OCTOPUS

I/O - EDS BUS
CUSTOMIZABLE INTERFACE

- DIGITAL INPUT/OUTPUT
- ANALOG INPUT/OUTPUT

RoHS CE

OCTOPUS is a bus interface allowing the interaction between OVER Building Energy Management System (BEMS) with generic devices like digital/analog sensors, dry and voltage contacts. OCTOPUS is designed with a main electronic base that can be plugged with interchangeble specific interfaces, each one with different features.

DATA SHEET

MODEL	OCTOPUS
CERTIFICATIONS	RoHS, CE, UAE RoHS, ECAS
SIZE	68x31x24 mm
WEIGHT	40g
POWER SUPPLY	12÷15 Vdc
CURRENT DRAW	max 30mA
BUS COMMUNICATION	EDS
OPERATING TEMPERATURE	min -40°C max +85°C
WAREHOUSING TEMPERATURE	min -40°C max +85°C

INTERFACES

FEATURES	MODEL	PRODUCT CODE (PC)	DESCRIPTION
DIGITAL IN	205	OVER-OCT-S-1-A01-001	4 digital input - dry contact
DIGITAL OUT	207	OVER-OCT-S-1-A02-001	3 relay output - max 230V - 2A
ANALOG IN	204	OVER-OCT-S-1-A03-001	1 analog input - 0÷10V or 4÷20mA
ANALOG OUT	201	OVER-OCT-S-1-A04-001	1 analog output - 0÷10V, 1 digital output

INSTALLATION INSTRUCTIONS

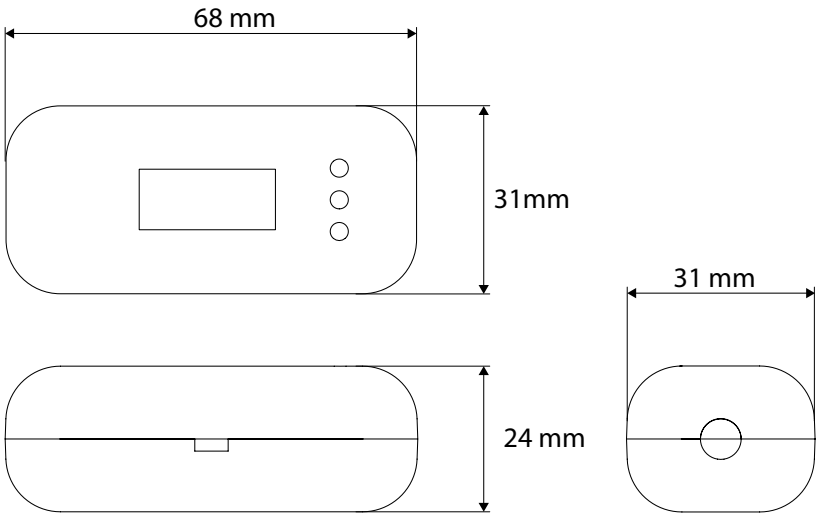
SAFETY

In order to maintain these conditions and ensure safe use, the user must follow the indications and markings contained in the following instructions.

Warning: Failure to comply with the following instructions could cause irreparable damage to connected devices.

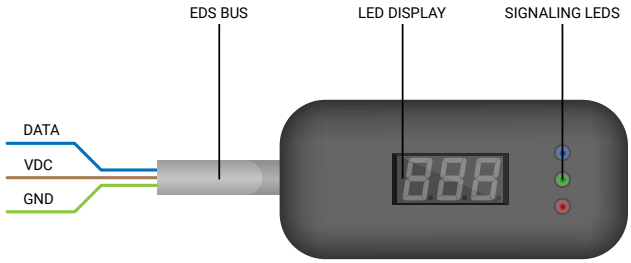
- Upon receipt of the instrument, before proceeding with the installation, check that it is intact and has not been damaged during transport.
- The instrument power supply must not be grounded.
- Maintenance and/or repair operations must be carried out only by qualified and authorized personnel.
- If you suspect that the tool is no longer secure, take it out of service and make sure it is not used inadvertently.
- The instrument and its connections must be properly protected.
- The instrument must be installed following all local regulations.

