dido.dmg.it

4,3″/5″ RAFFAELLO Display

Contents

(v 1.0)

ℹ️ To check and download all versions of this guide, go at the **following link**.

✅ **Updated to EN81-28:2018 regulation**.
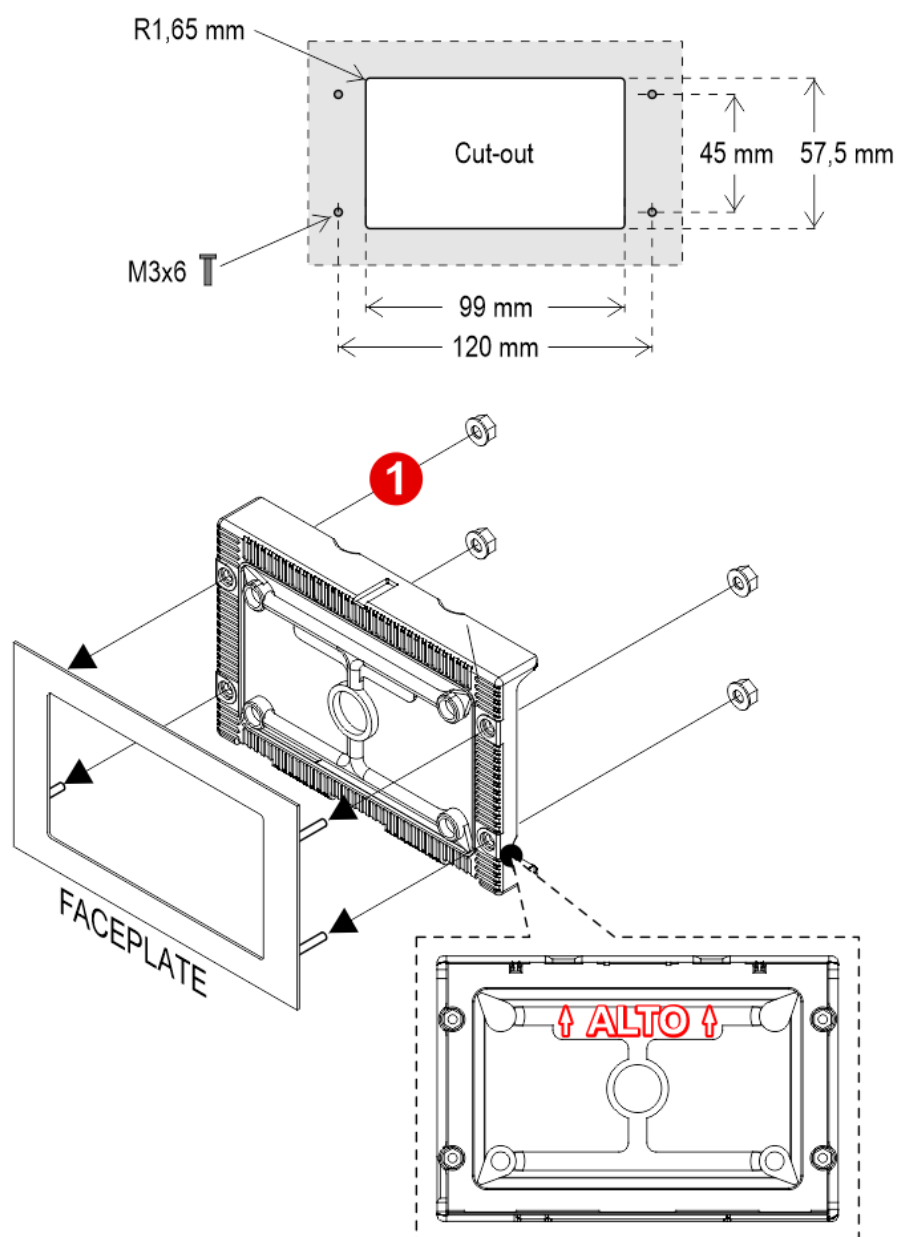
Safety and usage cautions

Before installing our products, we recommend you to consult the section about safety and usage cautions at the link below.
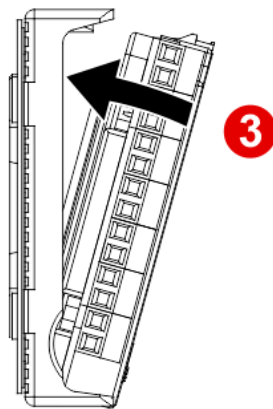
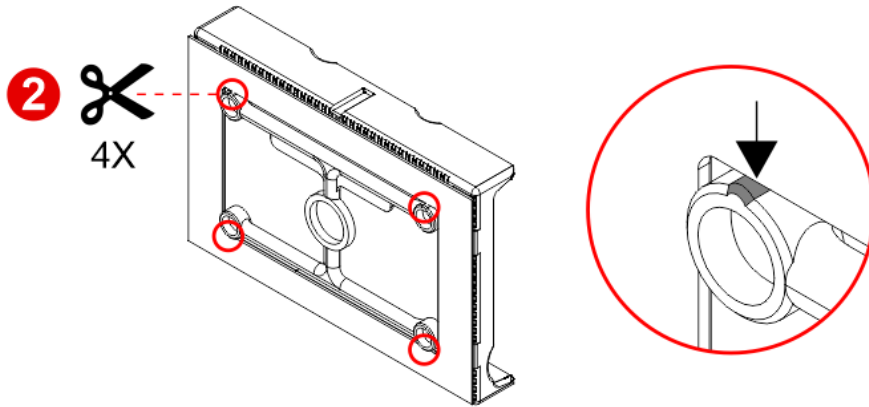# Mounting

Raffaello 4.3″

With welded pins on 1,5/3 mm pushbutton panel

R1,65 mm

Cut-out

45 mm   57,5 mm

M3x6

99 mm

120 mm

FACEPLATE

① ALTO ①

⚠️ If you are replacing an existing position indicator, please verify that studs' length is ≤ 8mm; if not, shorten them.

⊖ Raffaello 4.3″ (EN81-71)

With welded pins on 2/3 mm pushbutton panel

2mm thicknes plate only

2/3mm thicknes plate 81-71 ✓
class 2

1,5mm thicknes plate 81-71 ✗
class 2

6x

6x

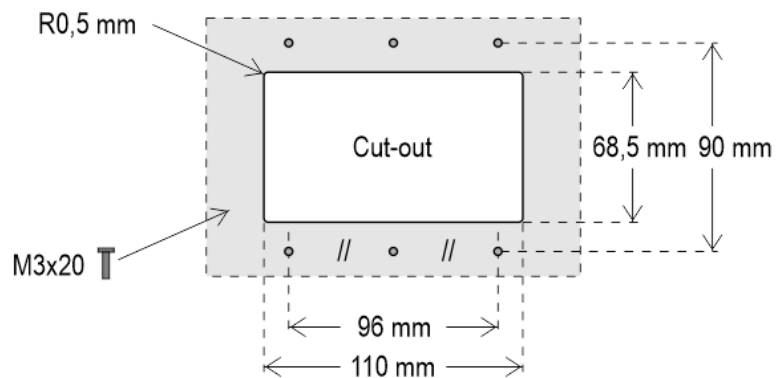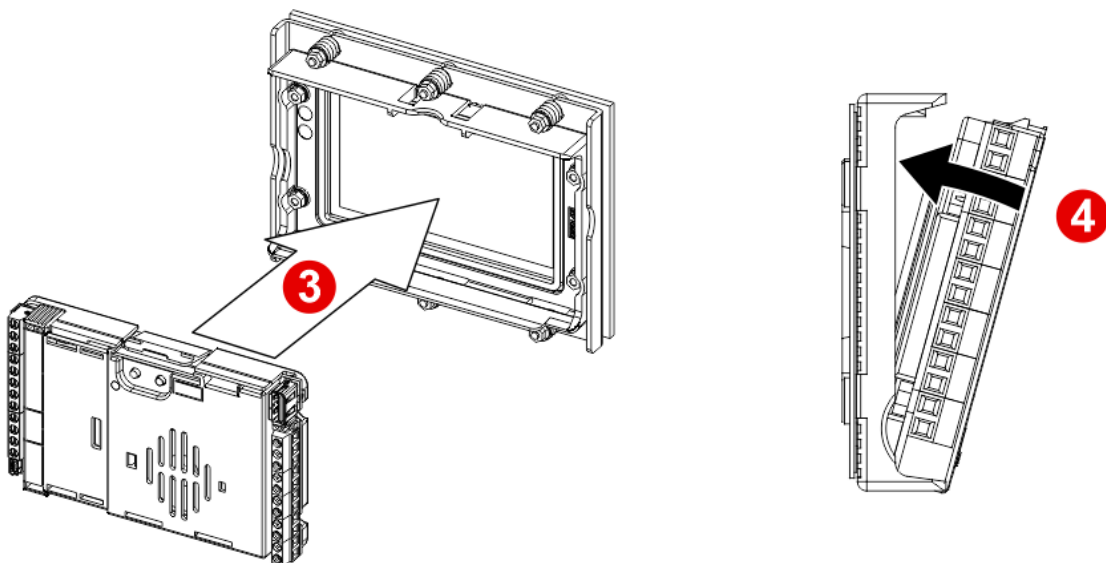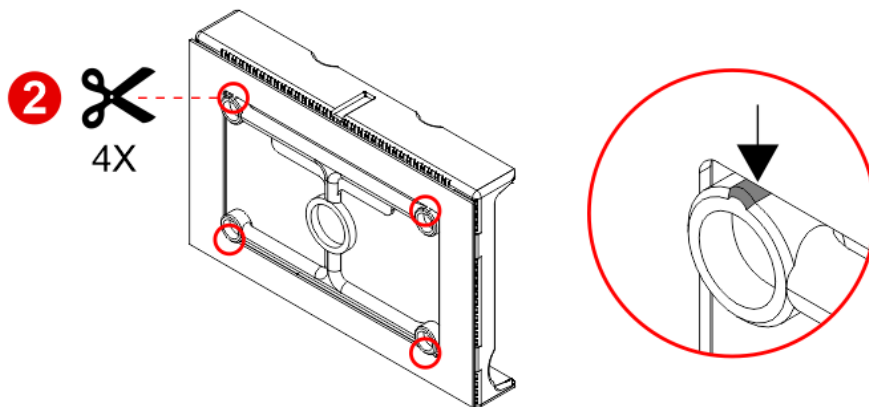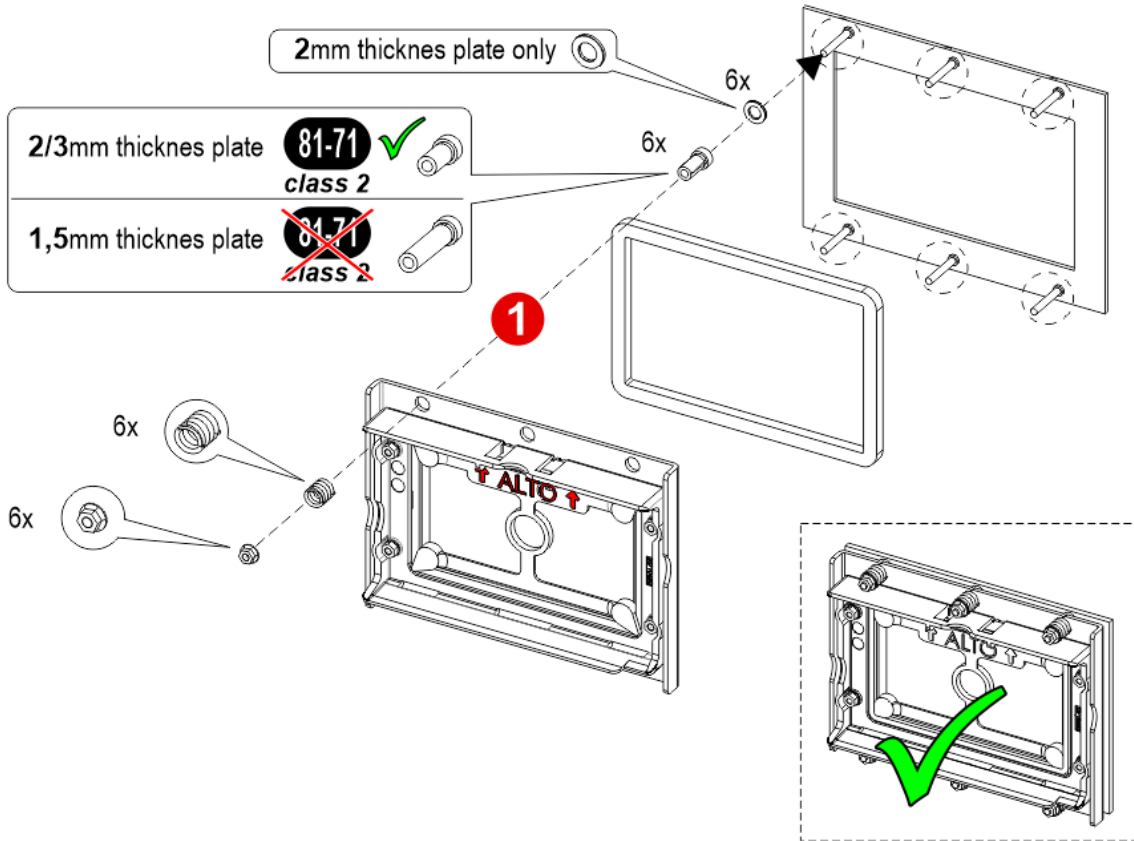6x

6x

1

ALTO

✓

2

4X

3

4

If you are replacing an existing position indicator, please verify that studs' length is ≤ 8mm; if not, shorten them.

