The evolution of smart metering

Conlog's new wBEC44(X) Radio Frequency Communication range provides the building block for a revolutionary new smart meter. The compact 4 terminal DIN rail meter is packed with features to enhance customer satisfaction, whilst providing the valuable data needed by utilities worldwide. Added to this is the ability for the meter to operate as a prepayment or post-payment meter, depending on the utility’s requirements.

The wBEC44(X) range has been designed to set a new bench mark for robustness & reliability in the RF electricity metering market. The design principles and highest quality materials already associated with Conlog ensure that the range shall meet and exceed the requirements of an utility that seeks an efficient, and cost effective solution for today and tomorrow.

If you are looking for a robust, reliable Radio Frequency Communication metering solution, Conlog is the partner you can trust.

Enhanced security & protection features

- Detection of bypass and illegal connections
- Management of unpaid post-paid accounts
- Activate and test meter disconnection device
- Advanced tamper detection features
- Token Entry lockout
- Protection against fraudulent token attacks
- Delayed reconnection
- In rush current protection of utility assets
- Protects appliances from surge due to load shedding

Features

- Multichannel Radio Frequency Communication
- ISM licences free band
- 433MHz range
- Operates in extreme supply conditions
- Neutral measurement and billing
- Micro USB type B
- DLMS/COSEM
- 4 terminal DIN rail layout
- Various configurations available to suit the utilities requirements
- Active power measurement
- Power factor measurement
- Power overload protection
- Current overload protection
- Thermal overload protection
- Magnetic tamper detection
- No Power Tamper available
- Configurable tamper detection
- Pre-paid and post-paid mode
- Under and over voltage protection
- Reverse line/load protection
- Emergency and lifeline support
- Configurable low credit alarm threshold
- Ultrasonic welded enclosure available
- Communication status LED
Product specifications

**Voltage ratings**
- Nominal voltage: 110VAC - 127VAC, 220VAC - 240VAC
- Supply frequency: 60Hz, 50Hz

**Current ratings**
- Base current (Ib): 5A, 100A
- Max starting current: 20mA
- Min starting current: Class 1
- Utilisation category: UC2
- Transient Current (Itr): 0.5A

**Nominal power consumption**
- 2W / 10VA

**Accuracy**
- Class 1 and 2 (maintained throughout life cycle of product)

**Limit range of operation**
- 1.8 times the nominal voltage for 48 hours
- 1.9 times the nominal voltage for 48 hours

**Withstand range of operation**
- Short-circuit withstand 3.0kA

**Impulse voltage protection**
- 6kV
- Protection: Power overload, Current overload, Over / under voltage, Delayed reconnection

**Environmental**
- Operating temperature: -10°C to +55°C
- Storage temperature: -25°C to +70°C
- Humidity: 95% non-condensing
- IP rating: IP 54
- RF immunity: 30V/m
- Manufacture: Pb (Lead) free

**Status indicators**
- Load / power status
- MCU / UIU communication
- Rate LED (1000 pulses / kWh)

**Installation**
- Footprint: DIN rail mounted (35mm)
- Insulation class: Double insulation

**Terminals**
- Live: Cage clamp, 25mm²
- Neutral: Cage clamp X2, 25mm²
- Load: Cage clamp, 25mm²

**Communication (CIU)**
- Radio frequency
- Propriety master slave protocol (433.05 - 434.90MHz)

**Interrogation**
- Type (Optional)
- USB type B port
- Optical (DLMS/COSEM)
- RF Communication

**Security**
- Security seals
- Tamper terminal cover
- Load disconnection on tamper detection
- Magnetic tamper detection (Optional)
- Bypass tamper detection (Optional)
- Enclosure tamper (Optional)
- No power tamper (Optional)
- Neutral measurement and billing (Optional)

**Tested Standards**
- IEC 60525-11
- IEC 60255-52
- IEC 62056-21
- IEC 62056-31
- IEC 62055-41
- ISO 18001:2007
- ISO 9001:2008

**Packaging**
- Units per carton: 5

* Subject to ambient conditions. All dimensions are in mm

For further packaging information, kindly contact Conlog

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