Protero-915
Wireless vibration sensors

Operating instructions (translation)

Follow these instructions for safe and proper use. Keep the instructions for future reference.

Product contents

Cordless motion sensor for awnings, battery-operated with 2 x Mignon LR6 1.5V, fixing set and instruction manual.

Technical Data Protero 915

Power supply	2 x Mignon LR6 (not rechargeable batteries)
Radio frequency [MHz]	[redacted] 918.3
Emitted power [dBm]	10
Number of channels	1 (uni or bidirectional)
Operating temperature [°C]	-20 ... +50
Relative humidity	0 to 95%, non-condensing
Protection class (IP)	54
Dimensions (WxHxD) [mm]	130 x 36 x 22
Weight [g]	approx. 50
Type of mounting	screwed in or glued to the drop profile of the awning in the longitudinal direction
Item number 915 MHz white 915 MHz grey	 289660001 289660901

Safety instructions

CAUTION

Please read this operating manual carefully as the procedure in this manual is a prerequisite for correct use of the product.
Only operate the transmitter within sight of the awning drive!
The figures in this operating manual are for illustration purposes only. The illustrations may differ from your product with respect to minor details and are provided for general information only.
elero GmbH continuously strives to improve all products. As a result, the specifications, features and technology of this product may be changed at any time. The information in this operating manual is based on current information at the time of publication.
No claims can be derived from the technical data, images and information in this operating manual.

Intended use / Foreseeable misuse

Only to be used for switching **elero** radio drives. Do not make any changes to the unit. Do not allow the device to fall, do not drill into the device and do not immerse in liquids. The manufacturer will not assume liability for damage caused by the above.

Function

The Protero-915 is a battery-operated radio transmitter with sensors.
It protects the awning by causing it to automatically retract when it is rattled by heavy winds or when water collects on the fabric (inclination change). A sensitivity threshold is used to detect the triggering event. The Protero 915 has been designed exclusively for use in conjunction with articulated arm awnings with a box or cartridge.

Bidirectional radio system

A bidirectional radio system transmits radio signals to a radio receiver and enables feedback from the radio receiver to the transmitter. The radio signal can be sent directly to the target receiver. The target receiver carries out the command and sends a confirmation back to the transmitter (only when button is pressed). In order for bidirectional radio mode to work, all of the components involved must be able to transmit and receive radio signals. Whether bidirectional operation is possible depends on the bidirectional communication capability of the receiver.
Compatibility with the following **elero** radio drives or receivers:
SunTop 868 from V25, VariEco 868 from V20, Combio 868 RM from V79, Revio 868 from V12.

Unidirectional radio system

A unidirectional radio system transmits radio signals to radio receivers. However, unlike in a bidirectional radio system, the radio receiver cannot send any messages to the transmitter.
Parallel operation of both radio modes is not possible. After pressing the button **P**, the Protero-915 decides whether uni or bidirectional radio system will be used.
Change to the other radio operating mode by deleting all transmitters (Protero-915 *and* hand/wall transmitters) from the receiver (press **OPEN**+**DOWN/CLOSE**+**STOP**+**P** for 6 seconds), then program again.

Assembly and commissioning

Check compatibility of the accessories used before assembly.
- Screwed in (with screws from the fixing set) or glued to one end of the outside or inside of the drop profile without hindering the closing of the awning.
- Drill 2 holes in the drop profile according to the selected fixing element at the specified distance: Fix the base plate with the engraved arrow “oben/up” pointing upwards (the longitudinal axis of the Protero-915 is parallel to the drop profile).

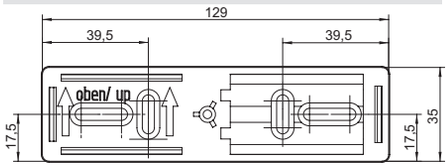
Important: The batteries are not activated at delivery.
- To activate, remove the insulating strips on the battery contacts.

Make sure the radio link is unobstructed.
Do not operate any devices on the same radio frequency nearby (e.g., wireless headphones).
- Programming the Protero-915 to the receiver: see “Programming the transmitter/ channel”.
- Test regularly to ensure that the sensor is working properly.

