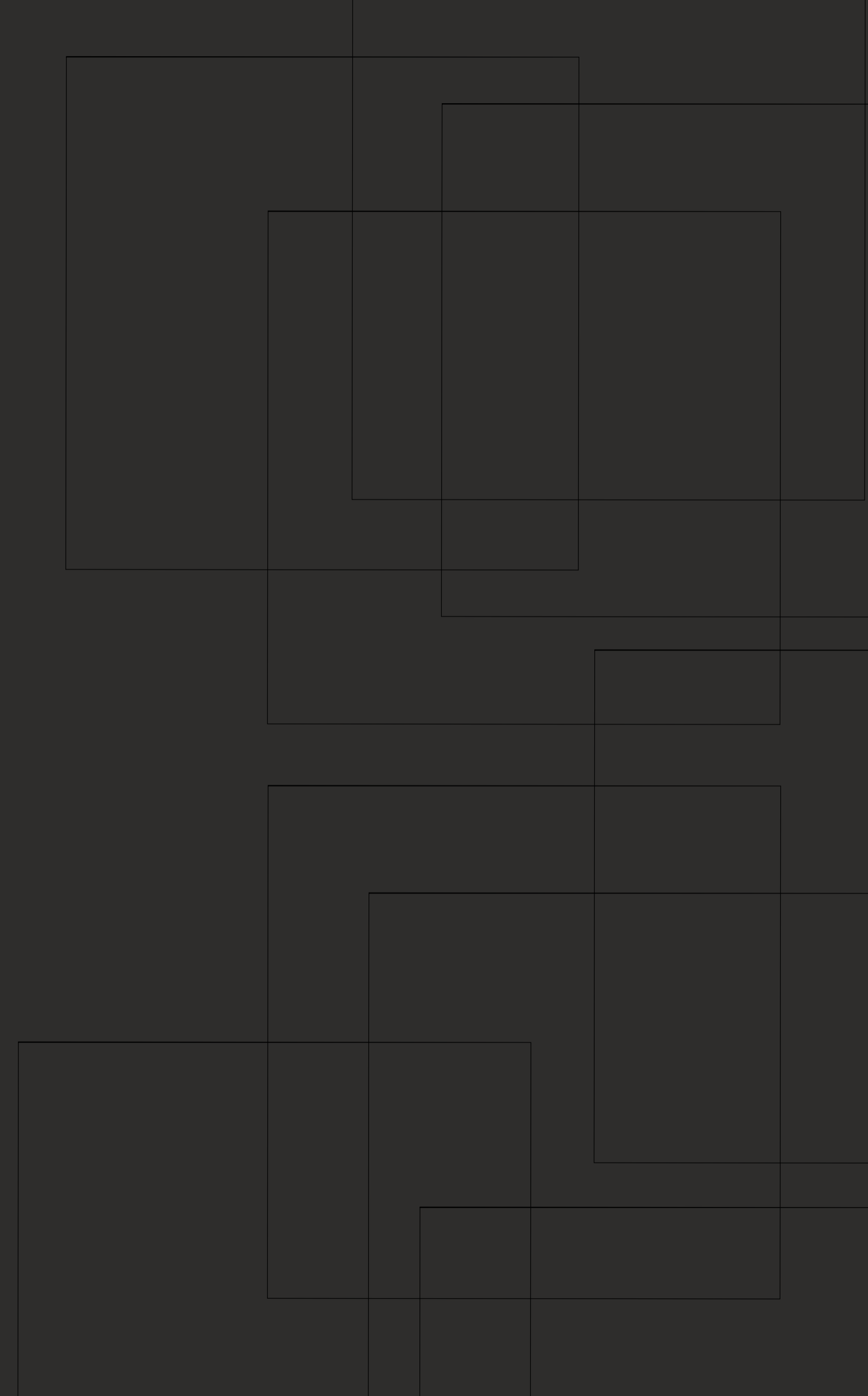# ROEHN & ABSOLUTE CONTROLS

product overview

ROE:HN

LUXURY FOR THE SMART HOME

ROEHN & ABSOLUTE CONTROLS

lighting control: forward phase, PWM, 0-10V and DALI

shade control - RF wireless and cabled

HVAC control, IR any brand and Daikin VRV over MODBUS

laser engraved control interfaces with LED feedback

Savant system integration

NETWORK TOPOLOGY

Data between devices and the lighting control processor can be transmitted over 3 bus types:

ACNET: 12V communication bus for control modules that can be assigned an address, runs over CAT5/CAT6

RNET: 24V communication bus for keypads that can be assigned an address, runs over 4-wire cable

PNET: communication bus for non-addressable devices that work as contact closure devices

NETWORK TOPOLOGY

ACNET NETWORK

PNET NETWORK

RNET NETWORK

M4 PROCESSOR

QUANTICA P
CONTACT CLOSURE
KEYPAD

QUANTICA K KEYPAD
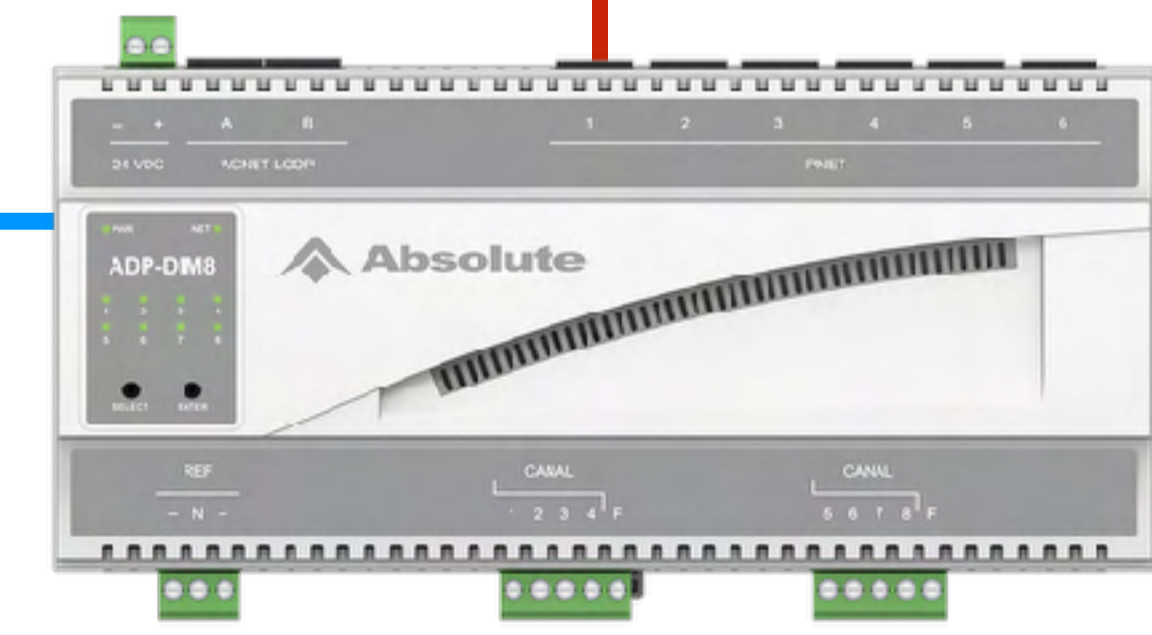
ION KEYPAD

DIMMER MODULE

ION KEYPADS

product overview

ROE:HN

LUXURY FOR THE SMART HOME
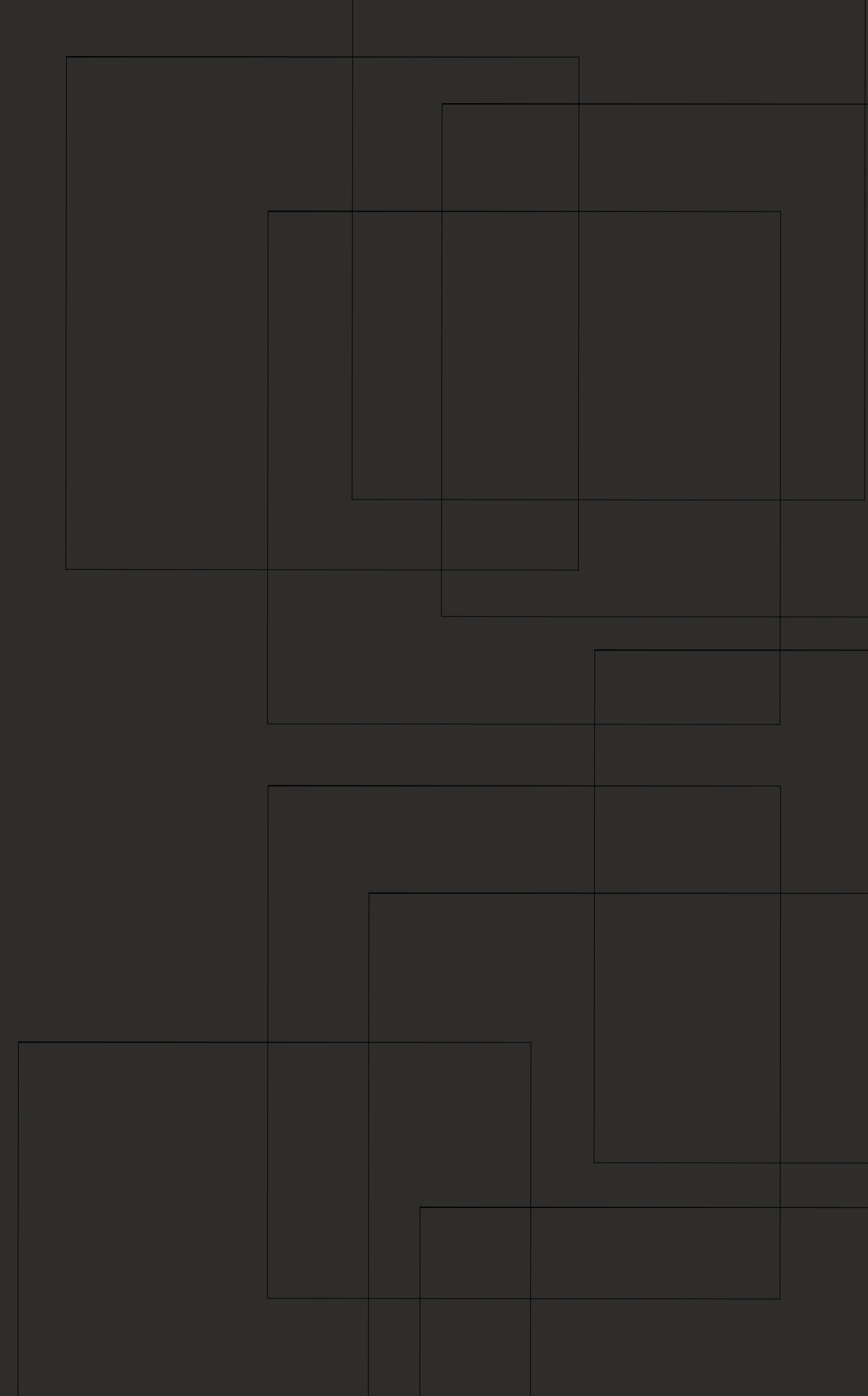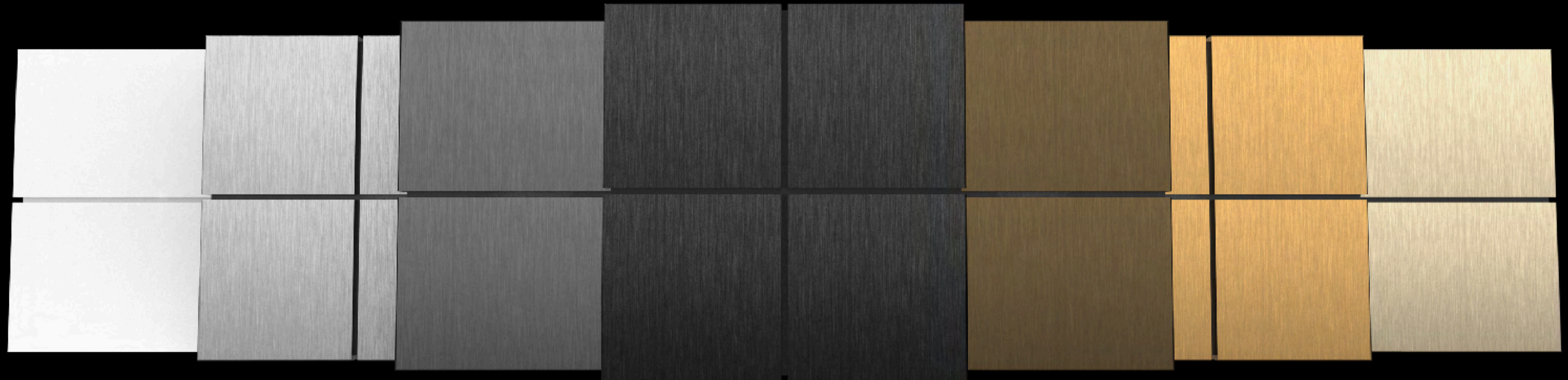
ION

ION
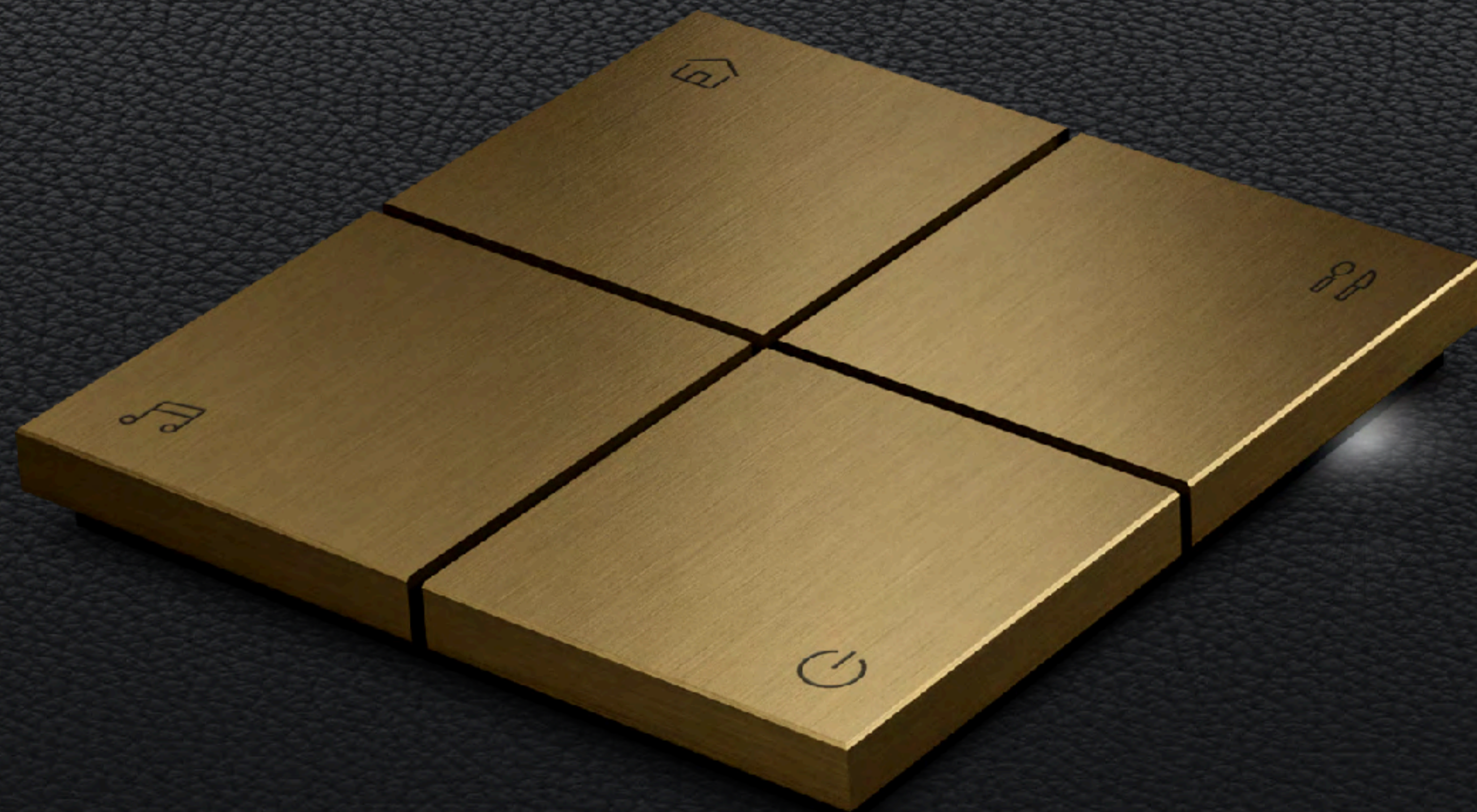
The ION collection elevates the concept of minimalism and brings new forms of interaction.

