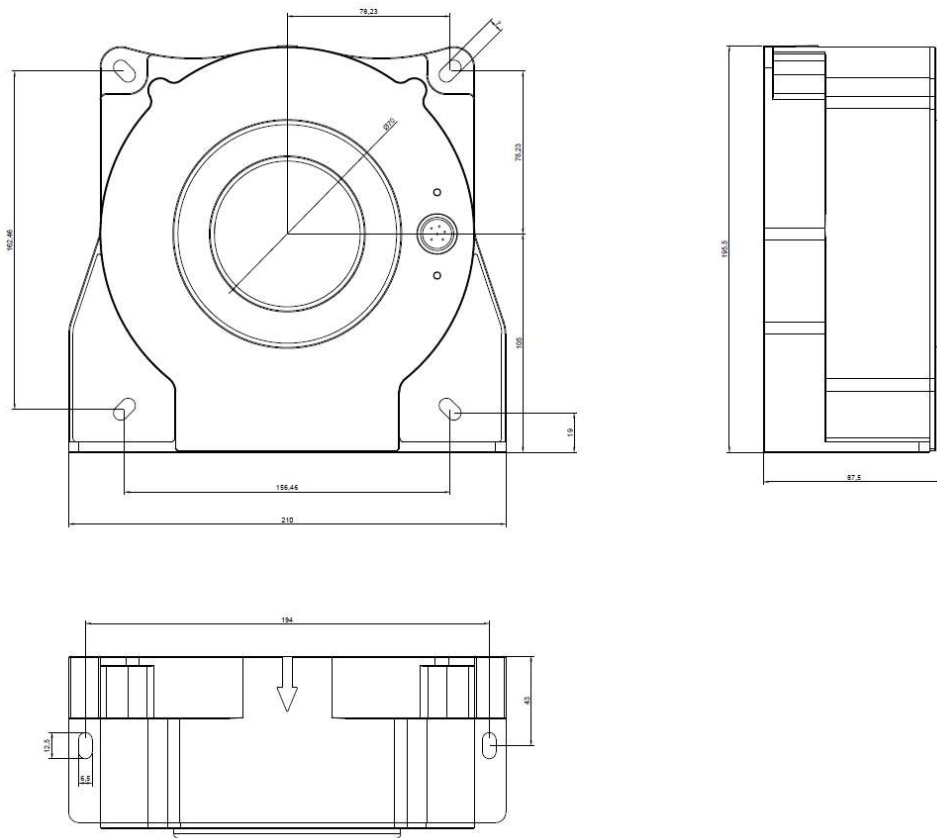
Operating temperature	-40°C ~ +85°C
Storage temperature	-55°C ~ +95°C

DEFINITION OF PART NUMBER

FCS - **1000**

Rated Input current **M** = 1000A

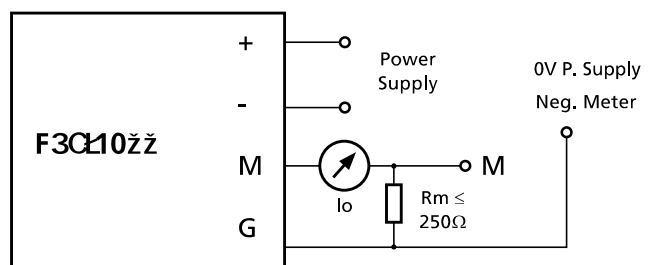
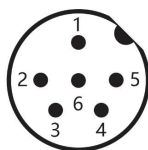
DIMENSIONS (MM)



WIRING SENSORS

Pins

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