

# Connected Measure Module

Cat. number : 4 120 15



Beforehand requires the installation of a "Starter Pack" or a "Module Control".

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## 1. DESCRIPTION - USE

### Use :

Allows to measure and view by smartphone with the Home + Control app the electrical consumption of an alternating single-phase circuit via the associated closed coil. This connected version offers the functions of:

- Energy consumption: automatically energy consumption information is available for the circuit to whom the Connected Contactor is wired to.
- History of electricity consumption available via the HOME + CONTROL application

### Technology :

- . Single-phase current measurement, by field effect using a closed coil (delivered with the measurement module) and data transmission by radio frequency to the connected network

## 2. RANGE

### Width :

- . 1 module. 17,7 mm wide.

### Rated primary current :

- . I<sub>pn</sub> = 63A AC

### Power consumption :

- . 0.3W Maxi

### Rated voltage :

- . 100V to 240V AC

### Rated frequency:

- . 50Hz / 60Hz

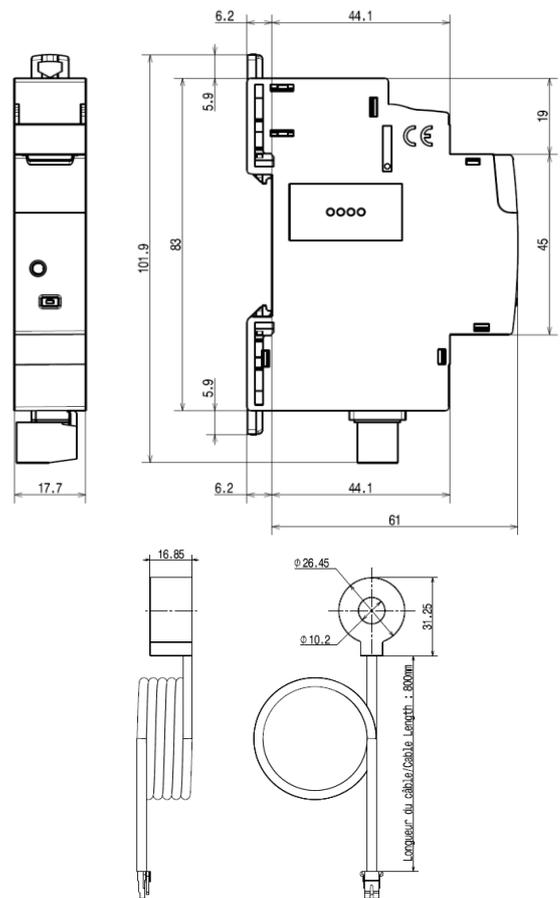
### Configuration and use :

Can be used with :

- Legrand smartphone app « HOME + CONTROL »

- . Available for free on Google Play or App Store

## 3. OVERALL DIMENSIONS



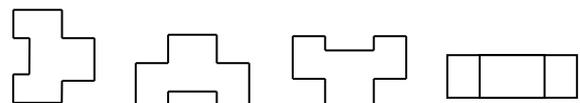
## 4. PREPARATION - CONNECTION

### Mounting:

- . On symmetrical rail EN / IEC 60715 or DIN 35.

### Operating position:

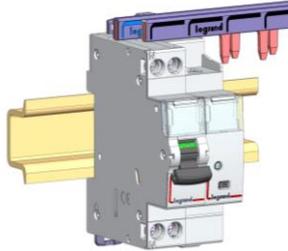
- . Vertical, Horizontal, Flat.



## 4. PREPARATION - CONNECTION *(continued)*

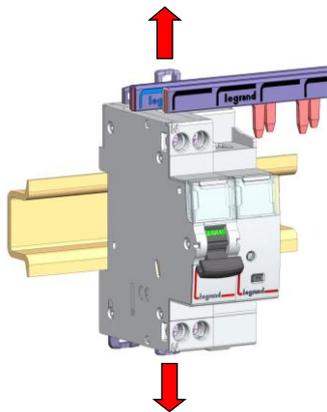
### Row positioning:

. The product shape and the positioning of the terminals allow the passage of single-line, three-lines and plug-in supply busbars in the upper part of the product. Then, it is possible to freely choose the position of the Connected Measure Module in the row and to connect by supply busbar the other devices out on the same DIN rail.