Raffaello 5″

With welded pins on backplate (for 1/1,5 mm pushbutton panel)

R1,65 mm

Cut-out

62,9 mm

110,9 mm

3 4X

1

2

4

5

REMOVE THE BIADHESIVE AND
DEGREASE THE FACEPLATE

4

✓

NO

6 24h
9
6
ATTENDERE
AWAIT

BACKPLATE - SOTTOPIASTRA

With welded pins on 2/3 mm pushbutton panel

FRONT view

R1,65 mm

62,9 mm

47,03 mm

Cut-out

43,27 mm

M3x18

50,3   49,3

110,9 mm

3 4X

1

2

2mm thicknes plate

3mm thicknes plate
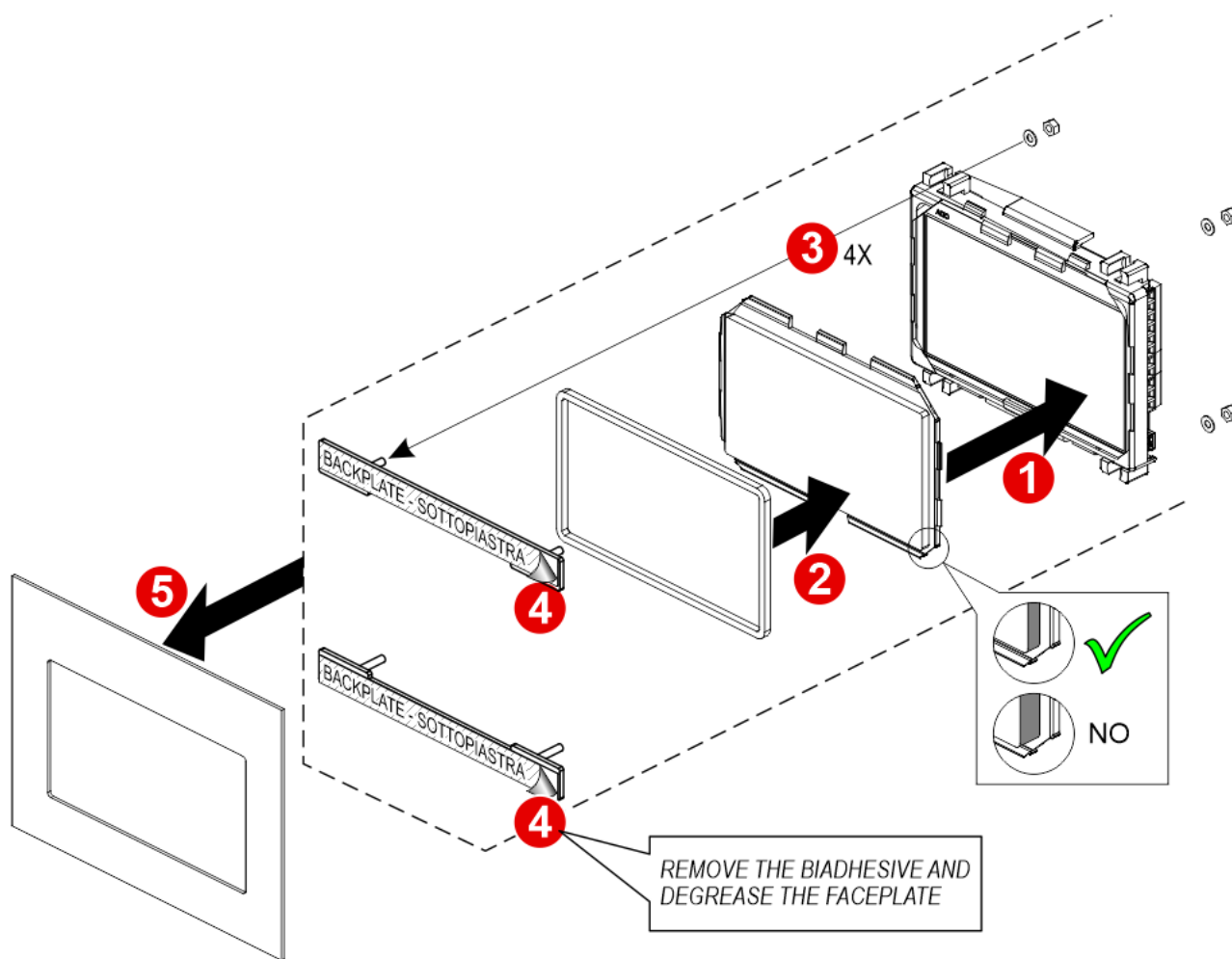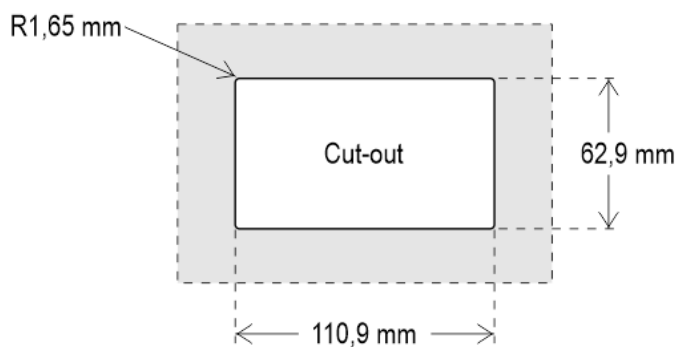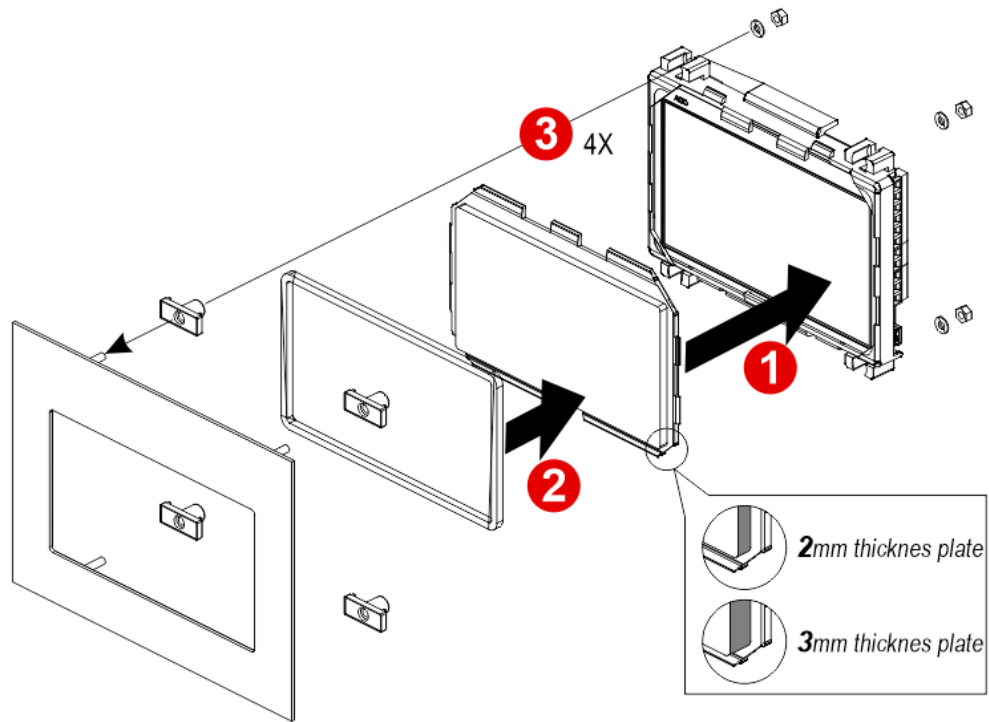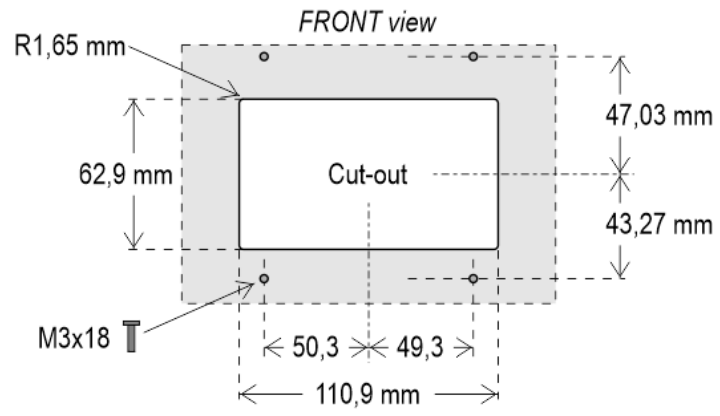
Frontal mounted on 1/2 mm pushbutton panel

R3,5 mm

Cut-out

93 mm

143 mm
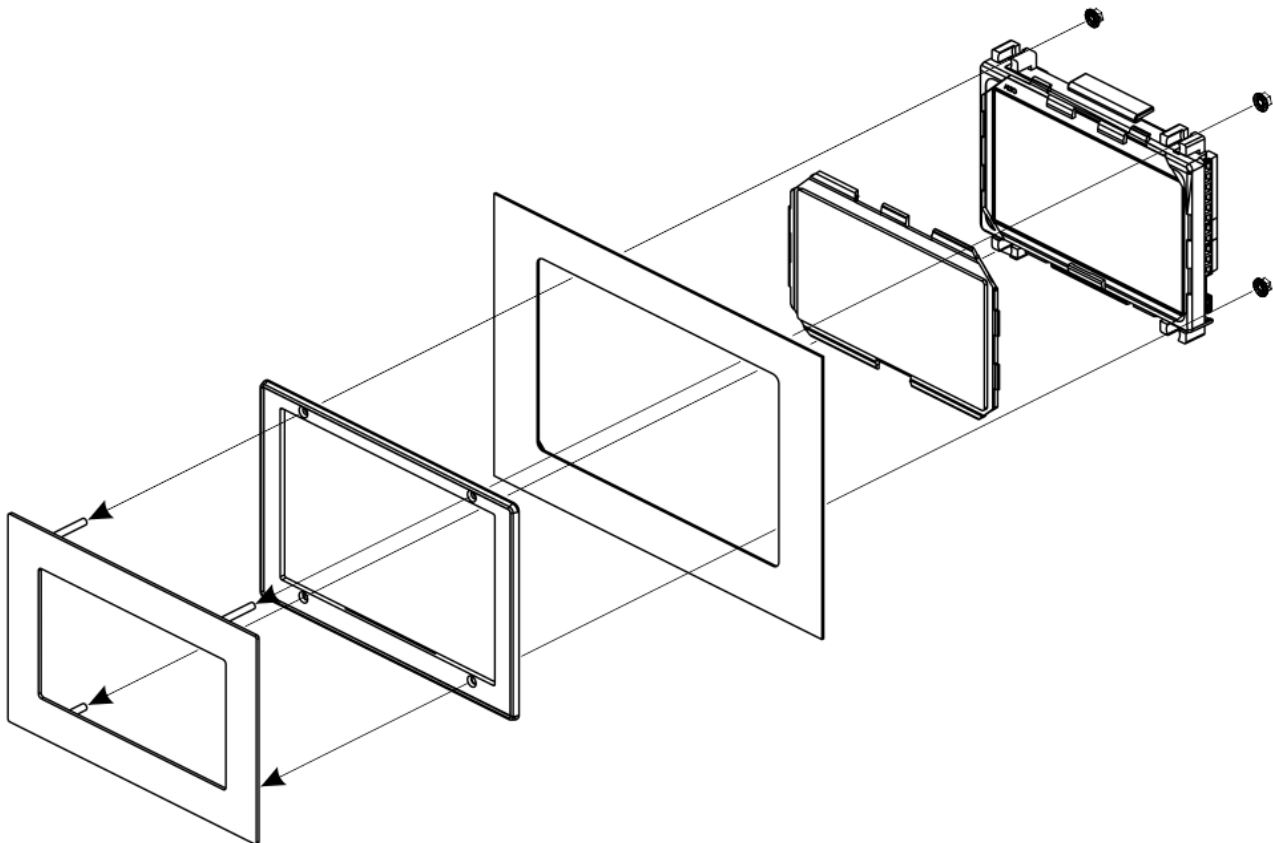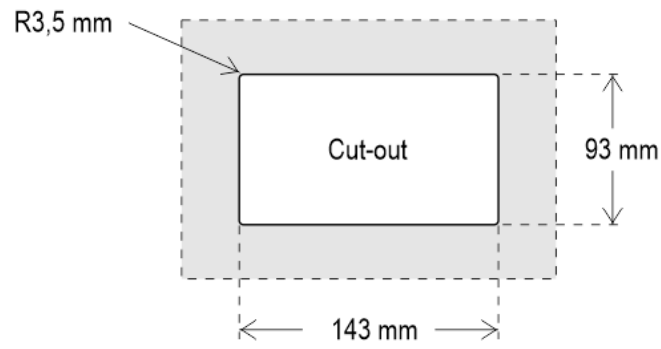
Wiring Instructions

Wiring of position and direction inputs

Pitagora 4.0

DMG CAN serial protocol
CAR

FLOOR
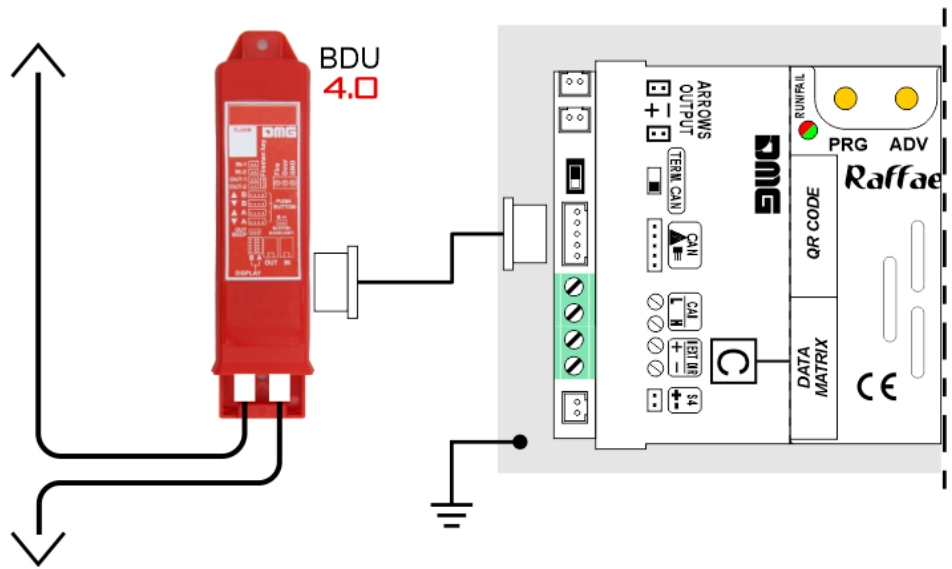
DMG
3-wires serial
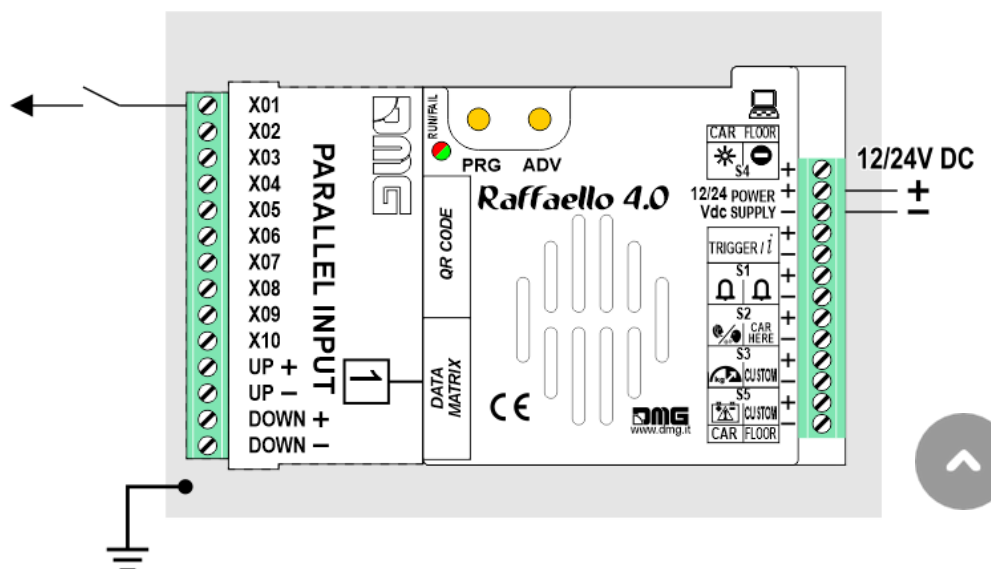
Pitagora V3

