in.hub

Real-time clock & memory
HUB-RT100 & HUB-MRT100

APPLICATION

- Updating the time even with de-energized device
- HUB-MRT100 only: additional memory for process data
- Easy to retrofit for the gateways HUB-GM100, HUB-GM200, and HUB-GM400

HUB-RT100 and HUB-MRT100 ensure that the clock of the SIINEOS operating system continues to run even in the event of a power failure. This guarantees a correct system time at all times, which is particularly beneficial at sites with frequent interruptions. If you use a HUB-MRT100, also the last written process data is saved and replayed.

HUB-(M)RT100 is plugged into the interfaces „USB1" or „USB2" of your in.hub gateway and does not need to be set up. The real-time clock is immediately ready for use.

The runtime of the HUB-(M)RT100 depends individually on the environmental conditions.

Specifications

Connector type	USB 2.0 Type-A connector
Transmission speed	Max. 400 Kbit/s
Operating voltage | Operating current	4.75 ~ 5.25 V | ~ 61 mA (when connected via USB)
Quiescent current with battery operation	500 nA
Total charge | Battery life	220 mAh | Lifetime guaranteed by the battery manufacturer: at least 5 years, under optimal ambient conditions up to conditions up to 10 years
Memory	Only for HUB-MRT100: integrated memory, 1-Mbit (128 K × 8) Serial (I2C) F-RAM with at least 10^{14} write and read cycles
Temperature range	Storage: -40 °C to 85 °C Operation: 0 °C to 50 °C
Relative humidity	Storage: 10 to 95 % RH non-condensing Operation: 20 to 90 % RH non-condensing
Dimensions | Weight	65 mm (resp. 77.2 mm for housing and connector) x 30 mm x 15.5 mm | 25 g
Conformity	RoHS (Directive 2011/65/EU) REACH (EG Regulation 1907/2006)