

ZRD Rain Sensor

Z – closing (automatic), R – rain, D – detector,

TYPE: ZRD

1. DESCRIPTION

The ZRD rain sensor (fig.1) allows (when connected to the controller) automatic closing the windows in case of rain. The ZRD rain sensor is heated, which is why it is unaffected by such natural phenomena as fog or dew. After precipitation stops, the heating system causes rapid evaporation of water from its surface. The ZRD rain sensor is designed to be mounted in the unshielded areas of the roof which are directly exposed to the elements.

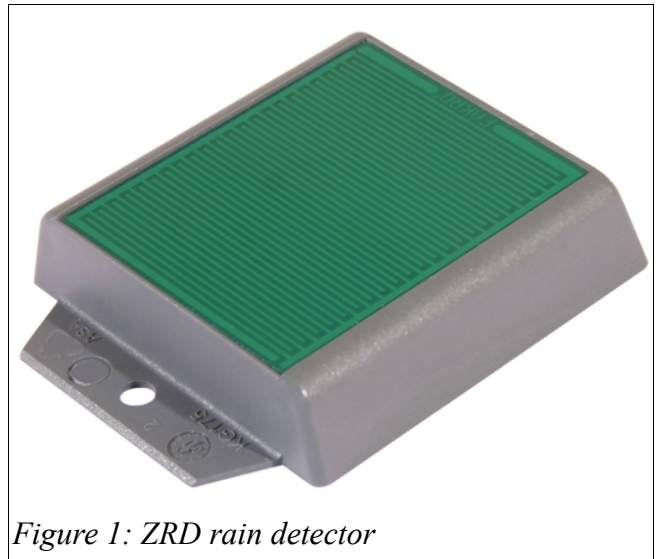


Figure 1: ZRD rain detector

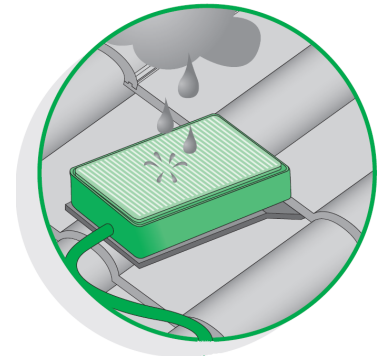
2. ADVANTAGES

COMFORT

- **Functionality**
- ZRD rain sensor makes it possible to leave the window in the open mode without fear of flooding the room in the event of rainfall,
- it has a wide power supply range from 8 to 32 VDC, which gives the possibility of safely connecting it to the power supply withing this voltage span,
- can be installed in smart homes,
- window closing automation, folding awning blinds.

- **Easy installation**

As standard, the ZRD rain sensor is mounted on the metal cladding elements of a roof window using a double-sided adhesive tape. It is also possible to mount the sensor in a different place on the roof with a bracket made, for example, from sheet metal. The bracket can be prepared individually (DIY).



3. COMPATIBILITY WITH WINDOWS

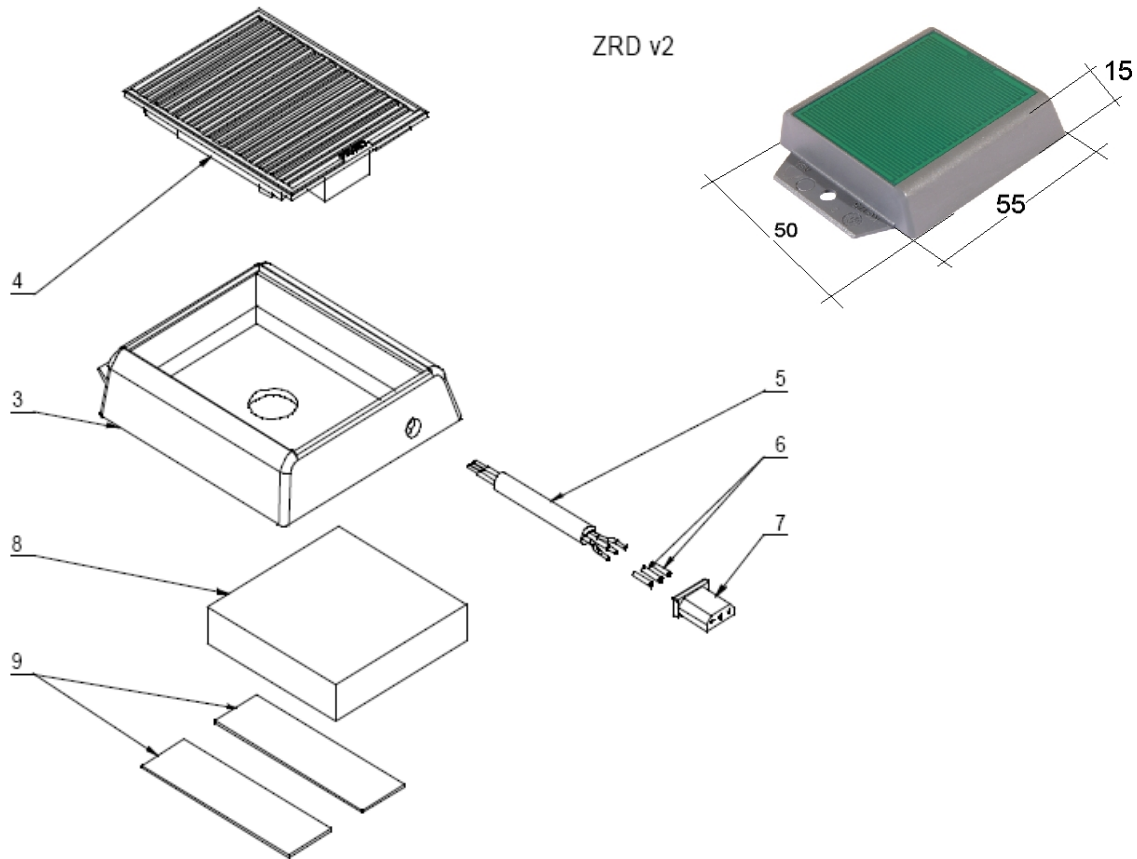
The ZRD rain sensor can be fitted to all types of opening FAKRO roof windows (wooden or aluminium clad-plastic).

