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SOROZATSZÁM	NÉV	MODELL	DÁTUM
ZVL615.00	INTPRG	3G-WF	26.06.2017

Az INTPRG sorozat megfelel a 2014/53 / UE irányelv alapvető követelményeinek, és a megfelelő műszaki referencia szabványok lettek alkalmazva.

ECU ADATCSERE PROGRAMOZÓ INTERFÉSZ

**Beállítási és felhasználói utasítások
Telepítési és referencia rajzok**

Safe Home Kft. Kapuautomatizálási Nagykereskedés
1108 Budapest Kozma u. 4. Tel.: +36 1.264 2540 Fax.: +36 1 264 2541
E-mail: safehome@safefhome.eu Web: www.safefhome.eu

REMARKS

These instructions are aimed at professionally qualified '**installers of electrical equipment**' and must respect the local standards and regulations in force. The use and installation of these appliances must rigorously respect the indications supplied by the manufacturer and the safety standards and regulations in force.



Attention! Only for EU customers - **WEEE marking**. This symbol indicates that once the product's life-span has expired it must be disposed of separately from other rubbish. The user is therefore obliged to either take the product to a suitable differential collection site for electronic and electrical goods or to send it back to the manufacturer if the intention is to replace it with a new equivalent version of the same product. Suitable differential collection, environmental friendly treatment and disposal contributes to avoiding negative effects on the ambient and consequently health as well as favouring the recycling of materials. Illicitly disposing of this product by the owner is punishable by law and will be dealt with according to the laws and standards of the individual member nation.

Description

The **INTPRG** interface can be used in combination with the Cardin Gateway Service to monitor and adjust multifunctional units through the professional **CRD TWO** app. It connects to the unit by means of a **BLE** (Bluetooth Low Energy) radio module or cable, while the connection to the Gateway uses a **3G** or **WiFi** network. This system allows the user to interact with the unit as though they were installing it themselves through the use of a smartphone or tablet.

3G/WF Antenna:

The antenna of the **3G/WF** module is a specific model that is supplied standard with the product. It must always be present in the functioning and attaches to the dedicated connector at the top of the container (fig. 2).

If the **3G/WF** signal is low, the antenna can be installed in a different position using an accessory. This accessory consists of an extension cable, available in different lengths, and a bracket for fixing the antenna to the wall. The accessory is available in the following versions:

- antenna extension with cable of 5 metres **ANSKITGSMWF5** / and 10 metres **ANSKITGSMWF10**

Installation and connections (fig. 2)

Find a suitable point for fixing to the surface, so that the antenna is free and as far away as possible from elements that can limit or compromise its efficiency (metal structures, electrical equipment, etc.).

The maximum distance between the interface and the product to be connected depends on the type of link that needs to be adopted. Do not exceed 5 metres in a straight line with the **BLE** Link, and 15 metres with the Cable Link (referring to the length of the wire that connects the device to the Cardin product), therefore:

- using a posidrive screwdriver, unscrew the four screws **1** and remove the cover **2**;
- using a screwdriver, open the two knock-out holes **3**.
- mark the two fixing points with the help of the box, drill the holes **4** and fix the container using the two rawlplugs **5** and self-tapping screws 4.2 x 45 **6** supplied.
- make the electrical connection and replace the cover using the four fastening screws **8** that were previously removed.

Electrical connection of the fixed unit (fig. 3)

Warning! Power the fixed unit with a safety power supply unit.

- Connect the 12 or 24 Vac/dc power supply between binding posts 1 and 2.

Indicator Leds on the interface

Four indicator leds (fig. 3) provide information about the operating condition:

- the **red L1** LED displays the interface status and recognition of the **3G/WF** module;
- the **green L2** LED displays the status of the **TCP** network connection;
- the **blue L3** LED displays the signal level of the **3G/WF** module;
- the **orange L4** LED represents the power status of the **BLE/Cable** Link module.

