

Electrical Sources Parameters Measuring Unit

The system is designed for measuring any parameters of power supply in the airplane. The main unit of the system can be connected to power supplies such as dynastarters, alternators, batteries, external power supplies or emergency buses.

- 19 inputs for direct voltage and current
- 8 inputs for alternating voltage and current
- Measurement of DC 0–40 V with an accuracy of $\pm 3\%$
- Measurement of AC 0–150 A with an accuracy of $\pm 5\%$
- Measurement of DC 900 A with an accuracy of $\pm 3\%$
- Modified input ranges
- Unit configurable using a regular PC
- Communication line RS 422, RS 485 or ARINC 429
- Software meets the RTCA DO-178 and hardware RTCA DO-160



Control unit function

The unit processes information about alternating or direct voltages or currents from individual power supplies.

It digitizes these voltages, currents and status signals and sends them to a parent computer (FMS, CMC, EFIS, etc.). Currents are sensed by current shunts or electronic current sensors using a Hall probe.

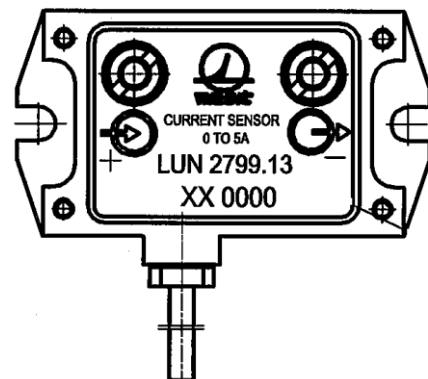
Technical parameters of the control unit

Supply voltage	20.5 VDC – 32.2 VDC, emergency 18 VDC
Operating temperature	-55 °C to 70 °C
Weight	max. 0.45 kg
Dimensions	152 mm × 112 mm × 55 mm
Certification	RTCA/DO-160G, RTCA/DO-178B

Electronic current sensors and current shunts

Current sensors and shunts for current measurement are essential elements in systems for monitoring the value of current (e.g. power supply monitoring system or probe heating monitoring system).

The basic component of the electronic sensor is a current probe utilizing the Hall effect. The output of the sensor is voltage corresponding to the current or status signal. The connection is two- or three-wire.



- **measuring ranges of current sensors 0 to 5 A, 0 to 50 A or -100 to 400 A**
- **measuring ranges of current shunts up to 900 A**
- **current sensors with a voltage or status output**

Technical parameters of sensors

Supply voltage	22.5 – 32.2 VDC
Operating temperature	-55 °C to 70 °C
Weight:	max. 0.15 kg
Dimensions	65 mm × 40 mm × 18 mm
Certification	RTCA/DO-160G

Application

Power supply monitoring systems are supplied for airplanes L 410 UVP-E, L 410 NG or L39NG.



MESIT asd, s.r.o.
Sokolovská 573, Mařatice
686 01 Uherské Hradiště
Czech Republic

asd@mesit.cz
T +420 572 522 200

Sales
T +420 572 522 804
F +420 572 522 806

www.mesit.cz

Company Reg. No.: 60709235
VAT Reg. No.: CZ60709235
Commercial Register,
Regional Court in Brno - C 15427
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