SATEC

FCS-300

(EL0191)

SOLID-CORE FLUX GATE CURRENT SENSOR
300A DC PRIMARY

DATASHEET

The UHACS (Flux Gate 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	±300A DC
Linear measuring range (1min)	1.1 x I_n
Primary overload current	±360A DC @ 1 min
Nominal output signals	±40mA
Supply voltage	±15V DC (±5%)
Current consumption (Max)	±270mA
Galvanic isolation	5KV RMS/50Hz/min
Conversion ratio (A/mA)	300 : 40
Weight	420 g (± 50 g)
Protection of Case	IP61

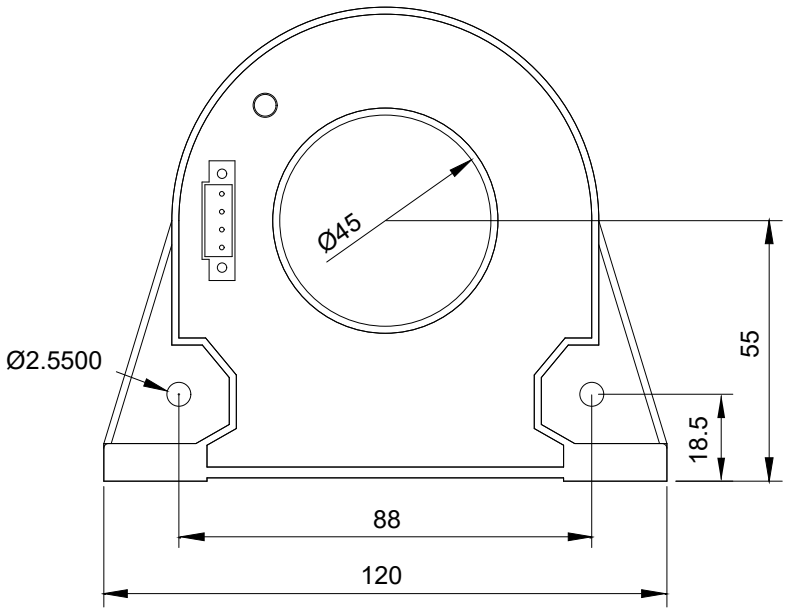
ACCURACY

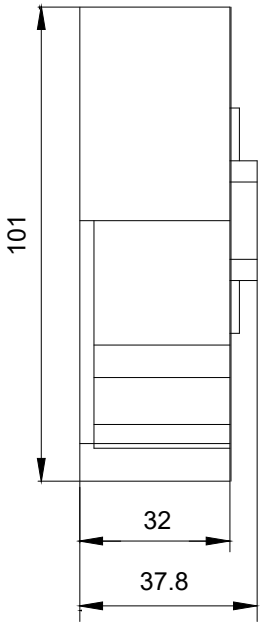
Zero offset current	±1 µA (@25 °C)
Offset temperature coefficient	25 ppm / K
Measuring resistance	250 Ω
Response time	±20 µs (di/dt of 100A/µs rise to 90% I_n)
Accuracy	0.1% (I_n - 0.05 I_n)
Linearity	0.02% FS
Protection of Case	DC - 20kHZ

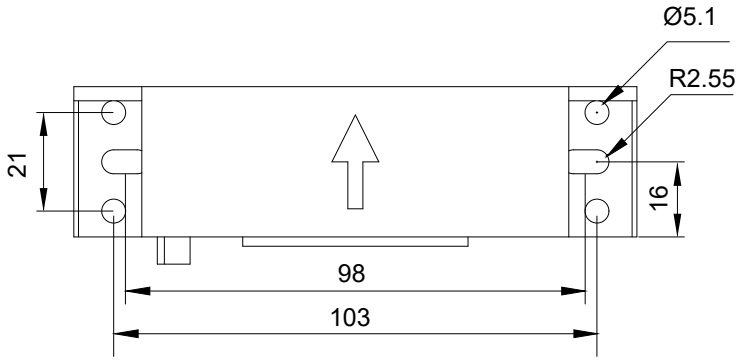
ENVIRONMENTAL

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

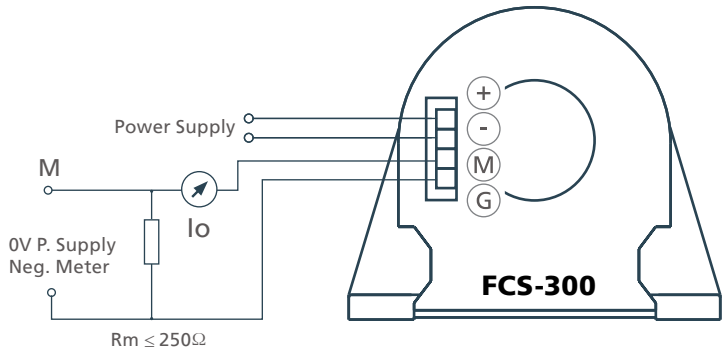
DIMENSIONS (MM)







WIRING SENSORS



Pins

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

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.