4. PRODUCT AVAILABILITY

Minimum stock quantities maintained for ZRD rain sensor in Nowy Sacz:

- ZRD rain detector – 55035 – 45 pcs

5. STRUCTURE

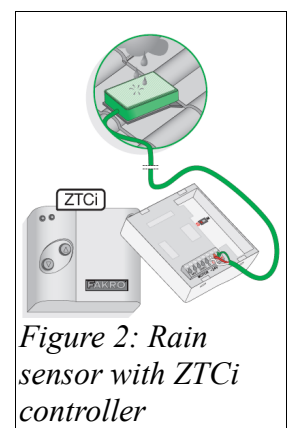
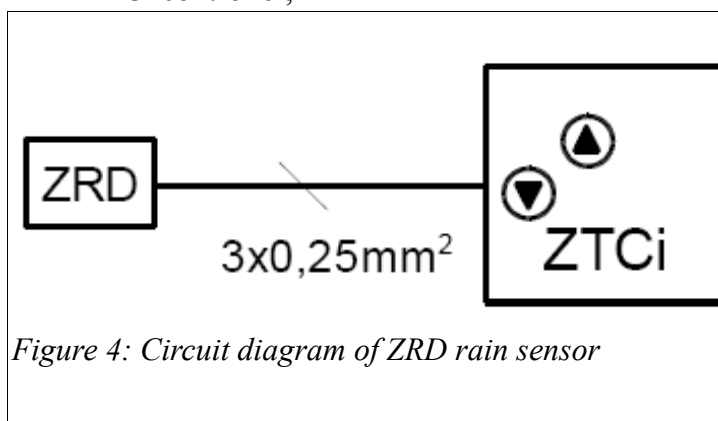


- 3 – rain sensor housing made of plastic;
- 4 – PCB with electronics;
- 5 – power/signal cable (3x0.25mm²);
- 6 – electric terminals;
- 7 – connector;
- 8 – resin filler;
- 9 – double-sided adhesive tape.

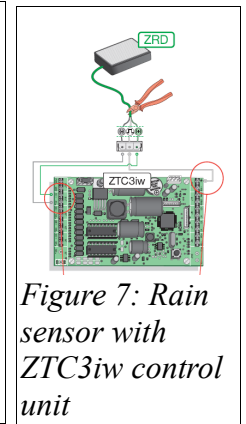
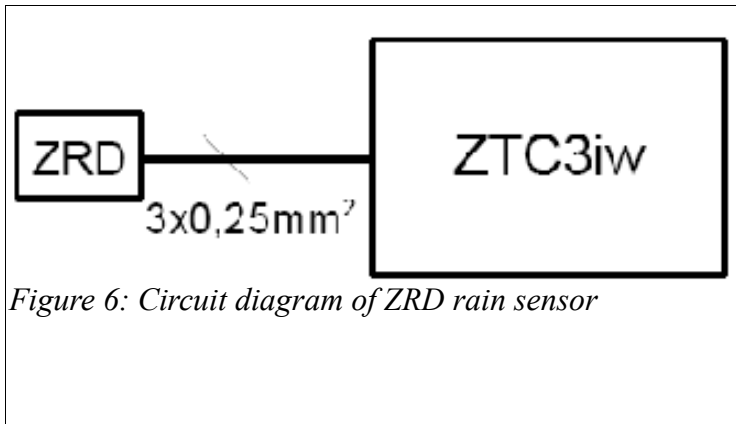
6. ZRD RAIN SENSOR CONTROL

