

ELEDIVALL188 – Advanced WDD - Transmitter:

1. GENERAL INFORMATIONS

The transmitter **ELEDIVALL188** is a radio module with safety edge input. It is synced with a receiver **ELEDIVALL187**. The transmitter communicate with the receiver by radio to send information about safety edge input and battery state.

2. TECHNICAL FEATURES

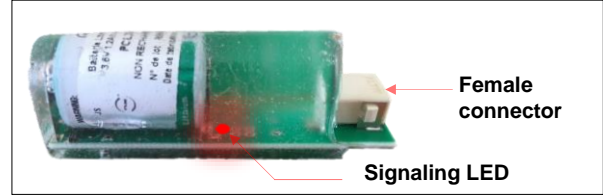
Power supply :	Lithium battery (non-replaceable)
Average consumption :	2.0µA
Transmission frequency	433.92 MHz
Number of safety edge input ** :	1
Input type :	Dry contact
IP rating :	IP67*
Working temperature :	-30/+70°C
Storage temperature :	-40/+85°C
Size / Weight :	L68x l18x h18 mm / 25g

* Warning IP rating is obtained in the presence of the female connector connected to the male connector.

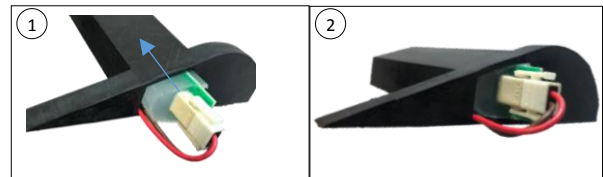
** The maximum wire length of the safety edge is 22m (maximum impedance is 300Ohms in detection).

3. TRANSMITTER OVERVIEW:

• Top view:



• Installation:



Accessory: **ELEDIVALL189** wire with male connector.

4. OPERATION:

The transmitter has two operating modes:

- One sleep mode: storage mode without radio transmission.
- One active mode: normal operating mode with radio transmission.

Sleep mode:

Into this mode, the transmitter sends no radio transmission (in order to preserve battery life).

The male connector must not be connected.

In sleep mode, the transmitter keeps his configuration in memory.

To get out of sleep mode plug the male connector of the wire **ELEDIVALL189** to the female connector of the transmitter **ELEDIVALL188** and make a contact between the two terminals of the wire.

To return in sleep mode, you have plug the sleep tool to the female connector. Once the transmitter turned in sleep mode, you can unplug the tool. The transmitter will stay in sleep mode until the wake-up sequence is executed.

Active mode:

In normal operating mode (battery with enough power to make a radio transmission):

- The transmitter scans the safety edge input and sends information to the receiver :
 - Safety edge input activated
 - Safety edge input activated continuously during more than 10s (In this state, the safety edge input is scanned every 5s to determine if it is still activated. If still activated, no new radio confirmation is sent to the receiver).
 - Safety edge input returns to standby mode after being activated more than 10s.
- Every 30s, the transmitter measures its battery voltage and send measurement result to the receiver.

Summary table of operating status and signalling:

The LED indicator is activated each radio frame transmission. The number of flashes indicates the type of radio frame transmitted according to the following table:

Blinks numbers	Radio frame transmitted
2	Safety edge input activated
3	Safety edge input activated more than 10s
4	Safety edge input activated freed after more than 10s activation
1	Presence
10	Switch to sleep mode

Power supply

ELEDIVALL188 power supply is made by a non-replaceable lithium battery: if the battery is defective do not try to replace it. To preserve the environment, dispose of the battery according to the regulations in force.

SAFETY WARNINGS

These warnings are an integral and essential part of the product, and must be delivered to the user. Read them carefully: they provide important installation, operating, and maintenance instructions. Keep this form and give it to any persons who may use the system in the future. Incorrect installation or improper use of the product may cause serious danger.

INSTALLATION INSTRUCTIONS

Installation must be performed by a qualified professional and must observe all local, state, national and European regulations.