CAR
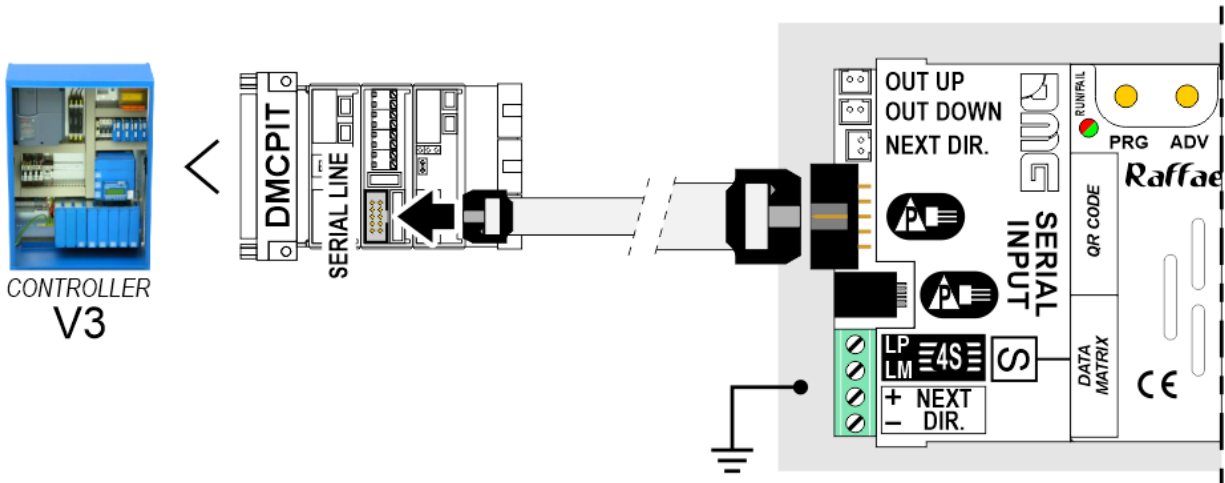
FLOOR
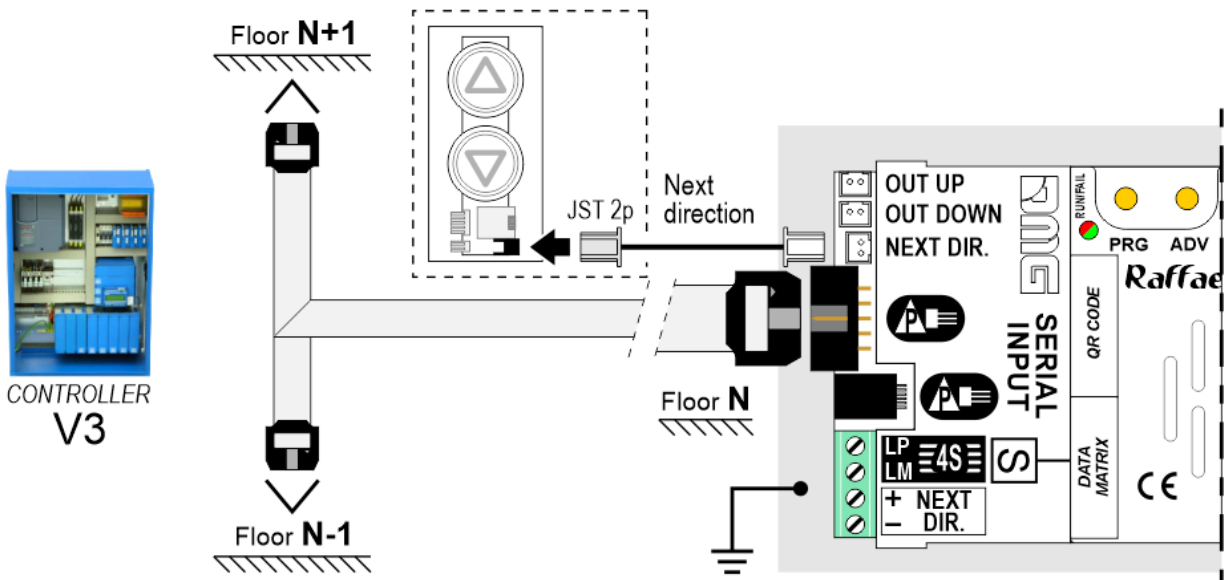
Encoder DEUM

For more details please refer to the Encoder DEUM support page

DMG CAN serial protocol
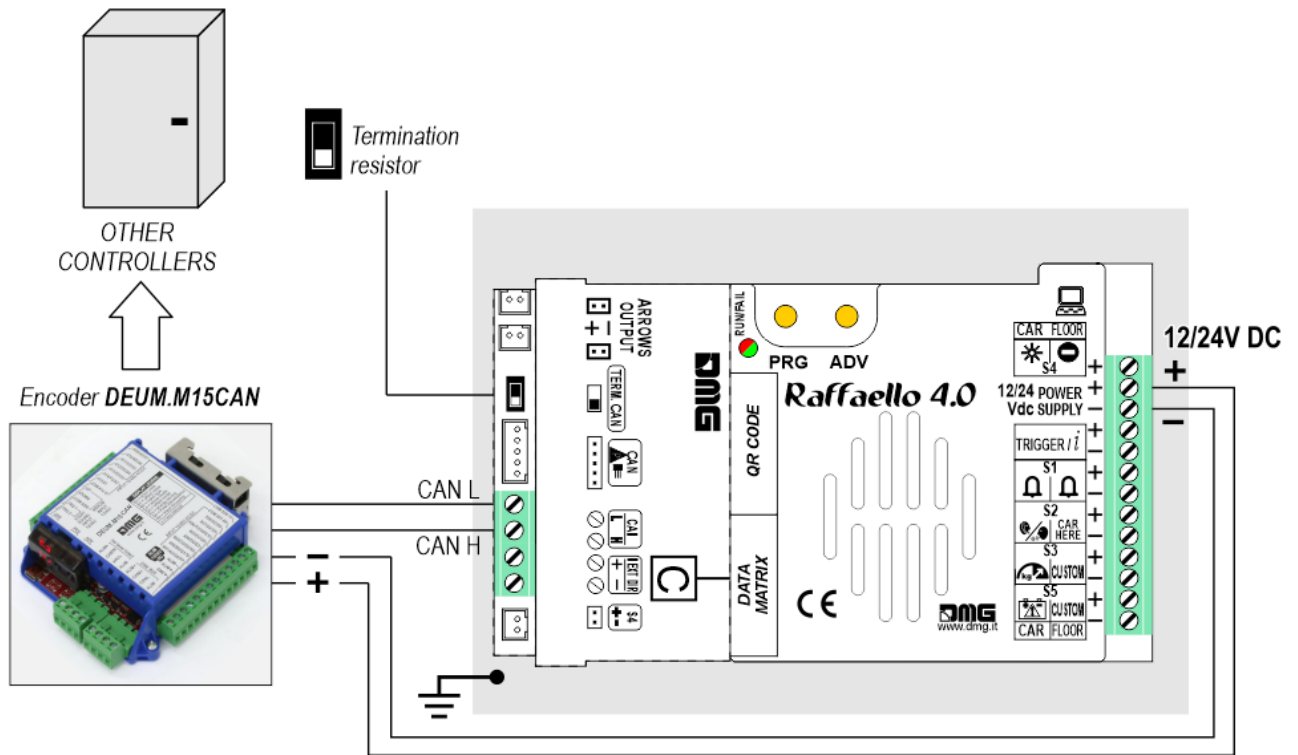
DMG
3-wires serial

RS485 serial
CAR

OTHER CONTROLLERS

Encoder *DEUM.M15SER*

OUT UP
OUT DOWN
NEXT DIR.

RUN/FAIL
PRG   ADV

Raffaello 4.0

SERIAL INPUT

QR CODE

DATA MATRIX

CAR FLOOR
S4
12/24 POWER Vdc SUPPLY
TRIGGER / i
S1
S2 CAR HERE
S3
kg CUSTOM
S5
CUSTOM
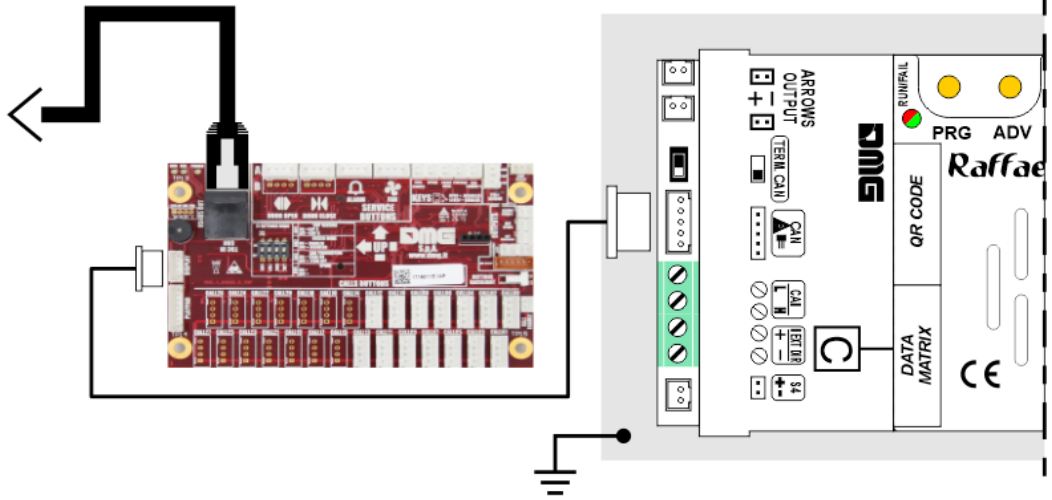CAR FLOOR

CE

www.dmg.it

LP
LM   4S   S
+ NEXT
− DIR.

FLOOR

OTHER CONTROLLERS

Encoder *DEUM.M15SER*

Floor **N+2**

OUT UP
OUT DOWN
NEXT DIR.

RUN/FAIL
PRG   ADV

Raffaello 4.0

SERIAL INPUT

QR CODE

DATA MATRIX

CAR FLOOR
S4
12/24 POWER Vdc SUPPLY
TRIGGER / i
S1
S2 CAR HERE
S3
kg CUSTOM
S5
CUSTOM
CAR FLOOR

CE

www.dmg.it

LP
LM   4S   S
+ NEXT
− DIR.

⚠ **NextDir From Input** *Only*

Floor **N+1**

DISPLAY *Raffaello*

Floor **N**

DISPLAY *Raffaello*

⊖ Autonomous Positioning System

The Autonomous Positioning System for the DMG displays of the Raffaello, Giotto and Matisse series, allows to show the lift position and direction independently from the controller. The interface uses the sensors signals installed on the top of car.

