# E1 - E2 Electronic electrical panels for pumps

## INSTALLATION AND USE

The **E1/E2** switchboards are **multifunctional electronic switchboards** designed to manage one or two pumps in residential, commercial, or industrial settings.
Thanks to their versatility, they provide protection and facilitate operations such as pressurization, filling, drainage, and emptying, accommodating both clean and wastewater applications.

## PRODUCT DESCRIPTION

The **E1/E2** electronic control panels offer unmatched adaptability for various systems by featuring **six selectable operating modes**. These modes facilitate comprehensive pump management and protection through both analogue and digital inputs, alongside electrical parameter monitoring.

Equipped with an intuitive **keypad and LCD display**, the panels simplify programming and configuration of pump settings, protections, and operational modes through a user-friendly guided process.

These panels feature **dry-running protection**, managed through power factor (**cosφ**), current control, or by activating a float or level probe. The integrated self-learning Wizard simplifies the system initialization by automatically storing key electrical parameter values, ensuring a quick and straightforward setup.

When managing two pumps, the **E2** panel automatically switches between them, reducing wear and maximizing efficiency in their operation.

## MAIN FEATURES

※ Power supply:
**1~ 230V±15% (E1/E2 MONO)**
**3~ 400V±15% (E1/E2 TRI)**
※ Frequency: **50/60 Hz**
※ door lock main isolating switch,
※ Motor and auxiliary circuit protection fuse
※ **ABS** outer container
※ **IP55** protection degree
※ Ambient temperature: **-5 °C ÷ +40 °C**
※ Relative humidity **50% at 40 °C**

## INPUTS

The **E1/E2** electrical panels allow pumps to be managed via analogue and digital inputs:

※ Pressure switches
※ Floats
※ Remote contacts
※ Run/stop floats
※ Level probes
※ Pressure transducers

## CONTROLS

※ Minimum and maximum operating current control
※ Minimum and maximum supply voltage control
※ Input phase failure or inversion control

## E1 Electronic electrical panel for an pump

| TYPE | VOLTAGE | CURRENT POWER (*) | FUSES PROTECTION |
|---|---|---|---|
| **E1 MONO** | **1~ 230 V - 50/60 Hz** | up to **18 A** | **20 A** |
| **E1 TRI/1** | **3~ 400 V - 50/60 Hz** | up to **18 A** | **20 A** |
| **E1 TRI/2** | **3~ 400 V - 50/60 Hz** | up to **25 A** | **32 A** |

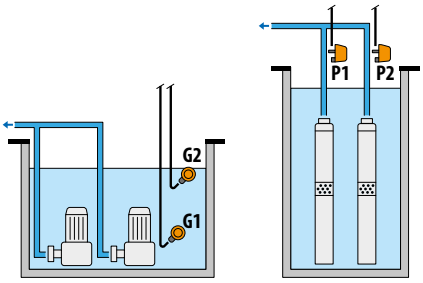
(*) The rated current value refers to a single electric pump

## E2 Electronic electrical panel for two pumps

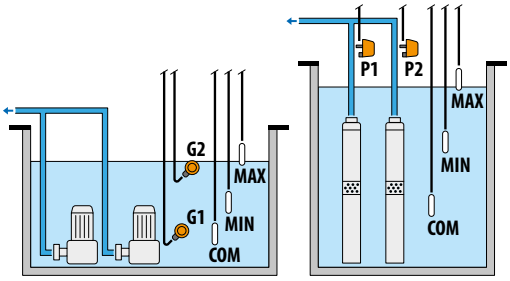
| TYPE | VOLTAGE | CURRENT POWER (*) | FUSES COVER |
|---|---|---|---|
| **E2 MONO** | **1~ 230V - 50/60 Hz** | up to **18 A** | **20 A** |
| **E2 TRI** | **3~ 400V - 50/60 Hz** | up to **16 A** | **32 A** |

## OPERATING MODE

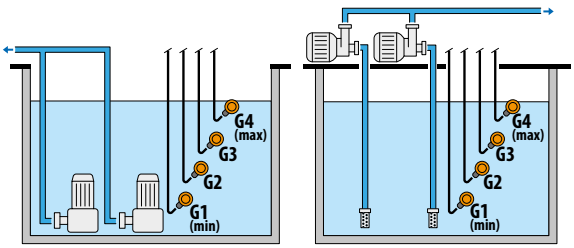
### METHOD 1: DRAINING AND PRESSURIZING
Dry run protection via cosφ or current



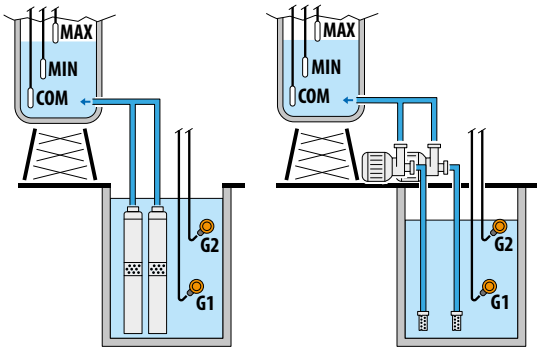

### METHOD 2: DRAINING AND PRESSURIZING
Dry run protection via level probes



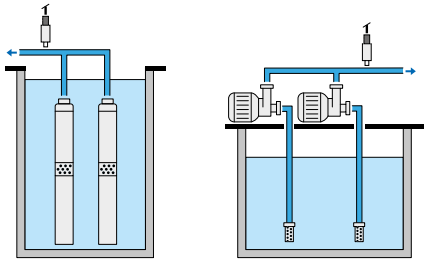

### METHOD 3: DRAINING
Dry run protection via minimum float switch



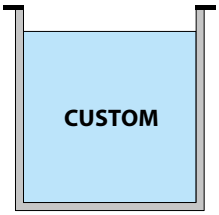

### METHOD 4: FILLING
Dry run protection via minimum float switch

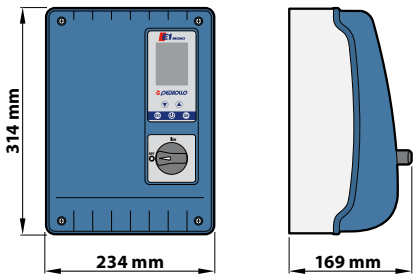
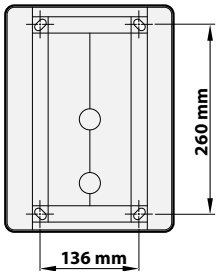



### METHOD 5: PRESSURIZING
Dry run protection via cosφ or current



### METHOD 6: CUSTOMIZED:




## DIMENSIONS AND HOLE SPACING FOR MOUNTING