Each LED can have the following statuses: off, slow flashing, fast flashing or on. The difference between the slow flashing and fast flashing is that the light remains on twice as long for the slow flashing. The signals available on the interface are shown in the table below:

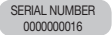
Led	Status	Function mode
L1 ⁽¹⁾	Off	Interface off
	On	Interface on, no 3G/WF module detected.
	Long flash	Interface on, 3G/WF module detected.
L2 ⁽¹⁾	Off	No TCP connection active.
	On	TCP connection active.
	Long flashing	Connection with active gateway.
	Short flashing	Connection to client active.
L3 ⁽¹⁾	Off	No 3G/WF signal or unmeasurable signal.
	Long flashing	Represents the signal level with a sequence of flashes, from one to five, repeated every three seconds. One flash indicates the minimum level, while five flashes is the maximum level. The value of the signal is updated approximately every fifty seconds.
L4 ⁽¹⁾	Off	The BLE/Cable module is powered down.
	On	The BLE/Cable module is powered up.

⁽¹⁾ They are activated simultaneously when **WPS** mode is active (only with **WF** product).

Serial number

During production, each product is marked with a unique serial number that identifies it and allows to access the gateway for data exchange.

This number cannot be changed.

The serial number of the product is visible on the label  affixed on the interface box (see fig. 1) or through the configuration software of the product.

Connectivity

The interface has the following modes of connectivity:

- **Direct:** with **USB** cable equipped with a “**MINI USB**” connector to configure the connection parameters
- **3G** and **WiFi** mobile network: with gateway service made available by Cardin Elettronica for its products, which allows the equipment to interact directly via the internet. For details on the configuration and use of these modes, refer to the software instructions.
- **BLE** (Bluetooth Low Energy) **Link:** connects the device to a Cardin product using a Bluetooth radio connection (alternative to **Cable Link**) via the **MODBT** module.
- **Cable Link:** connects the device to a Cardin product by means of a cable (alternative to **BLE link**) via the **MODBT** module.

N.B. A pair of identical modules is needed to connect the **BLE Link** and **Cable Link**. These must be purchased apart as they are not supplied with the interface.

Before use, the interface must be configured using the **Cardin INT-3G-WF-BLE Configurator**. The configuration procedures are described in the software instructions.

For a more secure system, enter a personalised PIN Interface code for each device.

One of the connection modules are inserted in the interface and the other in the equipment to be connected.

In the case of a Cable Link, the connection can be made with a standard **3 x 0.35 mm²**, multipolar cable, or a shielded **2 x 0.35 mm²** cable (reccomended), connecting the two modules to

each other as described in the section “**MODCA Module.**”

The connection between the **MODBT** modules is automatic and is linked to the serial number of the interface that was registered inside it.

The interface proceeds automatically each time the module is switched on, if necessary, and whenever its serial number is registered, which is maintained even if there is no power.

Commands (fig. 3)

The basic functions available on the interface are managed via the **P1** button. Some of these functions are specific to the type of module used (**3G** or **WF**).

The simple pressing of the keys (for less than a second) controls the power supply of the **BLE** module by turning it on and off alternatively (refer to the section “Configuration and Operation of the **BLE** module”).

The pressing of the key for more than four seconds activates a specific procedure of the module installed (**3G** or **WF**).

In the case of the **3G** product, the modem will be restarted and a connection to the gateway will be programmed.

In the case of the **WF** product, the **WPS (WiFi Protected Setup)** function will be enabled for the automatic linking to a **WiFi** network (refer to the section “**WiFi** Registration with **WPS**”).

WiFi Registration with WPS (only WF product)

If necessary, the product can be linked to a **WiFi** network with unknown credentials (SSID and password) using the **WPS** procedure. This is only possible if the **WiFi** network allows it.

First activate the **WPS** procedure on the **WiFi** network, then press the **P1** button in the interface for at least four seconds. The procedure begins when the **L1** and **L2** lights turn on simultaneously in flashing mode, which is maintained throughout the duration of the operation.

The procedure is completely automatic and you will have to wait for the operations to be completed. The procedure ends when the **L1** and **L2** lights go back to their normal operation.

Please remember that access to the internet always depends on the settings and restrictions of the **WiFi** network to which you are connected.