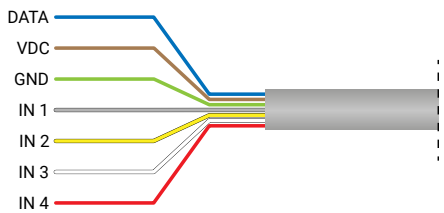
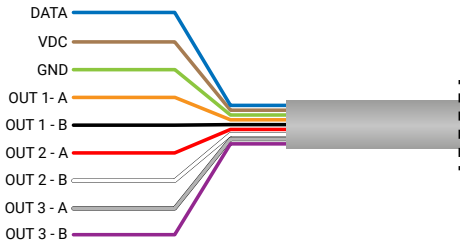
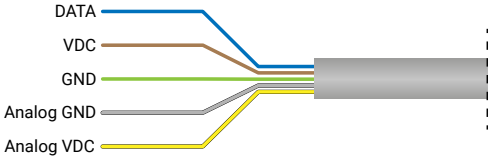
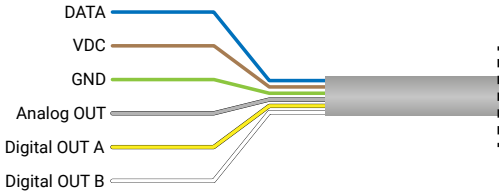
SIZE



COMPONENTS

On the front of the device there is a row of three signaling LEDs that indicate different states of the device (more information on the LED signals in the next chapters) and a LED display.
The display shows some informations about the model and the status of the Octopus. Each Octopus model has different screens according its configuration (more informations about the LED display in the dedicated chapter).
On the lower side we find the EDS communication BUS. We can find a different number of wires in the same cable according to the different shield installed in the Octopus. The numer and type of wires presents in each Octopus model are indicated in the table. Please, check also the installation schemes in the next chapters of this manual for more detail about the specific models.



4 DIGITAL IN MOD: 205 (PC: OVER-OCT-S-1-A01-001)	
3 DIGITAL OUT MOD: 207 (PC: OVER-OCT-S-1-A02-001)	
1 ANALOG IN MOD: 204 (PC: OVER-OCT-S-1-A03-001)	
1 ANALOG OUT + 1 DIGITAL OUT MOD: 204 (PC: OVER-OCT-S-1-A04-001)	

LED SIGNALS

The colors and different possible states of the three LEDs on the front of the device are shown below.

LED 1

Colour: BLUE
Indicates the board power supply.

LED 2

Colour: GREEN
- flashing light: communication on the EDS bus is operating.
- steady light: indicates a bus communication problem.

LED 3

Colour: RED
When the board is turned on for the first time, the red light will turn on for the entire initialization process. When the intialization is complete, it flashes indicating the code of the Octopus shield (1 time indicates the 201 model, 2 times indicates the 202 model and so on).

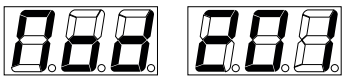
LED DISPLAY

The three-digit led display shows all informations about the model and connection status. The screens refreshes continuosly to reveal all updated informations. Screens with text longer than three digit will automatically swipe to the end of information (the arrow symbol "→" placed under the example screens indicates that the screen will swipe). The first three informations are common in all Octopus devices, the following ones will change according the Octopus configuration.

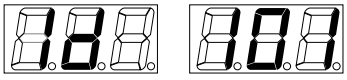
COMMON SCREENS

The screens present on all Octopus devices are about the **model** (shows the model number, check page 2 for more informations), the device **address** (shows the address number of the device) and **firmware revision** (shows the last firmware revision of the device). The screens described are shown below (numbers are just samples, may change according to the device).