All functions are performed by touches and gestures, leading to a pleasant user experience.

Audible and visual feedbacks create a dialog between the user and the system.

Ion stimulates creativity and redefines concepts.

ION
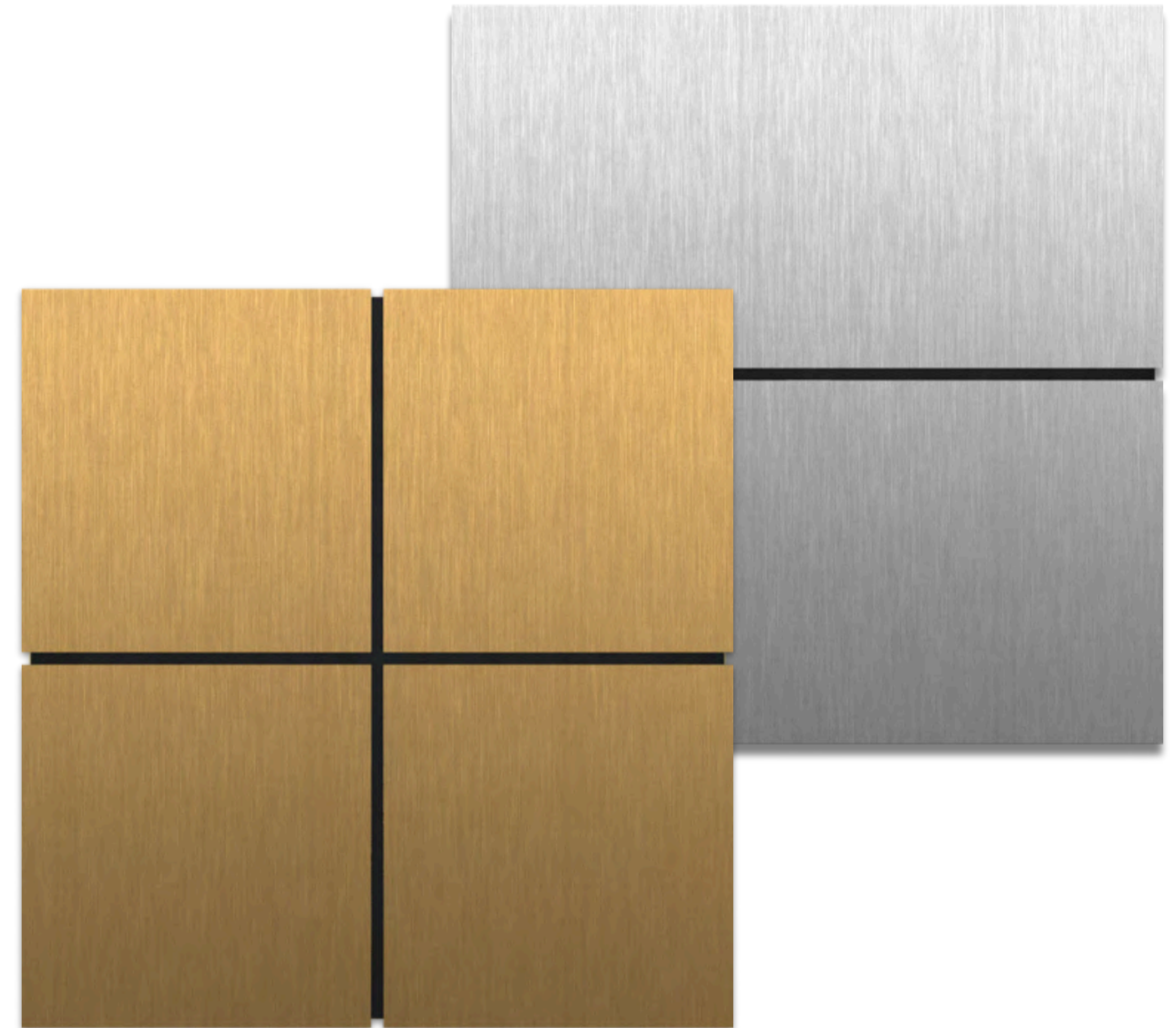
- available in 4 and 2 buttons
- multiple gestures available:
- press, hold and double tap
- swipe up and down
- swipe left and right (4 button keypads only)
- swipe and hold
- all gestures can be programmed individually and are reported over Telnet for Savant and third-party integration
- gestures can control volume, shades, load/scene levels
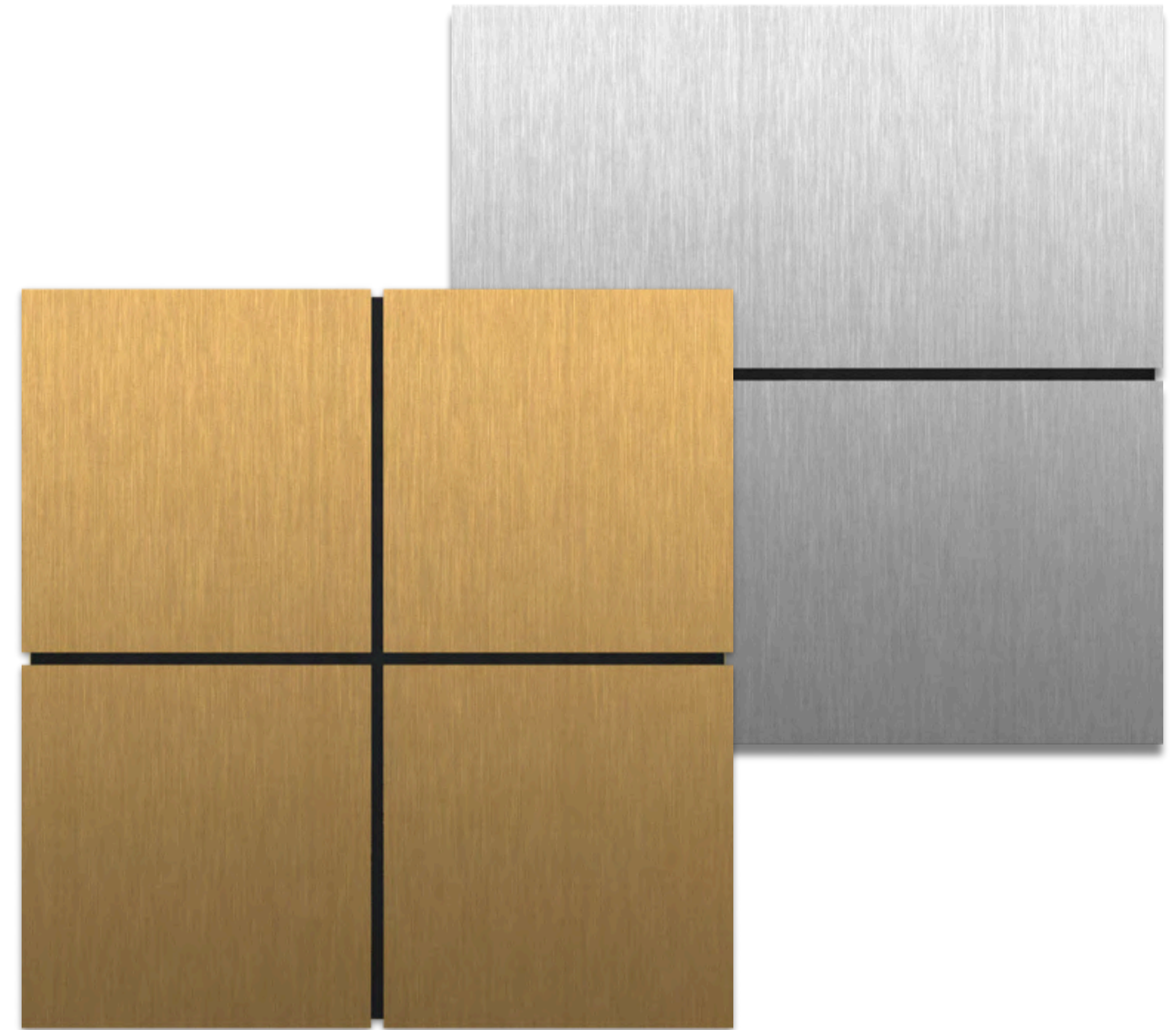
Quantica Keypads

product overview

ROE:HN

LUXURY FOR THE SMART HOME

QUANTICA

refined simplicity

- Quantica K available with 1, 2 or 4 buttons
- optional "rocker" keys in 4-button K keypads
- Quantica L available with 1, 2 or 4 buttons
- Quantica P (switch) available with 1 and 2 buttons
- feedback over Telnet for press, release, hold and double tap
- "night mode": turn off or reduce the keypad's backlight level based on a fixed time or astronomical clock
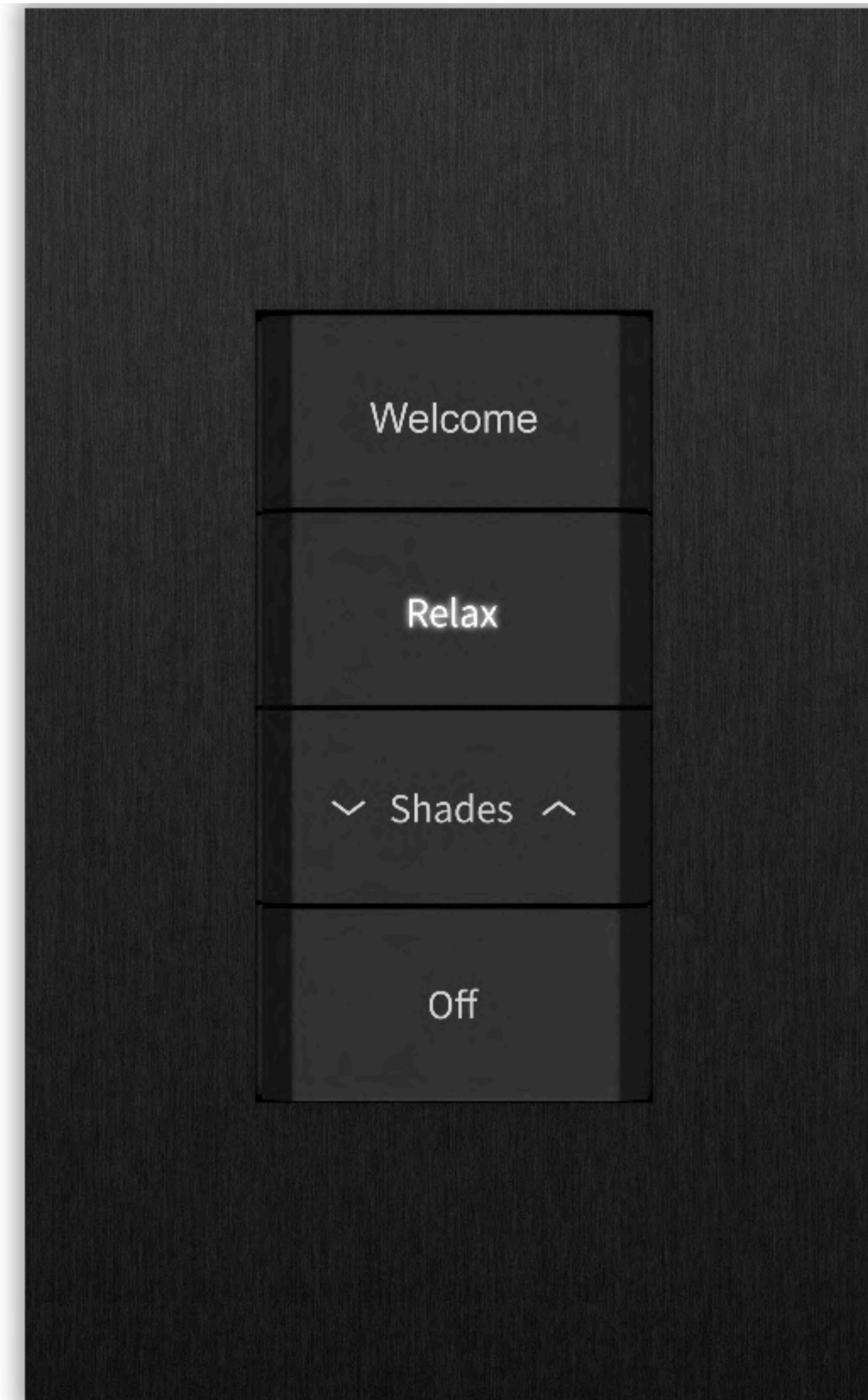
QUANTICA K

