UHACS FCS-1000 DATASHEET (EL01XX)

Solid Core Flux Gate Current Sensor

The flux gate sensor delivers high gain and exceptional measurement accuracy across the entire bandwidth range. This performance is achieved through the integration of a multi-point zero-flux technology system combined with high-frequency ripple sensing, providing an advanced channel that enhances existing DC sensor technology.

TECHNICAL SPECIFICATIONS

GENERAL CHARACTERISTICS

Primary Nominal current DC	± 1100A DC
Linear measuring range (1min)	1.1 x IPN_DC
Primary Nominal current AC	± 770 AC (refers to AC effective value)
Nominal output signals	±40mA
Supply voltage	±15VDC (±5%)
Current consumption	±670mA
Galvanic isolation	5KV RMS/50Hz/min
Conversion ratio (A/mA)	1000:40
Weight	4.0 ± 0.2 kg
Protection of Case	IP65

ACCURACY

Zero offset current	±1 μA (@25 °C)
Offset temperature coefficient	25 ppm / K
Measuring resistance	250 Ohm
Response time	20μs (di/dt of 100A/μs rise to 90% Ipn)
Accuracy	0,1% (Ipn - 0,05 Ipn)
Linearity	0,02% FS
Bandwidth (-3dB) / BW	DC-20kHZ

ENVIRONMENTAL

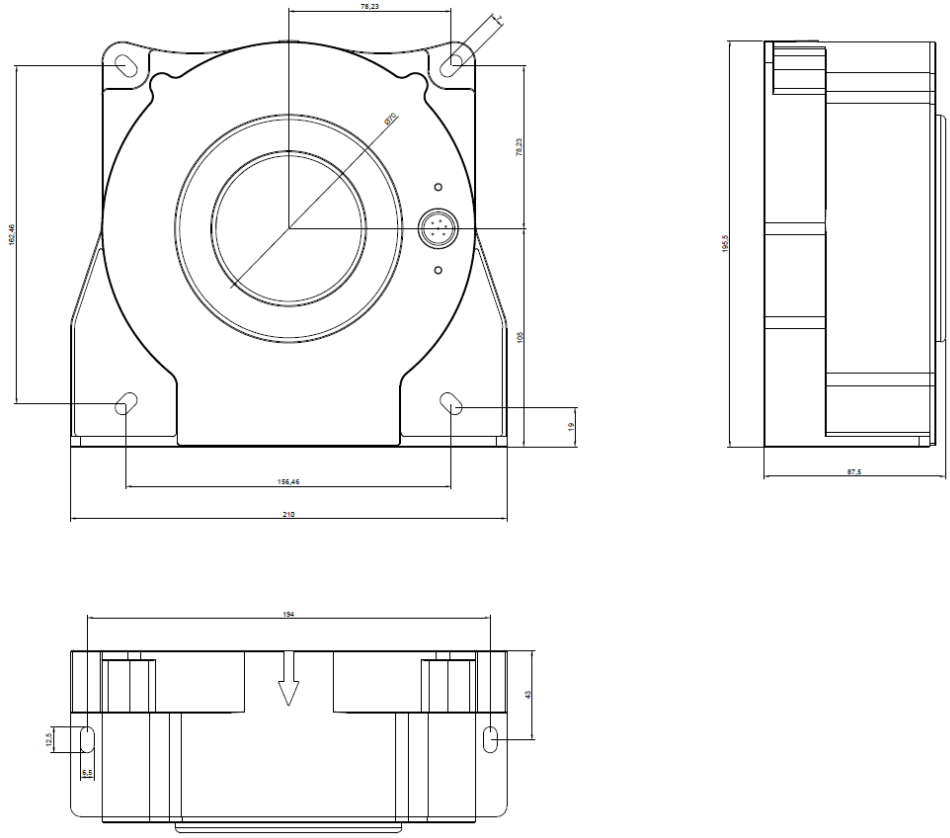
Operating temperature	-40°C ~ +85°C
Storage temperature	-55°C ~ +95°C

DEFINITION OF PART NUMBER

FCS	-	1000	

Rated Input current M = 1000A

DIMENSIONS (MM)



WIRING SENSORS

Pins

1 (+): +15V

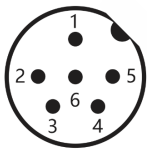
2 (-): -15V

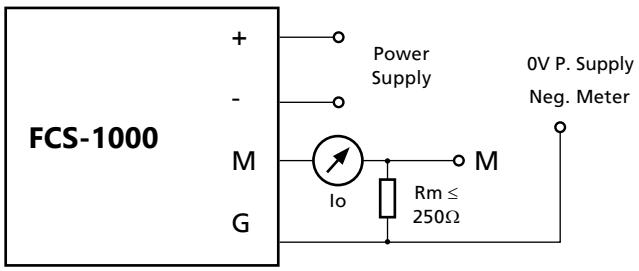
3 (G): 0V / Neg. Output

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.