Before starting installation, make sure that the product is in perfect condition.

Laying, electrical connections, and adjustments must be done to "Industry Standards". The product must be installed in a box not accessible to the operator.

Packing materials (cardboard, plastic, polystyrene, etc.) are potentially dangerous. They must be disposed of properly and kept out of the reach of children

Do not install the product in an explosive environment or in an area disturbed by electromagnetic fields.

The presence of gas or inflammable fumes is a serious safety hazard.

Provide an overvoltage protection, mains/knife switch and/or differential on the power network that is suitable for the product and conforming to current standards.

The manufacturer declines any and all liability if any incompatible devices and/or components are installed that compromise the integrity, safety, and operation of the product.

Only original spares must be used for repair or replacement of parts.

The installer must supply all information regarding the operation, maintenance, and use of individual components and of the system as a whole.

RECYCLING BATTERY

Do not dispose of the battery as household waste.

To preserve environment, dispose of the battery in accordance with the regulations in force.

Do not expose the battery to high temperatures or direct sunlight, disassemble it, or throw it into fire.

Do not incinerate it.

MAINTENANCE

To guarantee the efficiency of the product, it is essential that qualified professionals perform maintenance at the times and intervals required by the installer, by the manufacturer, and by current law.

All installation, maintenance, repair and cleaning operations must be documented. The user must store all such documentation and make it available to competent personnel.

WARNING FOR THE USER

Carefully read the enclosed instructions and documentation.

This product must be used for its intended purpose only. Any other use is improper and therefore dangerous. The information contained herein and in the enclosed documentation may be changed without notice, and are in fact provided in an approximate manner for application of the product.

Keep this product, devices, documentation and all other items out of the reach of children.

In case of maintenance, cleaning, breakdown or malfunction of this product, turn off the unit and DO NOT try to repair it yourself. Call a qualified professional only. Disregard of this instruction may cause extremely dangerous situations.

DECLARATION OF CONFORMITY: Prastel declares that the following radio electric equipment type: transmitter **ELEDIVALL188** complies with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: www.prastel.com.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

NOTE: The grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance.

Such modifications could void the user's authority to operate the equipment

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

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Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et

(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

ELEDIVALL187 – Advanced WDD - Receiver:

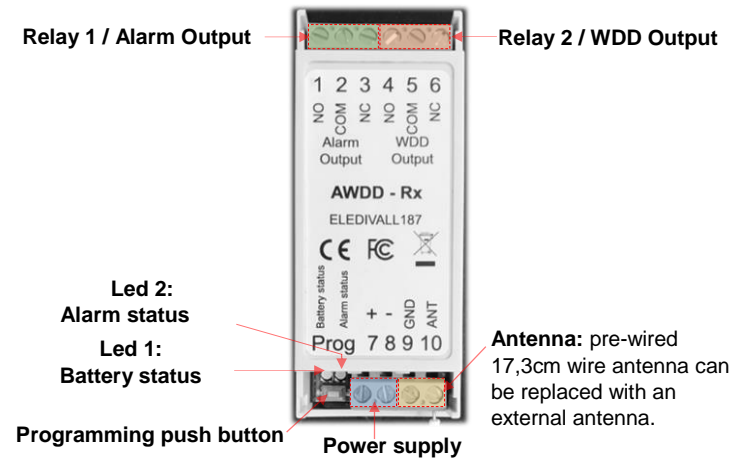
1. GENERAL INFORMATION

The receiver **ELEDIVALL187** allows to manage information sent by one or two synced safety edge radio module **ELEDIVALL188**. According to reported information, the receiver updates the state of its relay and its signalling LEDs.