refined simplicity

Welcome

Relax

⌄ **Shades** ⌃

Off
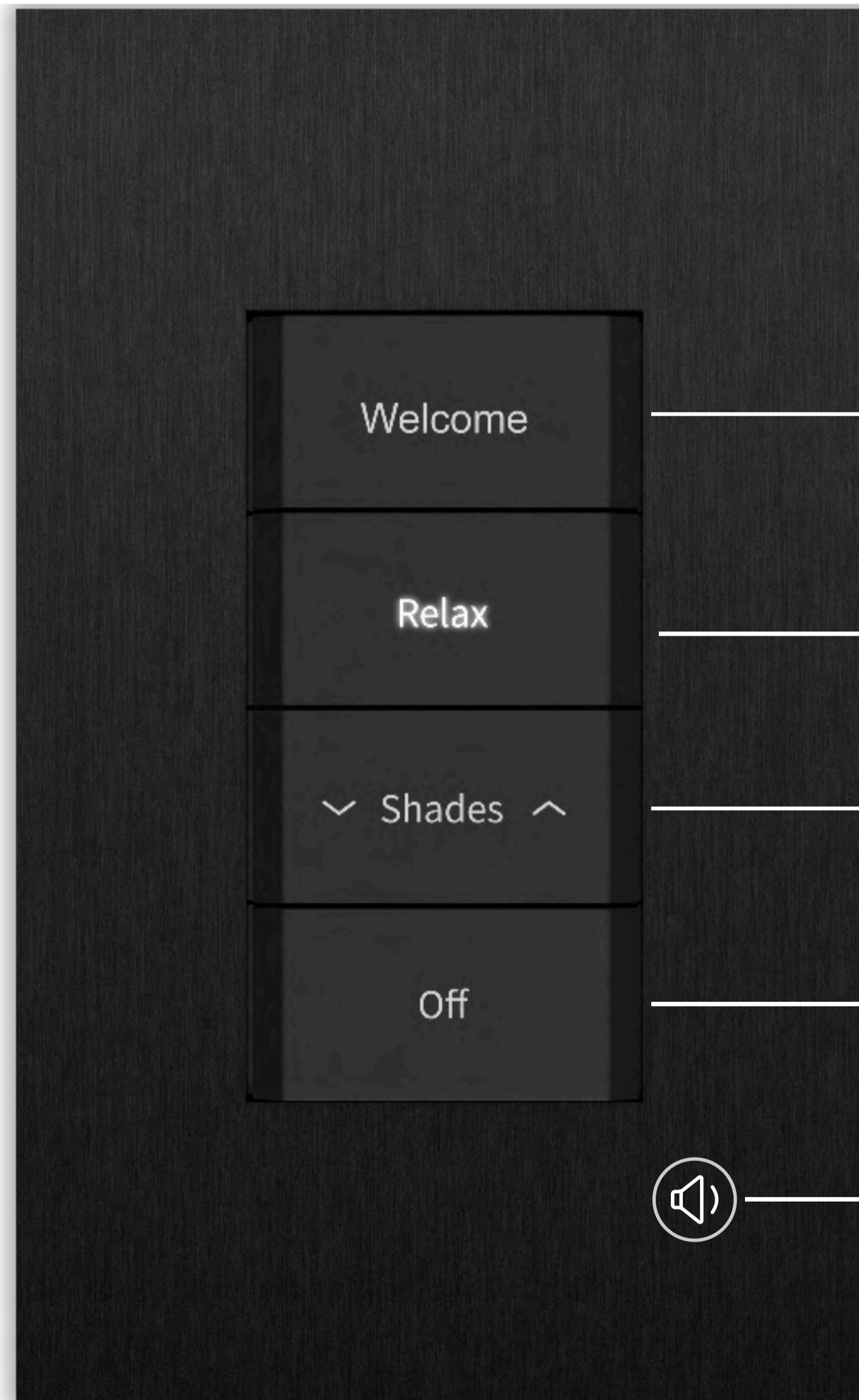
custom laser engraving, text or icons

adaptive backlight, offset
adjusted by internal light sensor

optional "rocker" buttons allow
advanced programming

subtle touch, press, hold and double tap
commands, with feedback over Telnet

audible feedback when
executing commands

QUANTICA L

refined simplicity

custom laser engraving, text or icons

no backlight

only single buttons, no "rocker" option

subtle touch, press, hold and double tap commands, with feedback over Telnet

audible feedback when executing commands

Welcome

Dinner

Relax

Off
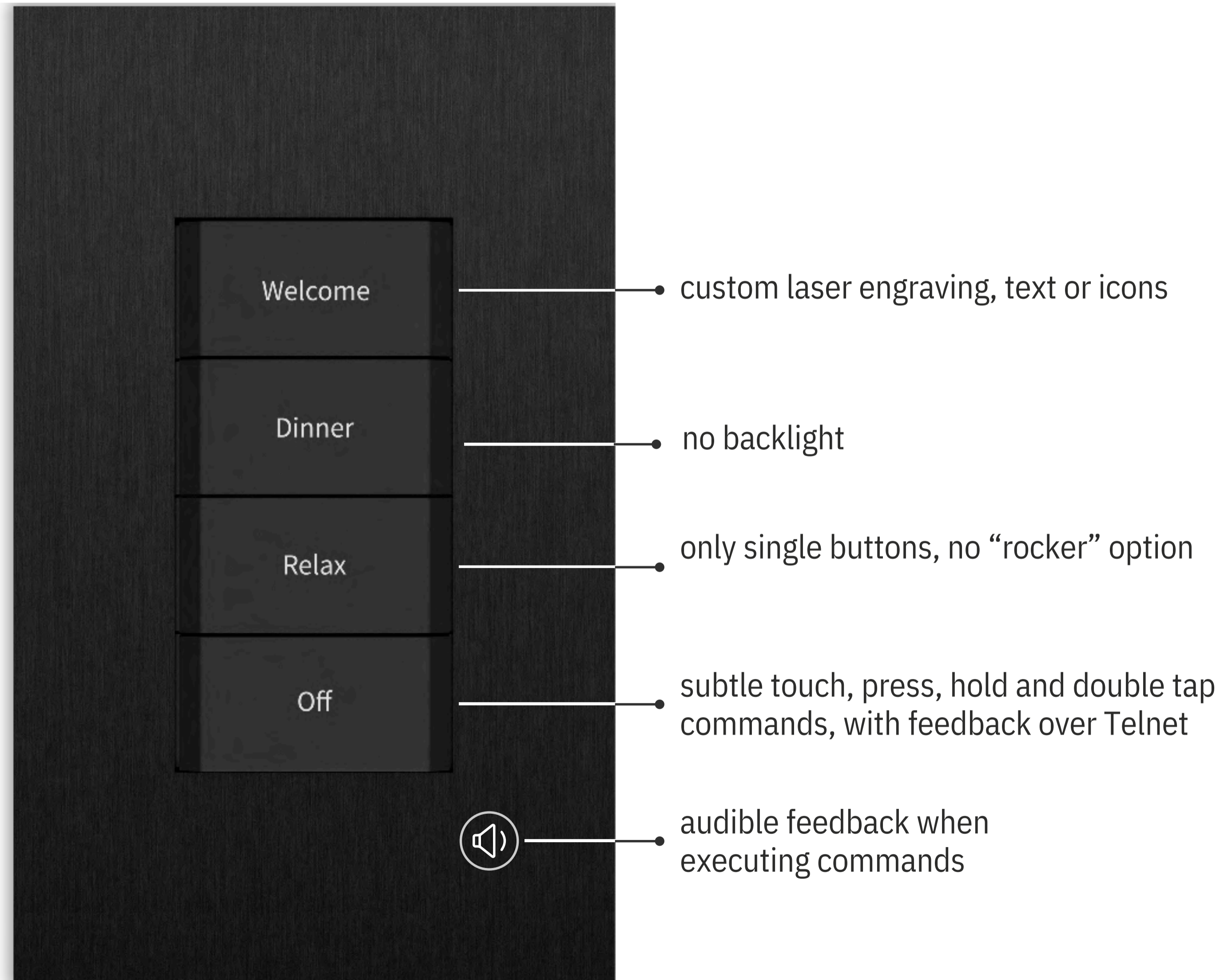
QUANTICA

Roehn Quantica ACNET RJ-45 adapter

DIN RAIL
Actuators

ROE:HN

ADP-M4

- DIN-Rail lighting controller

- 24VDC input

- 2 ACNET ports, 12V / 10W max each 20W total power for ACNET bus

- 2 RNET ports, 24V / 35W max each, 55W total power for RNET bus

- 55W total power for all ports

- each port has an independent connection to the processor

- Savant profile available

- customers can edit lighting scenes

- automatic and real time feedback over Telnet for integration

- no expansion with other processors over Ethernet

- controls up to 24 ACNET/RNET devices

(*) Control4 and Crestron drivers are available through third-party developers

ADP-M8

lighting controller/processor

- DIN-Rail lighting controller

- 24VDC input

- 4 ACNET ports, 12V / 10W each 25W total power for ACNET bus

- 4 RNET ports, 24V / 35W each, 55W total power for RNET bus

- each port has an independent connection to the processor

- Savant profile available

- customers can edit lighting scenes

- controls up to 100 devices

- automatic and real time feedback over Telnet for integration

- up to 3 processors can be connected over Ethernet for system expansion

(*) Control4 and Crestron drivers are available through third-party developers

ADP-M8

- information display for diagnostics:
  - IP address
  - ACNET/RNET total programmed devices
  - ACNET/RNET total online devices
  - ACNET/RNET power consumption
  - current voltage on AC input

ADP-M8

lighting controller/processor

⚠ All equipment must be diconected from electrical network before starting installation to avoid the risk of damaging the products.

24 VDC − +

ACNET 1 2 3 4

PWR 08 ETH

Absolute

SELECT ENTER

Potência Total: 55W
ACNET: 25W Total / 10W per Link
RNET: 55W Total / 35W per Link
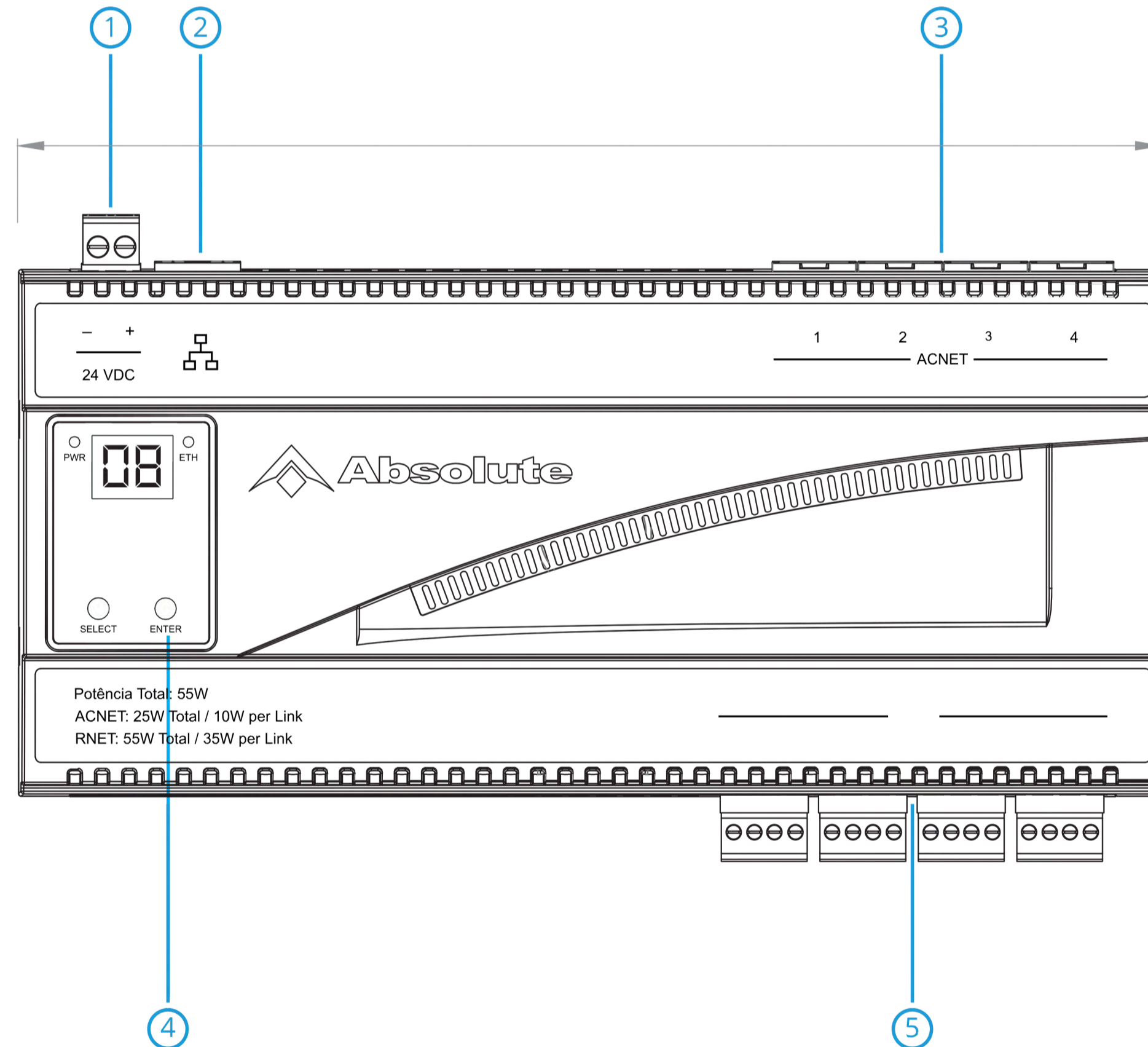
ADP-DIM8

lighting controller/processor

• 8 Leading Edge dimmer channels - max 10A @ 100/240V • 2 groups with 4 channels each - max 10A per group • 10A circuit breakers for each group are recommended • 2 ACNET Ports RJ45(system network) - optical isolation • 6 PNET Ports RJ45 to CC input connection - optical isolation • 24 VDC input - consumption 2 W (use power supply - **Absolute ADP-PWR-2460**)

• Fixation - 35mm DIN Rail
• Max operation temperture = 40° C
• Flame-retardant ABS+PC enclosure - plastic
• Dimensions 214mm x 98mm x 64mm (W x D x H)
• Weight = 615 g