In order to control the ZRD rain sensor, it is necessary to purchase one of the following devices:

- ZTCi controller,



- ZTC3iw control unit,



Connecting the system consists in bringing the power supply from the ZTCi or ZTC3iw control unit to the ZRD rain sensor with a 3-wire cable.

One ZRD rain sensor can send a signal to 9 control units, so, in total, a maximum of 27 windows can be connected to one ZRD rain sensor. Circuit diagram of the ZRD rain sensor is included in the manual attached to the package.

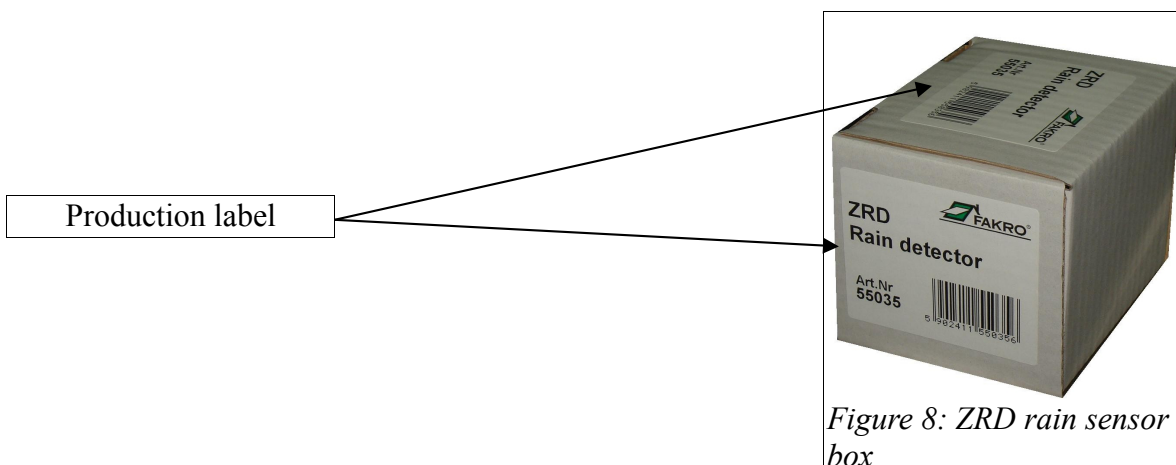
Installation instruction for ZRD rain sensor are available on the intranet at: <http://intranet.fakro.pl/pl/products/automation/smoke-ventilation/detector/instructions/fitting-instructions/instrukcja-montazu-czujnika-deszczu-zrd>

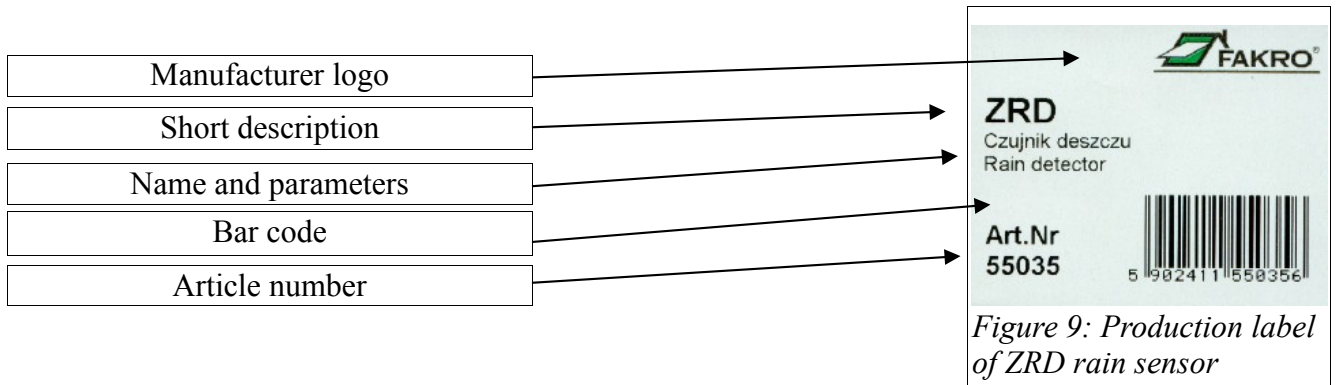
7. SPECIFICATION

PARAMETER	ZRD
Power voltage	8 – 32 VDC
Power cable	3x0.25mm ² (5mb)

8. LOGISTIC DETAILS

The production labels (fig.9) of the ZRD rain sensor are located on the top and side section of the box (fig.8).





