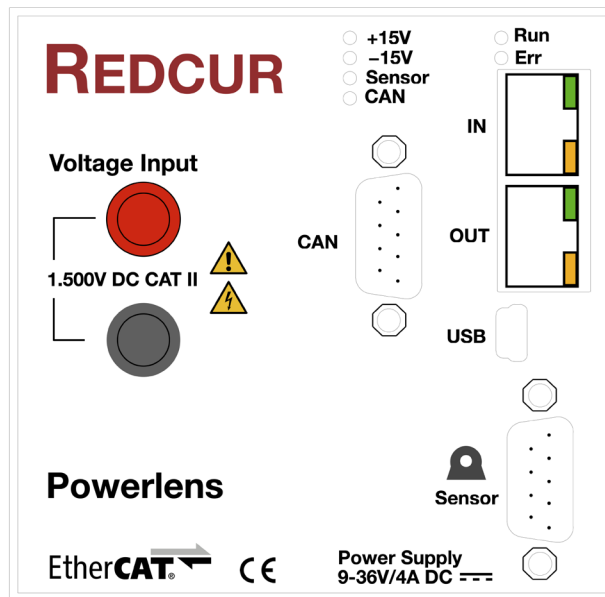


High Precision Current and Voltage Measurements over EtherCAT<sup>®</sup> and CAN bus.



## Features

- 24-Bit  $\Delta\Sigma$ -ADCs with Clock-Sync Sampling of Current and Voltage
- Electric Charge - Counting  $\Delta Q$ ,  $Q_+$ ,  $Q_-$
- Electric Energy - Counting  $\Delta W$ ,  $W_+$ ,  $W_-$
- $I_{max} \pm 2.000$  A (with SIGNALTEC CT-2000)
- $U_{max} \pm 1.500$  V - Single Range
- Power Supply for Current Transducer
- EtherCAT<sup>®</sup> Interface
- CAN Bus Interface
- 5kV Isolation Rating
- Calibration Service (optional)
- Supports CT Series Current Transducers from SIGNALTEC/LEM<sup>®</sup>
- Transducer Overload Detection
- Power Supply 9–36V DC

## Standards / Compliance

- EtherCAT<sup>®</sup>
- CAN Bus ISO 11898
- EMC Emission and Immunity: EN

61326-1:2013

- Health and Safety: EN 61010-1:2010 / EN 61010-2-030:2010
- RoHS: EN IEC 63000:2018

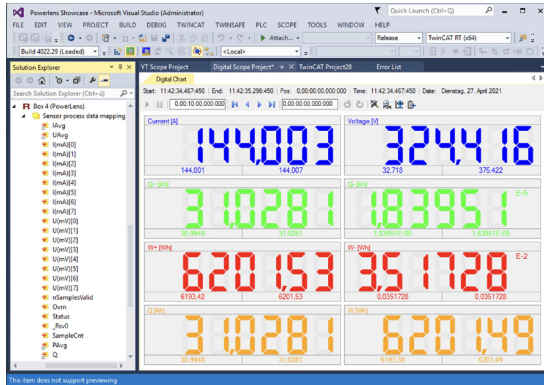
## Applications

- End-Of-Line Testing
- In-House Calibration
- Control of Source-Sink Systems

## EtherCAT<sup>®</sup> Parameters

- Averaged Current/Voltage/Power Values
- Array of 8 Current/Voltage Values for Bulk Transfer/Oversampling
- Operational Status / Overload Protection of the current transducer
- Counters for Electric Charge ( $Q_+$ ,  $Q_-$  and  $\Delta Q$ ) in Ah
- Counters for Electric Energy ( $W_+$ ,  $W_-$  and  $\Delta W$ ) in Wh
- Start/Stop/Reset mechanism for Q/W counters

- Overrun detection of AD converters (plus LED indicator)
- Offset - adjustable (manual/automated)



TwinCAT® Screenshot

## CAN Bus Parameters

- Averaged Current/Voltage/Power Value
- Counters for Electric Charge (Q+, Q- and ΔQ) in Ah
- Counters for Electric Energy (W+, W- and ΔW) in Wh
- Start/Stop/Reset mechanism for Q/W counters
- Operational Status and Overload Protection of the LEM transducer
- Overrun detection of AD converters (plus LED indicator)
- Configurable CAN message ID
- Bit Rate (1Mbps max.)
- Measurement cycle

## Specification

Parameter	Description
Power Supply	9–36 Volt DC
Power Consumption	5W + Current Sensor (see <a href="https://www.signaltec.de">https://www.signaltec.de</a> )
Mounting	DIN Rail
Weight	0.35kg
Dimensions (H×W×D) in mm	100×90×117
EtherCAT® Cycle Time (min.)	50μs
CAN Interface	D-SUB9 (CiA DS-102)
CAN Speed (max.)	1Mbps
CAN Cycle Time (min.)	1ms
ADC Resolution	24 Bit
ADC Technology	ΔΣ
Accuracy of Current Measurement	0.005% of Measuring Range
Accuracy of Voltage Measurement	0.0075% of Measuring Range
Maintenance Interface	USB
Current Sensor Interface	Proprietary D-SUB9
Phase Shift of Voltage Measurement	< 0,2° at 1.2kHz
Input Impedance	> 10MΩ  5pF
Bandwidth	1kHz
Isolation Rating	5kVrms

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