If available, it is possible to use the same position sensors used by the controller.
If NOT available, you have to install:
• 1 NO magnetic sensor on the cabin + 1 magnet at every floors for counting position.
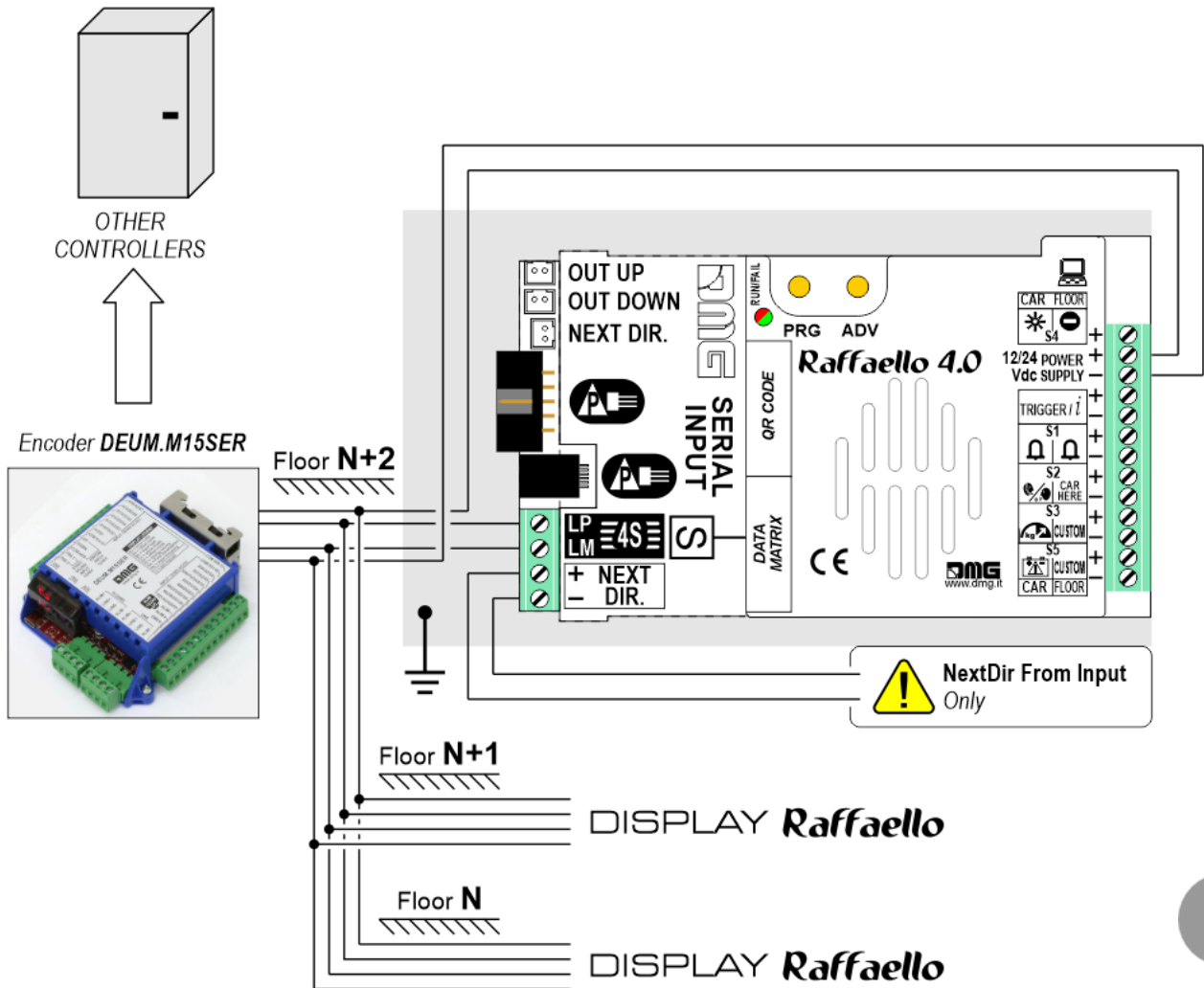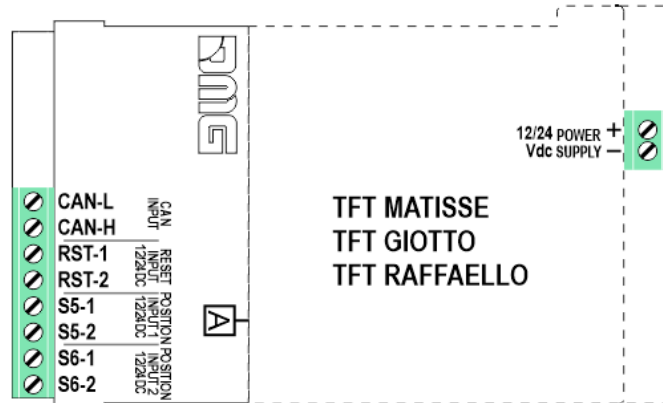• 1 NO magnetic sensor on the cabin + 1 magnet at main floor for the RESET.

In this interface there is a CAN BUS serial line for piloting the position indicators of floor.
For all other functions (Voice Synthesizer, gong, indicators, etc.) please refer to the display technical support page.

Autonomous positioning System

⊖ Other Controllers

Proprietary CAN protocol
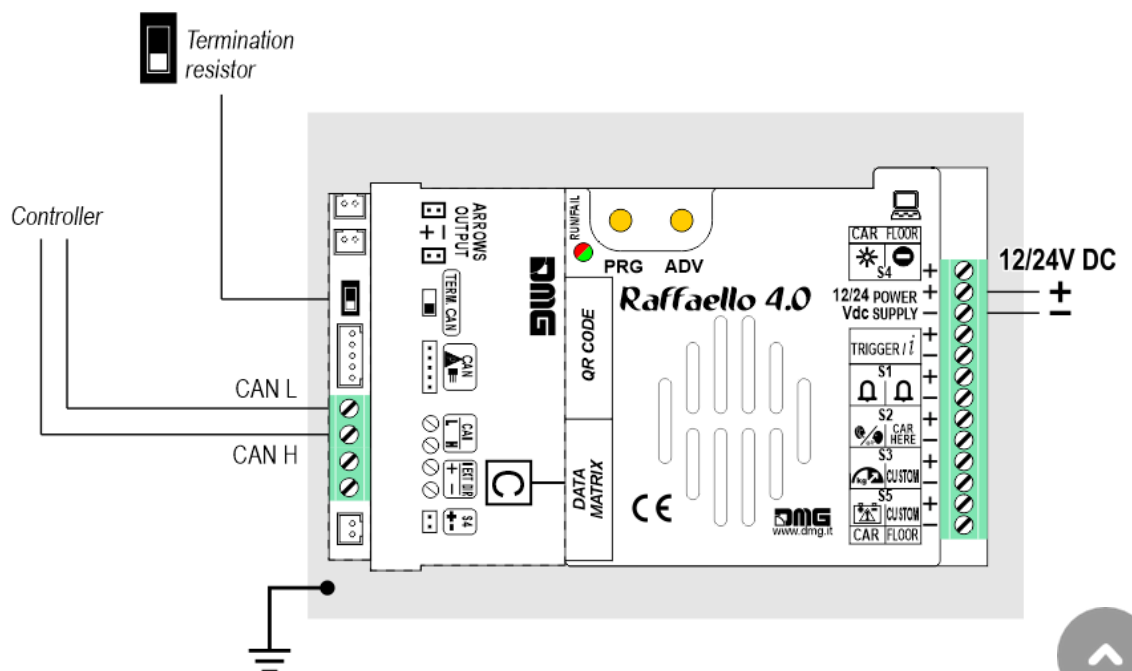
1 Wire / Floor
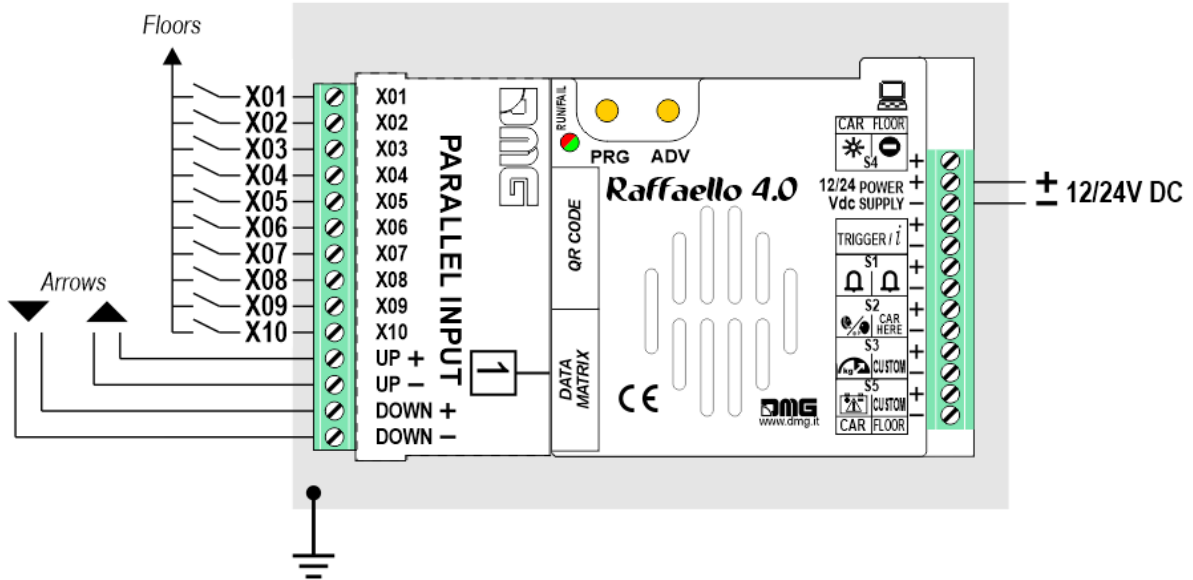
⚠️ 10 floors max.

1 Wire / Segment
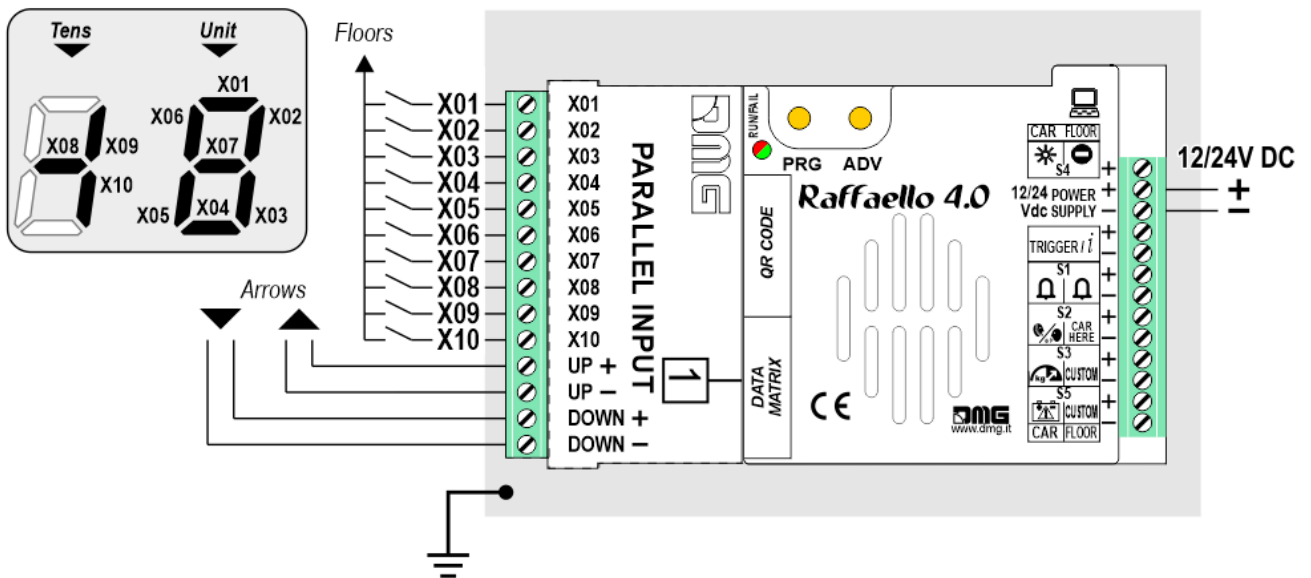
⚠️ 29 floors max. (-9, 0, 19)

Gray / Binary
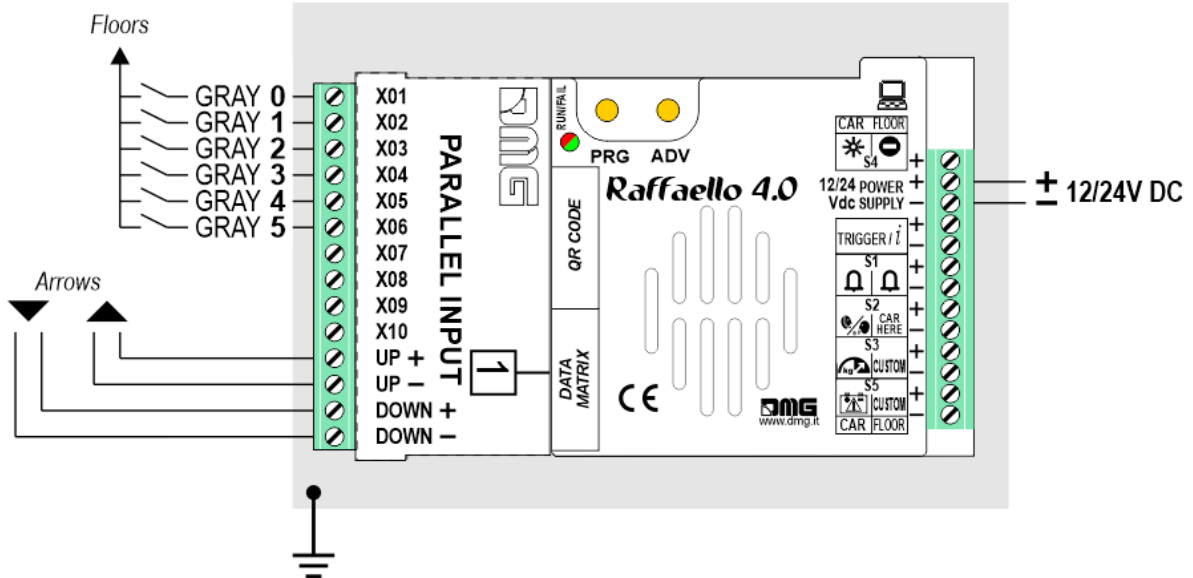
⚠ 72 floors max. (-9, 0, 62)