MODBT module (BLE Link)

The led on the module is lights up in different colours, green or red, according to the type of device in which it has been inserted. The colour green is only used when the module has been inserted into the interface. The led supplies information regarding the module via different methods of flashing as follows:

- **fast flashing**, with frequency of about one second, indicates that a scan is being performed to search for the related module to which to connect;
- **slow flashing**, a flashing of the light about every two seconds indicates that the modules are connected;
- **fixed**, lights up for two seconds, indicates an error has occurred and the module will reset itself;
- **alternate flashing** of both colours means that the module is in the process of being activated, which normally takes about a second.

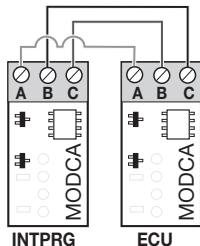
MODCA Module (Cable Link)

The **MODCA** module is a unique device that can be inserted without distinction or the need for configuration in the interface or in the product to be connected, because it does not require any type of configuration. It comes with a terminal strip where the wires of the two units (see Installation and Connections) are connected, as shown in the diagram at the side. Pole A is the common terminal, while poles **B** and **C** are the communication lines. The crosswise connection of poles **B** and **C** is essential for proper functioning.

Starting-up of the system

To start up the system, proceed as follows:

- configure the interface with the correct parameters using the dedicated software;
- if necessary, follow the **WPS (2)** procedure for connecting to the **WiFi** network;
- make sure the device to be connected is off;



With MODBT:

- check that **L4** is off, otherwise press **P1** once;
- insert a module in connector **J2**;
- press **P1** and check that **L4** is on;
- check that, within five seconds, the green light of the module is flashing;
- press **P1** and check that **L4** is off;
- remove the module from the interface, and then insert it on the product to be connected;
- insert the second module in connector **J2**;
- press **P1** and check that **L4** is on;
- check that, within five seconds, the green light of the module is flashing quickly.

With MODCA:

Before proceeding with the stable positioning, check the signal coverage (**3G/WF**) by turning on the equipment and checking the indication provided by **L3**:

- prepare the connection cable between the two devices;
- check that the interface is off and insert the first module;
- check that the product to be connected is off and insert the second module;
- connect the wires by following the instructions in the section "Module for Cable Link."
- Power up all the devices and check that the signals provided (LEDs) are correct.
- When a product with a **M2M-CARDIN** card is installed, reset the modem manually.
- Activate the application and with a complete connection check that the whole system works properly.

Note:

- this operation should be performed near the AP (Access Point) so that the signal can be checked in the final position;
- the interface will automatically power up the module after a time lapse of 30 seconds.

TECHNICAL SPECIFICATIONS

INTPRG (interface)

- power supply 12/24 Vac/dc
- power consumption 60 ... 130 mA
- operating temperature range -20° ... +55°C
- protection grade IP65

MODULO MODBT (Bluetooth Low Energy)

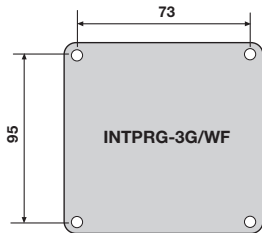
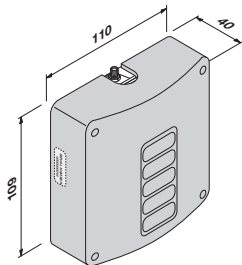
- power supply 3.3 ... 5.0 Vdc
- power consumption 5 ... 35 mA
- operating temperature range -20° ... +55 °C
- protection grade 2400 ... 2480 MHz

MODULO MODCA (cable)

- power supply 3.3 ... 5.0 Vdc
- power consumption 5 ... 35 mA
- operating temperature range -20° ... +55°C