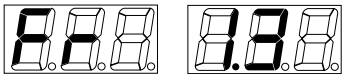
Model



Address



Firmware revision



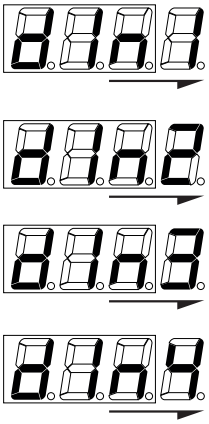
ADDITIONAL SCREENS

After the refreshing of the common screens, the additional screen will be shown. All additional screen presents on each Octopus model are listed below.

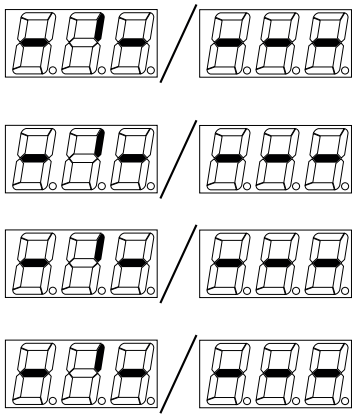
4 DIGITAL INPUTS MODEL

The 4 Digital Inputs model shows four more information about every single **digital input** status (open or closed), represented graphically as shown in the image below.

Digital inputs



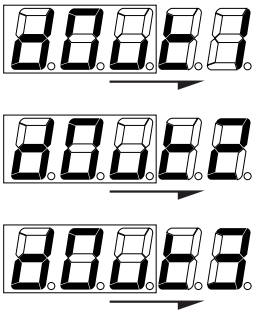
Open / Closed



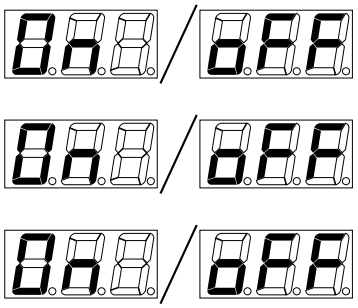
3 DIGITAL OUTPUTS MODEL

The 3 Digital Outputs model shows three more information about every single **digital output** status (on or off)

Digital outputs



On/Off status

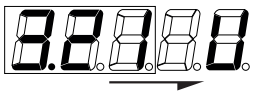


1 ANALOG INPUT MODEL

The 1 Analog Output model shows one more information about the **analog input** status showing the Voltage (V) or the Current (mmA) depending on the device configuration.

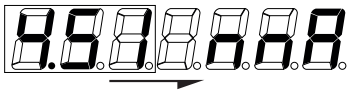
Analog inputs

Voltage (V)



Analog inputs

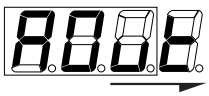
Current (mA)

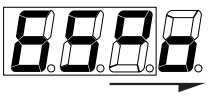


1 ANALOG OUTPUT + 1 DIGITAL OUTPUT

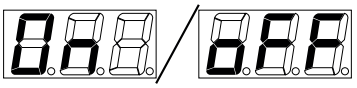
The 1 Analog Output + 1 Digital Output model shows two more information about the **analog output** status (expressed in percentage) and the **digital output** status (on or off).

