

## **Wind Alarm Instrument 2**

4.3241.00.00x / 4.3241.02.00x / 4.3241.03.000



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## **1 Models**

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<b>Order Number</b>	<b>Supply Voltage</b>	<b>Supply for Transmitter Heating</b>
4.3241.00.000	230 V AC	yes
4.3241.00.001	230 V AC	no
4.3241.02.000	24 V AC/DC	yes
4.3241.02.001	24 V AC/DC	no
4.3241.03.000	12 V AC/DC	no

## **2 Range of Application**

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Wind Alarm Instrument 2 is used in conjunction with a wind transmitter to initiate preventive measures to protect wind-endangered objects such as, for example, cranes, bridges, masts, greenhouses, window blinds and awnings.

### 3 Mode of Operation

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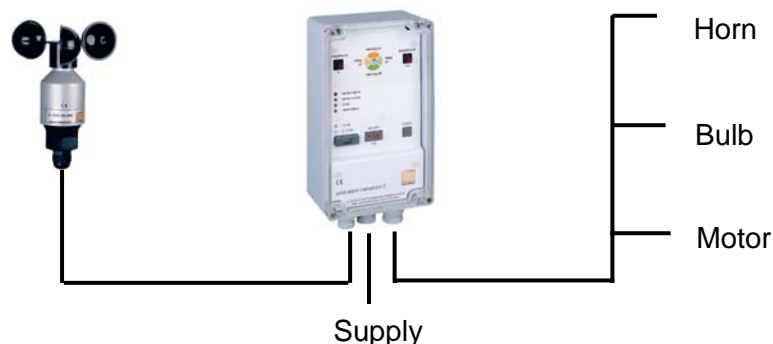
The wind alarm is triggered by a "low-active" relay. If the wind velocity exceeds the pre-set value, the slow-releasing relay reacts following a time delay and triggers the alarm. If the pre-set value is not reached, the relay pulls up tightens after a time delay.

A rotary switch allows the selection of different Thies wind transmitters.

For wind transmitters with heaters, either wind alarm instrument 4.3241.00.000 or 4.3241.02.00, depending on the supply voltage, must be used.

The switch-on and switch-off delays prevent the relay from switching constantly when, for a short period of time, the switching point is exceeded or not reached. The delay times can be set on a rotary switch.

**Example of a Wind Alarm System:**



### 4 Mounting

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**Please Note:**

*The electrical connection is to be carried out by experts only.  
Please open the instrument only with dry ambient conditions.  
Do not damage the exposed electronics!*

#### 4.1 Mechanical Mounting

The Wind Alarm Instrument 2 is designed to be mounted to walls in roofed-over rooms. To do this, first unscrew the transparent cover, revealing the four screw borings. Now mount the instrument to the wall by inserting 4 mm screws into these four borings.

