

# relaydroid-9R-F

## Datasheet

Please note: Connecting this device to a LAN network needs knowledge about Ethernet network configurations. If your are unfamiliar with setting up Ethernet networks please consult a network specialist!

**DANGER! If you want to switch high voltages with your relays (like 230V AC) only a qualified electrician should connect the wires to avoid the risk of electric shock!**



This datasheet contains only the highlights of the feautres and parameters.

For more info download the full relaydroid user manual from <https://relaydroid.com>

### Contents

1. Parameters .....	1
2. Layout and dimensions.....	2
3. External connections, buttons, leds .....	3
4. Inner circuits .....	4
5. Programmer API examples .....	5
HTTP examples: .....	5
TCP examples:.....	5



### 1. Parameters

- Dimensions (W,H,D):
  - **17.5mm narrow case:** 17.5x90x56.4 mm
- Holding: DIN-rail
- Recommended input voltage: 12V<sub>DC</sub> - 24V<sub>DC</sub>
- Operational input voltage ranges: min. 8V<sub>DC</sub>, (typ. 12V<sub>DC</sub>), max. 28V<sub>DC</sub>
- Input current requirements:
  - recommended min. 500mA
- Power consumption: max. 1W (@12V<sub>DC</sub>) with all outputs off
- Open collector outputs can drain max. 500mA to GND
- Ethernet: 10/100/1000 Mbit compatible, RJ-45 port, 10Mbit
- Implemented network protocols: TCP/IP, UDP, HTTP, NTP, NetBios, DHCP, DNS, ICMP (PING), SMTP (email)
- 4 LED: 1 power status + 2 Ethernet status + 1 OC1 output status LED
- 1 button, used to: switch outputs on/off, reboot, reset to factory settings
- Temperature rating min/max: -25/+60 Celsius

