

NTR-x
Meter interface unit





Meter interface unit the NTR device

The NTR-X is a multi-channel smart end node registers with build in powerline channel, interfacing with any meters type as; modified meters, simple solid state meters with pulse outlet and different sorts of Smart Meters.

On global market high percentage of metering configuration for high and medium residence density in urban and rural environment are mounted as group of meters in central cabinets or at service corridors, high rise building floors and at centralize service locations which enables to use a multi channel meter interface by a smart end node device.

The device interfaces externally of meters and includes the following version:

- NTR-1 - Single channel meter interface.
- NTR-4 - A four channel meter interface.
- NTR-8 - A eight channel meter interface.
- NTR-12- A twelve channel meter interface.

Highlights:

- Multi-channel smart end node register which optimal fits most global market metering configuration, benefits with significant cost saving per meter.
- Interfacing with various meter types as; modified meter, solid state meter or Smart Meter with multi interfaces as; DLMS, M-Bus and others.
- Simultaneously managed of flexible TOU and dynamic load profile structure.
- Available PNTR models with keyboard for compliant of STS prepayment mode.
- Power fails operation backup by Supercap logic circuit free of battery and maintenance.
- Tamper alert protected with date and time stamp of enclosure and meter cables



Specifications.

- Power inlet – 2 Phase 3 wires. 230Vac (L..N) +10% -20% / 50/60 Hz – 5VA
- External memory – EEprom 16kB for TOU and load profile operation mode
- Flexible TOU structure - Four rates, seasons and day types (regular, Sun, Sat and holiday) with eight split intervals over daily period.
- Load profile data recording
 - * Dynamic intervals 1,5,10, 15, 30 and 60 Min
 - * Profile record for each meter starts by date and time stamp and recorded in a FIFO (First In First Out) format.
 - * Storage capacity > 600 records of 1Min. interval for 12 channels
 - * Optional for expandable capacity on request
- Meter interfacing
 - * 1,4,8 and 12 channels
 - * Impulse logic for solid state and modified meters
 - * RS485 (2 wire multidrop) to interface with Smart Meters implementing DLMS protocol IEC 62056-46, M-Bus and others.
- Supercap technology for power fail backup, free of battery and maintenance
 - * Lifetime period over 30 years
 - * Operating time during power fail > 24 hours
- RTC with accuracy of +/- 1 Min. per 6 month over full Temp. range, checked and synchronized by DCU for each communication cycle.
- Optional PNTR model compliant for STS prepayment mode
 - * Keyboard 16 keys Membrane Switch technology with 1 million operation.
 - * Display LCD 2 X 16 for credit transaction operation.



- PLC communication:
 - * Network capacity – up to 1023 endpoint nodes
 - * Compliance to FCC, ARIB, CENELEC- EN50065-1 bands and power
 - * Spread Spectrum direct sequence with DCSK modulation.
 - * Implementing the CSMA/CA collision detection protocol for multi master network
 - * Dynamic baud rate - 2.5-7.5 Kbps with forward -block soft decoding error correction code and CRC
 - * Dynamic range > 95 dB
 - * Power transmission up to 125dBi into load > 1Ω
 - * Auto node hopping for stability healing according to grid environment
 - * Up to 10 hopping nodes per branch
 - * Intelligent and fast rout scenario

- Meets standards as: EN 50065-1:2001, EN 50065-2-3:2003, EN 61000-6-3:2007, EN 60950-1:2001

- Operation Temp.: -25°C -- 70°C, IP65 (except LCD for 0°C- 50°C)