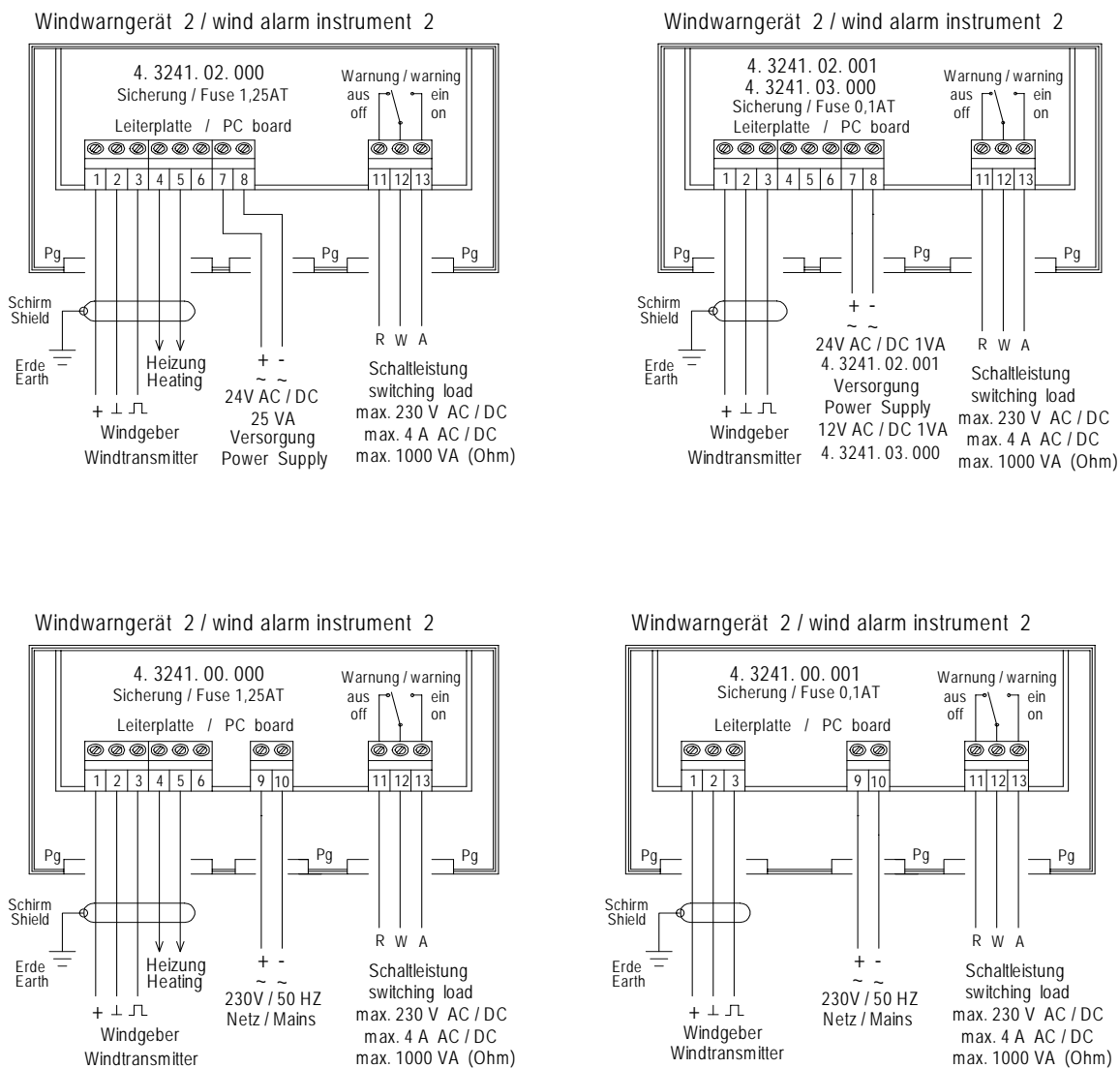
## 4.2 Electrical Mounting

Connect the instrument electrically in accordance with the following circuit diagrams as appropriate for the wind transmitter being used. **This must be carried out by an electrician or some other expert.**

Remove the white front plate. Lead the connecting lines through the respective screw-type conduit fitting and connect as shown in the combination circuit diagram. The following recommendation applies for the operation of a wind transmitter with heating:

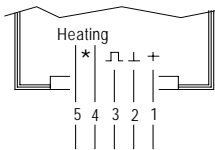
**0,75 mm<sup>2</sup> cable lead cross section, max. 50 m length of lead**

## 5 Circuit Diagram

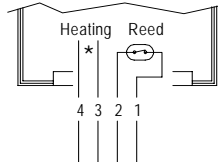


# 5.1 Comb. Circuit Diagram

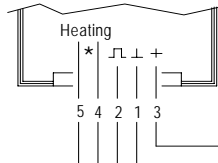
Wind Transmitter  
 4. 3303. 22. 000  
 4. 3519. 00. 000



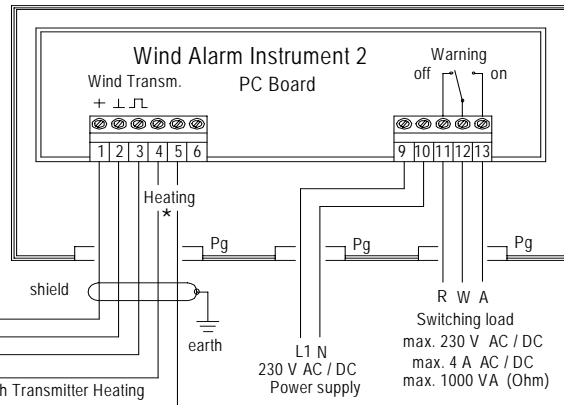
4. 3515.30. 000  
 4. 3515. 50. 000



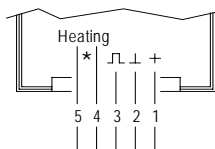
4. 3518. 00. 000  
 4. 3520. 00. 000



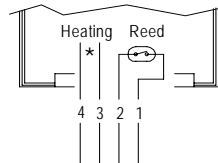
\* 4. 3241. 00. 000 with Transmitter Heating  
 4. 3241. 00. 001 without Transmitter Heating



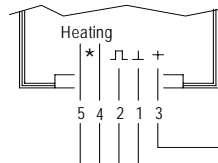
Wind Transmitter  
 4. 3303. 22. 000  
 4. 3519. 00. 000



