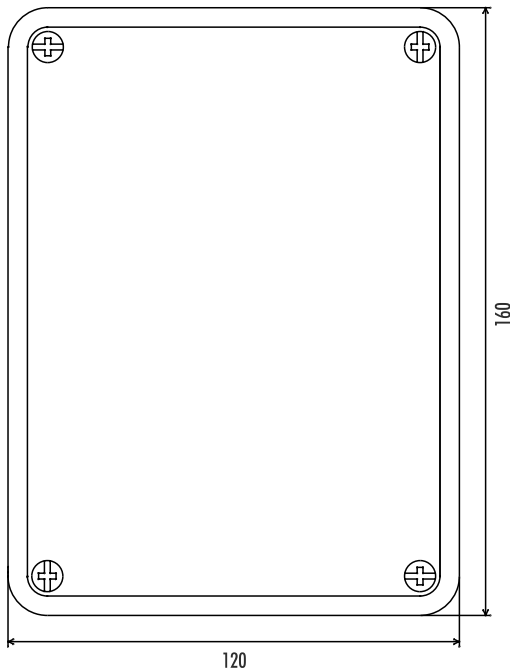




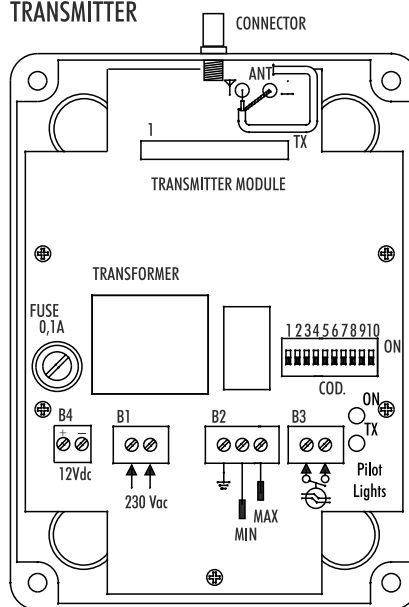
## INSTALLATION AND OPERATION MANUAL

### Dimensions and Configuration

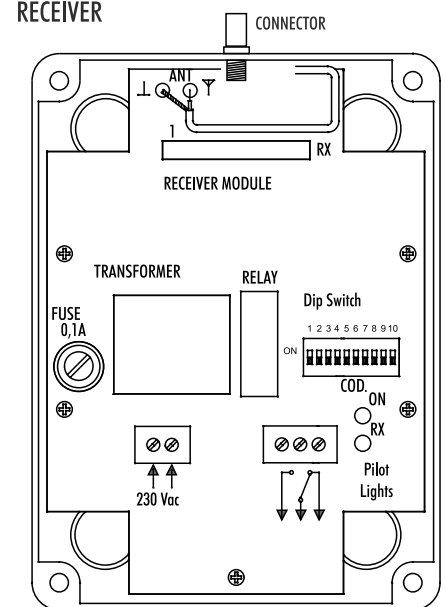
#### GENERAL



#### TRANSMITTER






#### RECEIVER



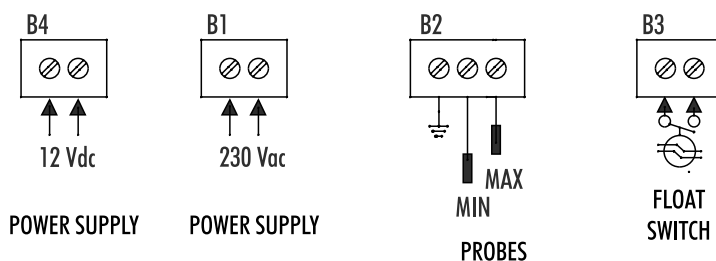
3.1 Note: Dimensions are the same in both modules

### Connection

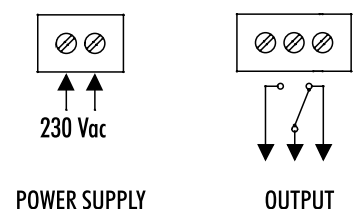
It is recommended to make connections using terminal blocks (up to 4 mm<sup>2</sup>).

-  Remove front cover.
-  Connect receiver POWER SUPPLY to the corresponding terminal blocks.
-  Connect transmitter POWER SUPPLY to the external supply input terminal blocks, according to the required supply (230 Vac / 12 Vdc)

#### TRANSMITTER



#### RECEPTOR



## Operation start-up

Codification between transmitter and receiver is **VERY IMPORTANT** for the proper unit operation; the ten micro-switches in each unit (both transmitter and receiver) must have the same layout.

Code is programmed locating each of the ten micro-switches in "ON" or "OFF" positions, setting in this way the desired combination (from 1024 possible codes).

To avoid interferences with other nearby units, it is essential to set a specific code, different from factory default.

Once codification and connection are checked, unit will be powered. The available operation modes are:

**1. Water level control:** with this operation mode, unit will function as a level control with two probes, maximum and minimum (only operative in case of 230 Vac supply).

- When tank level is at minimum (max. and min. probes uncovered), transmitter will order the receiver starting.
- If tank level arises its maximum (max. and min. probes covered), stop will be ordered.

**2. Float,** unit will communicate the contact introduced into the float input, with no need of main supply (12 Vdc supply), although 230 Vac supply is also operative.

- When contact is open, there will be a starting order.
- With a closed contact in this input, stop will be ordered.

Operation mode in both cases is carried out in a time sequence:

**1.** When the transmitter orders running, and as long as it persists, it continuously transmits the order, in a cadence of 1-second transmission (TX red pilot light on), followed by 20-second pause.

**2.** As long as receiver gets transmitter orders (RX red pilot on) the relay contact will remain closed (refreshing every 20 seconds).

**3.** As soon as transmitter orders stop, this will remain in standby (as a power saving measure).

**4.** If receiver detects a lack of transmission during 90 seconds (three transmissions approx.), it will change relay contact to standby mode.

## Technical features

### TRANSMITTER

- Power supply: 230 Vac or 12 Vdc.
- Antenna power: 400 mW.
- Transmission frequency: 433,92 MHz.
- Transmission distance: up to 1 km.
- Signal input:
  1. Water level control (only with 230 Vac supply): 2 probes, maximum and minimum. Sensitivity 9 Kohm.
  2. Float (230 Vac / 12 Vdc supply): free-voltage contact.
- BNC connector for antenna.

### RECEIVER

- Power supply : 230 Vac
- Tuning frequency: 433,92 MHz.
- Signal output: switched contact
  - AC1: 10A-250 Vac / AC11: 2,5A-230 Vac.
  - DC1: 1A-250 Vdc / DC11: 5A-24 Vdc.
- BNC connector for antenna.

## Troubleshooting

PROBLEM	CAUSE	SOLUCION
- Unit doesn't work, even after powered on.	- Blown fuse.	- Replace fuse (glass 5x20 / 0.1 A).
- Unit transmits the order, but receiver doesn't get it.	- Wrong codification.	- Check codification in both transmitter and receiver.
- Level control doesn't work correctly.	- Inverted max. and min. probes. - Wrong earth wire connection. - Probe or float wires cut.	- Place probes in their correct location. - Check earth wiring. - Check wiring integrity.

### IMPORTANT NOTICE:

UNIT MAY NOT FUNCTION PROPERLY IF SIGHT LINE BETWEEN TRANSMITTER AND RECEIVER IS BLOCKED BY BUILDINGS, MOUNTAINS, HIGH VOLTAGE LINES (ELECTROMAGNETIC SHIELD), ETC.

Manufactured by:

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