Current measuring module 800-CT8-LP

Data sheet

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Device views

- The figures serve as illustrations and are not true to scale.
- Dimensions in mm (in).

Front view

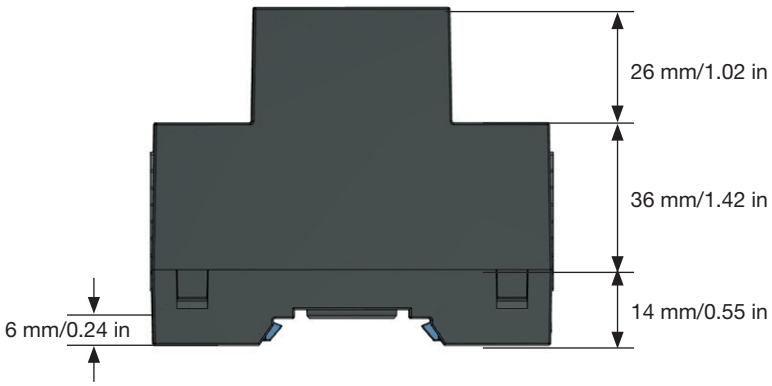
INFORMATION

The dimensions of the device/module vary depending on the connection terminals used!

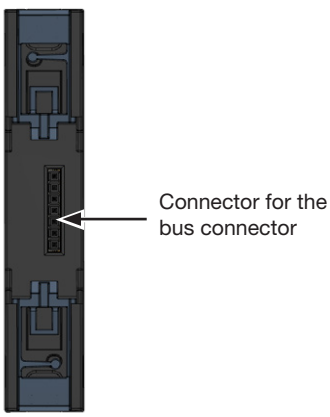
View from below

View from above

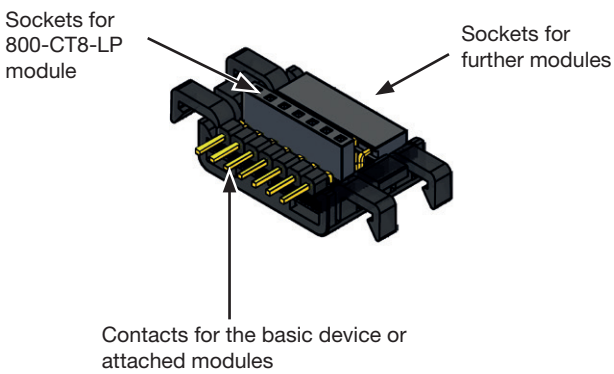
View from the left



Rear view



Communication bus connector for the 800-CT8-LP module



Technical data

General	
Net weight (with terminals)	approx. 73 g (0.16 lb)
Device dimensions (without connection terminals)	W = 18 mm (w = 0.71 in), H = 90 mm (h = 3.54 in) , D = 76 mm (d = 2.99 in)
Width of the device in horizontal pitches	1 HP (1 HP = 18 mm / 0.71 in)
Mounting orientation	As desired
Fastening/mounting - Suitable DIN rails - (35 mm / 1.38 in)	· TS 35/7,5 according to EN 60715 · TS 35/10 · TS 35/15 x 1,5
Protection against foreign matter and water	IP20 according to EN60529
Impact resistance	IK07 according to IEC 62262

Transport and storage The following information applies to devices which are transported and stored in the original packaging.	
Free fall	1 m (39.37 in)
Temperature	K55: -25 °C (-13 °F) to +70 °C (158 °F)
Relative humidity	0 to 95% at 25 °C (77 °F), no condensation

Environmental conditions during operation	
The module · must only be operated with suitable basic devices (see user manual). · is for weather-protected and stationary use. · fulfills the operating conditions according to DIN IEC 60721-3-3. · has protection class II according to IEC 60536 (VDE 0106, Part 1), a ground wire connection is not required!	
Working temperature	-10 °C (14 °F) to +55 °C (131 °F)
Relative humidity	5 to 95% at 25 °C (77 °F), no condensation
Pollution degree	2
Ventilation	No forced ventilation required
Supply voltage	Via basic device

Current measurement	
Measurement via low-power current transformers with a secondary voltage of	0 - 400 mV
Channels	8 (2x4) · 2 systems (L1, L2, L3, N) · Single channels
Input impedance per channel	230 kΩ
Nominal input signal of the module	0 .. 400 mV
Crest factor	1.8
Overload for 1 s	1 V
Resolution	16 bit
Sampling frequency	6.8 kHz
Frequency of the fundamental oscillation	40 Hz .. 70 Hz
Harmonics	1. .. 15 (odd only)

Interface and energy supply	
JanBus (proprietary)	· Via bus connector
Supply voltage (via JanBus interface)	24 V

Connection capacity of the terminals – Spring terminals (push-in terminals) Connectible conductors. Only connect one conductor per terminal point!	
Single core, multi-core, fine-stranded (min. - max.)	0.14 mm^2 - 1.5 mm^2, AWG 26-16
Wire ferrules with collar * to DIN 46 228/4, (min. - max.)	0.25 mm^2 - 1 mm^2, AWG 22-17
Wire ferrules without collar to DIN 46 228/1, (min. - max.)	0.25 mm^2 - 1.5 mm^2, AWG 22-16
Wire ferrules: - Contact sleeve length ** - Strip length	 - 8 - 12 mm (0.31 - 0.47 in) - 10 - 12 mm (0.39 - 0.47 in)

* ... Applies to wire ferrules with a maximum plastic collar outer diameter of up to 4.5 mm (0.18 in).
** .. Depending on the type of wire ferrules used (wire ferrules manufacturer).

Module 800-CT8-LP LEDs	
Tx (send data)	Flash “orange” during operation and indicate cyclic data exchange.
Rx (receive data)	
P (power - power supply)	Lights up “green” when the power supply via the JanBus interface is correct.
E (error - initialization and malfunction)	Lights up “red” when initializing/starting the device and in the event of a fault.

Performance characteristics of functions

Function	Symbol	Accuracy class - 333 mV nominal voltage	Display range
Total active power	P	0.5 (IEC61557-12)	0 .. 999 GW
Total reactive power	QA, Qv	1 (IEC61557-12)	0 .. 999 Gvar
Total apparent power	SA, Sv	0.5 (IEC61557-12)	0 .. 999 GVA
Total active energy	Ea	0.5 (IEC61557-12) 0.5S (IEC62053-22)	0 .. 999 GWh
Total reactive energy	ErA, ErV	1 (IEC61557-12)	0 .. 999 Gvarh
Total apparent energy	EapA, EapV	0.5 (IEC61557-12)	0 .. 999 GVAh
Phase current	I	0.2 (IEC61557-12)	0 .. 999 kA
Neutral conductor current calculated	INc	1.0 (IEC61557-12)	0.03 .. 999 kA
Power factor	PFA, PFV	1 (IEC61557-12)	0.00 .. 1,00
Current harmonics	Ih	Cl. 1 (IEC61000-4-7)	0 A .. 999 kA
THD of the current	THD_I	1.0 (IEC61557-12)	0 .. 999 %

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