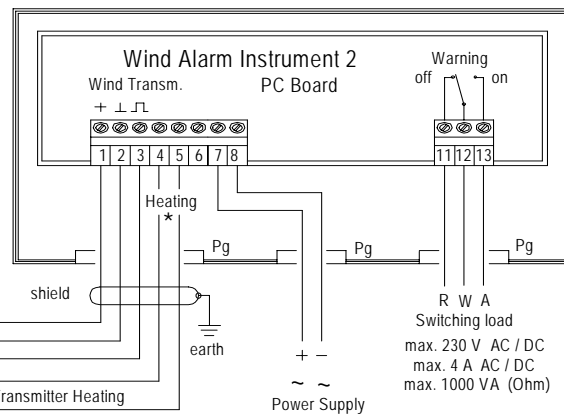
4. 3515.30. 000  
 4. 3515. 50. 000



4. 3518. 00. 000  
 4. 3520. 00. 000

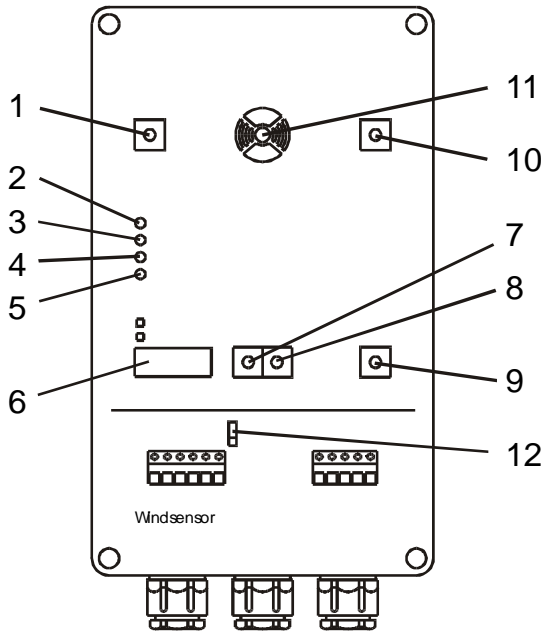


4. 3241. 03. 000 Power Supply 12V AC/ DC 1VA without Transmitter Heating  
 4. 3241. 02. 001 Power Supply 24V AC/ DC 1VA without Transmitter Heating  
 \* 4. 3241. 02. 000 Power Supply 24V AC/ DC 25VA with Transmitter Heating



## 6 Operation

### 6.1 Operating Elements



1. Rotary switch to select the switch-on delay
2. LED (Status display) „sensor signal“
3. LED (Status display) „ sensor power“
4. LED (Status display) „clock“
5. LED (Status display) „relay status“
6. Fuse (Ø 5 x 20)
7. Rotary switch to set the wind alarm threshold in the ten range
8. Rotary switch to set the wind alarm threshold in the unit range
9. Rotary switch (mode) to select the type of wind transmitter and the test function
10. Rotary switch to select the switch-off delay
11. LED wind alarm status
12. Jumper P1 to set the clock (under the front plate)

The white line marking on the axis is the reference point for the scale on rotary switches 1, 7, 8, and 10.

### 6.2 Setting the Operating Mode

Rotary switch 9 is used to select the type of wind transmitter. This switch can also be used to switch on a self-test function.

Position of rotary switch	WT-Type
0	4.3303.22.000
1	4.3515.50.000
2	4.3518.00.000
3	4.3520.00.000
4	4.3519.00.000
5	4.3515.30.000
6	not assigned
7	not assigned
8	self-test
9	self-test

When the rotary switch is set to position 8 or 9, a self-test is carried out. For this an internal signal of 13 m/s is placed on the input. This allows the functioning of the wind alarm instrument to be tested by means of settings on the wind alarm threshold (value exceeded or not reached).

### 6.3 Setting the Wind Alarm Threshold:

The wind alarm threshold in the range between 1..39 m/s can be set with rotary switches 7 and 8.

**Please Note:**  
*The alarm is switched off for threshold values > 39 m/s!*

### 6.4 Switch-On Delay:

Rotary switch 1 is used to set the switch-on delay of the wind alarm for the case when the wind alarm threshold is permanently exceeded. The delay time depends on the time cycle set on the clock and can be either 1...9 seconds or 2...18 seconds; Switch setting 0 is not allowable. When a 2 s cycle is selected, multiple the value set on the rotary switch by 2.

### 6.5 Switch-Off Delay:

Rotary switch 10 is used to set the switch-off delay of the wind alarm for the case when the wind alarm threshold is permanently not reached. The delay time depends on the time cycle set on the clock and can be either 1...9 minutes or 2...18 minutes; switch setting 0 is not allowable. When a 2 min cycle is selected, multiple the value set on the rotary switch by 2.