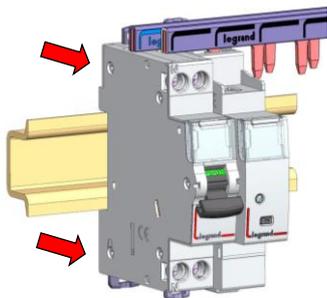


### Module maintenance:

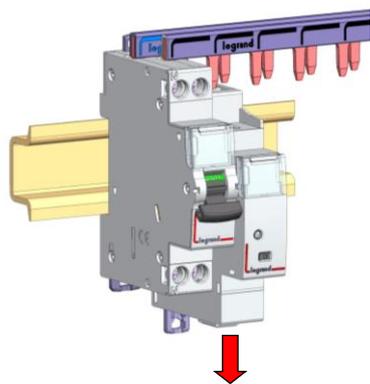
. It is possible to switch a Connected Measure Module in the middle of a row supplied with an upstream busbar without disconnecting the other devices on the same DIN rail.



1. Unclip the clamp to put it in open position



2. Pull the device forward in order to release it from the DIN rail

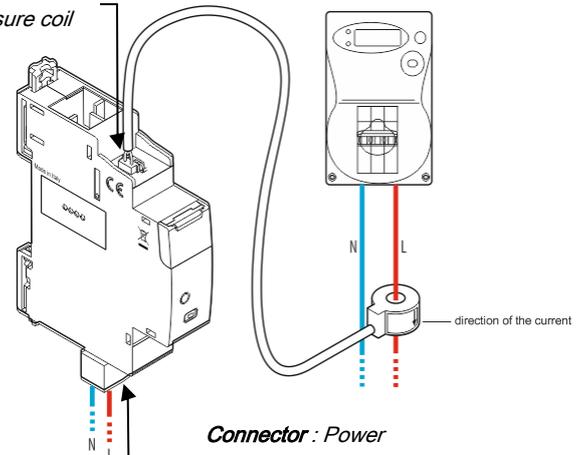


3. Pull the device downward in order to completely release it from the prongs of the busbar

## 4. PREPARATION - CONNECTION *(continued)*

### Connector :

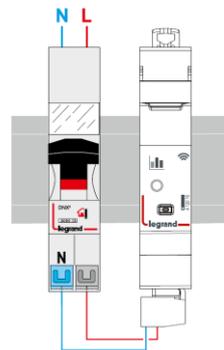
Measure coil



Connector : Power cabling Line (V1) and Neutral (N)

Wire the Measure Module after a circuit breaker.

The connection between the measurement module and the coil is made via a locking connector.



### Recommended tools :

- . For the terminals :  
Screwdriver flat-blade 3.5 mm
- . For clamping :  
screwdriver flat-blade (5,5 mm or less).

### Connection :

- . Power screw terminals :
  - Terminal type: cage
  - Depth: 9 mm
  - Stripping length recommended: 8 mm
  - Screw head: slotted 3.5 mm
  - Type of screw: M3
  - Tightening torque: 0.5 Nm

### Conductor type :

- . Copper cables

	Without ferrule	With ferrule
Rigid cable	1x (1 to 2.5mm <sup>2</sup> ) 2 x (1 to 1.5mm <sup>2</sup> )	-
Flexible cable	1x (1 to 2.5mm <sup>2</sup> ) 2 x (1 to 1.5mm <sup>2</sup> )	1 x (1 to 1.5mm <sup>2</sup> )

## 4. PREPARATION - CONNECTION *(continued)*

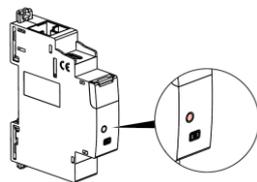
### Real-time and historical data visualization:

. Via smartphone with the Home+Control app.