ADP-DIM8

PWR   NET

ADP-DIM8

1   2   3   4
5   6   7   8

SELECT   ENTER

Absolute
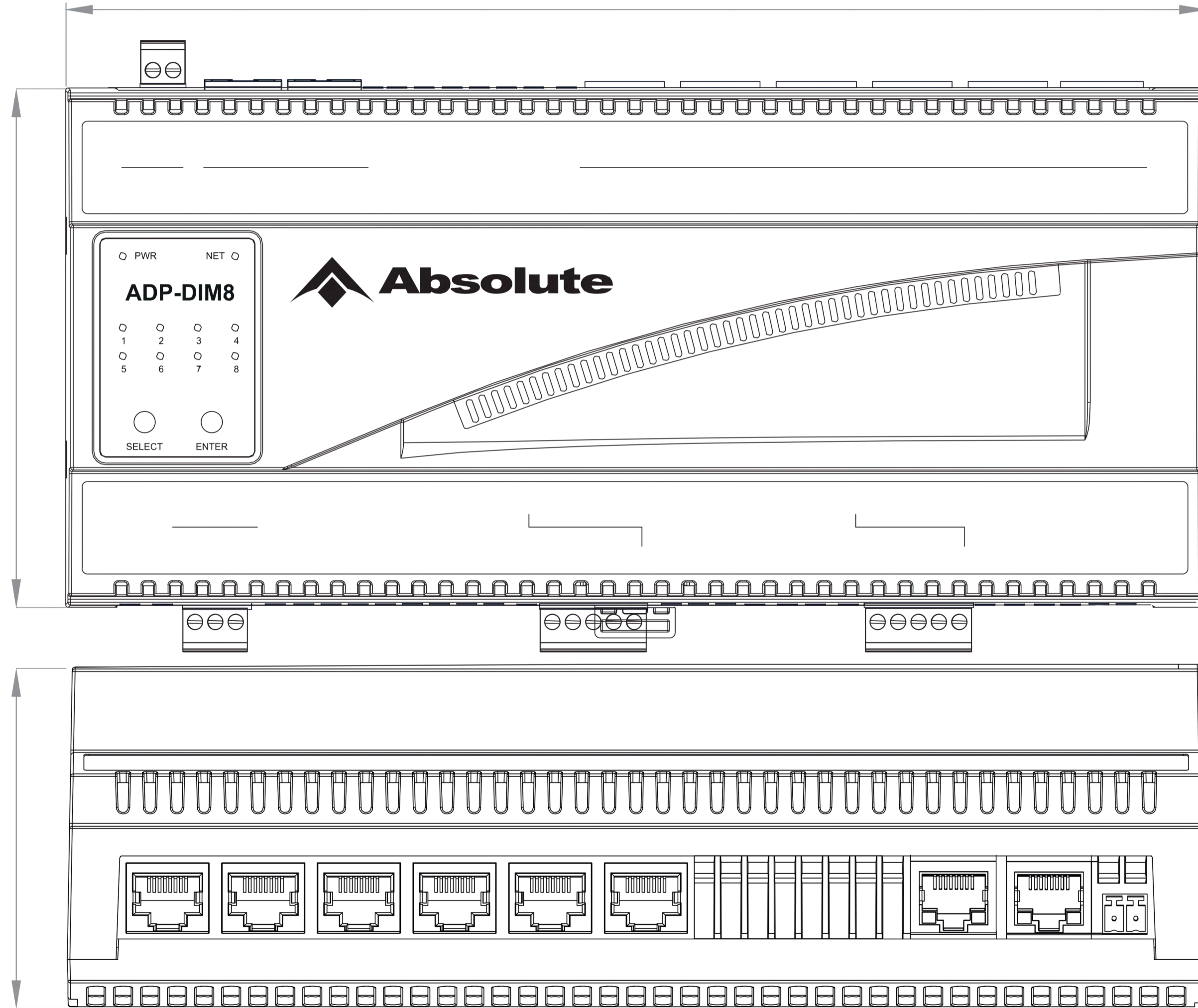
ADP-RL12

DIN-Rail relay control module

- 12 channel relay control module for non-dimmable loads

- compatible with 100-240V loads

- 10A max for each 4-channel block

- 2 ACNET ports for communication / loop

- 6 RJ-45 input ports for push button keypads

- up to 36 independent push buttons

- test buttons for manual activation of each channel

- "override mode" allows control even without processor

- zero-crossing detection increases module lifetime
  (requires neutral wire connection from same phase)

ADP-RL12

DIN-Rail relay control module
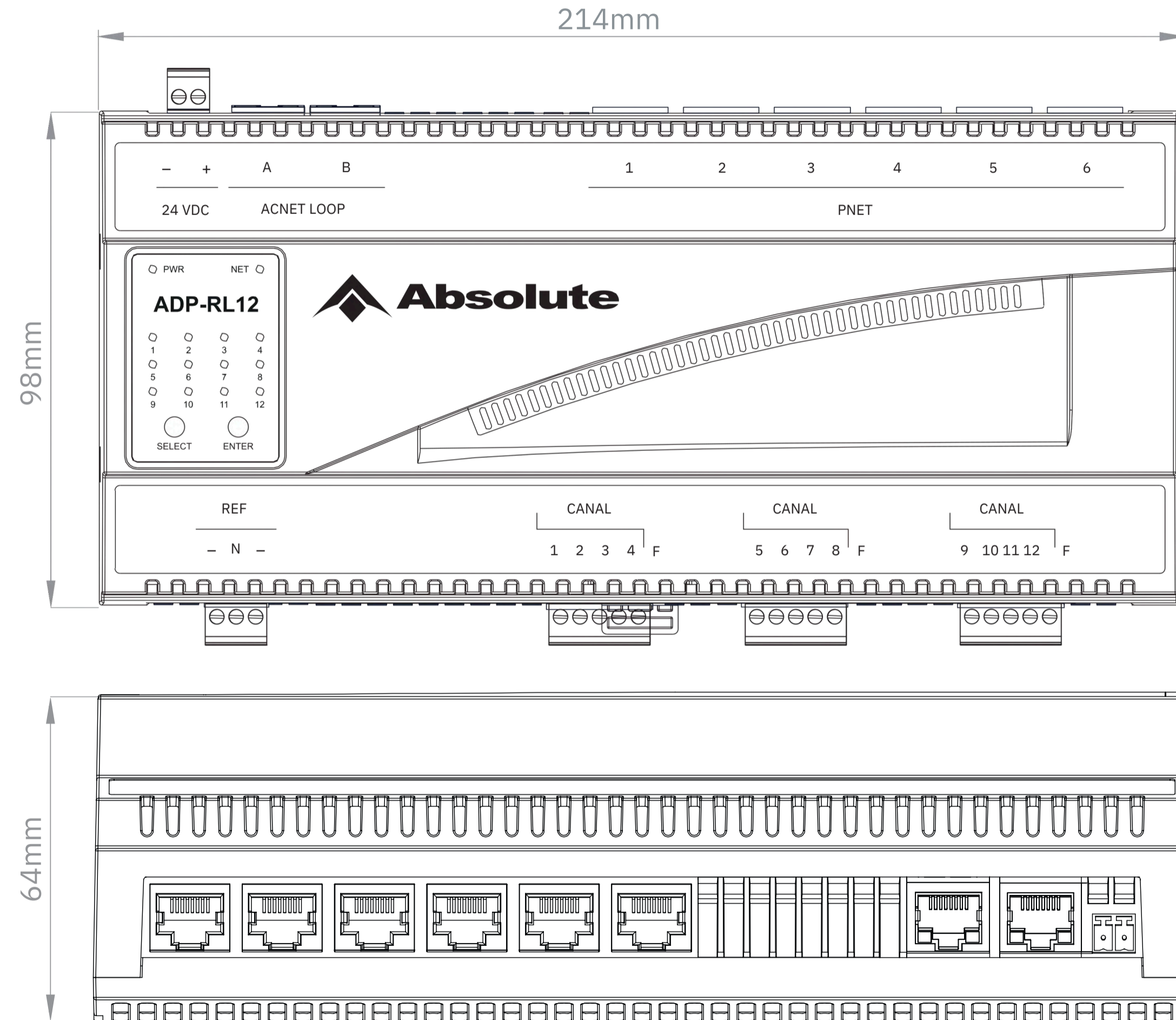
214mm

98mm

64mm

| – | + | A | B | | 1 | 2 | 3 | 4 | 5 | 6 |

24 VDC   ACNET LOOP   PNET

PWR   NET

ADP-RL12

Absolute

1 2 3 4
5 6 7 8
9 10 11 12

SELECT   ENTER

REF   CANAL   CANAL   CANAL

– N –   1 2 3 4 | F   5 6 7 8 | F   9 10 11 12 | F

All equipment must be diconected from electrical network before starting installation to avoid the risk of damaging the products.

OVERRIDE MODE

In case the link with the processor drops, the loads connected to modules with PNET ports can activate and deactivate pre-programmed scenes.

The push buttons that activate the scenes and the channels affected by override mode can be set on the programming software.

QUANTICA P
CONTACT CLOSURE
KEYPAD

PNET NETWORK
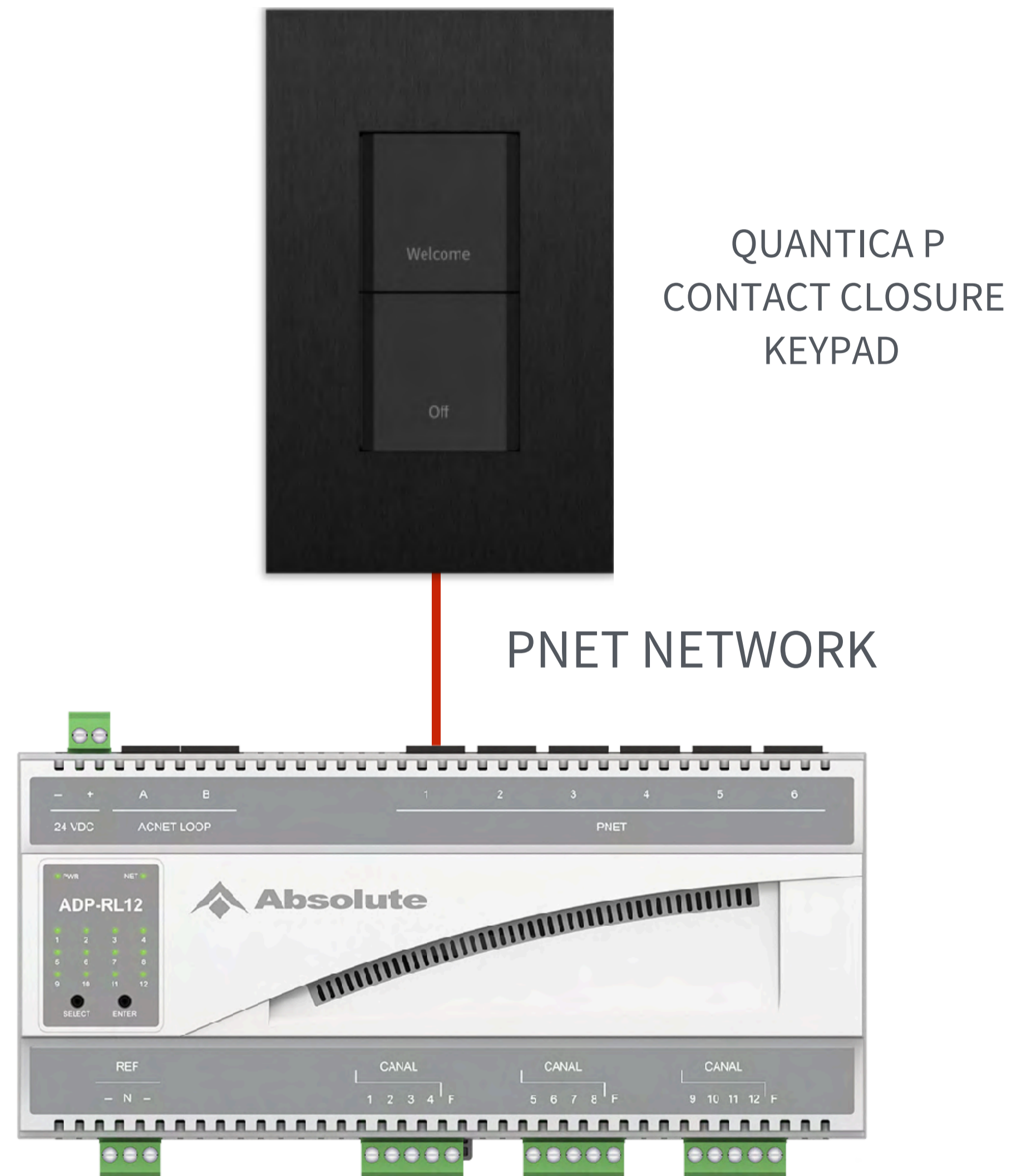
ADP-LX4

- 4 channel shade control module compatible with 100-
- 240V loads 5A max for each block 5A max for each
- shade channel (2 relays) 2 ACNET ports for
- communication / loop 6 RJ-45 input ports for push
- button keypads up to 36 independent push buttons test
- buttons for manual activation of each channel "override
- mode" allows control even without processor
-
-
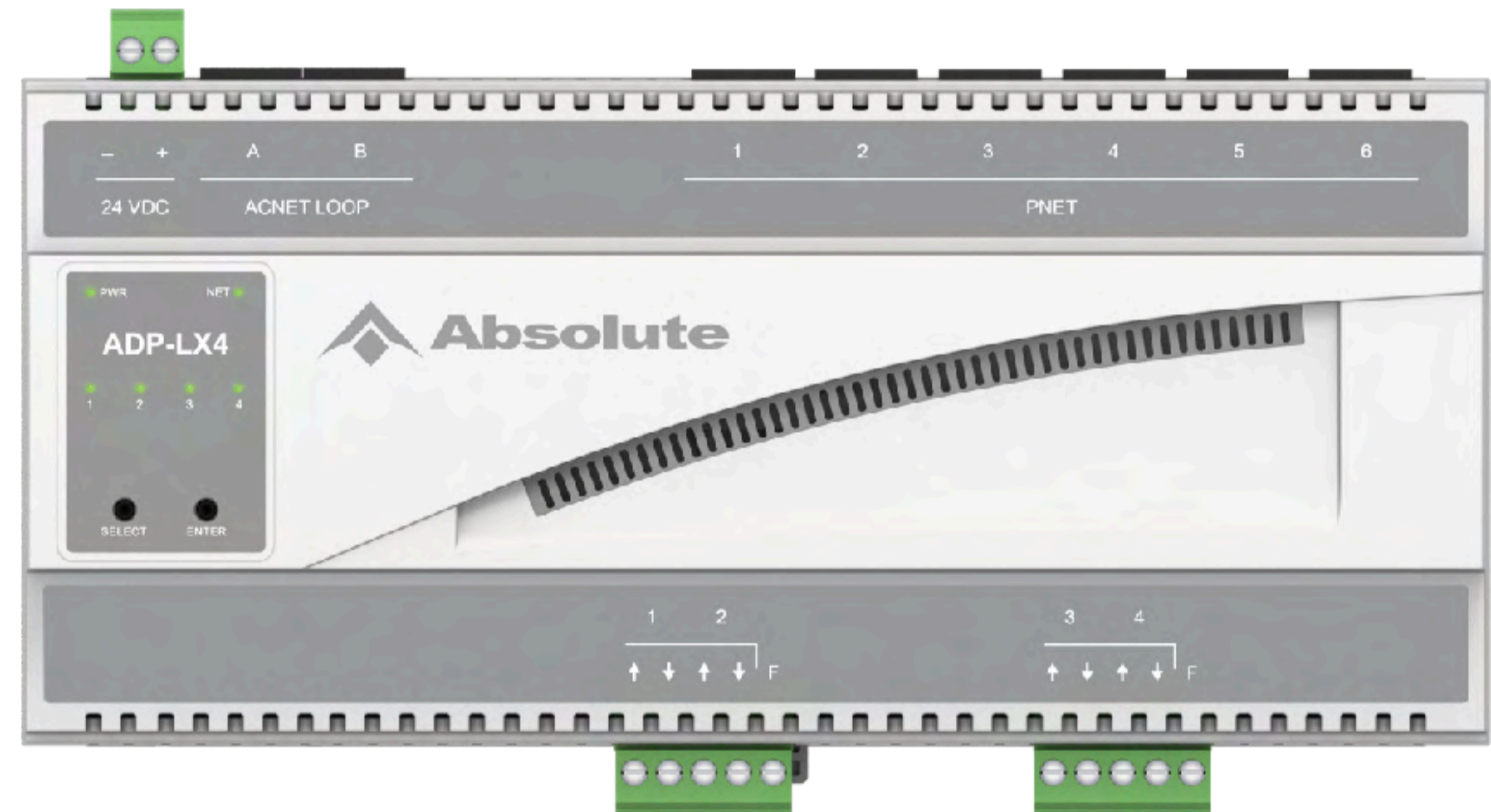
ADP-LX4