TKE/MEA/Autinor
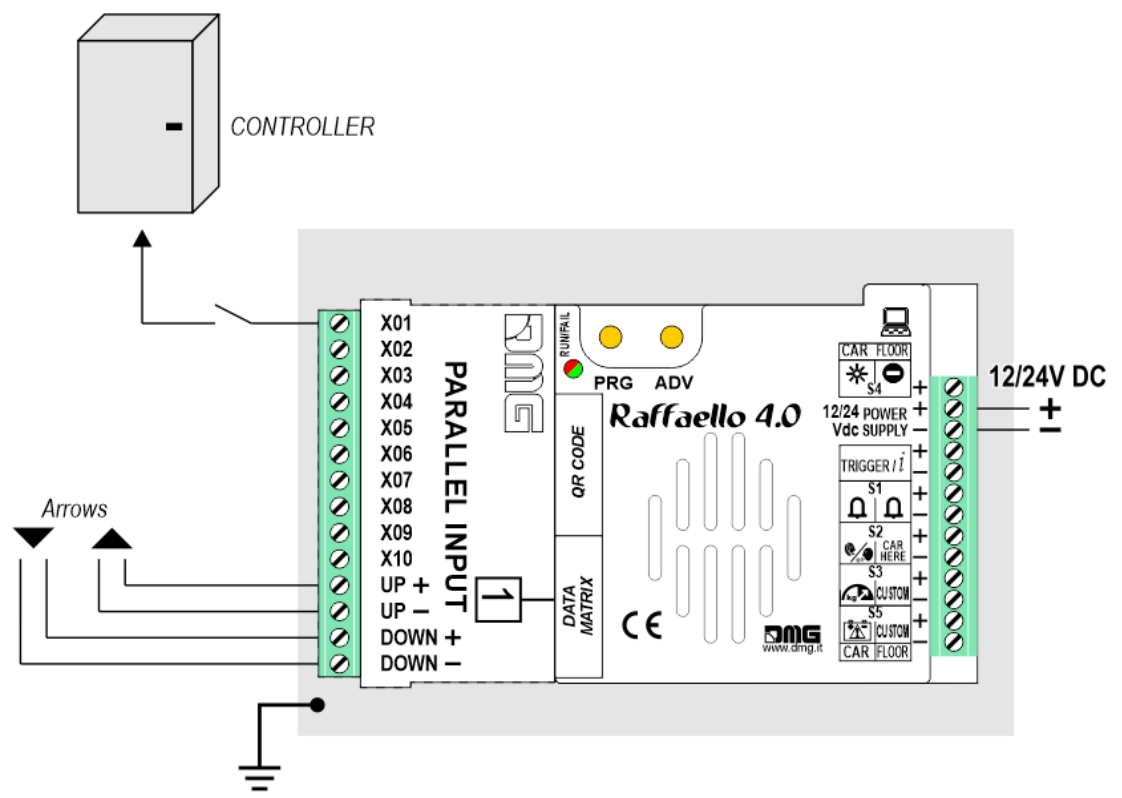
SERVICE MESSAGE Wiring

CAR
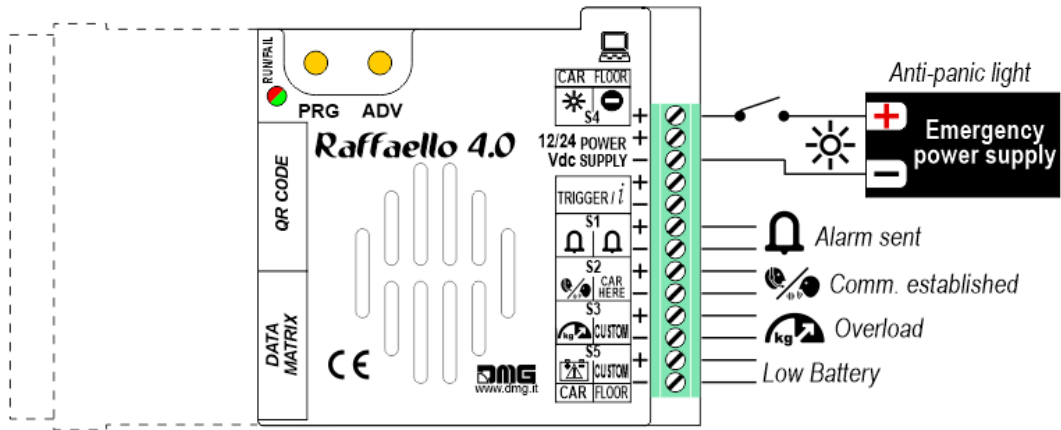
FLOOR
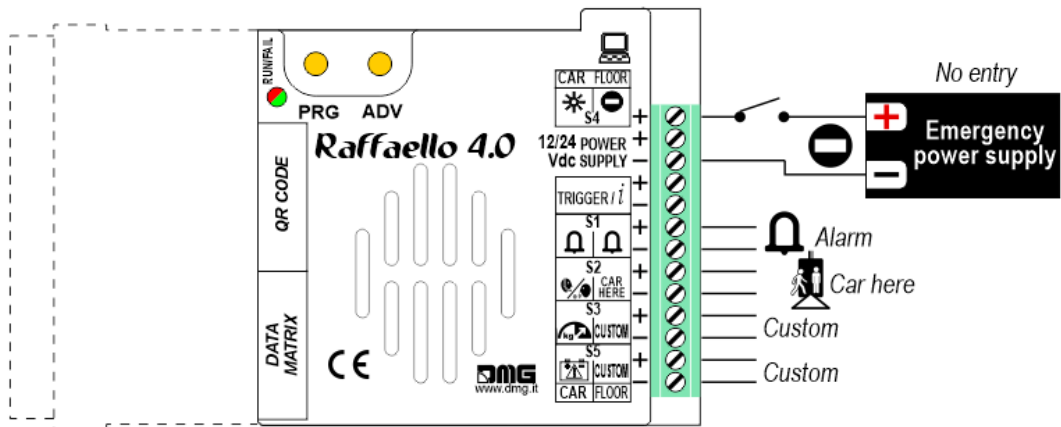
ⓘ Service messages can also be piloted, through serial bus, by the DMG controller or DEUM.M15 encoder.

TRIGGER Wiring

This input triggers the gong.

⚠️
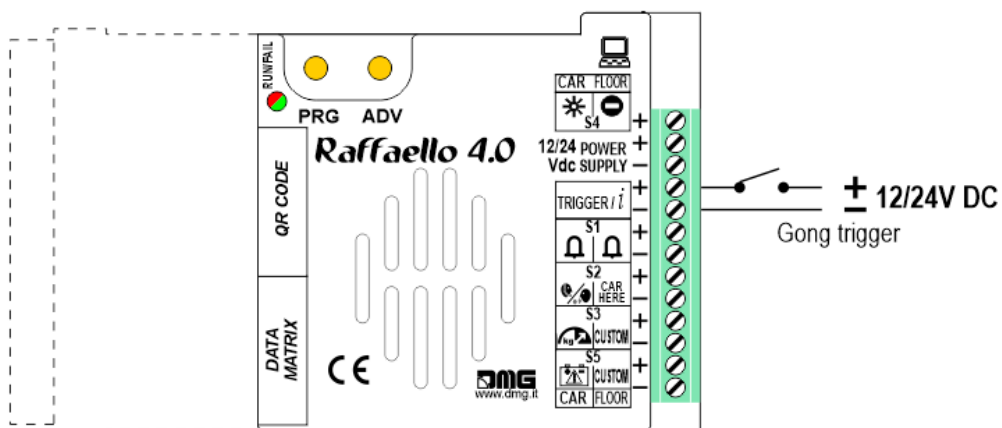
If piloting is driven by DEUM ENCODER, a direct connection between the TRIGGER command and the Encoder is suggested.

External Arrows Wiring

✅ *MENU > Options > Graphic Options > Arrows > **Hide***

Settings

⬤ ADV	⬤ ⧗ ADV	⬤ PRG	⬤ ⧗ PRG	
Setup Key	*Exit / Back*	*Access Menu Key*	*Value setting (>3 sec.)*	⌃

Menu navigation keys

⊝ General

⚠️ The display navigation menu is in English only; to see the correct menu items we recommend setting the DIDO website language to English.

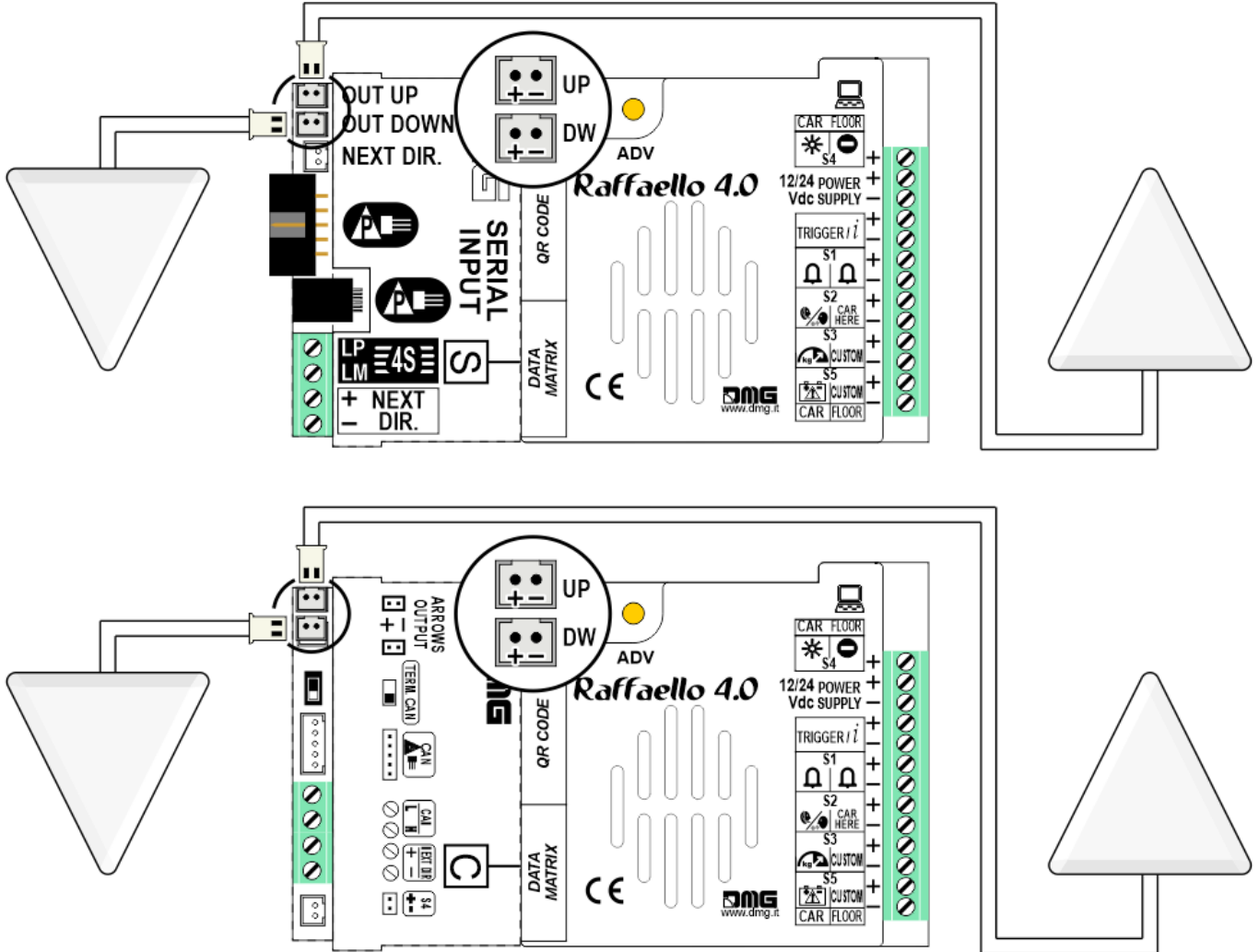| MENU	MENU ITEM			AVAILABLE CHOICES	Serial / Pitagora	Parallel	CANBUS
Input				Serial / 1 wire per floor / segment Gray / Binary / Pos.Sensor TKE / MEA / Autinor / CAN DMG	•	•	•
Audio Settings	Gong Volume			0-OFF / 1-MIN / 2 / 3 / 4-MAX	•	•	•
	Buzzer Volume			0-OFF / 1-MIN / 2 / 3 / 4-MAX	•	•	•
Options	Interface Options	Display Configuration		COP / LOP / LIP	•	•	•
		Arrow Configuration		Direction / Next Dir.	•		
		Car at Floor		No / Yes	•		
		Gong with NO Arrows		No / Yes	•		
		CAN Baudrate		250k, 125k, 10k, Auto			•
		Convert Mezzanine		No / Yes	•		
		Offset Value		-9 / ... / 0 / ... / +9		•	
		First Visualization		Blank / Zero		•	
		Common Selection		Negative / Positive		•	
		Arrow Type		Fixed arrows / Scrolling arrows		•	
		Enable AUX Signals		10 + 0 / 6 + 4		•	
		Input Filtering		0 ... 20		•	
		Gong from Arrows		No / Yes		•	
		Screensaver timer		Disabled / 10-20 / 30-60 / 60-120	•	•	•
	Graphic Options	Font		Dado / Classic Bold / Lagoon / Dot Matrix	•	•	•
		Flat Style	Symbol color	White / Red / Orange / Blue / Gray / Black	•	•	•
			Background color	Black / Pacific Blue / Navy Blue / Reef Blue / Light Gray /White / Orange / Red	•	•	•
			Specials	White-Green / White-Lilac / Purple-Yellow / White-Gray	•	•	•
		Gradient Style	Style	Black & White / Red Passion / Gray Goose / Blue Shades	•	•	•
			Color	Galaxy / Ocean Dream 2/1 / Reef Blue / Purple haze / ...	•	•	•
		Floor Symbols		Show / Hide	•	•	•

MENU	MENU ITEM		AVAILABLE CHOICES	INPUTS		
		Arrows	Show / Hide	•	•	•
		Fixed Symbols Positions	No / Yes	•	•	•
		Filter Blinking Signals	No / Yes	•	•	•
		Message Mode Orientation	Alternating / Fixed	•	•	•
		Orientation	Landscape (Horiz.) / Portrait (Vert.) / Rev.Landscape / Rev.Portrait	•	•	•
		S1-S5 inputs Configurations	Input S1 / ... / S5	•	•	•
		AUX Signals Configurations	AUX Signal 1 / 2 / 3 / 4	•	•	•

Adjusting audio level
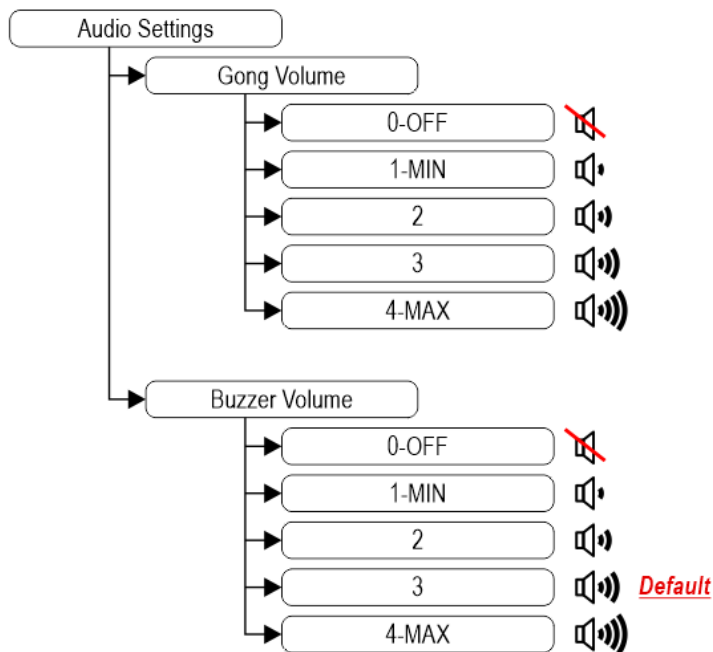
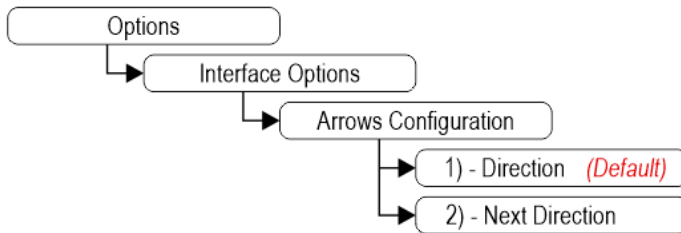## Set up Raffaello as elevator car indicator or floor indicator
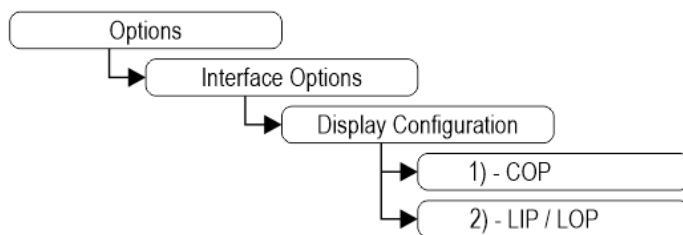
1) – Elevator car Position Indicator (default)
2) – Floor Position Indicator

