



TeamWare Wireless Sensor Network

Wireless sensor for measuring DC current with Hall effect sensor

General features

- Hall effect sensor for DC current measuring
- Measure range from 0 to 1000 A
- Programmable alarm threshold
- Programmable radio transmission time
- Fast and easy installation without any interruptions of electrical service
- Battery powered
- Internal radio antenna

TWSN-Hall is a radio device, battery powered, that performs the measure of DC current with Hall effect sensor. A significant feature is the high resistance to mechanical shocks.

TWSN- Hall transmits measures at regular intervals to a TWSN family gateway. It is possible for the operator to program the alarm threshold in order to detect any possible overcoming of minimum or maximum levels of measured currents.

Technical specifications

Measures

- Current measure accuracy: 1% full scale
- Range: 0 ÷ 1000 A
- Channels number: 1
- Hall sensor size: 30x25 mm.

User interface

- Button to associate / disassociate the node
- Status led

Radio module specifications

- Band: ISM 2.4GHz
- RF Data rate: 250 Kbps
- Reception sensitivity: -95 dBm
- Max transmission power: 2 mW (+3 dBm)
- Internal antenna
- Indoor/Outdoor scope: 30m/60m
- Standard: IEEE 802.15.4-2003; Stack ZigBee 2007 PRO (EMBER Znet)
- Network Security: ZigBee-2007 standard security requirements; 128 bit AES encryption algorithm

Power Supply

- Supply: n. 1 battery AA da 3,6V 2,6Ah
- Supply (option): external from 9 to 40Vcc
- Battery life: > 2 years with data sent every 5 min

Environmental and mechanical parameters

- Operating temperature: -10°C .. +60°C
- Storage temperature: -20°C .. +70°C
- Protection degree: IP50
- Size: 150x90 mm

Product standards applied

- ETSI EN 300 328: radio compatibility for digital transmissions
- ETSI EN 301 489: radio compatibility
- EN 61000-6-2/3: EMC Emissions/Immunity
- EN 60950-1: EMC electrical safety

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