### 6.6 Setting the Clock:

The clock has been set to 1 second at the factory. If you want to change the time cycle to 2 seconds, then remove the white front plate and change jumper P1 as shown.

Setting the Clock Jumper P 1	
1 second	2 seconds
2 <input type="checkbox"/>	2 <input type="checkbox"/>
1 <input type="checkbox"/>	1 <input type="checkbox"/>
3 <input type="checkbox"/>	3 <input type="checkbox"/>

**After completion of all the mounting and setting tasks, replace the front plate and the transparent cover.**

## 6.7 Status Display

The operating status of the instrument is indicated by 5 LEDs.

### ■ Wind alarm status (LED 11 bi-colored) :

green	= threshold value not reached / Wind alarm off
green/flashing	= threshold value not reached / Wind alarm on *(AVF)
red	= threshold value exceeded / Wind alarm on
red / flashing	= threshold value exceeded / Wind alarm off *(EVZ)

\*AVZ = Switch-off delay

\*EVZ = Switch-on delay

### ■ sensor signal

LED 2 flashing / on	= wind transmitter signal present
LED 2 off	= calm or wind transmitter defective

### ■ sensor power

LED 3 flashing / on	= wind transmitter supply functioning
LED 3 off	= wind transmitter supply defective wind transmitter 4 3515.xx.xxx (Reed switch) not connected calm

### ■ clock

LED 4 flashing (2 Hz)	= System clock functioning
LED 4 off or on	= System clock not functioning (instrument defective)

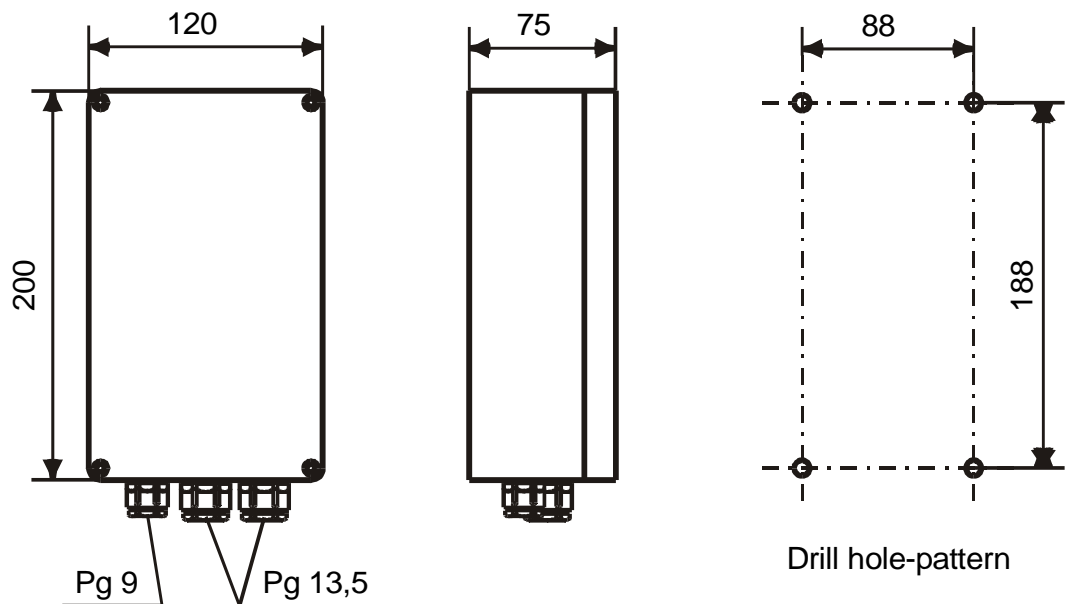
### ■ relay status

LED 5 on	= Relay pulled up, Wind alarm off
LED 5 off	= Relay released, wind alarm on

## 7 Technical Data

Wind alarm range	1...39 m/s
Resolution	1 m/s
Switch-on delay	1...9 s / 2...18 s depending on clock
Switch-off delay	1...9 min / 2...18 min depending on clock
Clock	1 s / 2 s can be set
Relay output	throw-over switch, one-pole, potential-free
Contact rating	24 V DC, 200 W 250 V DC, 100 W max. 8 A, 1000 VA
Operating voltage	230 V AC or 24 V AC/DC see circuit diagram
Ambient temperature	-25...+ 55°C
Type of protection	IP 65 in acc. with DIN 40050 (German Indus. Standards Code)
Weight	1 kg

## 8 Dimensional Drawings





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