EAN code
CU3-01M: 8595188132220
CU3-02M: 8595188132398

Technical parameters	CU3-01M, CU3-02M
LED Indication	
Green LED RUN:	Flashing - communication with CIB, ON - no communication
Red LED ERR:	Flashing - no project, ON - unit STOP
OLED display	displays the current status and settings
Type:	color OLED
Resolution:	128x128 / 1:1 aspect ratio
Visible area:	26x26 mm
Controlling:	using arrows
The internal real-time clock:	accuracy: 1s/day at 23 °C
Inputs	
Inputs:	4x NO or NC to GND (-)
	2x analogue inputs 0÷30
Outputs	
Output:	relay output- NO/GND
Number of connected units (directly to the CU3-01M(02M):	max. 64 (2x32)
Expansion possibilities external bus master:	up to 576 units (CU3-01M(02M) and 8x MI3-02M)
Communication	
CIB	
Maximum number of units:	max. 32 units to one CIB line
Maximum cable length:	max. 550m (depends on power loss)
System bus EBM	
Maximum cable length:	max. 500 m
Number of connected ext. masters:	up to 8 (regards to increasing the cycle turns)
Ethernet	
Connector:	RJ45 on the front panel
Communication speed:	100 Mbps
Indication of the Ethernet:	green - Ethernet communication yellow - Ethernet speed 100 Mbps
The default IP address:	192.168.1.1 (the IP address can be changed in the menu using the display and buttons)
Power supply	
Supply voltage / tolerance:	27 V DC, -20 / +10 %
Rated current:	110 mA (at 27V DC)
Operating conditions	
Working temperature:	-20 to +55 °C
Storage temperature:	-25 to +70 °C
Humidity:	max. 80%
Degree of protection:	IP 20 devices, IP 40 with cover in the switchboard
Overvoltage category:	II.
Degree of pollution:	2
Operating position:	any
installation:	to the switching board on the EN60715 DIN rail
Design:	6-MODULE
Terminal:	max. 2.5 mm²
Dimensions and weight	
Dimensions:	90 x 105 x 65 mm
Weights:	250 g

- CU3-01M and CU3-02M are central units' of the iNELS system and me-diators, between user software interface and controllers, units and actuators connected to the bus.
- It's possible to directly connect up to 2 lines of CIB buses in to CU3-01M and CU3-02M, and on each bus we can connect up to 32 iNELS3 units.
- The main difference between CU3-02M and CU3-01M is that CU3-02M is moreover equipped by RF module which enables communication with selected units from iNELS RF Control system.
- Central units CU-01M (02M) support also peripheral units from iNELS2 thanks to external master MI3-02M/iNELS2.
- User´s project and retentive data are stored in a non-volatile internal memory hereby data are backed up without the supply voltage. Real time clock (RTC) backup for 10 days.
- Power supply controlling system - network voltage and the status of the backup battery.
- Possibility of setting time synchronization via NTP server.
- The RJ45 Ethernet port's connector is located on the front panel of the unit, the transmission speed is 100 Mbps.
- For CU3-01M (02M) it is possible to use 4 potential-free inputs for con-necting external controllers (buttons, switches, sensors, detectors, etc.) and 2 analog inputs 0 - 30V.
- CU3-01M (02M) comes with OLED display that shows the current status and enables settings (network settings, date, time, service) of the cen-tral unit CU3-01M (02M).
- Movement in the menu CU3-01M (02M) using arrows on the front panel.
- CU3-01M (02M) in 6-MODULE are designed for mounting into a switch-board on the EN60715 DIN rail.

iNELS RF Control interface for CU3-02M

Communication protocol:	RF Touch Compatible
Transmitting frequency:	866 MHz / 868 MHz / 916 MHz / 922 MHz
Signal transmission methods:	bidirectionally addressed message
Output for RF antenna:	SMA connector*
RF antenna:	1 dB (part of package)
Free space range:	up to 100 m

* Max Tightening Torque for antenna connector is 0.56 Nm.

Installation bus CIB:
- Two-wired bus with an arbitrary topology (not only to be as closed circle).
- With its own modulated communications on the DC voltage supply.
- One line of CIB bus allows you to connect up max. 32 units of iNELS3, or iNELS2 if you use external master MI3-02M/iNELS2.
- The current load of one line is max. 1A.
- maximum length of the bus is approximately 550 m (depends on the voltage drop).
- Recommended cable:
  - iNELS BUS Cable - Twisted pair of copper wires with size of AWG20 wire (diameter of 0.812 mm, cross-section of 0.5190 mm²).

System bus EBM:
- Used to connect the CU3-01M(02M) central unit with MI3-02M external masters, MI3-02M/iNELS2, GSM communicator GSM3-01M or convert-er DALI/DMX EMDC-64M.
- EBM has strictly linear topology and wires are connected to terminals EBM + and EBM-, wires can not be interchanged.
- Max. length of the line of bus is 500 m.
- The EBM bus has to be terminated at both ends.
- This part adapted to be inserted between terminals is included into central units packages and it is necessary to insert between terminals EBM+ and EBM-.
- Reccomended cabling:
  - CAT5e UTP and higher, or FTP CAT5e and higher or STP CAT5e and higher.

- The configurations of units and the whole system are done via Ethernet, through configuration software – iNELS3 Designer & Man-ager (iDM3), which is designed for operating systems Windows 7, Windows 8 and Windows 10.
- The central unit features two communication protocols:
  - ELKONET - to communicate with iMM and Connection Server or di-rectly with the application iHC.
  - ASCII - communication with third systems and integration with BMS (Building Management Systems), for example Niagara 4.
- Supported Software:
  - Parameterization, configuration, control and visualization: iNELS3 Designer & Manager (iDM3).
- By means of iDM3, you can update firmware of central units and pe-ripheral units connected by bus.