## 2. Layout and dimensions

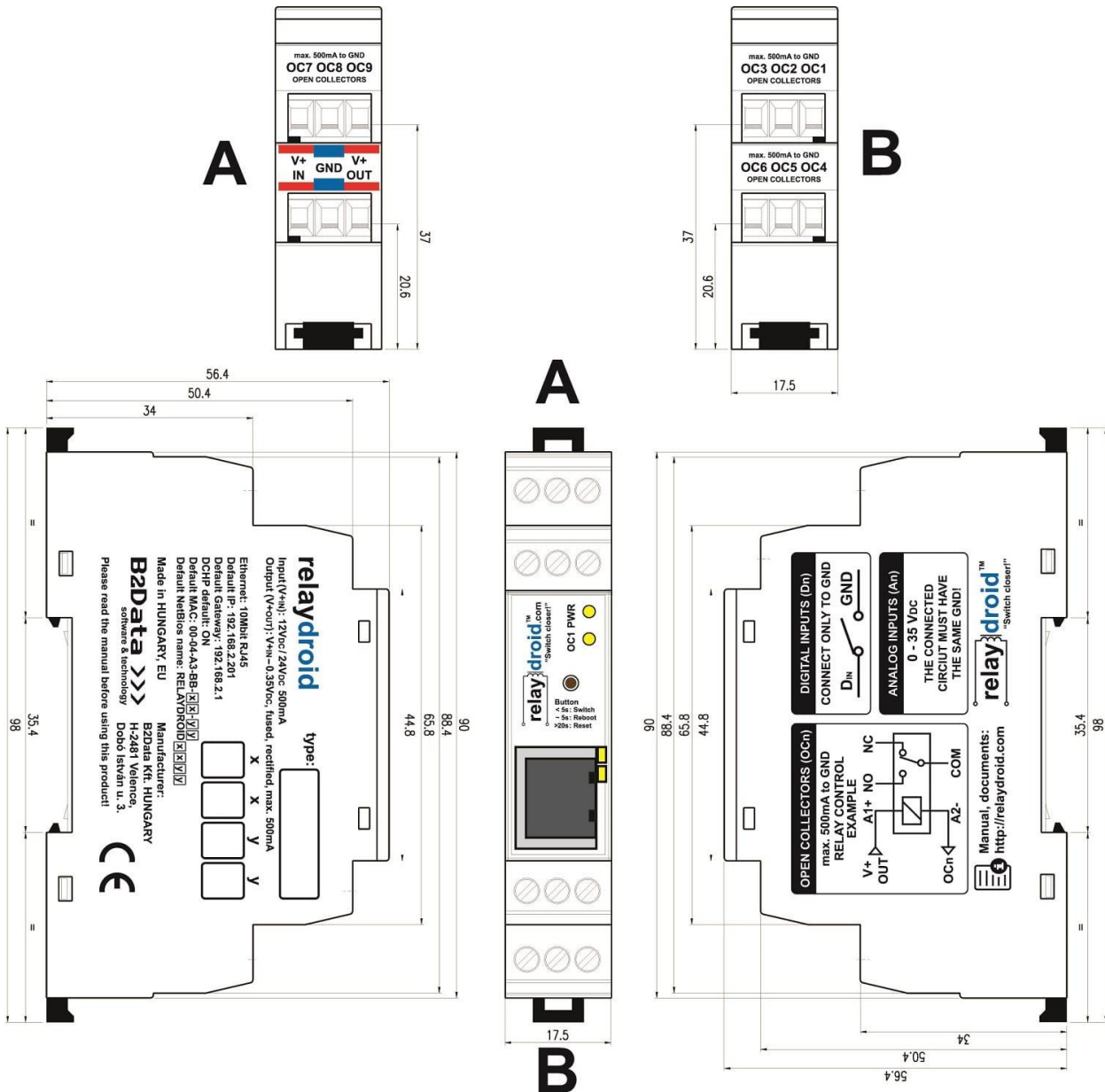


Figure 2-1: device dimensions (17.5mm wide)

### 3. External connections, buttons, leds

**NOTE: The layout, location and order of the connection PINs and LEDs can be rearranged without prior notice. Always refer to the labels on your device to determine a PIN or LED function!**

