

Multi-function converter for current measurement using Hall probes

torm-06



Storm-06 is a Storm family measuring converter designed for AC and DC current measurement. Primary applications are in telecommunications, power industry and other fields. The terminal offers high accuracy and a broad range of measuring and indicating functions. A broader than standard range of communication interfaces and protocols allows virtually unlimited integration into the user's environment. An typical example of the terminal use is the monitoring of traction devices, telecommunications infrastructure and photovoltaic power plant technologies.

\rightarrow Basic Characteristics

- current measurement using Hall probes in AC and DC networks
- alarms indicating failures and abnormal situations, control and alarm outputs
- communication for transmitting monitored values, alarms and remote control
- acoustic and visual fault indication on the terminal panel
- use in installations with a grounded plus or minus power supply pole
- local and remote configuration, parameter setting and diagnostics
- recording waveforms
- binary inputs and outputs for signalling and control
- ability to add special and custom functions

\rightarrow Communication

- RS-232, RS-485 and Ethernet serial and network communication interfaces
- availability of a large number of standard communication protocols
- variable communication parameter settings
- data storage in case of a communications outage
- time synchronization via communications protocol

\rightarrow Typical Use

- fault measurement and indication in electrical and power supply networks and in distribution switchboards
- measurement of leakage currents and fault indication
- monitoring and recording equipment status
- as an independent measuring, regulation and automation module
- Smart Grid measuring element
- easy integration for IoT and Cloud solutions
- OEM for manufacturers, suppliers and system integrators







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Technical Specifications	
Measurement of AC and DC currents	4x current measurement
Analogue inputs	4x measurement, optionally 0-20 mA/0-10 V
Digital inputs	4x opto-element, passive input
Digital outputs	2x switching contacts relay
Communications interfaces	Ethernet, RS-232, RS-485
Build	6M width plastic case
Mounting	35 mm DIN rail
Protection	IP 20
Power supply	24 or 48 V DC with galvanic separation
Typical draw	75 mA
Service temperature	-30 to 70 °C
Maximum ambient humidity	95% without condensation
Weight	max. 210 g
Dimensions (w x h x d)	105 x 90 x 60 mm (6 modules)
EMC emission standards and immunity standards	IEC 61000-6-4, IEC 55024, IEC 55022, IEC 61000-6-2

Input Parameters for Current Measurement

Measurement of AC and DC currents	4 x 1 current measurement using Hall probes
Current range	according to probe type, typically 5-600 A AC / DC
Input voltage	\pm 4 V, RL=10 k Ω *
Power supply	±15 V (±5%) 25 mA *

* Can be customized for a different probe type on request



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Communication Protocols (depending on interface)	
RS-232, RS-485	IEC 60870-5-101, Modbus (RTU)
Ethernet	IEC 60870-5-104, Modbus TCP, DNP 3.0 TCP, SNMP

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Digital Input Parameters	
Organization	4 x 1, common minus
Galvanic separation	yes
Galvanic separation	300 V AC / DC
value	2500 V DC 1 minute
Conductor connection	WAGO 734-5 five-pole connector
Connecting conductors	max. cross-section 0.75 mm ²
Input status indication	green LED
	one-bit, two-bit inputs for signalling
Application examples	and faults (with/without time),
	impulse counters, data storage during
	communication outage, calculation of
	derived quantities

Digital Output Parameters		
Organization	2 x 1 DO, common point	
Switched current	activation 4 A deactivation DC 24 V / 4 A, DC 48 V / 2 A, DC 110 V / 0.3 A	
DO galvanic separation	300 V AC / DC, 2500 V DC 1 minute	
Connection points	WAGO 734-3 three-pole connector	
Connecting conductors	max. cross-section 0.75 mm ²	
Output status indication	red LED	
Application examples	one-bit, two-bit outputs for control or regulation of a connected system, control via derived quantities	

Audible Alarm and LED Fault Signalling		
Audible alarm	audible signalling of any fault, off button	
Fault signalling via LED diodes	faults 5x red LED, OK status 1x green LED	
Application examples	quick orientation when looking for a fault on location	