⊖ Arrow setting up


```
Options
    └─► Interface Options
              └─► Arrows Configuration
                        ├─► 1) - Direction  (Default)
                        └─► 2) - Next Direction
```
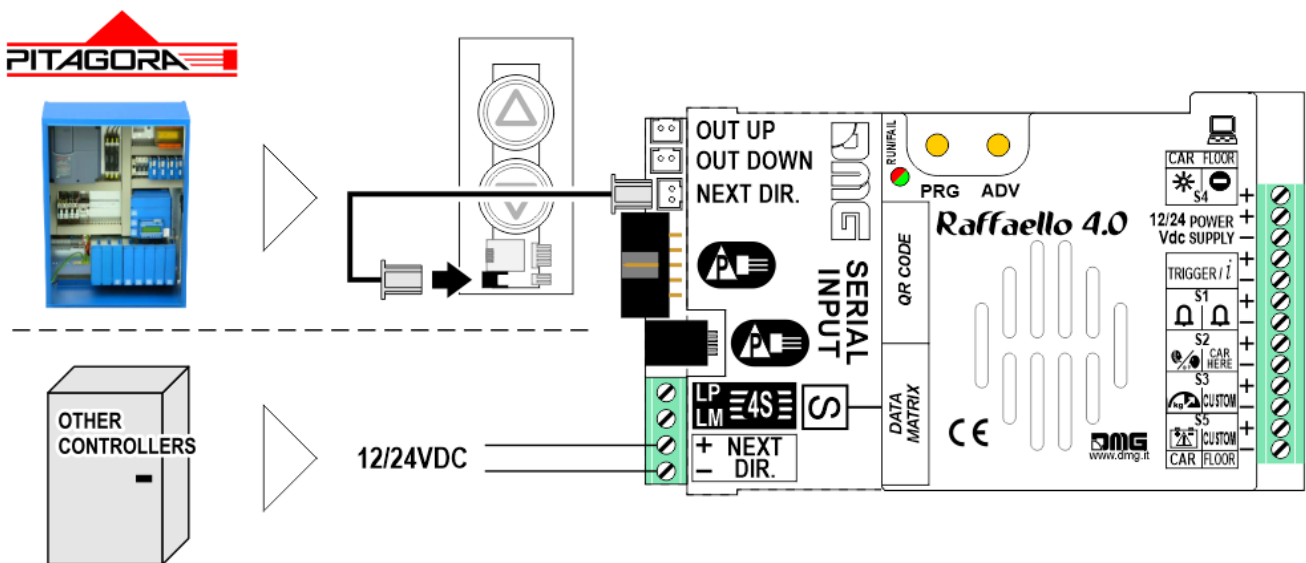
1) – Direction arrows (default)

2) – Next direction arrows (instructions below)

Next Direction Arrows enabled from input

Gong and arrows light up only on the position indicators with the "NEXT DIRECTION" input powered.

⚠️ If the DEUM Encoder is used, please refer to the relevant manual


Next Direction Arrows locally programmed

Through the addressing procedure one can permanently assign to each indicator the information of the floor on which it is mounted; in this way, next direction arrows only light up at the floor where the elevator car is positioned.

– Addressing procedure

1) – Connect all position indicators to the ENCODER or PLAYBOARD controller.

2) – Position elevator car on the floor of the Display which needs to be directed.

3) – Verify that the characters/numbers/letters visualized are the desired ones.

4) – Put a magnet in front of the indicator and wait for it to blink for 3 seconds for confirmation.
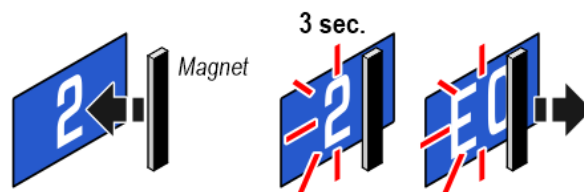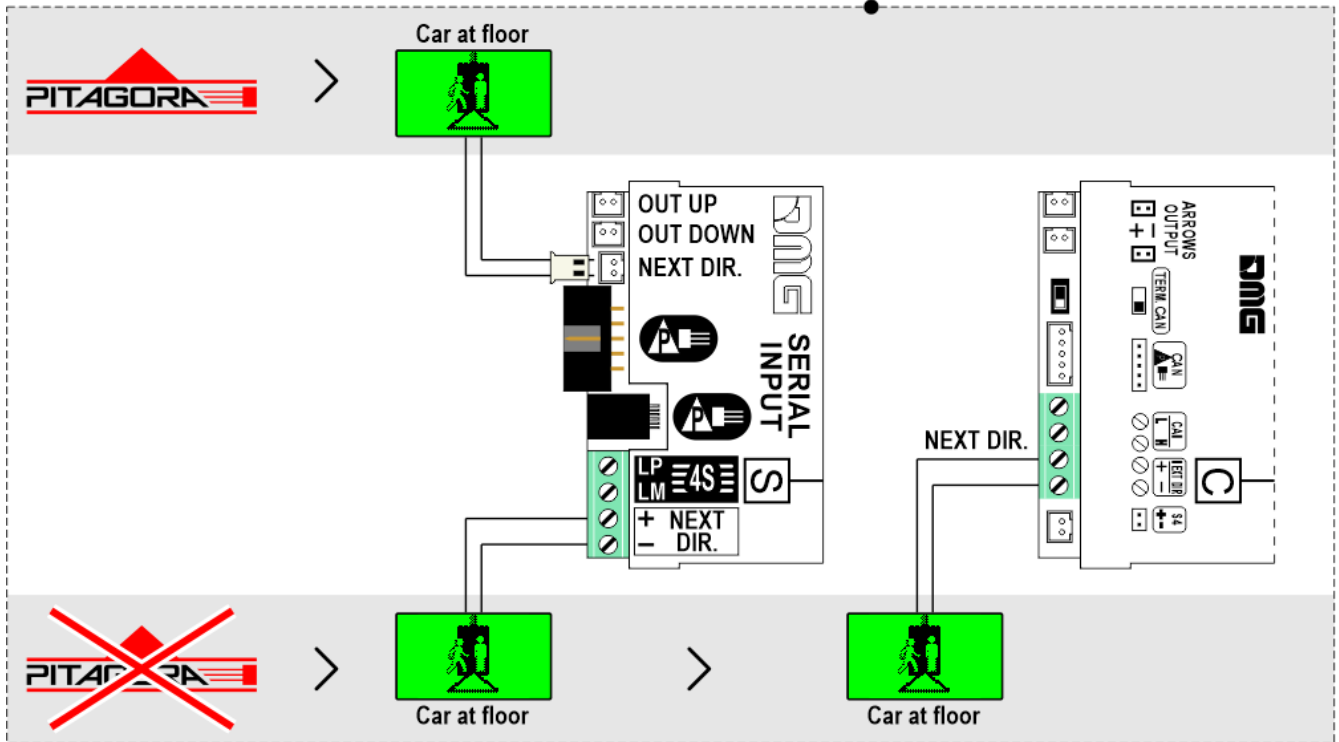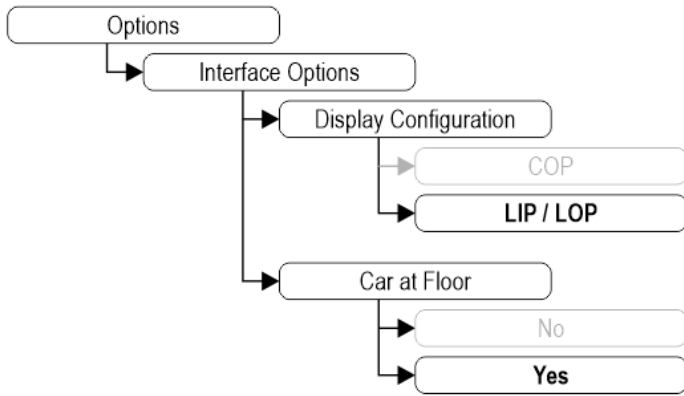
5) – Repeat procedure for each floor.

1 Floor **2** ↔

2 **2** CAR

3 👁 **2** ✓
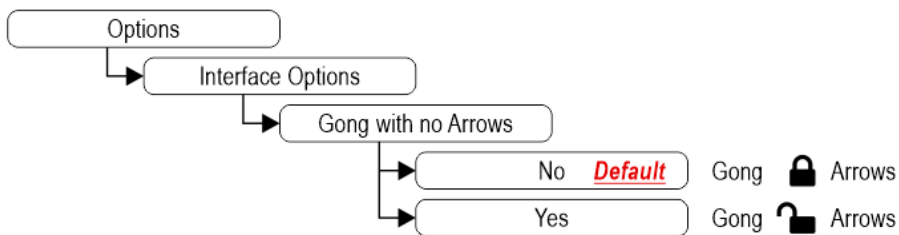
4 **2** ← Magnet 3 sec.
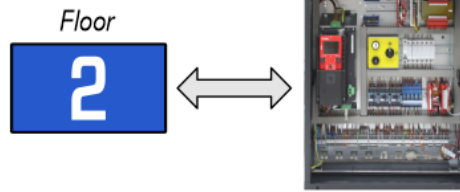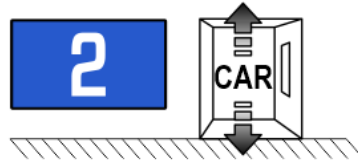
⚠ If the DEUM Encoder is used, please refer to the relevant manual

➖ **Enable "Car at Floor" signal from "NEXT DIR." input**
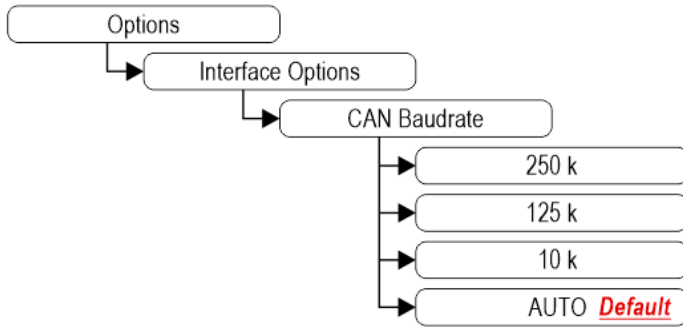
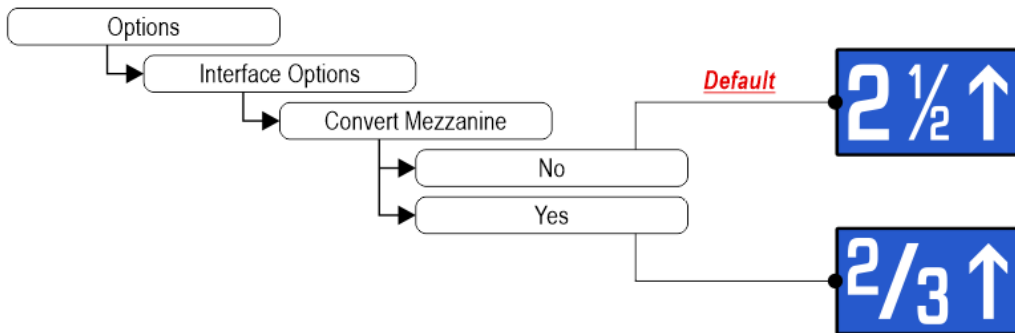## Set up the gong to be independent from arrows
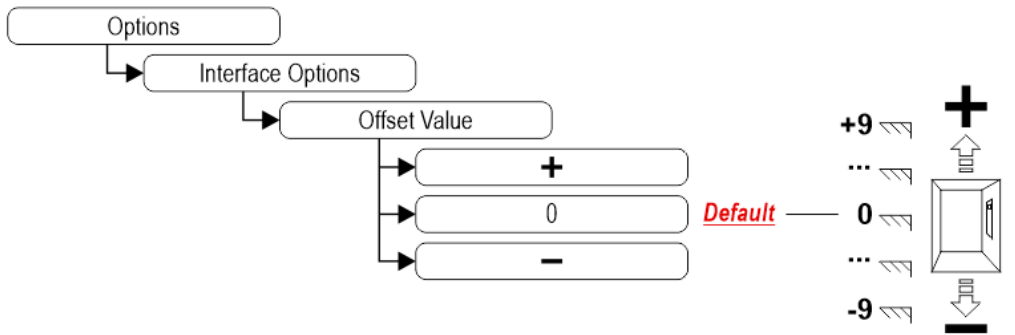

Set up CAN BUS protocol transmission speed

```
Options
  └─► Interface Options
        └─► CAN Baudrate
              ├─► 250 k
              ├─► 125 k
              ├─► 10 k
              └─► AUTO  *Default*
```

⊖ Intermediate floors visualization

```
Options
  └─► Interface Options
        └─► Convert Mezzanine          *Default*      2 ½ ↑
              ├─► No
              └─► Yes                                  ²/₃ ↑
```

⊖ Set up floors OFFSET

```
Options
  └─► Interface Options
        └─► Offset Value
              ├─► +                    +9
              ├─► 0       *Default* —   0
              └─► −                    -9
```

⊖ Set up first visualization

```
Options
  └─► Interface Options
        └─► First Visualization
              ├─► 1) - Blank                *Default*
              └─► 2) - Zero                      0
```
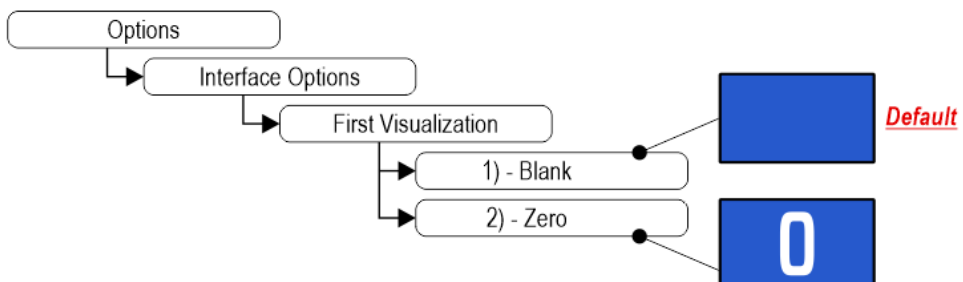
1) – It does not display any numbers
2) – Lowest floor