The Protero-915 can only protect the awning from sudden wind gusts to a limited degree due to the awning's travel time.
- In the event of an impending storm, ensure that the awning remains in a retracted position.

After commissioning, check that the thresholds set allow the awning to retract. The factory default setting ensures safe operation in most applications.

Housing base plate



Programming

Programming the transmitter / channel
Requirement: The elero awning drive must be set and 1 elero radio transmitter must already be programmed. The Protero-915 can theoretically be programmes on multiple **elero** awning drives. However, it is recommended for the sensor to only be programmed to the receiver on 1 awning.
Important:
Do not press the programming button **P** before the receiver is in programming mode. If the receiver is not in programming mode, the transmitter channel will change to unidirectional operation. To return to the initial state, press the **STOP** button and the programming button **P** simultaneously for 6 seconds until the LED indicator illuminates.
1. Press the **OPEN** button, **DOWN/CLOSE** button and the programming button **P** simultaneously for 3 seconds on the transmitter that has already been programmed to the receiver. The LED illuminates briefly. The receiver is in programming mode.
2. Press the programming button **P** on the Protero-915 for at least 1 second until the LED illuminates. The receiver is now in programming mode and indicates this by extending and retracting.
3. Press the **OPEN** button (max. 1 second) after the retraction starts. The blind will stop.
4. Press the **DOWN/CLOSE** button (max. 1 second) after the extension starts. The blind will stop. The Protero-915 is programmed.

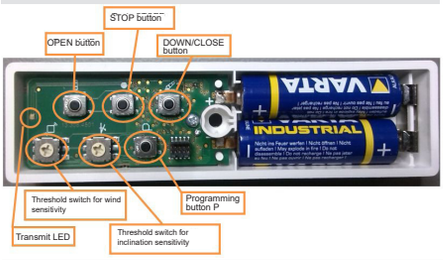
Setting the wind sensitivity and inclination sensitivity

The Protero-915 is delivered with a basic factory setting. Following assembly and commissioning, it is necessary to adjust the sensitivity of the awning to inclination and wind to suit the local conditions. There must be no wind when doing this.
Wind sensitivity:
1. Drive the awning to the outer end position. When this has been reached, the Protero-915 will reference within 210 seconds. It is essential to wait until this time has elapsed!
2. Now manually move the drop profile with the mounted Protero-915 in order to mimic vibrations similar to those that should cause the awning to retract.
3. Depending upon the result (too sensitive or too insensitive), change the basic factory setting of the “acceleration” threshold switch.

Inclination sensitivity:
1. Now drive the awning back to the outer end position. Wait for at least 210 seconds for the Protero-915 to reference again.
2. Check the preset inclination sensitivity of 1° by very slowly pressing the drop profile in the outer end position downwards as far as the point of inclination you find acceptable and holding it there.
   The awning will retract after at least 210 seconds (position alarm).
3. Depending upon the result (too sensitive or too insensitive), change the basic factory setting of the “angle” threshold switch.

Important:
- Every setting that is changed must be checked.
- Test regularly to ensure that the sensors are working properly. The awning is likewise protected against the wind during extension and retraction.

Programming



Timeout after alarm

If the awning is retracted following an “position or acceleration alarm”, extension is only possible again after a timeout of approx. 15 minutes. During the timeout, any extension is stopped automatically after approximately 3 seconds and an automatic forced retraction takes place (locking movement).
The timeout can be ended earlier as follows:

- During the locking movement, press the **STOP** button on the programmed transmitter and then press the **OPEN** button. After reaching the upper end position the drive switches off, after which the time-out is ended.
- On a programmed wall transmitter, move the Auto/Manual sliding switch to the other position and then back again.
- On a programmes hand-held transmitter, use the selection button to switch from automatic mode to manual mode.