DIN-Rail shade control module

- position control and feedback

- shade control with "slider" on Savant Pro App

- compatible with Savant App Scenes

- internal current sensor allows auto-calibration

- "tilt" function for blinds
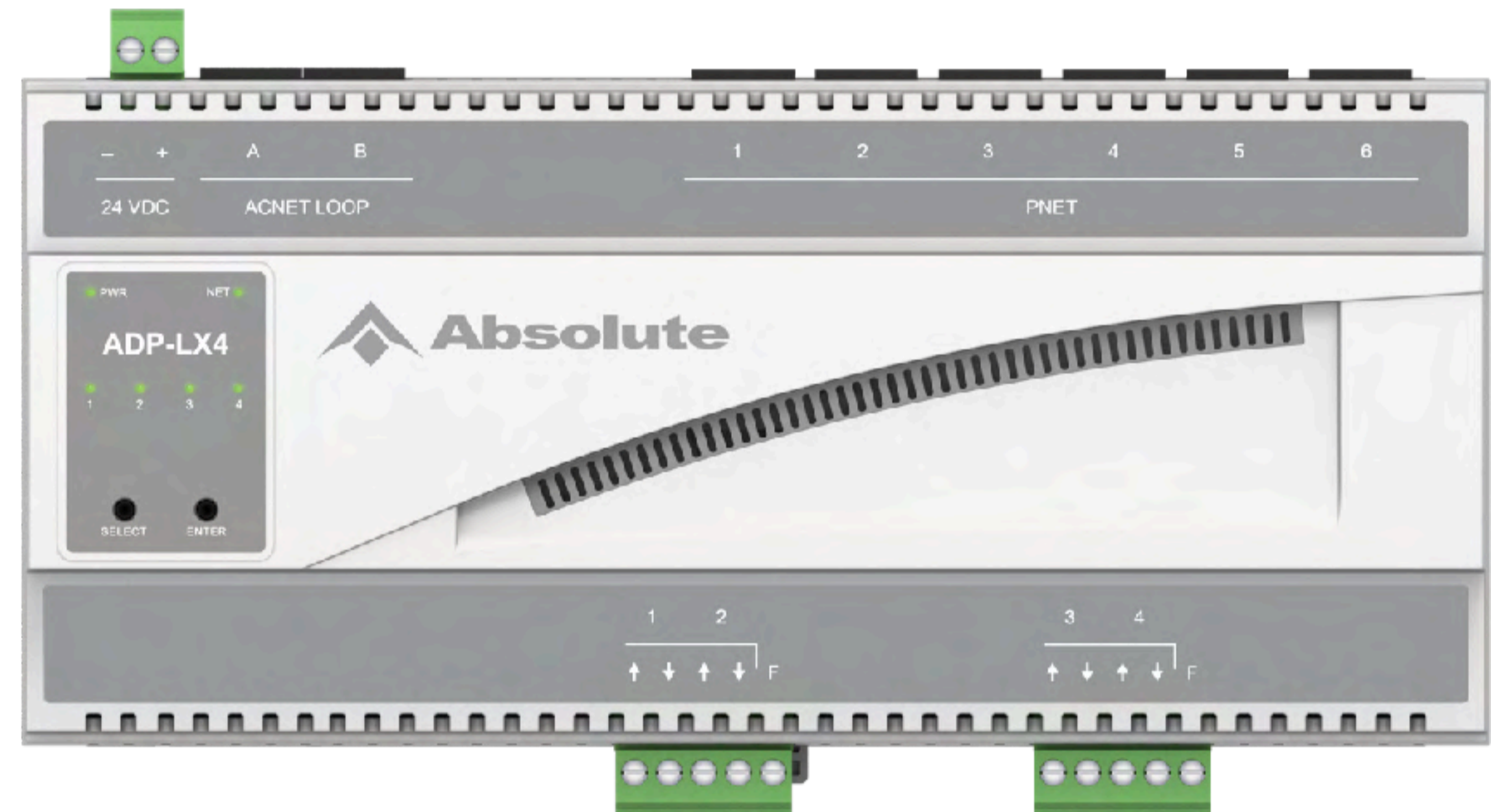
ADP-LX4

DIN-Rail shade control module
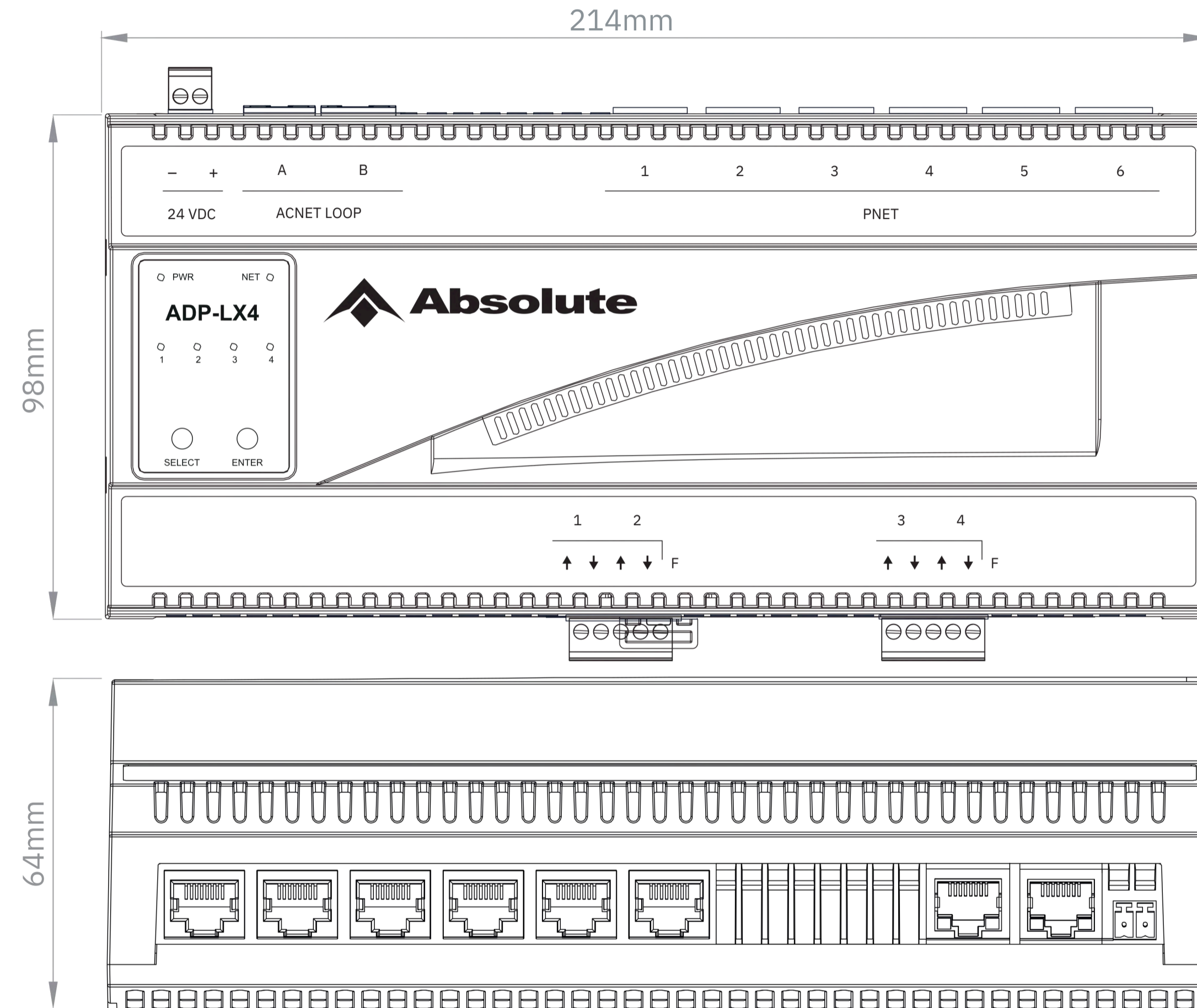
All equipment must be diconected from electrical network before starting installation to avoid the risk of damaging the products.

AQL-GV-1DALI64
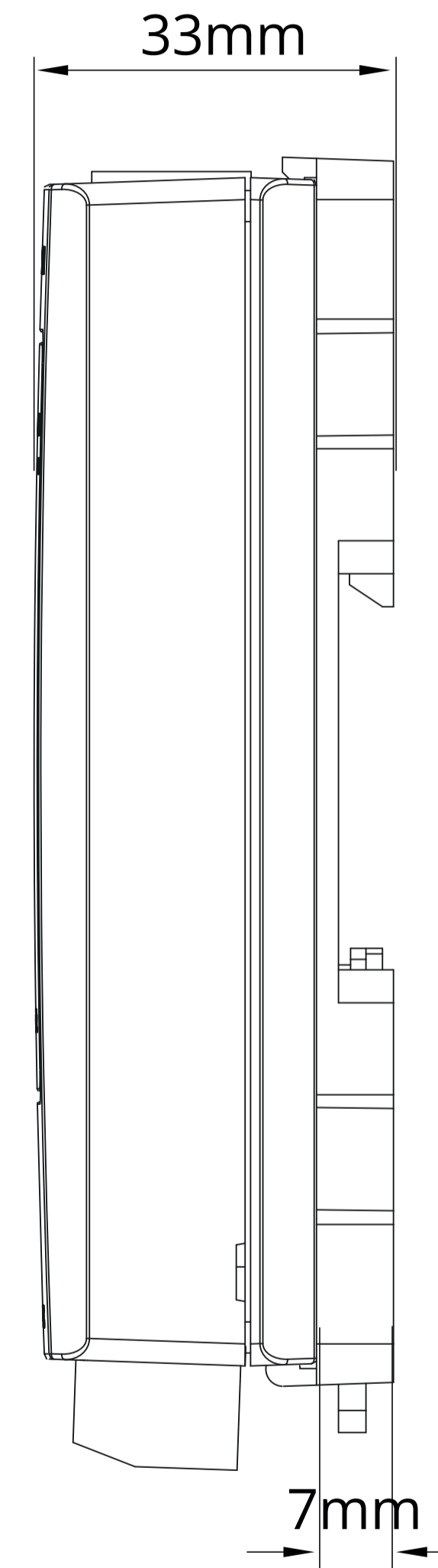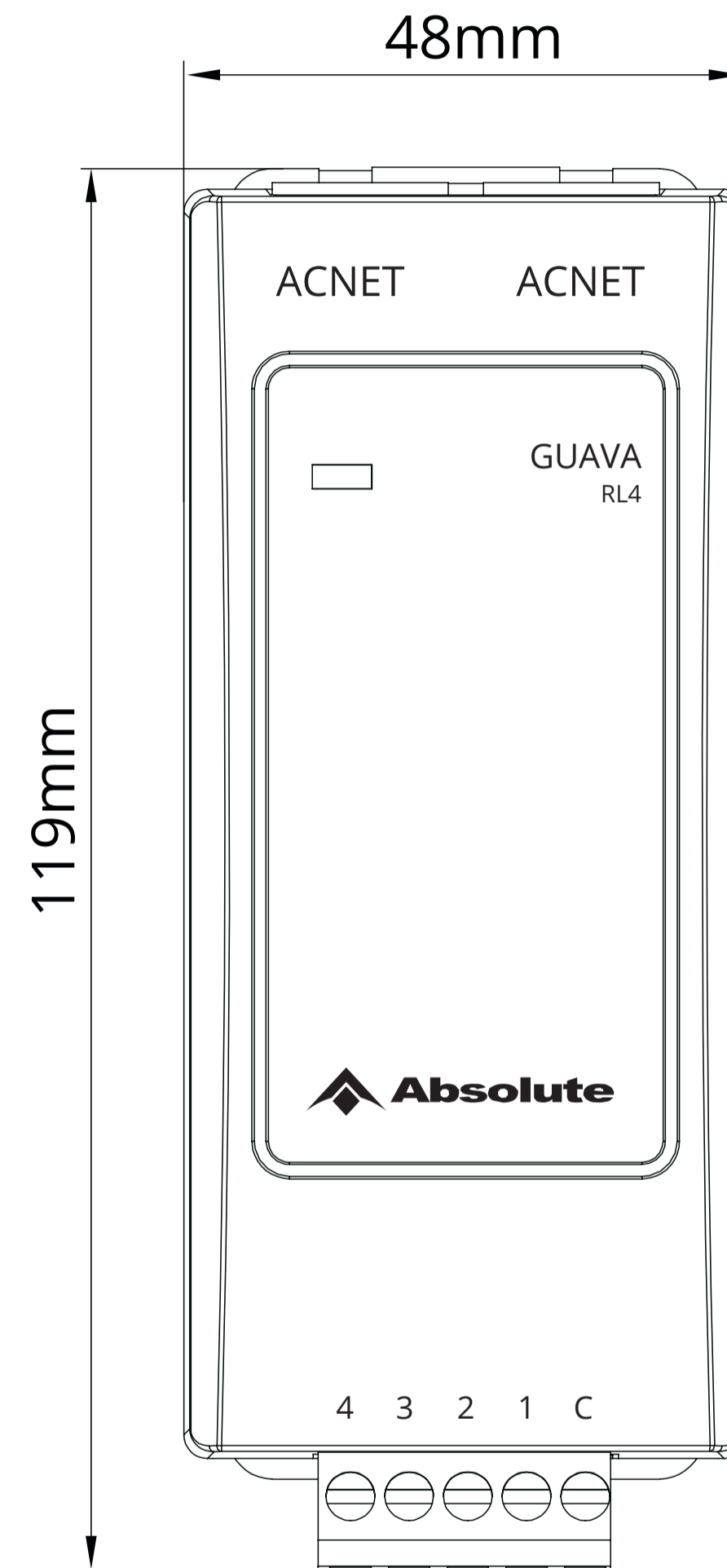
RF shade control module

- controls up to 64 DALI channels

- up to 16 groups and 16 scenes

- 2 ACNET ports

- allows DALI driver commissioning, configuration tool available

AQL-GV-010V4

• 2 ACNET Ports RJ-45 (system network) - optical isolation

• 1 PNET Port - standard RJ45 - optical isolation

• 4 control channels for dimmable 0V ~10V drivers

• 4 on/off channels

• Power on LED indicator

• Programable using ROEHN Wizard software®

• Dimensions   96mm x 108mm x 25mm (W x H x D)

Power terminal
24V DC / 3W

ACNET Ports (Loop)

PNET Port

LED Power

GUAVA
AQL-GV-010V4

Absolute

Saídas 0V – 10V: 25mA – Total: 100mA

Relays: 5A – Total: 10A

CANAL

RELAY

Dimmable control
channels
0V ~10V

On/O Relays

24V DC

ACNET LOOP

PNET

AQL-GV-010V4

96mm

108mm

32mm

133mm

— +   A   B   1

24V DC   ACNET LOOP   PNET

GUAVA

AQL-GV-010V4

Absolute

Saídas 0V – 10V: 25mA – Total: 100mA   Relays: 5A – Total: 10A

CANAL   RELAY

1   2   3   4   1 2 3 4 ⏚

— + — + — + — +

AQL-GV-GTW

RF shade control module

- 16 RF channel shade control module
- 2 ACNET ports
- out of the box compatible with Somfy®, Tube®, Fise® and Dooya®
- RF 433 MHz learning tool available for non-encrypted RF codes
- position control and feedback
- shade control with "slider" on Savant Pro App
- compatible with Savant App Scenes