Set up Parallel position common input

```
Options
   └─→ Interface Options
           └─→ Common Selection
                   ├─→ Negative      ─── Default
                   └─→ Positive      ┼
```

Set up scrolling arrows

```
Options
   └─→ Interface Options
           └─→ Arrow Type                Default   2↑
                   ├─→ 1) - Fixed arrows
                   └─→ 2) - Scrolling arrows         2↑
```
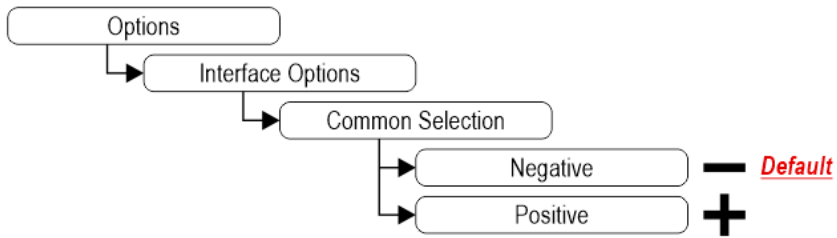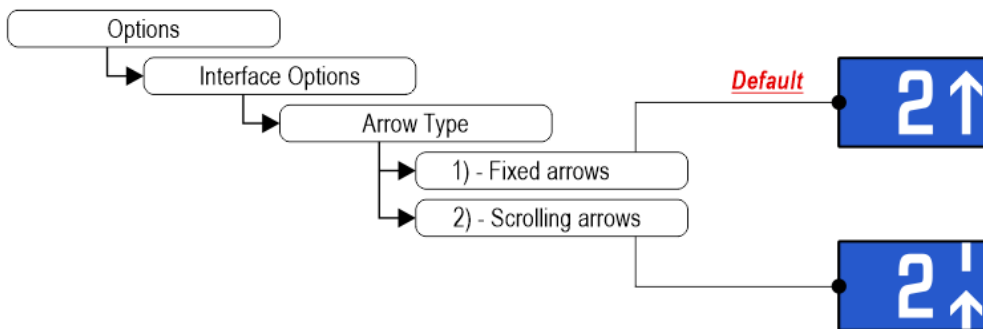
1) – Fixed arrows
2) – Scrolling arrows

Enable auxiliary signals

```
Options
   └─→ Interface Options
           └─→ Enable AUX Signals
                   ├─→ a) -   10 + 0   Default
                   └─→ b) -    6 + 4
```
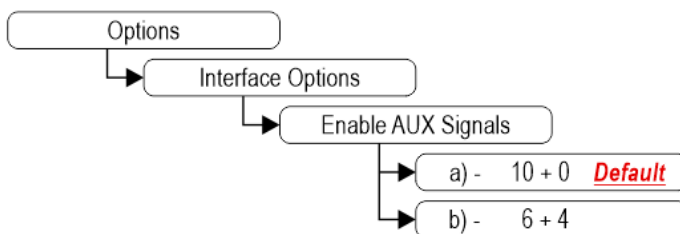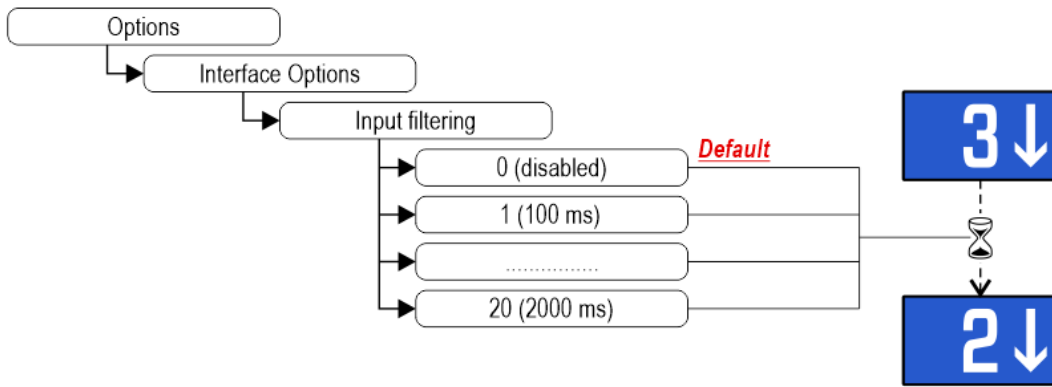
a) – 10 Floor parallel inputs (X01÷X10) + 0 AUX Signals
b) – 6 Floor parallel inputs (X01÷X06) + 4 AUX Signals (X07÷X10)
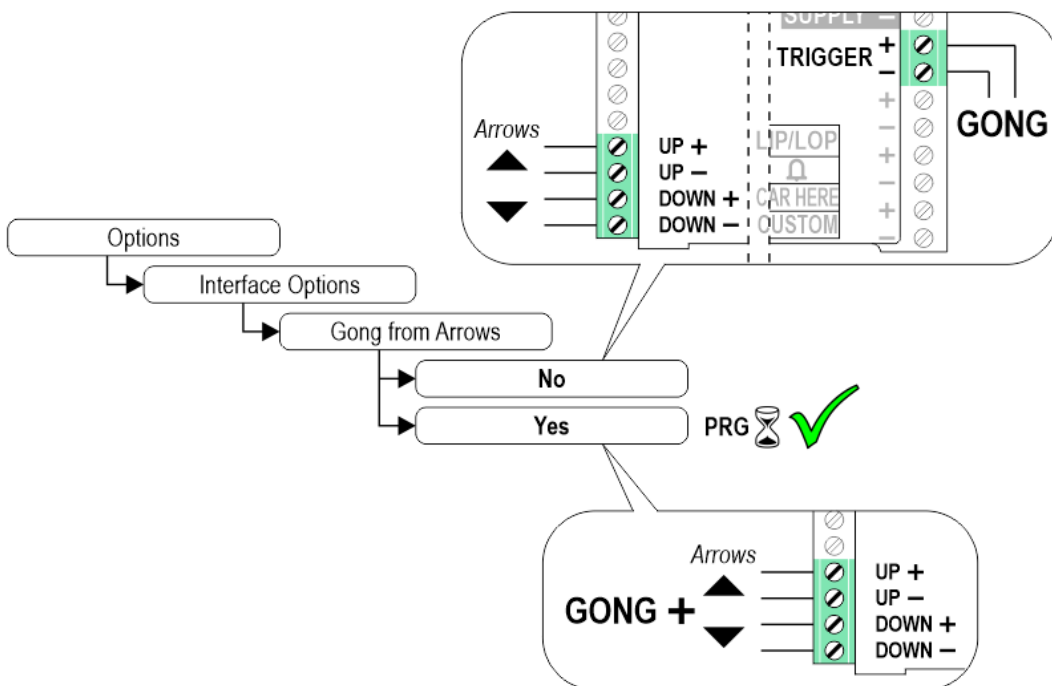
Set up the display delay of floor change

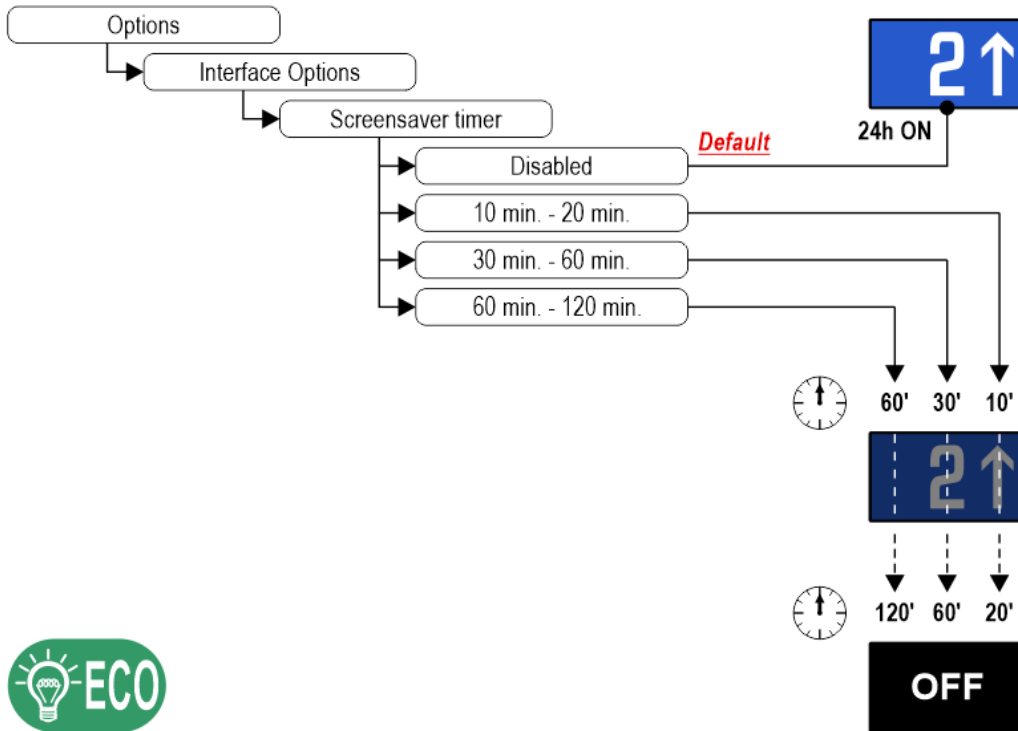*The display delay helps avoiding visualization errors during floor change.*

Options → Interface Options → Input filtering
- 0 (disabled) — *Default*
- 1 (100 ms)
- ....
- 20 (2000 ms)

⊖ Enable Gong from arrow input

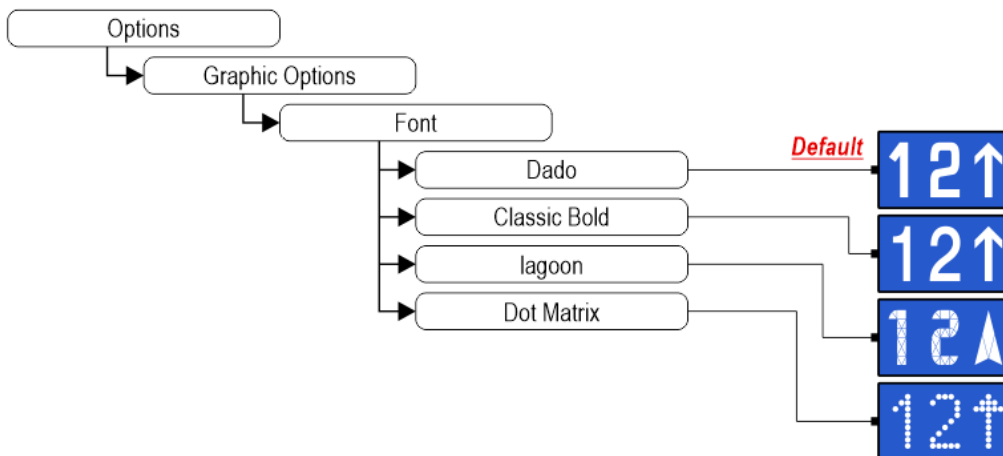*The gong command is handled simultaneously with the arrows without connecting the "trigger" terminals.*

Options → Interface Options → Gong from Arrows
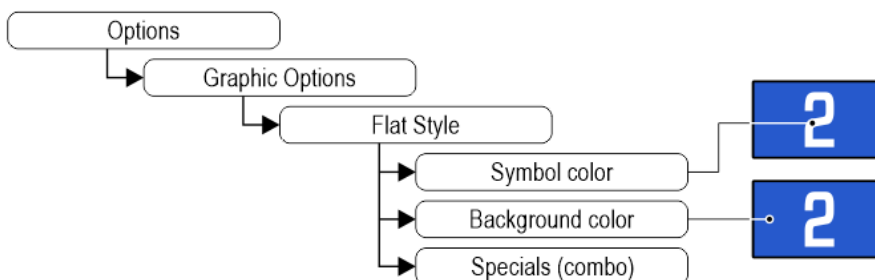- No
- Yes — PRG ⧖ ✔

⊖ Enable energy saving function

Options

Interface Options

Screensaver timer

Default

Disabled

10 min. - 20 min.

30 min. - 60 min.

60 min. - 120 min.

24h ON

60'   30'   10'

120'   60'   20'

OFF

"Energy saving" mode to reduce consumption when idle.

