

SUBMETERING

ELECTRICAL BOXES

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HOSPITALS

INDUSTRIES

NEIGHBOURHOOD
COMMUNITIES

PUBLIC
BUILDINGS

CCM1

Single phase
Current meter

HOTELS

SHOPPING
CENTER

INDUSTRIAL
Perfect TOOL

- Analysis
- Energy Efficiency

DOMESTIC
Perfect SOLUTION

- Save Energy
- Alerts & phone

Take care of YOUR PLANET...
...**Take care** of YOURSELF

INDIVIDUAL CONSUMPTION CURRENT METER

CcM1 is one of the devices from CcM product family designed to measure direct and alternating current through a magnetic sensor and deliver the data through a Modbus RS-485 connection.

CcM meters product family consists of a set of devices aimed to monitor electrical parameters in electric switchboards of single- and three-phase installations. They should preferably be inserted into thermal-magnetic switches or residual-current circuit breakers.

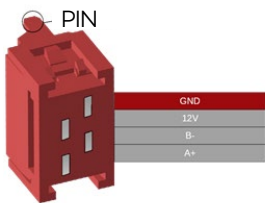
CcM1 is one of the secondary CcM devices of the product family because it can only be connected to a secondary bus where other principal devices from the product family (CcM4, CcM3 and CcM2 - version 485) work as masters, interrogating CcM1 as slaves.

As opposed to the "principal" CcM devices which are connected to the main communication bus directly and they are able to measure current, voltage, power, energy and harmonics, CcM1 is linked to the secondary bus of any of the principal devices and it only measures current.

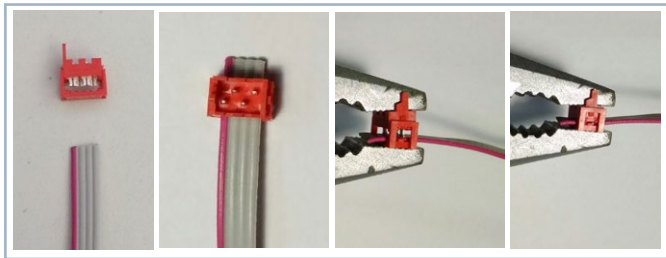
CcM1 is recommended to be connected to a principal device from CcM product range (CcM4, CcM3 and CcM2 - version 485) through a communication and power supply cable (secondary bus). Master CcMs obtain data from their slave devices and make this information

available to the general master of the principal bus. They can also be interrogated directly by Modbus commands but only if they are fed by an external power supply. If not, the power supply included in the 4-wire cable which connects and configures the secondary communication bus between the principal and secondary CcM devices would be lost.

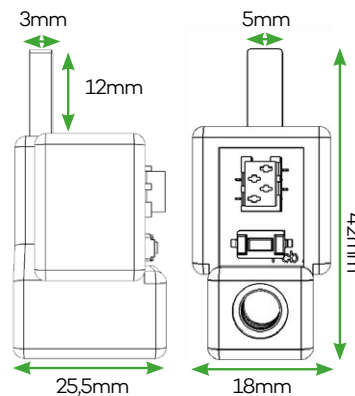
CcM1 (Individual Consumption Current Meter)	
Maximum operation current	63 Arms
AC current measurement range	[0,2, 63] Arms
DC current measurement range	[-63, +63] A
Measurement frequency	50 Hz, 60 Hz
Current measurement error	< 1 % (F.S.)
Communication protocol	Modbus RTU
Operating temperature	-25 < Ta < +50 °C
Maximum consumption	360 mW
Typical power wupply	12 VDC
dimensions	
Total dimensions	42 x 18 x 25,5 mm
Comb dimensions	12 x 5 x 3 mm



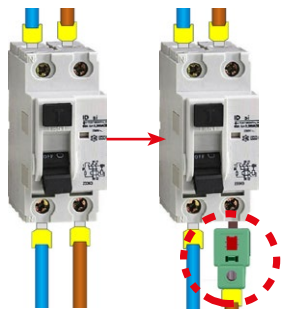
Customizable communication cable included



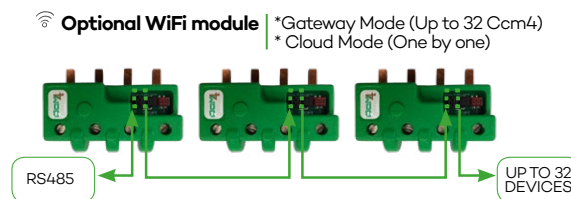
DIMENSIONS



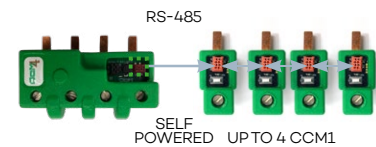
INSTALLATION



CONNECTION BETWEEN "PRINCIPAL" CCM DEVICES



CCM1 CONNECTION TO "PRINCIPAL" CCM DEVICES



MEMORY MAP

Holding and Input Register (R = FCODE 3 & 4 W = FCODE 6)				
Description	Modbus register	Length	Type	Unit
Product Identification Code	0	1	R	-
Instantaneous current value	1	1	R	Arms x 100
Average current RMS value	2	1	R	Arms x 100
Maximum current value registered	3	1	R	Arms x 100
Minimum current value registered	4	1	R	Arms x 100
Modbus address	5	1	R/W	-
Device serial number	6	2	R	-

CONNECTIONS