### Visualization of the setup of the device:

. Via the LED on the front face

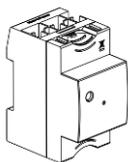


Color	Status	Signification
 Red	Fixed	Temporary status. Device not connected to the radio network
 Green	Fixed	Temporary status. Device correctly paired to the radio network (when the radio network is still open)
 OFF	OFF	Normal status. Device paired to the radio network (when the radio network is closed)

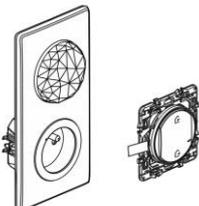
### Add a Connected Contactor in a connected installation (several steps) :

. 1/ Beforehand, to create a connected installation you must install:

Either a Module Control

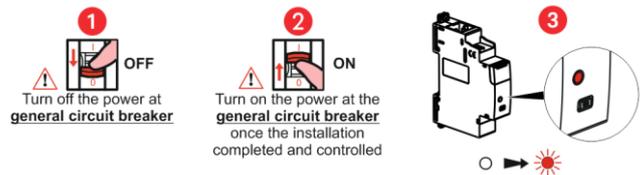


Or a connected starter pack (drawing of principle, works with anykind of "With Netatmo" starter pack).

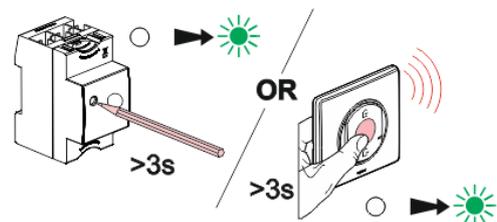


## 4. PREPARATION - CONNECTION *(continued)*

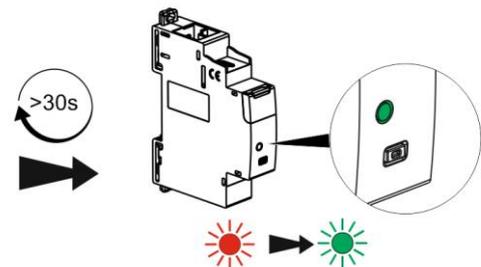
. 2/ Beforehand, the general circuit breaker must be turned OFF, and only after wiring step done, can be powered back ON to simultaneously power devices and allow them to be connected to the network.



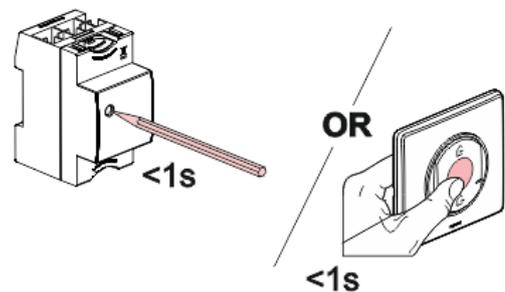
. 3/ Press and hold the Module Control settings button for more than 3 seconds, OR in the center of the General Scenario Wireless Command until the LED turns green, then release the button.



. The configuration LEDs of "With Netatmo" devices in the installation must all light up in fixed green.



. 4/ To complete the installation, briefly press the setting button on the Module Control (or in the center of the General Scenario Wireless Command) to finalize the installation.

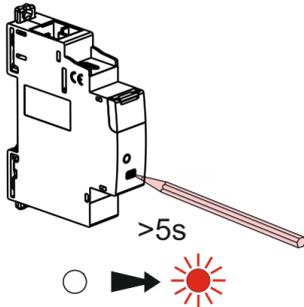


All "With Netatmo" devices LED go OFF

## 4. PREPARATION - CONNECTION *(continued)*

### Connected Measure Module resetting to remove it from a connected installation

. Press and hold over 5 seconds on the setting button until the LED on the setting button be fixed red. It is no longer paired with the Module Control or the General Scenario Wireless Command

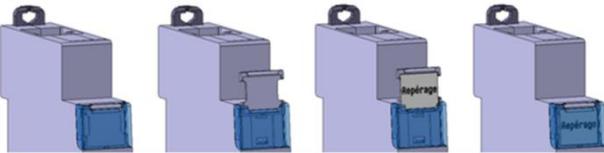


### Other configurations & actions

. All other features and settings such as ; scenarios etc... are directly explained step by step in the smartphone app.

