

MEASURING CURRENT

CURRENT IS AN OFTEN-RECORDED SIGNAL

Dewesoft offers a variety of current transducers and sensors, which we combine with one of our voltage preamplifiers. This duo seamlessly converts these widely different signal levels to a normalized output that can be digitized.

Sometimes a tiny current modulation is riding on top of a large DC offset, another challenge with which many measuring systems have trouble.

SMALL CURRENTS

DSI adapters can be plugged into a wide range of Dewesoft amplifiers, across virtually the entire product range. For current measurement we offer:

- DSI-20mA measures up to 20 mA
- DSIw-20mA water-proof version
- DSI-5A measures up to 5 A
- DSIi-10A measures up to 10 A, with 4kVp isolation
- DSIi-20A measures up to 20 A, with 4k Vp isolation

FLUXGATE TECHNOLOGY AC/DC CLAMPS

A fluxgate current sensor is similar to a Hall effect current sensor, except that it uses a magnetic coil instead of a Hall effect system. The higher accuracy that results makes these sensors ideally suited for industrial, aerospace and other applications that require high accuracy measurements. Dewesoft offers several fluxgate current clamps which have been paired with our SIRIUS systems, including mating and power cables.

- The DS-CLAMP-20DC measures up to 20 ADC or ACrms

- The DS-CLAMP-200DC measures up to 200 ADC or ACrms
- The DS-CLAMP-500DCS measures up to 500 ADC or ACrms
- The DS-CLAMP-500DC measures up to 500 ADC or ACrms
- The DS-CLAMP-1000DC measures up to 1000 ADC or ACrms

All above listed clamps need to be powered by the SIRIUSi-PWR-MCTS2 or SIRIUSi-PWR-MCTS2.

SIRIUSi-PWR-MCTS2 is a power supply unit designed to power current transducers directly from Dewesoft instruments, without the need

for an external power source. It can be integrated into any SIRIUS-compatible chassis or directly into R1, R2, R3, R4, or R8 data acquisition systems.

Three versions of the power supply are available: a single-channel model, a 4-channel model, and an 8-channel HD model. The single-channel version provides up to 39 W of output power, while the 4- and 8-channel versions deliver up to 20 W per channel.

More specifications:

<https://dewesoft.com/products/current-transducers/tech-specs#flux-gate-ac-dc-current-clamps>

	SIRIUSi-PWR-MCTS2 / SIRIUSi-PWR-MCTS	SIRIUSi-HD-PWR-MCTS2 / SIRIUSi-HD-PWR-MCTS	DSi-PWR-MCTS-SINGLE
Power supply	9 - 36 V DC		
Max power consumption	85 W		39 W
Physical dimensions	265 x 140 x 65 mm		98 x 125 x 32 mm
Operating temperature	-20 °C to 50 °C		
Storage temperature	-40 °C to 85 °C		
Humidity (@ 60 °C)	95 % RH non-condensing		
Output	4 x Isolated Power supply (1500 V DC, 60 sec)	8 x Isolated Power supply (1500 V DC, 60 sec)	1 x Isolated Power supply (1500 V DC, 60 sec)
Output voltage	±15 V DC		
Maximum output per channel	20 W		39 W
Short circuit protection	Indefinite (automatic recovery)		
Overload protection	150 % of lout max. typ		



DSi-PWR-MCTS-SINGLE

DSI ADAPTERS



DSI-20mA

measures currents up to 20 mA

DSIw-20mA

is a waterproof version of the DSI-20mA