

The evolution of smart metering

BEC42X range

Conlog's new BEC42(X) Power Line Communication range provides the building block for a revolutionary new smart meter. The compact 4 terminal British Standard (BS) 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 BEC42(X) range has been designed to set a new bench mark for robustness & reliability in the PLC 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 Power Line 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

- > Orthogonal Frequency-Division Multiplexing (OFDM) modulation
- > Operates in extreme supply conditions
- > G3-PLC
- > CENELEC A band
- > Neutral measurement and billing
- > Micro USB type B
- > DLMS/COSEM
- > 4 terminal BS 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



We see a world where we can all achieve more while using less



We help utilities maximise their service delivery



Our products, solutions and services are simple, efficient and innovative

Product specifications

Voltage ratings

Nominal voltage (-20% +15%)	110VAC - 127VAC	220VAC - 240VAC
Supply frequency (±5%)	60Hz	50Hz

Current ratings

Base current (I _b)	5A
Max current (I _{max})	100A
Min starting current Class 1	20mA
Utilisation category	UC2
Transient Current (I _{tr})	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

Withstand range of operation

1.9 times the nominal voltage for 48 hours

Short circuit rating

Short-circuit withstand 3.0kA

Impulse voltage protection

6kV

Protection

Power overload	Thermal overload
Current overload	Line / load reversal
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	BS mounted to BS7856
Insulation class	Double insulation

Terminals

Type	Live	Neutral	Load
Maximum size	Cage clamp 25mm ²	Cage clamp X2 25mm ²	Cage clamp 25mm ²

Communication (CIU)

Power line communication (OFDM)
G3 PLC - CENELEC A Band

Interrogation

Type (Optional)	USB type B port Optical
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Security

Meter housing	Security seals
Tamper protection	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)

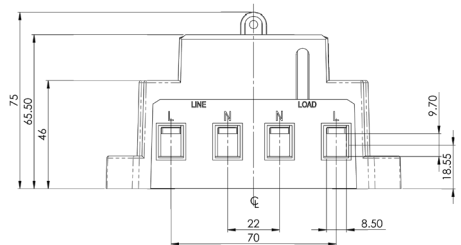
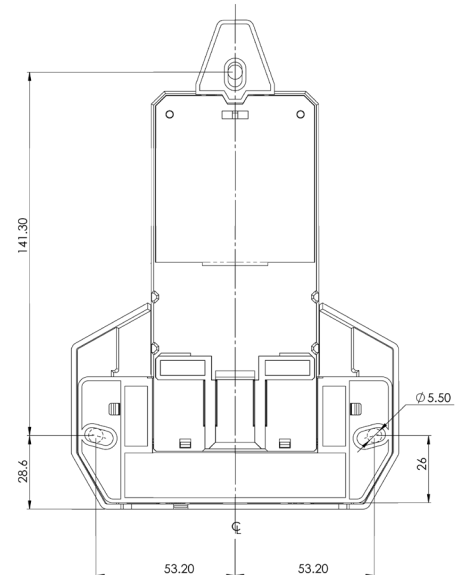
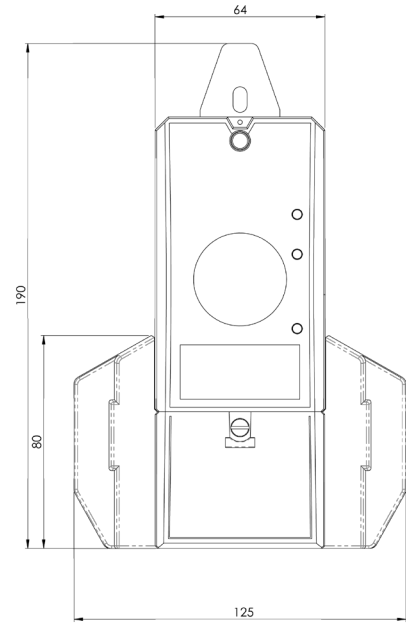
Tested Standards

IEC 62052-11	IEC 62055-52	DSP 34-749
IEC 62053-21	IEC 62056-21	DSP 34-1527
IEC 62055-21	SANS 1524-1	DSP 34-1635
IEC 62055-31	SANS 15417	ISO 14001:2004
IEC 62055-41	ISO 18001:2007	ISO 9001:2008
IEC 62055-51	BS7856:2017	

Packaging

Units per carton

5
For further packaging information, kindly contact Conlog



* Subject to ambient conditions. All dimensions are in mm

Images are for reference purpose. Product configuration shall be in accordance with customer requirements.

Conlog

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