### Labelling:

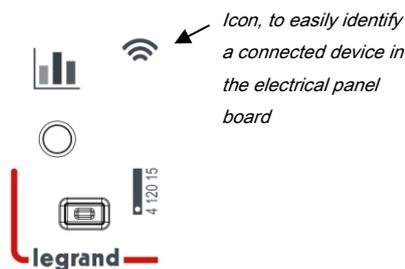
. Circuit identification by way of a label inserted in the label holder situated on the front of the product.



## 5. GENERAL CHARACTERISTICS

### Marking of the Connected Contactor :

Markings of the front side:



Connectors markings :

up  
COIL  
↓

down  
V1 N

## 5. GENERAL CHARACTERISTICS *(continued)*

Lateral markings

100-240V~ 50/60 Hz  
Pmax = 0,3 W

ZLM01

**legrand**  
Made in Italy



max 2x1,5mm<sup>2</sup>

V1 N

LEGRAND  
BP 30076  
87002 LIMOGES CEDEX FRANCE  
legrand.com

### Characteristics of the measure coil :

#### Maxi measured primary current:

. 72A AC

#### Transformation ratio :

1000 :1

#### Rated short-time thermal current :

. I<sub>th</sub> = 3kA rms /1s

#### Rated dynamic current :

. I<sub>dyn</sub> = 9kA

#### Rated insulation level :

. 3kV rms 50Hz/1min

#### Class of insulation :

Class A following IEC61869-1 et IEC61869-2

#### Rated Accuracy class:

Class 1 following IEC61869-1 +/-1% at I<sub>pn</sub> 63A

#### General characteristics :

#### Rated impulse withstand voltage (U<sub>imp</sub>) :

4kv

#### Overvoltage category:

. II

#### Degree of pollution:

. 2

## 5. GENERAL CHARACTERISTICS *(continued)*

### Influence of altitude :

- . No influence up to 2 000 m

### Rated frequency :

- . 50 / 60Hz

### Rated voltage of use (Ue) :

- . Ue = 100 to 240 V ~

### Recommendations :

- . For the device protection against short circuits according to the conditional current, it is recommended to use a circuit breaker or fuse gG.

### Characteristics of the radio interface :

- . Standard IEEE 802.15.4
- . Frequencies 2,4 à 2,4835Ghz
- . Transmitter output power <100mW

### Protection degree:

- . Protection index of terminals against direct contacts: IP2X. Protection index of the front face against direct contacts: IP3XD (IEC/EN 60529)
- . Class II, front panel with faceplate.
- . Class of protection against mechanical impacts IK04 (IEC/EN 62262)

### Plastic material: :

- . Self-extinguishing polycarbonate.
- . Classification UL 94: V0

### Ambient operating temperature :

- . Min. = + 5 °C Max. = + 45 °C.

### Ambient storage temperature :

- . Min. = - 40 °C Max. = + 70 °C.

### Average weight:

- . 91g

### Volume when packed :

- . 0,62 dm3.

## 6. COMPLIANCE AND APPROVALS

### Compliance to standards :

- EN 61869-1:
- EN 61869-2
- EN 61010-1

### Environment respect – Compliance with European Union Directives :

- . Compliance with Directive 2002/95/EC of 27/01/03 known as "RoHS" which provides for a restriction on the use of dangerous substances such as lead, mercury, cadmium, hexavalent chromium and polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) brominated flame retardants from 1<sup>st</sup> July 2006
- . Compliance with the Directive 91/338/EEC of 18/06/91 and decree 94-647 of 27/07/04
- . Compliant with regulation REACH

### Plastic materials:

- . Halogen-free plastics.
- . Marking of parts according to ISO 11469 and ISO 1043.
- . ISO 7000: 2004, Graphical symbols to be used on equipment - Index and synopsis

### Packaging:

- . Design and manufacture of packaging in accordance with Decree 98-638 of 20/07/98 and Directive 94/62 / EC.