Analog output





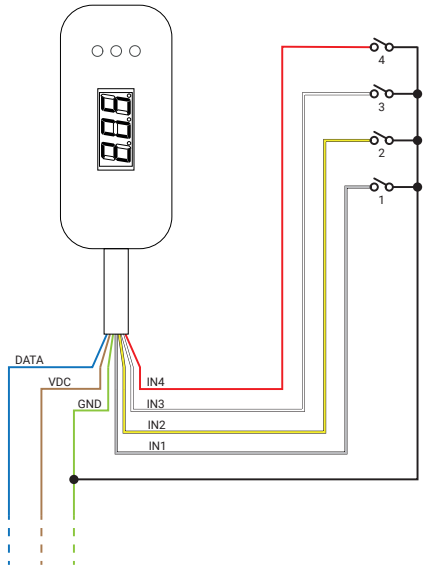
Digital output



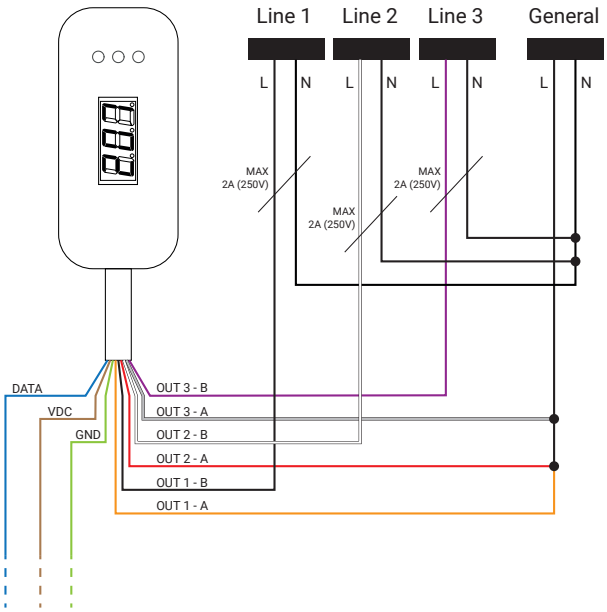
CONNECTION DIAGRAMS

Every Octopus configuration presents different number of wires (as shown in the Components paragraph) that allows to connect the device according to its usage destination. Please, check the diagram below paying attention to the model of the device being installed.

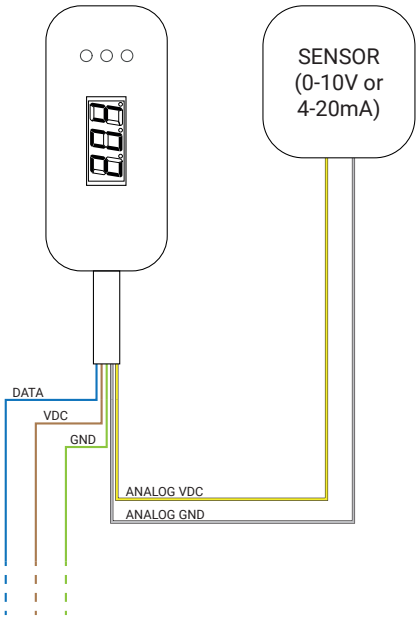
4 DIGITAL INPUTS



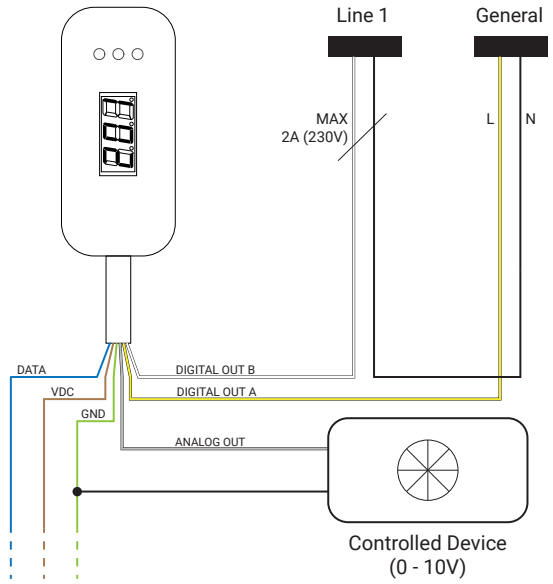
3 DIGITAL OUTPUTS



ANALOG INPUT



1 ANALOG OUTPUT + 1 DIGITAL OUTPUT



Milan Rome Dubai London

OCTOPUS MANUAL

Version 1.0 - Subject to change without notice

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