Detailed logistic data can be found in the logistic card of ZRD rain sensor available at: <http://intranet.fakro.pl/pl/products/automation/smoke-ventilation/detector/logistics/logistics-cards/karta-logistyczna-czujnika-deszczu-zrd>

9. CERTIFICATION



FAKRO PP. Sp.z o.o.
Węgierska 144a
33-300 Nowy Sacz
tel. 048-18-444-0-444
fax. 048-18-444-0-333

The ZRD rain sensor is an electrical device certified in accordance with the provisions of the Electromagnetic Compatibility (EMC) Directive 89/336/EEC (2004/108/EC) and the Low Voltage Directive 73/23/EEC, as amended, in the following areas: safety, electromagnetic compatibility and effective use of the radio spectrum. The compliance with the above is confirmed by the CE marking on the product and the Declaration of Conformity. The Declaration of Conformity is found in every manual and will be also sent on request.

Zaświadcza, że następujące urządzenie elektryczne
Declares that the electric device

Czujnik deszczu 12 - 32VDC
Rain detector 12 - 32VDC

TYP: ZRD

MODEL: ZRDv3

Numer seryjny: umieszczony na tabliczce znamionowej
Serial No. See rating plate

Zaprojektowany w 2008r.
Year of construction: 2008r

Jest zgodny z wymaganiami następujących dyrektyw:
Complies with the requirements of the following directives:

73/23/EEC

(LVD:urządzenia elektryczne zaprojektowane do pracy w określonym zakresie napięć)
(LVD: electrical equipment designed to be used within given voltage limits)

89/336/EEC

(EMC: zgodność elektromagnetyczna)
(EMC: on the approximation of the laws of the Member States relating to electromagnetic compatibility)

i deklaruje że następujące normy zharmonizowane zostały zastosowane:
and declares that the following harmonized standards have been applied:

**EN 61000-4-11:1994+A1:2001, EN 61000-4-6:1996 +A1:2001,
EN 61000-4-5:1995 +A1:2001, EN 61000-4-4:1995 +A1:2001 +A2:2001,
EN 61000-4-3:2002 +A1:2002, EN 61000-4-2:1995 +A1:1998 + A2:2001,
EN 61000-3-3:1995 +A1:2001, EN 61000-3-2:1995 +A1:1998 +A2:1998,
EN 55022:1998 +A1:2000 +A2:2003, EN 55022:1998 + A1:2000 +A2:2003.**

DATA: 15/07/08
Nazwisko i imię/Surname and name:

Podpis/Signature

Tomasz Sporek



Details concerning the certificates for ZRD rain sensor are available on the intranet at: <http://intranet.fakro.pl/pl/products/automation/smoke-ventilation/detector/certificates-and-approvals/ce-european-certificate-accordance/oswiadczenie-producenta-dla-czujnika-deszczu-zrd>

10. WARRANTY

The warranty stays valid for 24 months form the date of sale.

11. COMPETITION

The ZRD rain sensor competes with the following Velux products:

- KLA 100 accessory for KMG 100

12. FAQ

1. Is the ZRD rain sensor one of the receivers?

The rain sensor is a detector and does not block the receiver channel. It has a separate, special input.

2. Is it possible to connect one ZRD rain sensor to several ZTCi switches?

The ZRD rain sensor is adapted to be connected to only one ZTCi switch. On special request, FAKRO can make a special cable to connect the required number of switches.

3. Is it possible to connect one ZRD rain sensor to several ZTC3iw control units?

If you want to connect one ZRD rain sensor to several control units it is enough to connect ZTC3iw control units into one network (see ZTC3iw control unit manual).

4. What to do if after connecting the rain sensor to ZTC3iw control unit or ZTCi switch the accessories connected to them do not close?

Perform the following steps:

- a). Check the power connection to the control unit/switch and the cable connections to the sensor.
- b). Several minutes after connecting the power, check the ZRD sensor if it is warm – if not, contact FAKRO service.
- c). Check if the rain sensor function has been activated in the control unit /switch (ZTC3iw control unit/ ZTCi switch installation manual).

5. What to do when the rain sensor signal causes opening of the window instead of closing?

Swap the positions of the receiver cables connected to the control unit/switch.

6. How is the ZRD rain sensor powered?

The ZRD rain sensor has a power range of 8 to 32VDC.

Prepared by:
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