Set up Font

Options

Graphic Options

Font

Default

Dado

Classic Bold

lagoon

Dot Matrix

Set up flat Style Color

Options

Graphic Options

Flat Style

Symbol color

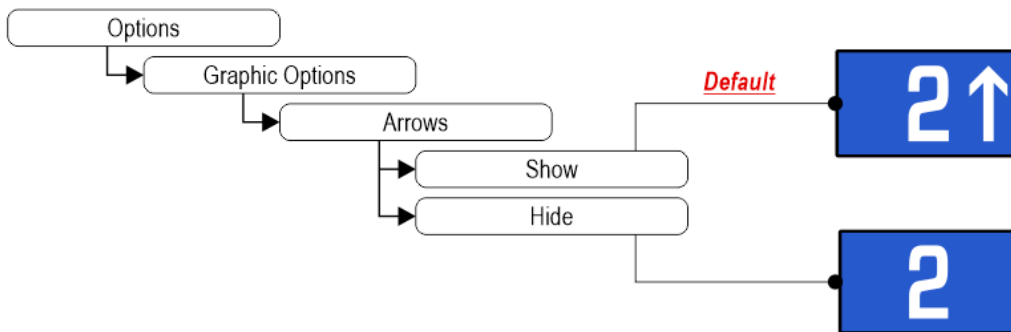Background color

Specials (combo)

Set up gradient Style Color
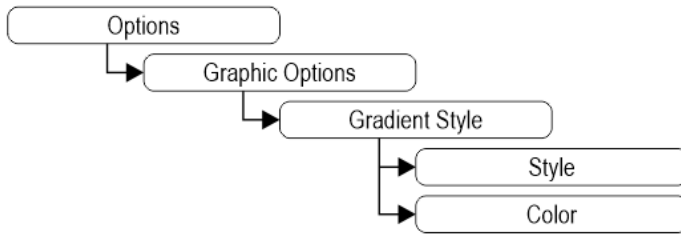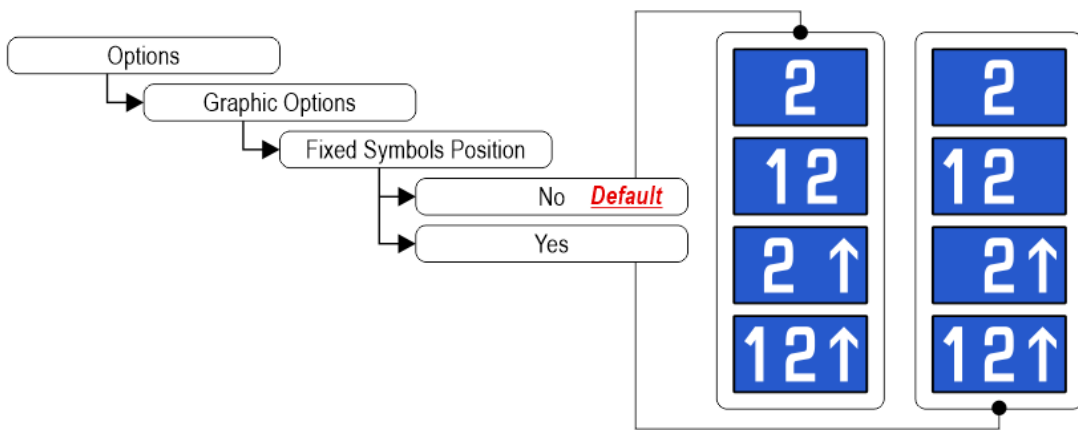

Show/Hide position
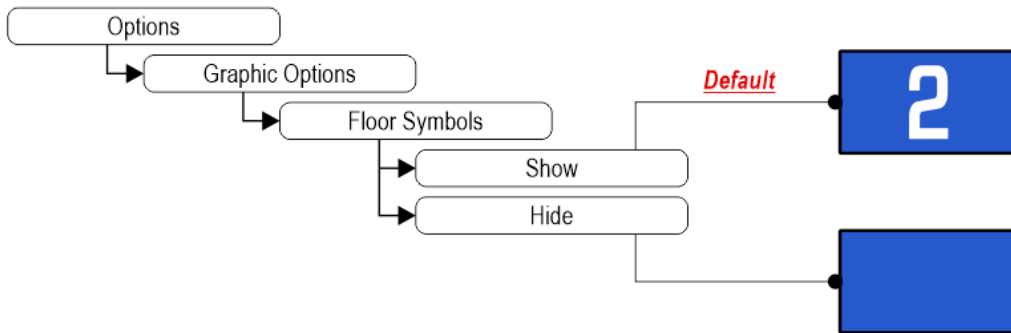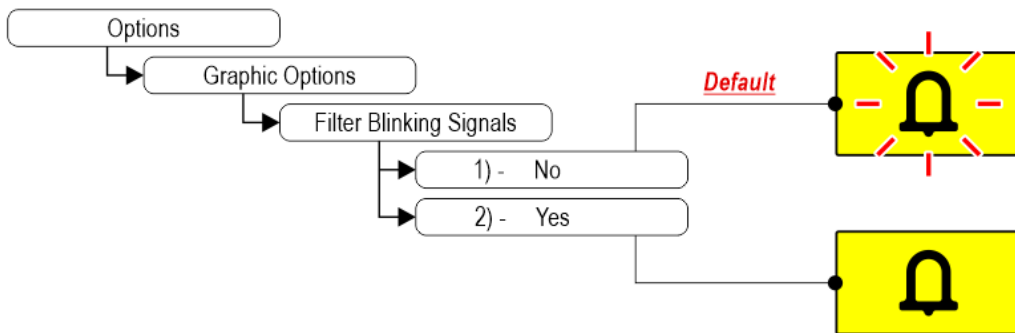

Show/Hide arrows

Set up Symbols position

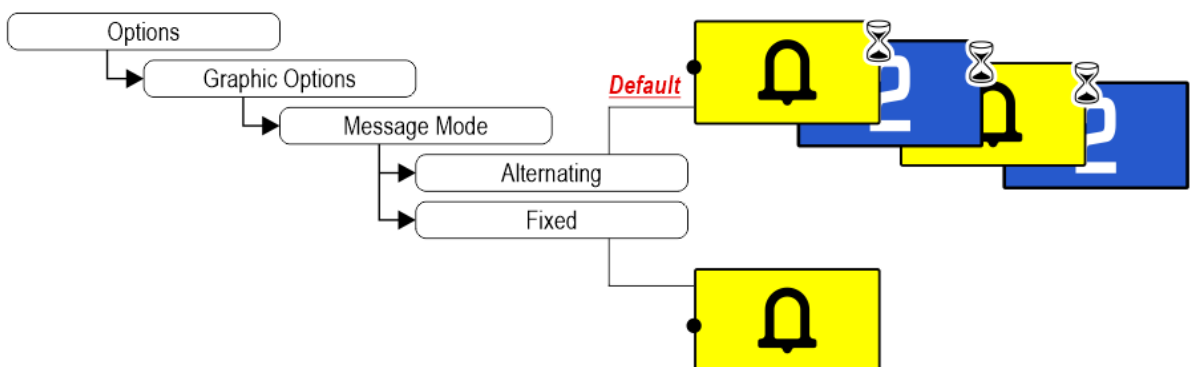*Landscape orientation modes only.*

If "Yes", the symbols will stay in fixed positions independently of the arrow status.
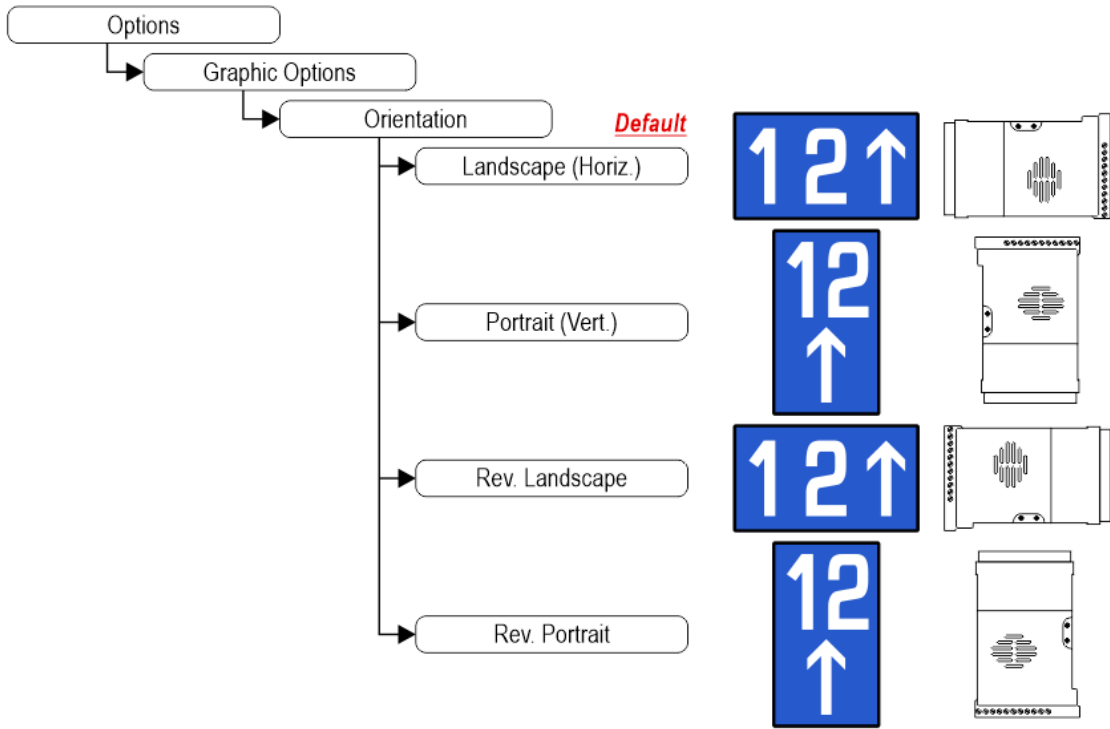
Signalizations (visualization)

1) – Fixed or blinking signalizations (input from controller).
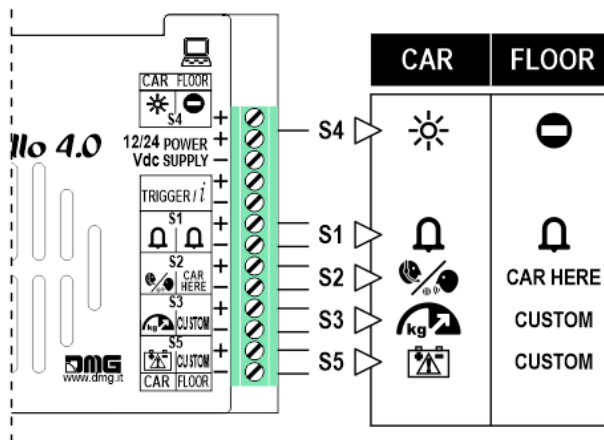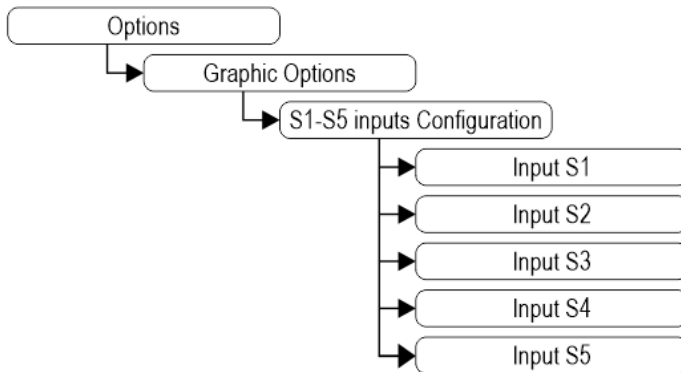*2) – Fixed signalizations.*

Setting the signalization viewing mode
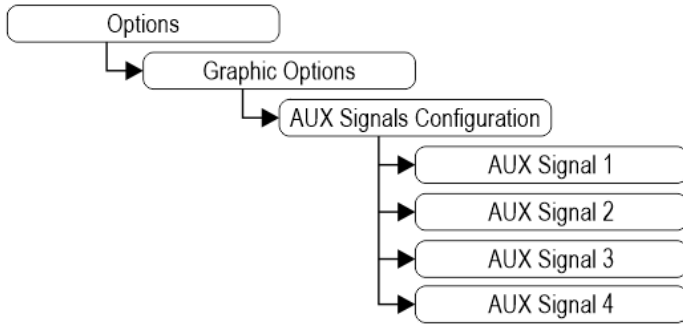

Set up Display orientation
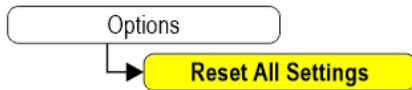
Set up service message inputs

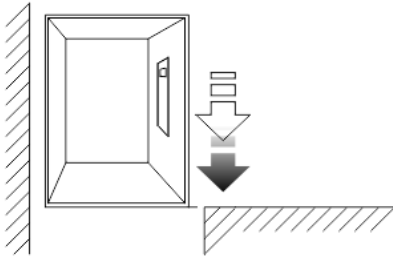## Set up auxiliary signal

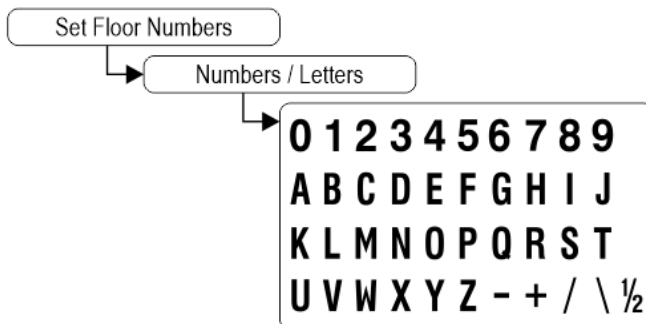## Restore the factory settings

⚠️ The display original factory settings will be restored and configurations will be deleted.

Customizations of floor

1) Car at floor

2) Set up Floor Numbers / Letters

0 1 2 3 4 5 6 7 8 9
A B C D E F G H I J
K L M N O P Q R S T
U V W X Y Z – + / \ ½

Datasheet

Raffaello 4,3″

Dimensions	132x80xh20 mm 138x100xh26 mm (EN 81-71)
Screen (Viewable area)	95×74 mm / 480×272 pixel • 65.000 colors
Power supply (position input)	12÷24V DC ±10%
Absorption	*DISPLAY* 12V DC: Max 102mA • 24V DC: Max 71mA *PANIC LIGHT* 12V DC: Max 93mA • 24V DC: Max 50mA
Indicators inputs	S1 / S2 / S3: 12÷24V DC ±10% (opto-isolated) Impedance = 3Kohm
Operating temperature	-10°C ÷ +50°C

Raffaello 5″

Dimensions	125x96xh23 mm
Screen (Viewable area)	111×63 mm / 480×272 pixel • 65.000 colors
Power supply (position input)	12÷24V DC ±10%
Absorption	*DISPLAY* 12V DC: Max 103mA • 24V DC: Max 72mA *PANIC LIGHT* 12V DC: Max 90mA • 24V DC: Max 50mA
Indicators inputs	S1 / S2 / S3: 12÷24V DC ±10% (opto-isolated) Impedance = 3Kohm
Operating temperature	-10°C ÷ +50°C

Video Tutorial
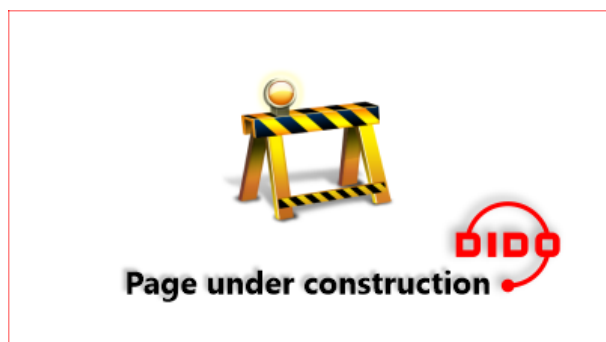
Page under construction · DIDO

Firmware

Download

Reference	Version	Link
	1.0 (current version)	Download PDF (English)

Updated on 25 Ottobre 2021