AQL-GV-RL4

4 channel relay control module

•expansion module with 4 channels for relay control

•2 ACNET ports

•100-240V

•max total power 10A

•max power / channel 2,5A

AQL-GV-RL4

4 channel relay control module

48mm

33mm

119mm

ACNET   ACNET

GUAVA
RL4

Absolute

4 3 2 1 C

7mm

All equipment must be diconected from electrical network before starting installation to avoid the risk of damaging the products.
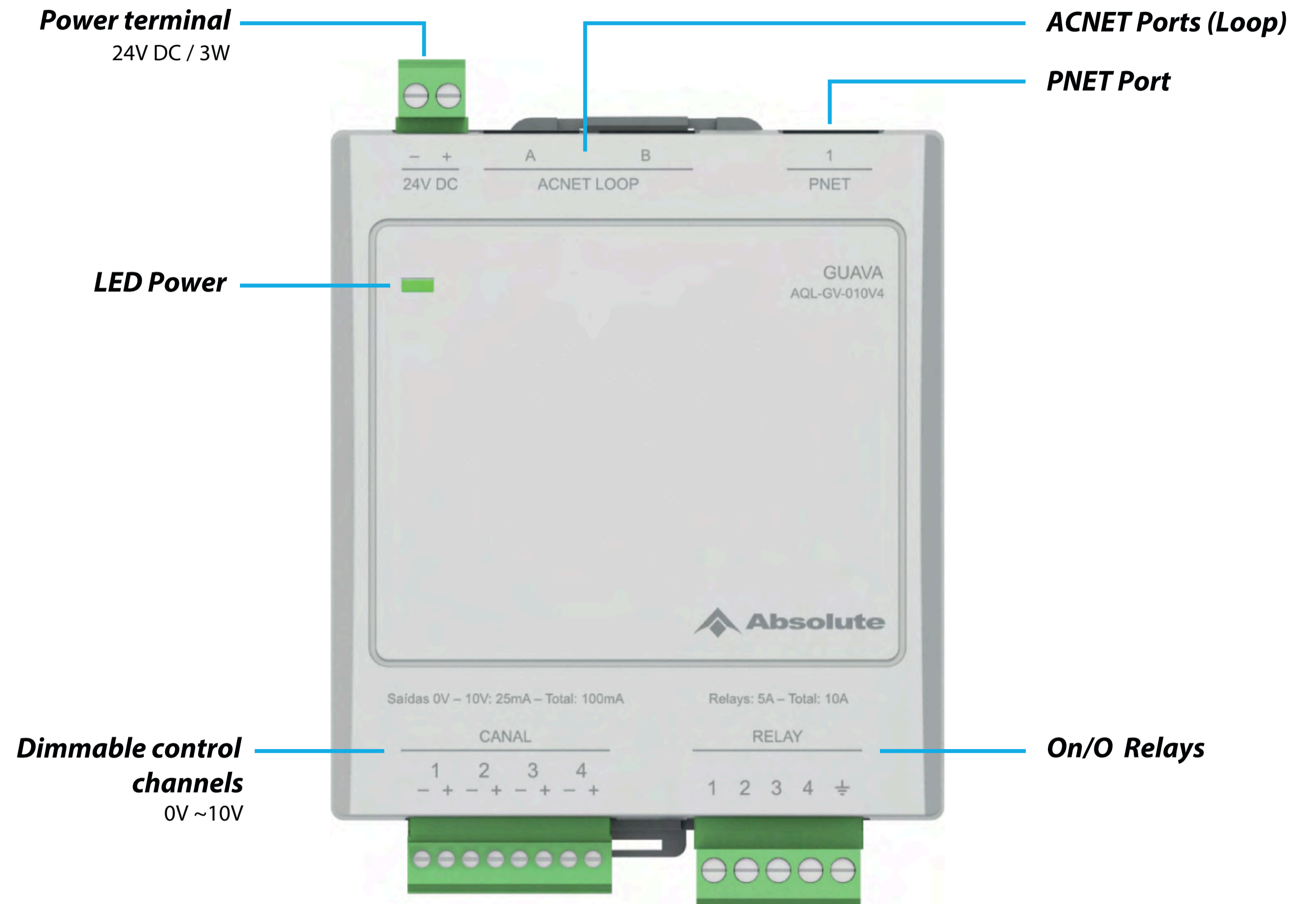
AQL-GV-PWM4

•controls up to 4 PWM loads

•up to 1 RGBW or 4 independent or 2 WW lighting strips

•max power 5A / channel

•output frequency can be set in the configuration tool

•DC 12-24V power supply not included

AQL-GV-DK32

Daikin VRV MODBUS gateway

- gateway interface for controlling Daikin VRV® HVAC systems

- requires Daikin **DTA116A51** MODBUS serial interface
  (sold separately by HVAC dealer)

- each interface AQL-GV-DK32 controls up to até 32 indoor units

- realtime temperature feedback from the indoor unit's temperature
  sensor and set point

- solution supported by Daikin, doesn't void manufacturer's warranty

AQL-GV-SA1

single port HVAC IR control module

- ACNET / infrared HVAC controller 1 IR output port for HVAC
- control 2 ACNET ports small sized, can be positioned next to
- HVAC indoor units input for temperature sensor (sold
- separately) programmable IR commands for HEAT/COOL
- modes with
- variable fan speed (AUTO, LOW, MID, HIGH) with Telnet control
  and feedback for third-party integration

AQL-GV-SA1

single port HVAC IR control module

The use of third-party power supplies to power the modules is not garanteed py Absolute Controls. Always install ADP-PWR-2460 power sources.

All equipment must be diconected from electrical network before starting installation to avoid the risk of damaging the products.

37,10mm

18,60mm

12,80mm

31mm

50mm

SAÍDA EMISSOR

SENSOR 1

SENSOR 2

S1

S2

AQL-SENSOR2

- temperature sensor for AQL-GV-SA1

- temperature feedback over Telnet for third-party integration

ADP-PWR-2460

- AC INPUT: Bivolt 100V - 240V / 50-60Hz
- DC OUTPUT: 24VDC - 60W
- Dimenions: 92mm x 77mm x 55mm (W x D x H)
- Warranty: 2 years
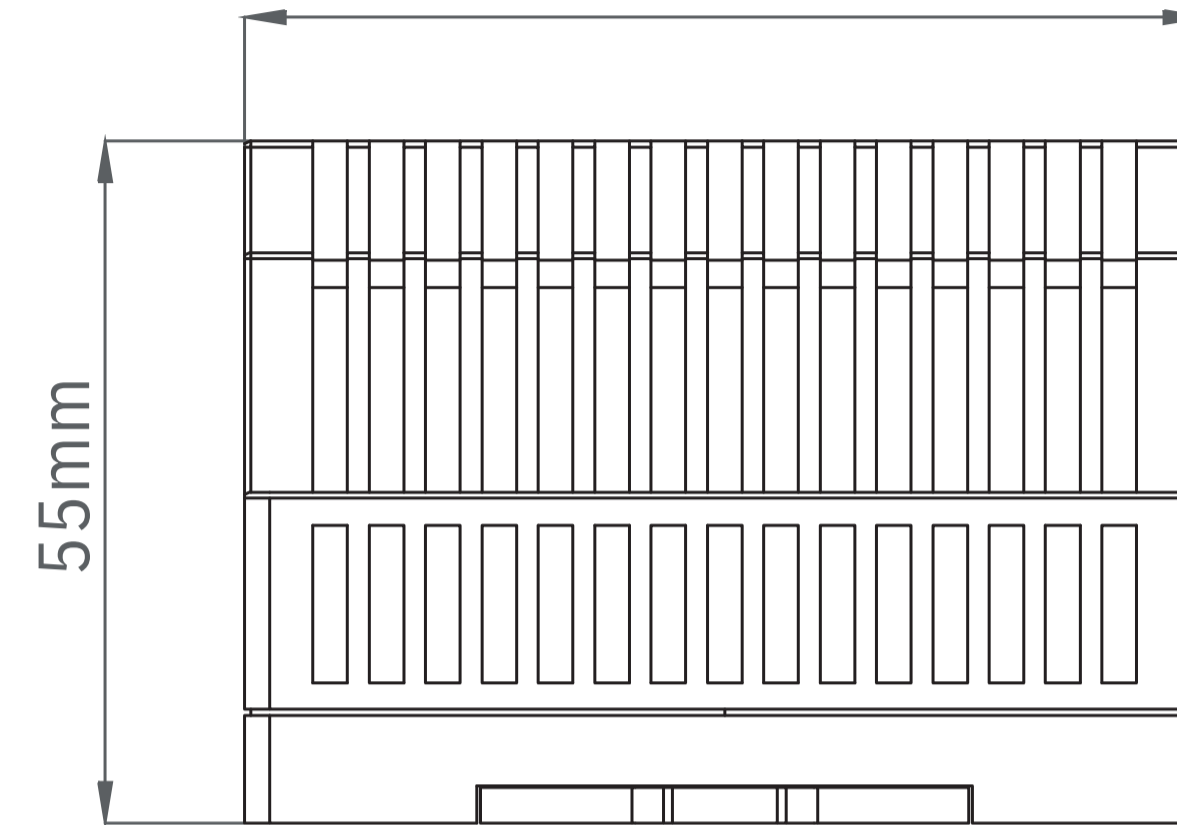
Power Status LED

AC Input
100V - 240V AC
50-60Hz

DC Output
24VDC

N   F **INPUT:** 100-240VAC 2A
       OUTPUT: 24V ⎓ 2,5A 60W   + ⏚ –   24 VDC

Absolute

ADP-PWR-2460

⚠ **CUIDADO:** Apenas para uso interno e em um ambiente
protegido. Risco de choque elétrico. Não abra.

Voltage setup
(delivered already adjusted to 24V)

ADP-PWR-2460

77mm

55mm

96mm

92mm

N F **INPUT:** 100-240VAC 2A
OUTPUT: 24V ⎓ 2,5A 60W
+ − 24 VDC

Absolute
ACOUSTICS
ADP-PWR-2460

⚠ CUIDADO: Apenas para uso interno e em um ambiente
protegido. Risco de choque elétrico. Não abra.
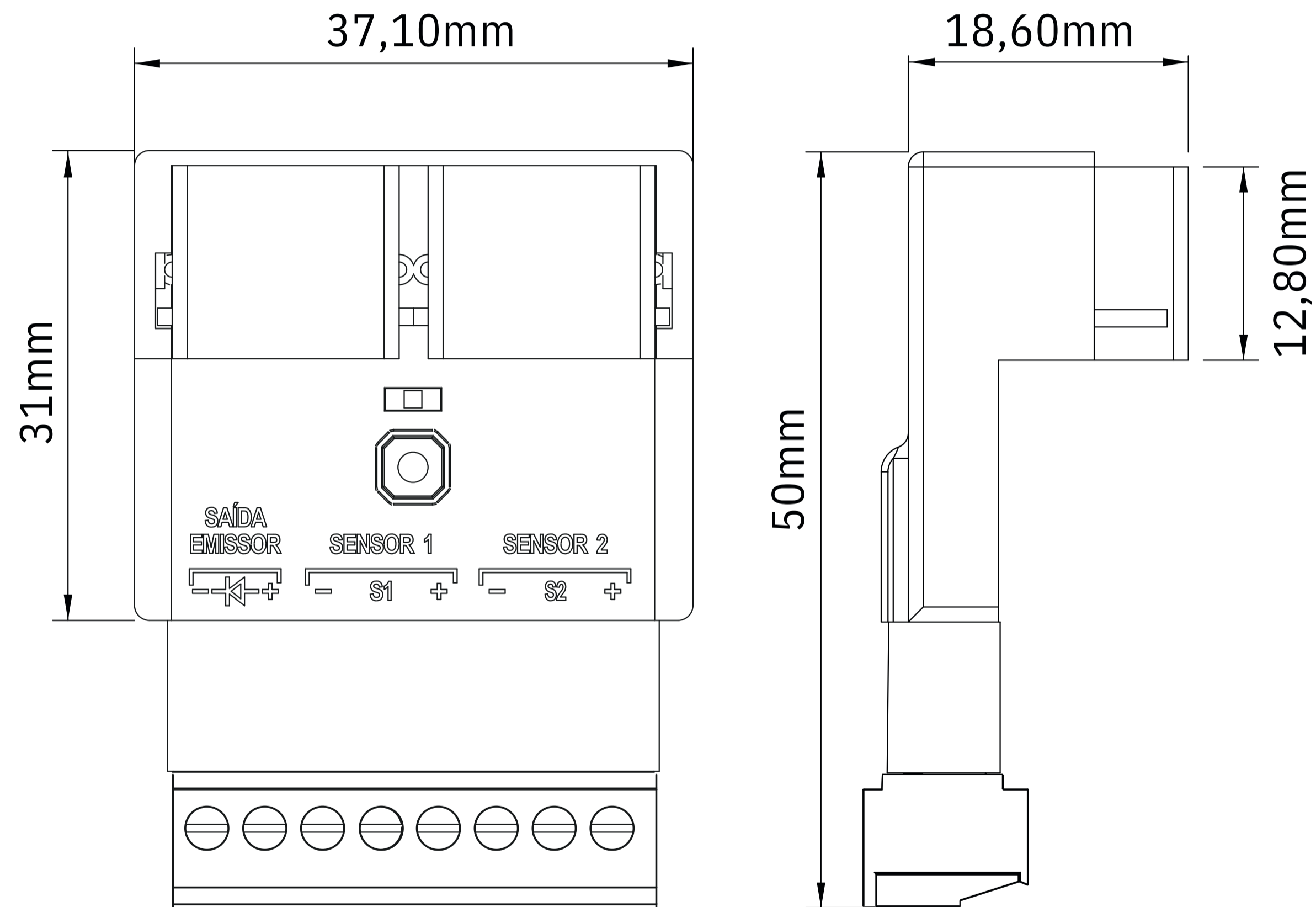
⚠ The use of third-party power supplies to power the modules is not garanteed py Absolute Controls. Always install ADP-PWR-2460 power sources.

⚠ All equipment must be diconected from electrical network before starting installation to avoid the risk of damaging the products.