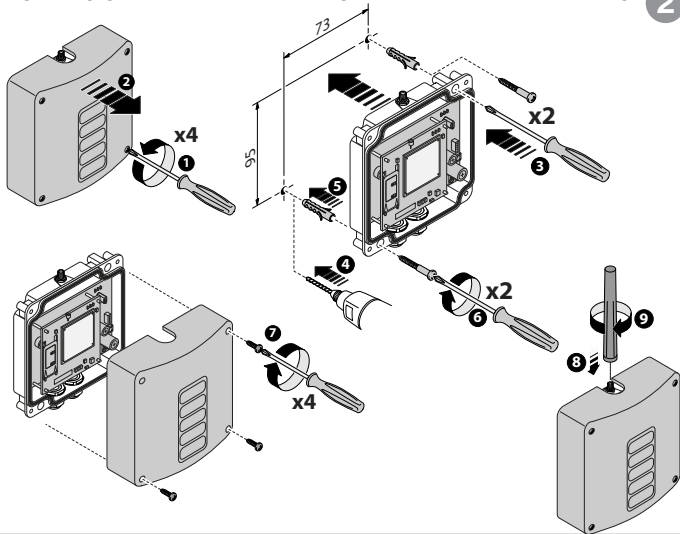
**DIMENSIONI D'INGOMBRO - OVERALL DIMENSIONS - DIMENSIONS
D'ENCOMBREMENT - AUSSENABMESSUNGEN - DIMENSIONES DEL
ESPACIO OCUPADO - AFMETINGEN**

1



INSTALLAZIONE DELL'INTERFACCIA - INTERFACE INSTALLATION
INSTALLATION DE L'INTERFACE - INSTALLATION DES INTERFACES
INSTALACIÓN DE LA INTERFAZ - INSTALLATIE VAN HET INTERFACE

2



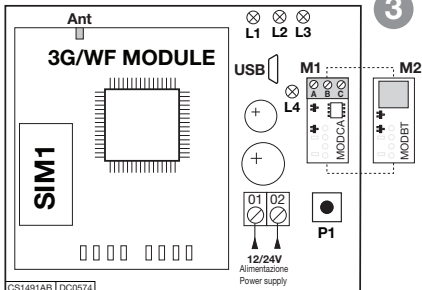
COLLEGAMENTI INTERFACCIA - INTERFACE CONNECTIONS BRANCHEMENT DE L'INTERFACE

LEGENDA

- Ant - Collegamento antenna
- L1 - Led alimentazione / status modulo
3G/WF (rosso)
- L2 - Led segnalazione collegamento
(verde)
- L3 - Led livello segnale (blu)
- L4 - Led modulo link (giallo)
- M1 - Modulo via cavo
- M2 - Modulo bluetooth
- P1 - Pulsante di programmazione

LEGEND

- Ant - Antenna connection
- L1 - Power / module status LED
3G/WF (red)
- L2 - Connection signal LED (green)
- L3 - Signal level LED (blue)
- L4 - Link module LED (yellow)
- M1 - Cable module
- M2 - Bluetooth module
- P1 - Programming button



LEGENDA

- Ant - Collegamento antenna
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3G/WF (rosso)
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- L4 - Led modulo link (giallo)
- M1 - Modulo via cavo
- M2 - Modulo bluetooth
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riello
elettronica
GROUP

CARDIN ELETTRONICA S.P.A

VIA DEL LAVORO, 73 – Z.I. CIMAVILLA - 31013 CODOGNÈ (TV) ITALY

GPS 45.864, 12.375

TÉL: (+39) 04 38 40 40 11

FAX: (+39) 04 38 40 18 31

E-MAIL (ITALY): SALES.OFFICE.IT@CARDIN.IT

E-MAIL (EUROPE): SALES.OFFICE@CARDIN.IT

HTTP:// WWW.CARDIN.IT

CARDIN HOTLINE ITALY

04 38 40 41 50

CARDIN ELETTRONICA FRANCE

333, AVENUE MARGUERITE PEREY

77127 LIEUSAIN CEDEX

TÉL: 01 60 60 39 34

FAX: 01 60 60 39 62

HTTP:// WWW.CARDIN.FR

CARDIN HOTLINE FRANCE

0892 68 67 07

CARDIN ELETTRONICA DEUTSCHLAND

NEUFABRNER STR. 12B

D-85375 NEUFABRN/GRÜNECK

TÉL: +49 (0)8165/9458-77

FAX: +49 (0)8165/9458-78

HTTP:// WWW.CARDIN-DE.DE

CARDIN HOTLINE DEUTSCHLAND

172 674 22 56

CARDIN ELETTRONICA BELGIUM

ACACIASTRAAT 18B

B-2440 GEEL

TÉL: +32(0)14/368.368

FAX: +32(0)14/368.370

HTTP:// WWW.CARDIN.BE

CARDIN HOTLINE BELGIUM

014 368 368