Status LED on printed circuit board

When the status LED is illuminated, this indicates a radio signal. The same indicator light also indicates the operating mode of the receiver as follows:

Status display	Meaning
green	Channel is in unidirectional mode.
orange then green	Channel has been programmed in bidirectional mode and the receiver has acknowledged the signal.
flashing red 20 Hz	Batteries are low.
flashing orange 5 Hz	Channel is empty or not yet programmed
flashing orange 10 Hz	Channel has been programmed in bidirectional mode and the bidirectional receiver is also in programming mode

Inclination sensitivity when awning is stopped

Switch setting	Bidirectional threshold value	Unidirectional threshold value
0	Function deactivated	1°
1 (factory settings)	1°	1°
2	1.5°	1°
3	2°	2°
4	2.5°	2°
5	3°	2°
6	3.5°	2°
7	4°	2°
8	4.5°	2°
9	5°	2°

Wind sensitivity when awning is stopped

Switch setting	Bidirectional threshold value	Unidirectional threshold value
1	1	1
2 (factory settings)	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	8
0	10	8

Replacing the battery

If the extension of the awning is interrupted twice (loss movement), this is a sign of nearly empty batteries, that are in need of replacement.
If the awning can no longer be extended (3 seconds extension, 1 second stop, 1 second extension, then retraction to upper end position), the batteries must be replaced.

1. If the awning is retracted, press the extension button on the hand/wall transmitter.
2. The awning extends for approx. 3 seconds and stops briefly due to the absence of wind monitoring.
3. The awning subsequently retracts. Immediately press the **STOP** button (while retracting). The awning now stops in this position.
4. Disconnect the drive from the power supply.
5. Unscrew central sheet metal screw with a suitable tool. Remove housing and silicone seal.
6. Change the batteries. Use only Mignon LR6 (not rechargeable) batteries. Pay attention to correct polarity.
7. Replace housing and silicone seal on the base plate.
8. Restore power supply for drive.
9. Check entire functionality.
   After a battery change, the Protero-915 remains programmed on the drive.
10. Dispose of used batteries in accordance with environmental regulations.

Notes on troubleshooting

Fault	Cause	Remedy
Awning retracts even in the case of small vibrations	Sensitivity settings too low	Set the sensitivity higher
Awning does not retract in the case of vibrations	Sensitivity settings too high	Set the sensitivity lower
Awning does not react to the Protero-915 key commands	The Protero-915 is not programmed	Program the Protero-915
Awning extends instead of retracting in the case of vibrations	The Protero-915 is not correctly programmed	Delete and reprogram Protero-915 correctly
The awning stops twice while extending	The batteries are almost depleted	Replace the batteries in the Protero-915
The awning extends briefly, stops, continues extending, stops and the retracts	The Protero-915 is no longer transmitting and may be defective	Replace the batteries in the Protero-915

Cleaning

Clean the device with a damp cloth only.
Do not use cleaning agents because they can damage the plastic.

Warranty

Within the legal warranty period, we will remedy any defects caused by material or manufacturing defects by repairing or replacing the unit. Unauthorised modifications will void the warranty.

Service

If malfunctions have occurred or the device has been damaged despite proper handling, contact your dealer or manufacturer.
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Repair

Please specify the item number, item description, type of fault, situational circumstances, presumed cause, unusual events prior to the problem.

Disposal

Batteries and old units may not be disposed of with household waste.

1. Dispose of packaging in the recycling bin for cardboard and paper.
2. Dispose of old batteries in the recycling bin for used batteries or have a retailer recycle them.
3. Dispose of old units at an electronic waste recycling facility or have a retailer recycle them.

FCC / IC
FCC ID: YBU2896
IC: 8929A- 2896

USA (FCC)
Statement acc. to. FCC 15.19
This device (**elero Protero-915**) 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.

Canada, Innovation, Science and Economic Development (ISED)
RSS Gen Issue 5, Sect. 8.4
This device **(elero Protero-915**) contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two con-ditions:(1) This device may not cause interference(2) This device must accept any interference, including interfe-rence that may cause undesired operation of the device.
Cet appareil **(elero Protero-915)** contient des émetteurs / récepteurs exemptés de licence conformes aux RSS (RSS) d'Innovation, Sciences et Développement économique Canada. Le fonctionnement est soumis aux deux conditions suivantes:(1) Cet appareil ne doit pas causer d'interférences(2) Cet appareil doit accter toutes les interférences, y compris celles susceptibles de provoquer un fonctionnement indésirable de l'appareil.

Caution:
Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Information:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
• Reorient or relocate the receiving antenna.
• Increase the separation between the equipment and receiver.
• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
• Consult the dealer or an experienced radio/ TV technician for help