E:

EXPANSION

• RIO modules provide expansion capabilities
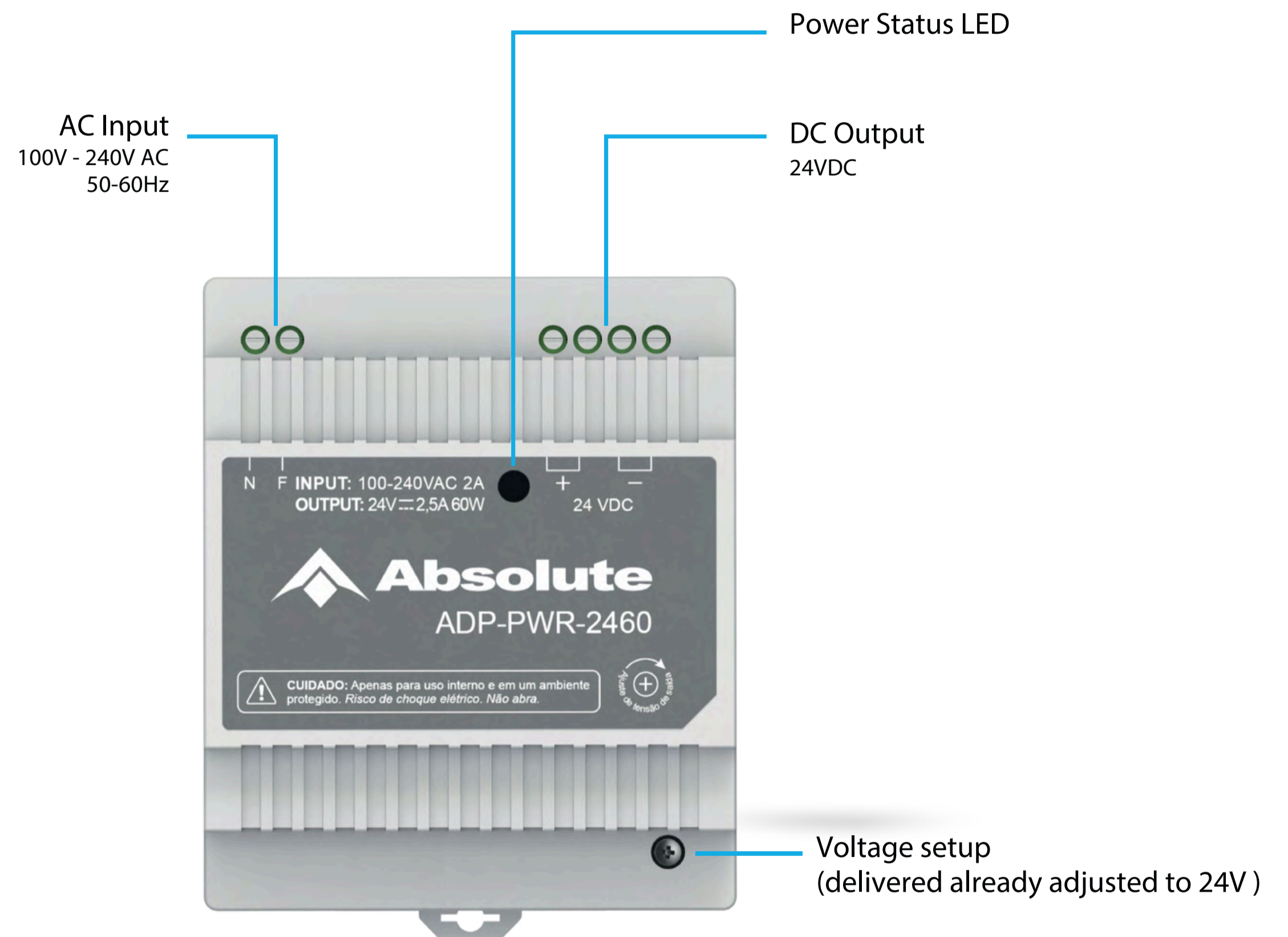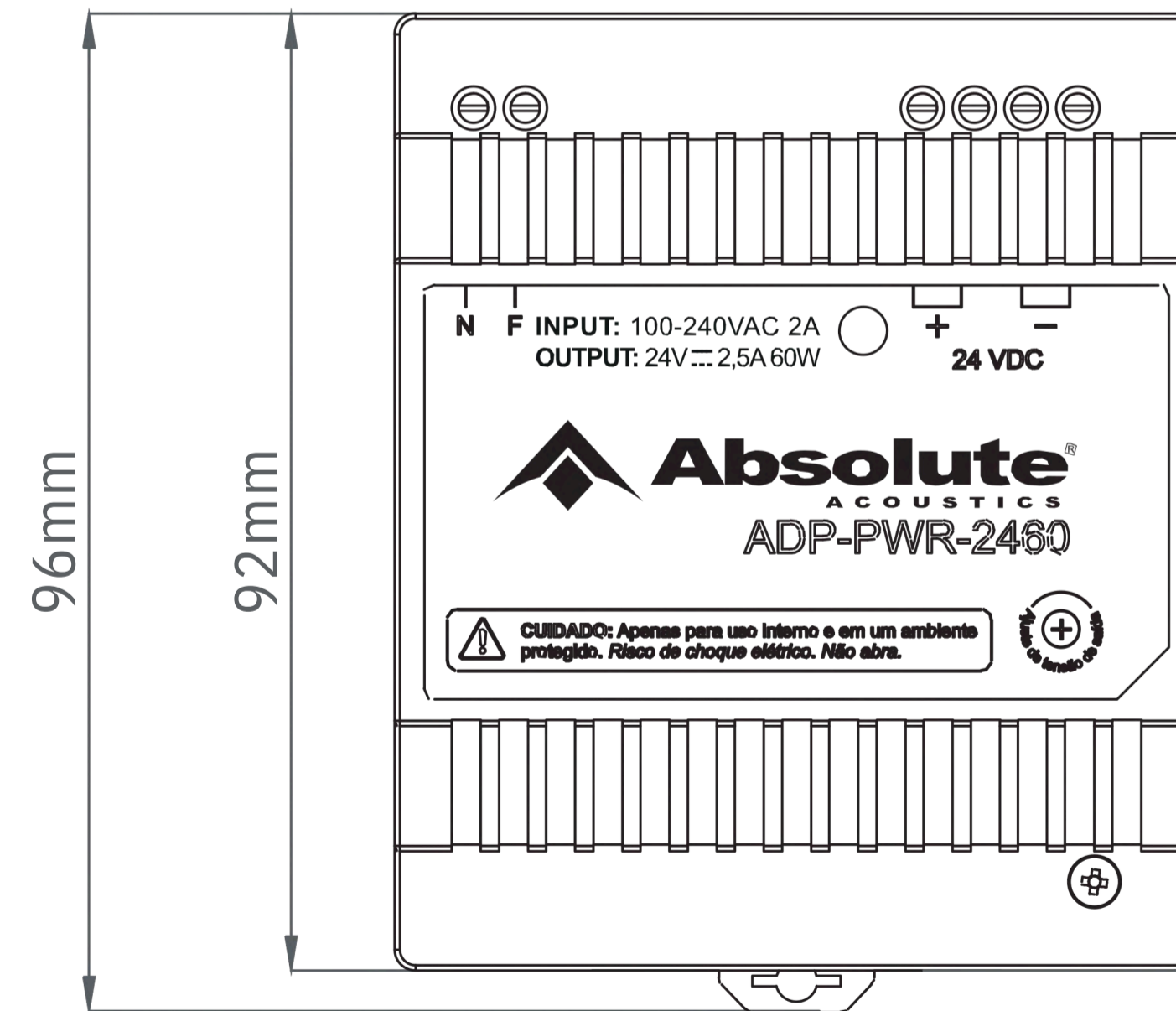 to Quantica K, L and Ion keypads

• RIO-PRR provides 2 input ports for sensors or push button keypads
  and 2 relay output ports for lighting loads

• RIO-PP allow 4 input ports for sensors or push button keypads

• feedback over Telnet for sensor/keypad inputs
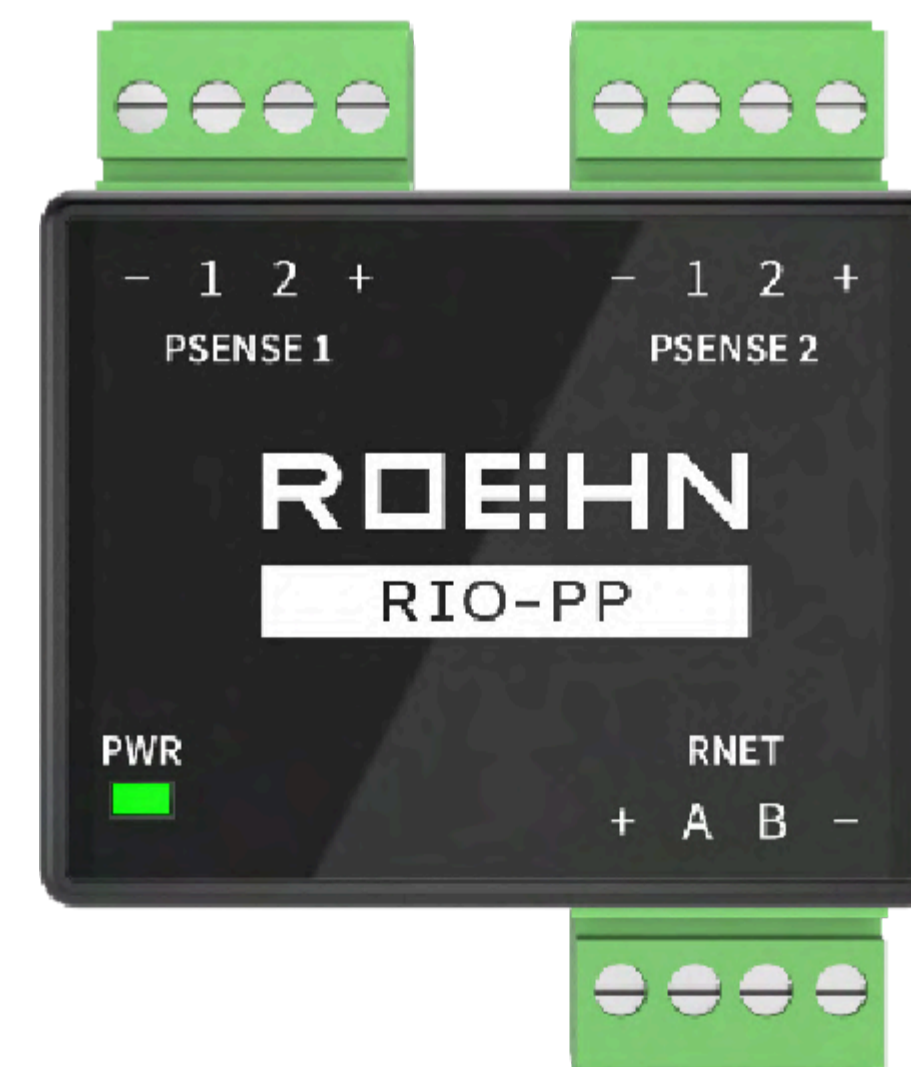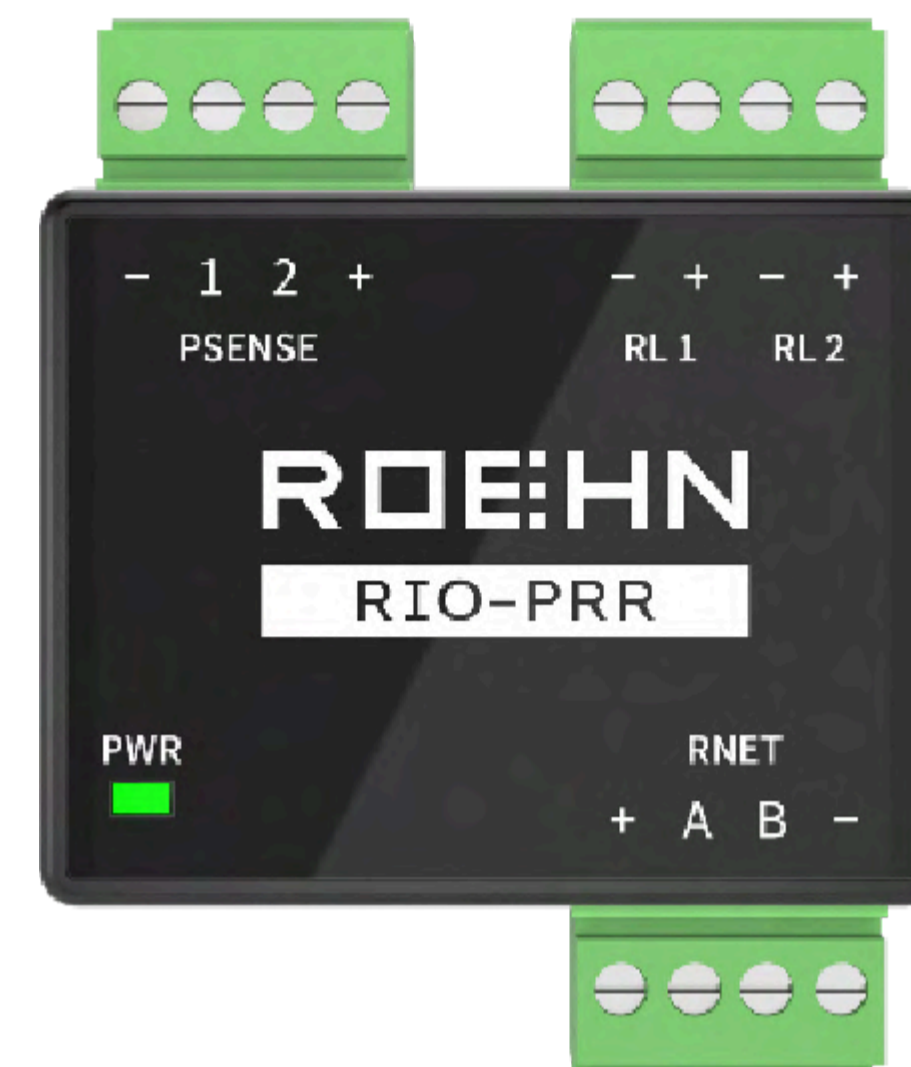
WIDELUX AND NANO SENSORS

size comparison

NANO

- 12-24V (power supply not included)

- most advanced PIR sensor components

- precision: 64 detection zones

- available in black and white finishing

- integration with Absolute Controls and third-party inputs:

    •Absolute Controls PNET ports

    •RIO micro modules

    •Savant GPIO ports

    •or any other third-party CCI

ROEHN

NANO SENSOR
DC: 12V/24V
MAX LOAD:
60V/100mA

WIDELUX

- RNET connection for communication and power (12-24V)

- occupancy and luminosity sensor

- most advanced PIR sensor components

- precision: 64 detection zones

- available in black and white finishing

- internal processor for pre-programmed modes:

    - occupancy and vacancy

    - walk-through

    - daylight harvesting

State-of-the-art components and 64 detection zones provide Widelux and Nano sensors exceptional accuracy.

In addition to high sensitivity, the sensor's operating area is optimized by a lens designed for detection of discrete movements.

An essential product for commercial jobs applying for environmental certifications, such as LEED.