2. TECHNICAL FEATURES:

Power supply:	24 V AC-DC $\pm 10\%$ (50/60Hz)
Average consumption:	Max 40mA
Reception frequency:	433.92 MHz
Number of registrable safety edge radio module ELEDIVALL188:	2
Number of relay output:	2
Output type :	Dry contact
Output:	C-NO-NF
Contact capacity:	0.5A 125VAC / 1A 30VDC
Working temperature:	-30/+55°C
Storage temperature:	-40/+85°C
Size / Weight:	L90 x I35 x h31 mm / 55g
Mounting type:	Rail DIN

3. RECEIVER OVERVIEW:



4. OPERATION:

The programming push button **Prog.** allows to sync realize the synchronisation with the transmitters **ELEDIVALL188** and the erasure of the receiver's memory (delete all synchronised transmitters from the receiver). In case of power failure the receiver keeps all the synchronisation information.

Programming and Synchronising:

To synchronize a transmitter **ELEDIVALL188** on the receiver, you have to realise the following sequence:

- Correctly supply the receiver and check the antenna presence.
- Make a short push (between 100ms and 2s) on the **Prog.** button of the receiver to enter in programming mode: battery and alarm status LED turns green continuously.
- Connect the two wires of the transmitter **ELEDIVALL188** to activate its input.
- The receiver signals the successful synchronization with the transmitter Battery and Alarm LED slowly green-blinking twice.
- If there is a second transmitter you have to connect its two wire to activate its input.
- The receiver signals the successful synchronization with the transmitter by "Battery status" and "Alarm status" LED slowly green-blinking twice.

To get out programming mode: Do another short push on the **Prog.** button.

Warning: After turned in programming mode, the receiver must be synchronised with a transmitter within 10 seconds, after this time limit the receiver leaves the programming mode automatically.

In case of full memory, add a new transmitter will replace the first registered in the receiver memory.

In case of registering an already registered transmitter, battery and alarm status LED will blinks green and fast 4 times.

Total memory erasing:

This function allows to erase all registered transmitters. In order to fully erase the memory you have to do the following sequence:

- Make a long push, more than 5s, on the **Prog.** button until you see the two LEDs Battery and Alarm status blinking in green.
- Free the **Prog.** button and observe that the LEDs keep green blinking.
- Push again shortly on the programming button within the 5 seconds that follow the release of the programming button to confirm total erasing of the memory.
- Once the procedure ended both LED glow green for 2s.

Warning: After turning receiver in erasing confirmation waiting mode (green blinks of the LED "Battery status" and "Alarm status") you have to confirm within 5 seconds, past this period, the receiver put itself back in normal operating mode and the erasing procedure is cancelled.

Summary table of operating status and signalling:

Mode	Information sent by the transmitter	Alarm output status: Relay 1	WDD output status : Relay 2	« Battery status » LED 1	« Alarm status » LED 2	
Normal (*Vbat>2.8V)	Battery OK	OFF	OFF	Green continuous	OFF	
Battery Low (2.8>Vbat>2.2V)	Battery Low	ON	OFF	Blue continuous	Blue continuous	
Battery very Low (2.2V>Vbat>2.0V)	Battery very Low	ON	ON	Flashing Red	Flashing Red	
Normal	Safety edge input activated (<10s)	OFF	Moments ON (1s)	Flashing Green when a WDD output is active / Else Battery status	OFF	
Cont. pressed	Safety edge input activated (>10s)	OFF	ON	Battery status	Red continuous	
Not synced / Battery discharged	Not synced with a transmitter	ON	ON	Red continuous	Red continuous	

*Vbat : Transmitter **ELEDIVALL188** Battery tension.

The secondary use of the Alarm LED is to display number of synced transmitter.

This information is observable every 5s, by the green flashing of Alarm status LED, according to the synced transmitter number: 1 flash for 1 transmitter, 2 flashes for 2 synchronized transmitters.

In the case of multiple synced transmitter, the relays outputs are activated if at least one transmitter is activated.

Permanent control of a relay has priority over impulsion command. Not synced mode is enabled if no presence frame from one or more synced transmitters is received within 100 seconds.

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