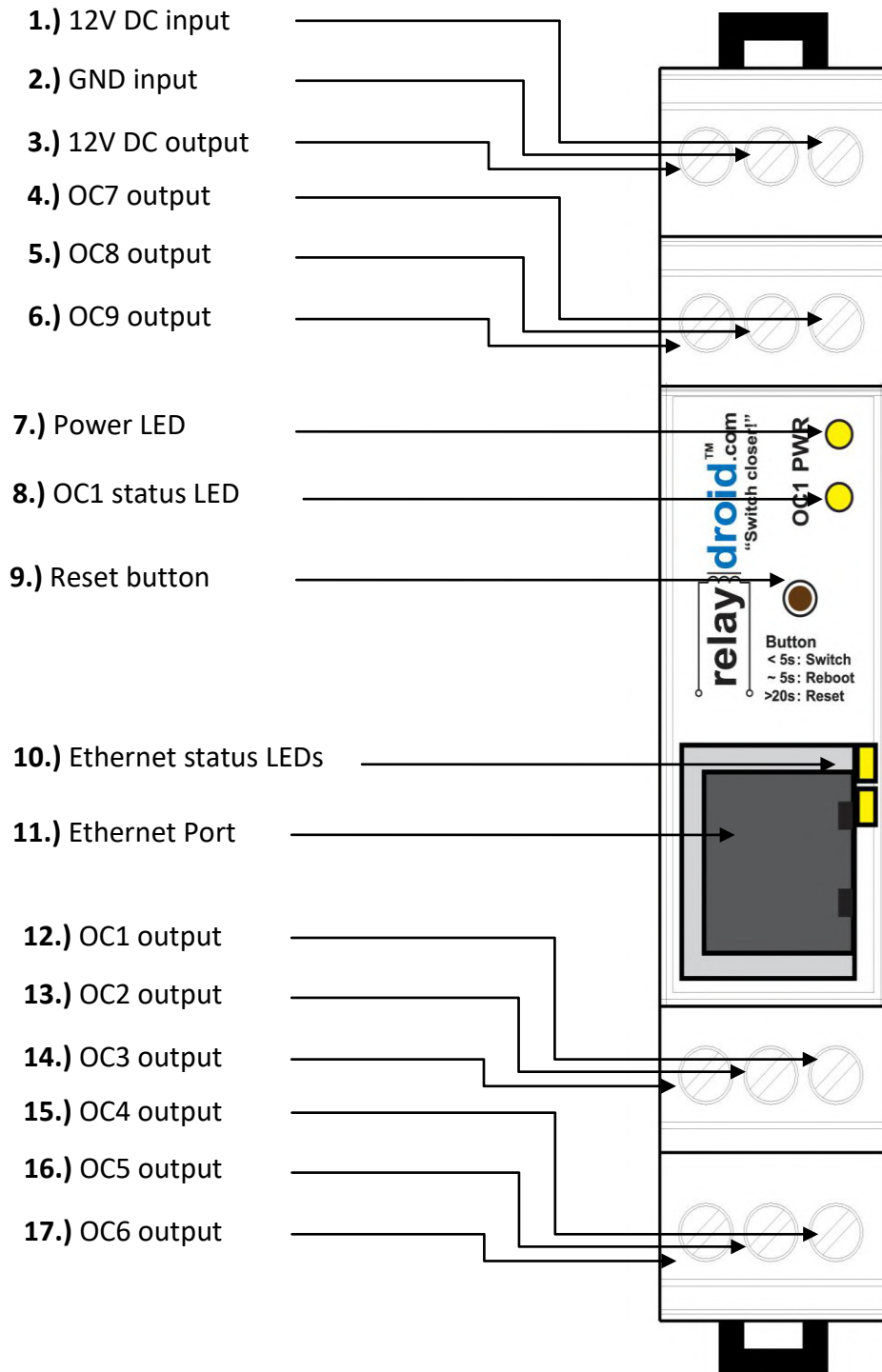


Figure 3-1: relaydroid-9R-F (FRONT-LAN) device layout

#### 4. Inner circuits

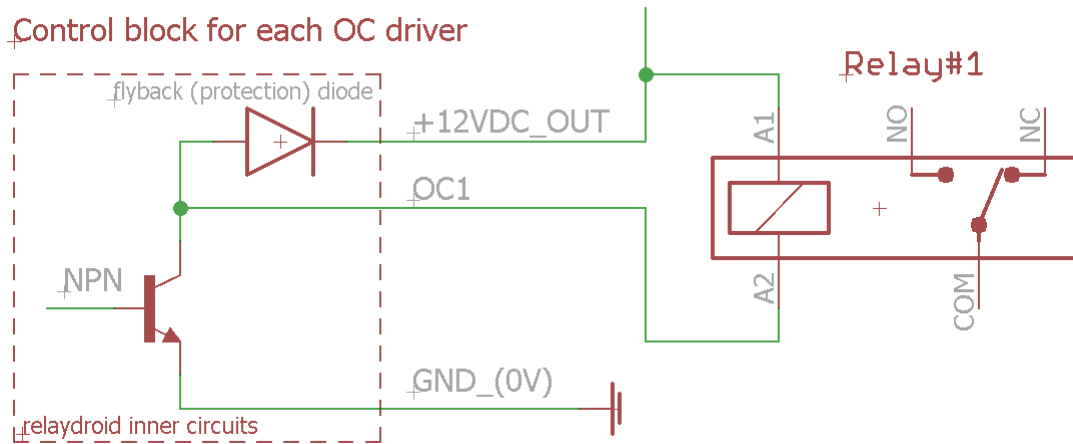


Figure 4-1: control block for each OC driver

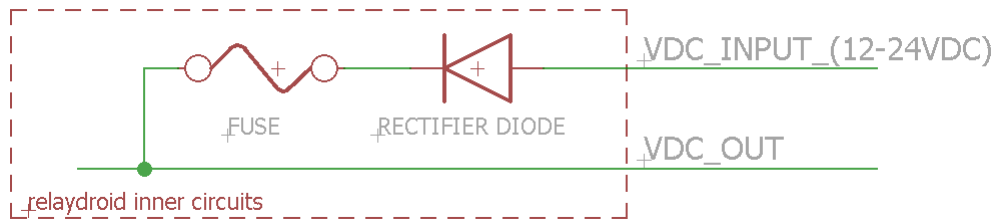


Figure 4-2: Vdc input and output

## 5. Programmer API examples

relaydroid™ devices can be controlled externally from a custom program via HTTP or TCP commands.

**The API is disabled by default. To enable the API commands, you must set the "user#1 (web+API)" username and password to a non-empty value in the embedded user interface ("SETTINGS->USERS AND PASSWORDS" menu).**

### HTTP examples:

In these examples, relaydroid is located at 192.168.2.201 (port 80) and the API password is *userpass*

#### 1) get OC states

example request:

```
http://192.168.2.201/api.cgi?p=userpass
```

example answer:

```
100000000 (OC1: ON, OC2-9: OFF)
```

#### 2) 'switch ON' 'OC2 port' 'for 10 seconds'

(v=1) (sw=2) (t0=10)

example request:

```
http://192.168.2.201/api.cgi?p=userpass&sw=2&v=1&t0=10
```

example answer:

```
010000000 (OC1: OFF, OC2: ON, OC3-9: OFF)
```

### TCP examples:

In these examples, relaydroid is located at 192.168.2.201 (port 80) and the API password is *userpass*.

Open a TCP connection to 192.168.2.201 (port 80) and send a plain text line command (closed with a \n character).

#### command examples:

```
r1 3000 userpass\n
```

- switch on OC1 for 3 seconds

```
r1 - userpass\n
```

- ask for current state of outputs

```
r1 3000- userpass\n
```

- switch on OC1 for 3 seconds and ask for current state of outputs

example answer:

```
OK
```