WIDELUX

Lights turned on for a short period of time and turned off after person leaves the coverage area.
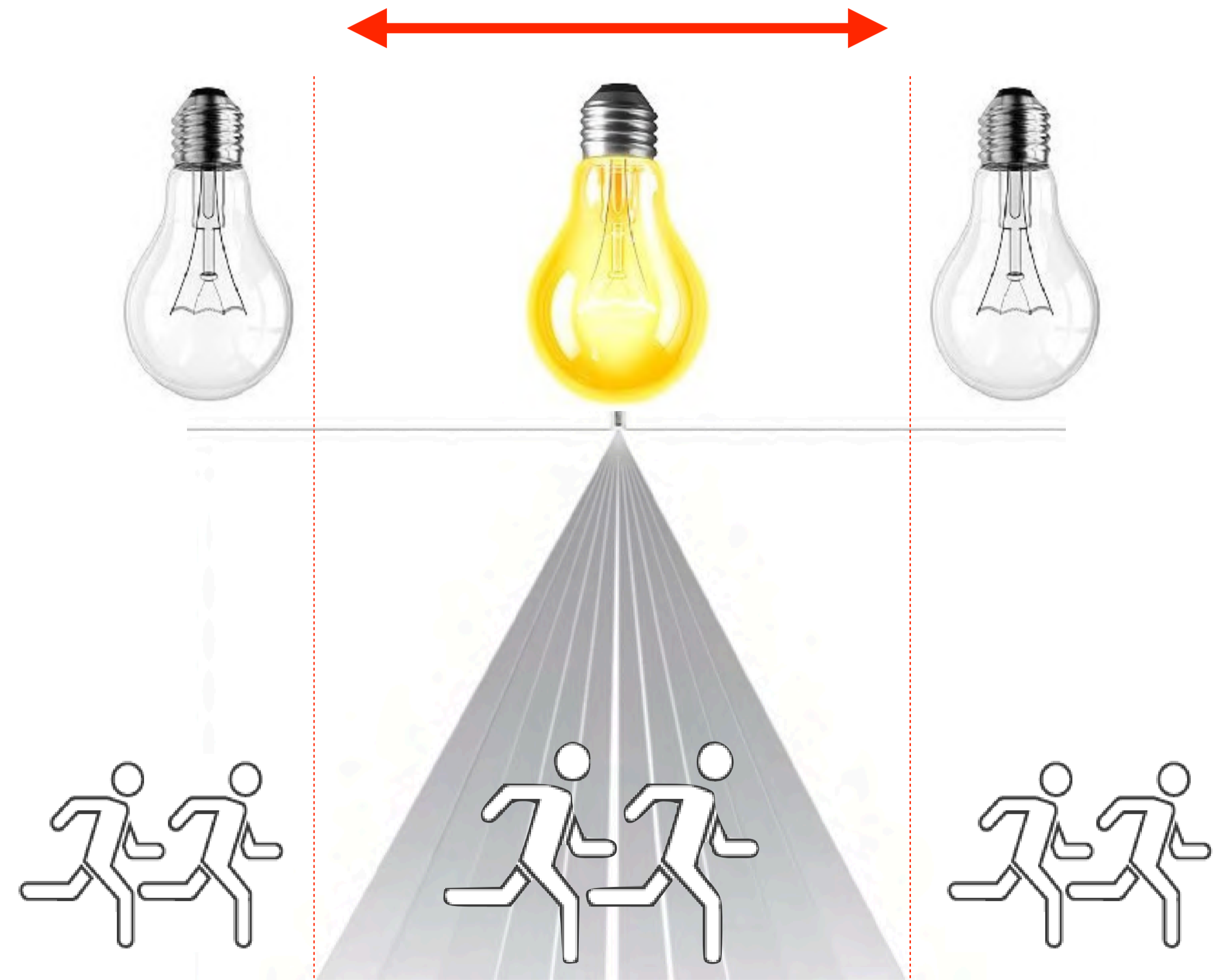
Time intervals are programmable.

When in **WALK-THROUGH** mode, the sensor detects a person passing through the coverage area and turns the lights on. Then, if the person leaves the coverage area quickly after entering the lights are turned off.

However, if the person stays inside the detection area, the sensor enters **OCCUPANCY** mode and behaves according to its programming, until the person leaves the detection area. Then, the sensor enters **VACANCY** mode and turns the lights off.

Next, we'll show a video demonstration for **WALK-THROUGH** mode.

WIDELUX

When in **OCCUPANCY/VACANCY** mode, the sensor detects the area is occupied and executes the programmed actions, until it detects the area is vacant.

The time interval for changes in lightning can be programmed

Next, we'll show a video demonstration for **OCCUPANCY/VACANCY** mode.

E:

Walk Through + Occupancy

ROE:HN

WIDELUX

When **DAYLIGHT HARVESTING** mode is enabled, the sensor continuously measures the light intensity in the area and automatically changes the artificial light levels to compensate.

Changes in the artificial lighting are extremely subtle and immune to quick interferences, such as a cloud passing under the sun.

In the next video, we'll demonstrate this feature in a fast pace to make the changes in artificial lighting perceptible.

E:

Daylight Harvesting

ROE:HN

WIDELUX

- garages (walk through, occupancy, vacancy)

- stairs, corridors and floor wash lights

- toilets, bathrooms with variable intensity according to time of day or natural light intensity

- energy saving, optimizing use of electronic devices, lighting and HVAC systems

- shade control for protecting plants, furniture and artworks from excessive sunlight

- security, email/Telegram notifications for presence detection in restricted areas, such as rooms with safes for valuable objects

Programming Software and Savant integration

Roehn Wizard and Savant profile features

ROE:HN

LUXURY FOR THE SMART HOME

ROEHN WIZARD

all new programming software

- English language available

- automatic generation and programming
  of basic scenes based on loads and keypads location

- integration with Roehn Planner, allowing engraving projects
  to be imported to the programming software

- lighting load and button export to Blueprint data tables

- keypad and load profiles, including keypad LED intensity and
  dimming curves for loads
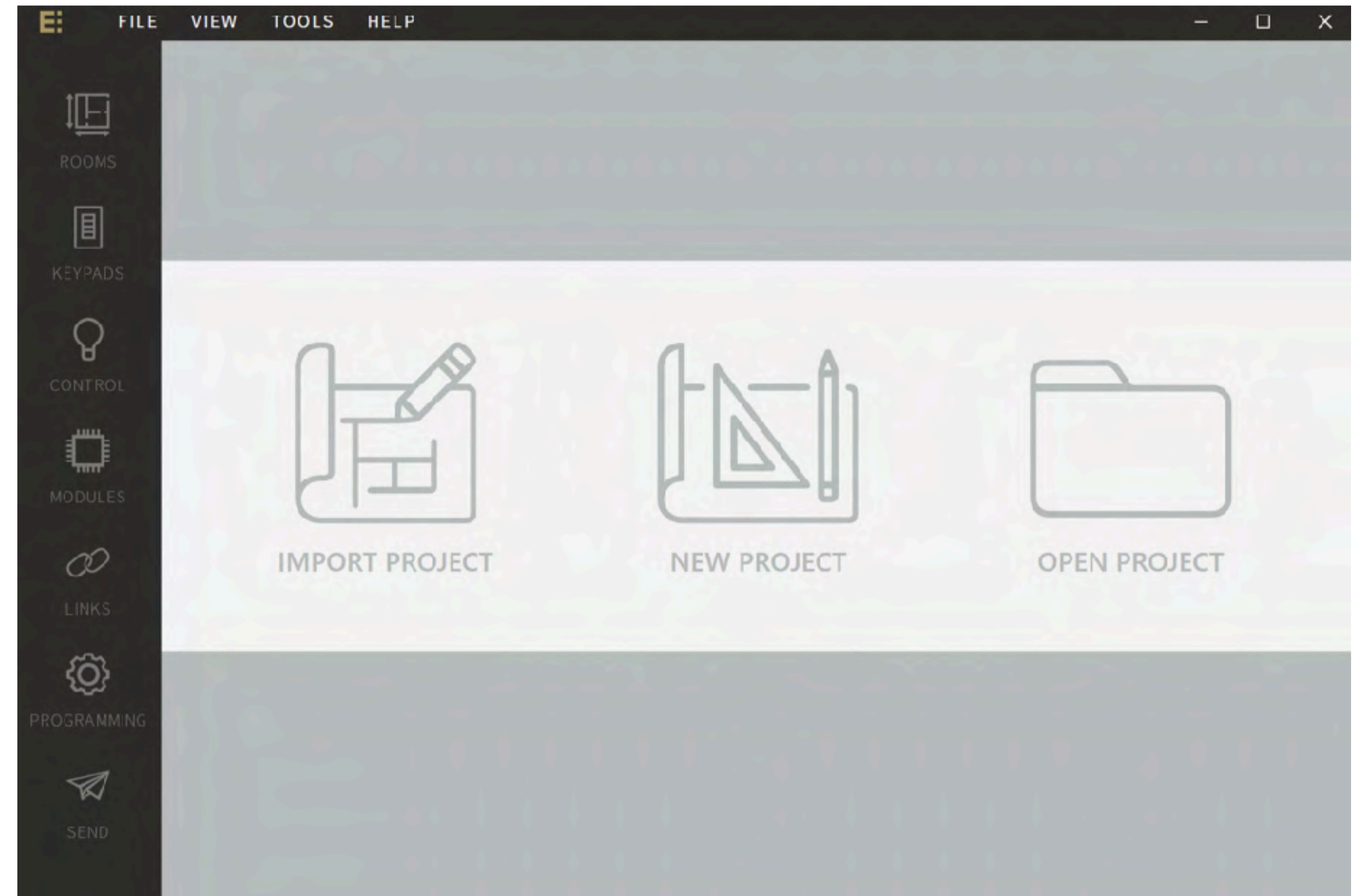
SAVANT INTEGRATION

profile, control and monitoring features

- button PRESS, HOLD and DOUBLE PRESS feedback and emulation

- recall scenes and run scripts with Savant App buttons

- processor state monitoring

- feedback for offline devices (modules or keypads);
  create triggers to send emails or Telegram alerts

- lighting and HVAC feedback and control

- keypad button LED status control and feedback;
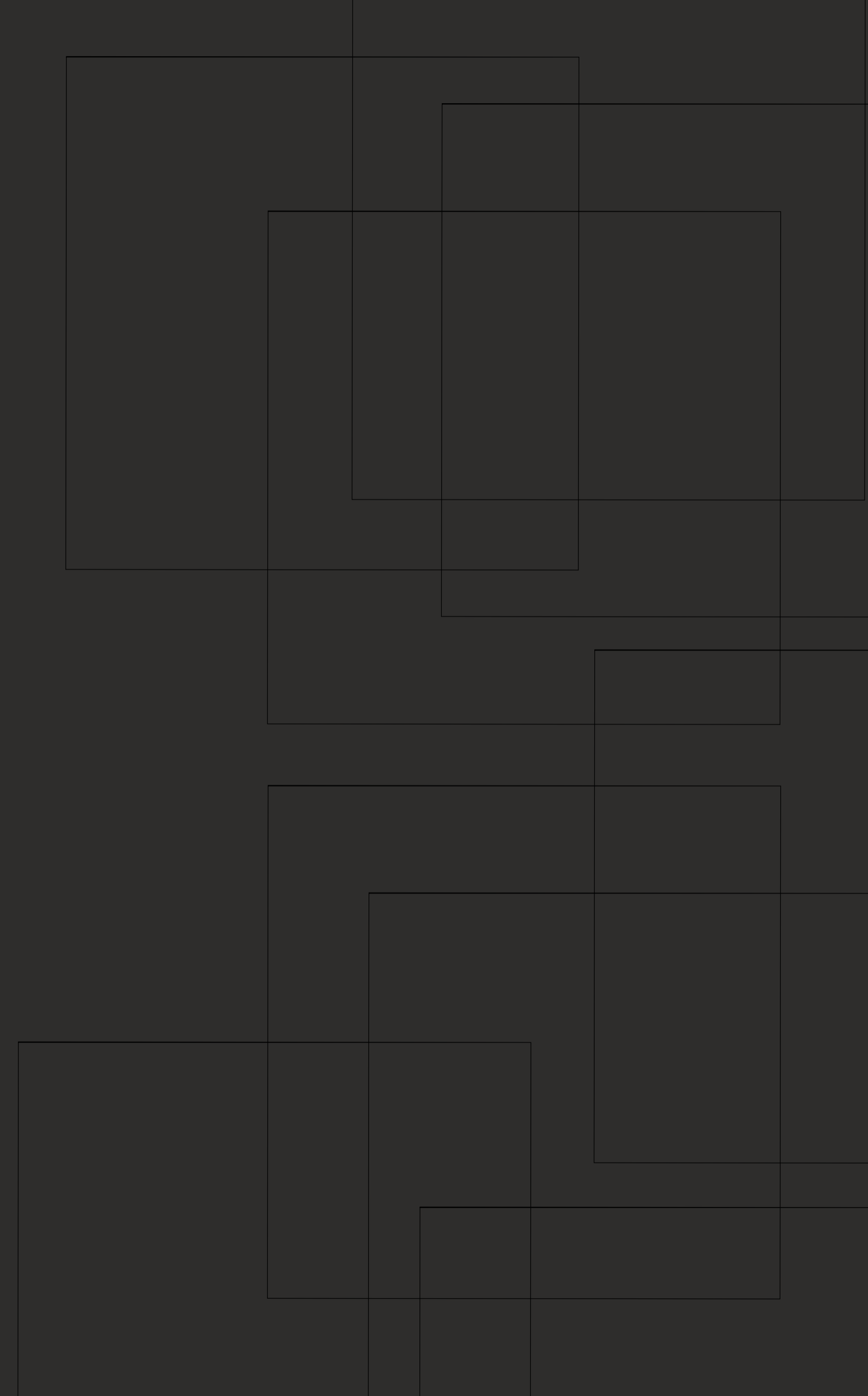 activate LEDs for Savant services, such as Music or other media

```
<media_interfaces>
    <data name_on_component="Ethernet">
        <combined_media>
            <data_media type="ethernet"/>
            <control port="23"/>
        </combined_media>
    </data>
    <internal name_on_component="Lighting Controller">
        <environmental_media/>
        <resource resource_type="ENV_LIGHTINGCONTROLLER_SOURCE"/>
        <resource resource_type="ENV_SINGLE_SETPOINT_HVACCONTROLLER_SOURCE"/>
        <resource resource_type="ENV_SHADECONTROLLER_SOURCE"/>
    </internal>
</media_interfaces>
<state_variable_list>
    <state_variable name="Current_Set_Point_Setting" owning_logical_component="HVAC_controller" s
    <state_variable name="tempAddress" owning_logical_component="Lighting_controller" state_cente
    <state_variable name="OfflineDeviceCount" owning_logical_component="Lighting_controller" stat
</state_variable_list>
<logical_component logical_component_name="Lighting_controller">
    <implementation>
        <internal name_on_component="Lighting Controller"/>
    </implementation>
    <status_messages>

        <status_message name="CurrentButtonState">
            <constant type="character">R:BTN </constant>
            <data type="character" terminator=" " terminator_type="character">
                <data_map match_required="yes">
                    <map key="PRESS">
                        <update state="CurrentButtonState" type="string">PRESSED</update>
                    </map>
```

Design Software

Roehn Planner

ROEHN
LUXURY FOR THE SMART HOME

Thank you !

ROE:HN
LUXURY FOR THE SMART HOME