

# THE DIGITAL RELAY BOX



Put an end to mechanical fuses, relays and switches!

## LOTS OF POSSIBILITIES IN ONE BOX

### **FUNCTIONS**

- Settable fuse with slow fuse option
- Fixed or normal "relay" function
- Timers
- 1-3 input sources for each output
- Set/reset from different inputs
- Flashing output with settable duty cycle
- Individual voltage settings for each output
- Toggle functions
- Counters

- Logics for sirens and blue-lights for emergency vehicles
- Parallel or serial use of multiple functions
- Multiple input sources
- Temperature control from sensor
- H-bridge for DC motor control with timers and deadtime settings
- Energy saving mode
- Combinations of inputs and outputs

And more...

## FOR USE IN VEHICLES AND INDUSTRY



Service Vehicles



**Emergency Vehicles** 











Transport

Leisure

Industrial applications

## **CONFIGURE WITH EASE**



Addio Control Center is developed for a great user experience. It's easy to learn without any prior skills.

The tool offers great flexibility to easily create many different combinations of functions.

## **INSTALL SMOOTHLY**

With Addio you'll get clean wiring and fast installation in tight spaces. Thanks to the flexible configurability, one of Addio's relay boxes can replace a number of other components.



## **CONTROL EASILY**

#### with Addio Hand Controller...

The Addio Hand Controller can be used for both controlling the applications of the relay box and to indicate the status of the applications.

The Hand Controller has 15 configurable RGB LED illuminated buttons and connects easily to the relay box with a RJ10 connector.





#### ...or with your smartphone!

Addio Remote is a mobile application for mobile phones and tablets. It works as a remote control for the advanced models of Addio Digital Relay Boxes. Addio Remote connects to the relay box via Bluetooth.

It's possible to use several mobile devices for the same relay box, and to use the same mobile devices for several boxes.

## **DIGITAL RELAY BOXES 12V AND 24V**

Within the Addio product range there are four different models of Digital Relay Boxes. The main differences between the models are the power supply (12V or 24V) and some advanced functionality such as the possibility to control the boxes with a hand controller, or wirelessly with a mobile device. All the relay boxes are based on microprocessors and have MOSFET technology for high current switching and a long lifetime.









#### DRB-3012-4 Standard

- 12V Power supply
- 4 outputs

#### DRB-9012-8 Standard

- 12V Power supply
- 8 outputs

#### DRB-9012-8 Advanced

- 12V Power supply
- 8 outputs
- Can be controlled with hand controller
- Can be controlled with a mobile device
- LED indication for each output
- H-bridge for DC motor control
- Built in pull-ups for grounded signals

#### DRB-5024-8 Advanced

- 24V Power supply
- 8 outputs
- Can be controlled with hand controller
- Can be controlled with a mobile device
- LED indication for each output
- H-bridge for DC motor control
- Built in pull-ups for grounded signals

Model	DRB-3012-4 STD	DRB-9012-8 STD	DRB-9012-8 ADV	DRB-5024-8 ADV
Power supply	10-22 VDC	10-22 VDC	10-22 VDC	20-36 VDC
Internal Power consumption	Approx. 6mA + 4mA per activated output	Approx. 7mA + 4mA per activated output	Approx. 15-25 mA	Approx. 15-25 mA
Undervoltage protection	Adjustable 10-13V, 0.5V steps	Adjustable 5-13V, 0.5V steps	Adjustable 10-13V, 0.5V steps	Adjustable 18-25V, 0.5V steps
Overvoltage protection	Adjustable 16-26V, 2 V steps	Adjustable 16-26V, 2V steps	Adjustable 16-26V, 2V steps	Adjustable 26-31V, 1V steps
Max. total current 1 minute	35A	90A	90A	50A
Max. total current continuous	30A	70A	70A	50A
Total number of inputs	6 pcs	8 pcs	8 pcs	8 pcs
Digital inputs	6 pcs of 6	8 pcs	8 pcs of 8	8 pcs of 8
Analogue inputs	4 pcs of 6	0 pcs	4 pcs of 8	4 pcs of 8
Input resistance @12V	22kΩ	22kΩ	22kΩ	22kΩ
Connections inputs	8-pole jackable screw terminal inc. +/-	10-pole jackable screw terminal inc. +/-	10-pole jackable screw terminal inc. +/-	10-pole jackable screw terminal inc. +/-
Number of outputs	4 pcs	8 pcs	8 pcs	8 pcs
Connections outputs	7-pole screw terminal inc. supply	Cable crimp/connector	Cable crimp/connector	Cable crimp/connector
Fuse size A, outputs	5, 10 ,15A	5, 10, 15, 20, (25 only U7, U8)	5, 10, 15, 20, (25 only U7, U8)	5, 10, 15, 20, (25 only U7, U8)
Connection power supply	Screw terminal	M5 nut	M5 nut	M5 nut
Bluetooth	no	no	Yes, accessory	Yes, accessory
Motor control H- bridge	Yes, max. 7A (prel. current)	no	Yes, max. 12A (prel. current)	Yes, max. 12A (prel. current)
Error indication	No	Shared RGB LED	Shared RGB LED	Shared RGB LED
LED per output	No	No	Yes, RGB, adjustable colour	Yes, RGB, adjustable colour
Communication bus (CAN bus)	No	No	Yes, two connections	Yes, two connections
Computer connection	USB	USB	USB	USB
Earthing signals	yes, with internal pull-up	yes, with external resistor to positive	yes, with internal pull- up	yes, with internal pull- up
Hand controller	No	No	Yes, as accessory	Yes, as accessory

## ADDIO - WE ADD I/O

We love technology - hardware and software. We love all the fantastic possibilities it creates. We love to create and to innovate, and we love happy customers.

Our Digital Relay Box is the first product that we bring to the market. In just a couple of years we have delivered more than 4000 boxes to vehicles in Sweden. Stay tuned, we are working on more cutting edge innovations that will bring smartness and connectivity to your devices.

