

# Wind Alarm Instrument 4

4.3242.02.000



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# 1 Model

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Order Number	Construction	Supply Voltage
4.3242.021.000	Panel mounting	230 V / 50 Hz

# 2 Range of Application

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Wind Alarm Instrument 3 is used in conjunction with a wind transmitter (4.3303.22.000) to initiate preventive measures to protect wind-endangered objects such as, for example, cranes, bridges, masts, greenhouses, window blinds and awnings.

It has two separate alarm ranges operating independently from each other, for the pre- and main alarm.

# 3 Mode of Operation

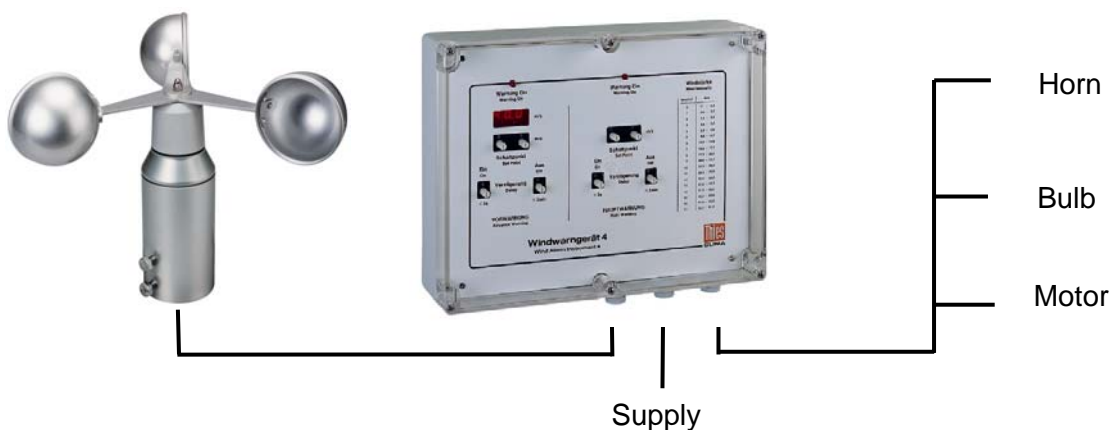
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The measuring values determined by the wind sensor are indicated digitally. The switching points for pre- and main alarm can be set by means of two selector switches each. If the wind velocity exceeds one of the switch-on-points, then a relay contact cuts through after a pre-selected switch-on delay.

If the wind velocity is below the switch-on point, then the relay contact releases after the pre-selected switch-on delay.

The switch-on and switch-off delays can be set by means of selector switches. This is necessary in order to prevent harmless gusts of wind from causing the instrument to give alarm. Optical, acoustical or motorised alarm systems can be connected to the switching contact. When connecting such a system, the contact load allowable must be carefully observed ( see technical data ).

### **Example of a Wind Alarm System:**



## 4 Recommendation Site Selection

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The wind alarm instrument 4 is designed for indoors mounting. In case of outdoor application an additional over-housing with the respective protection is necessary.

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**Remark**

*Please pay attention to the temperature application range when selecting a site.*

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## 5 Mounting

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**Caution**

***The device should only be installed and connected by qualified technicians. The general engineering regulations and provisions and standards applicable must be observed.***

### 5.1 Mechanical Mounting

Construction: Panel mounting

The Wind Alarm Instrument 4 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.

Construction: Euro- Card

The complete pc-board is put into the guide track of a suited card hopper so that the male multipoint connector catches the female multipoint connector of the card hopper.

### 5.2 Electrical Mounting

Connect the instrument electrically in accordance with the following circuit diagram 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 (see Chapter 6).

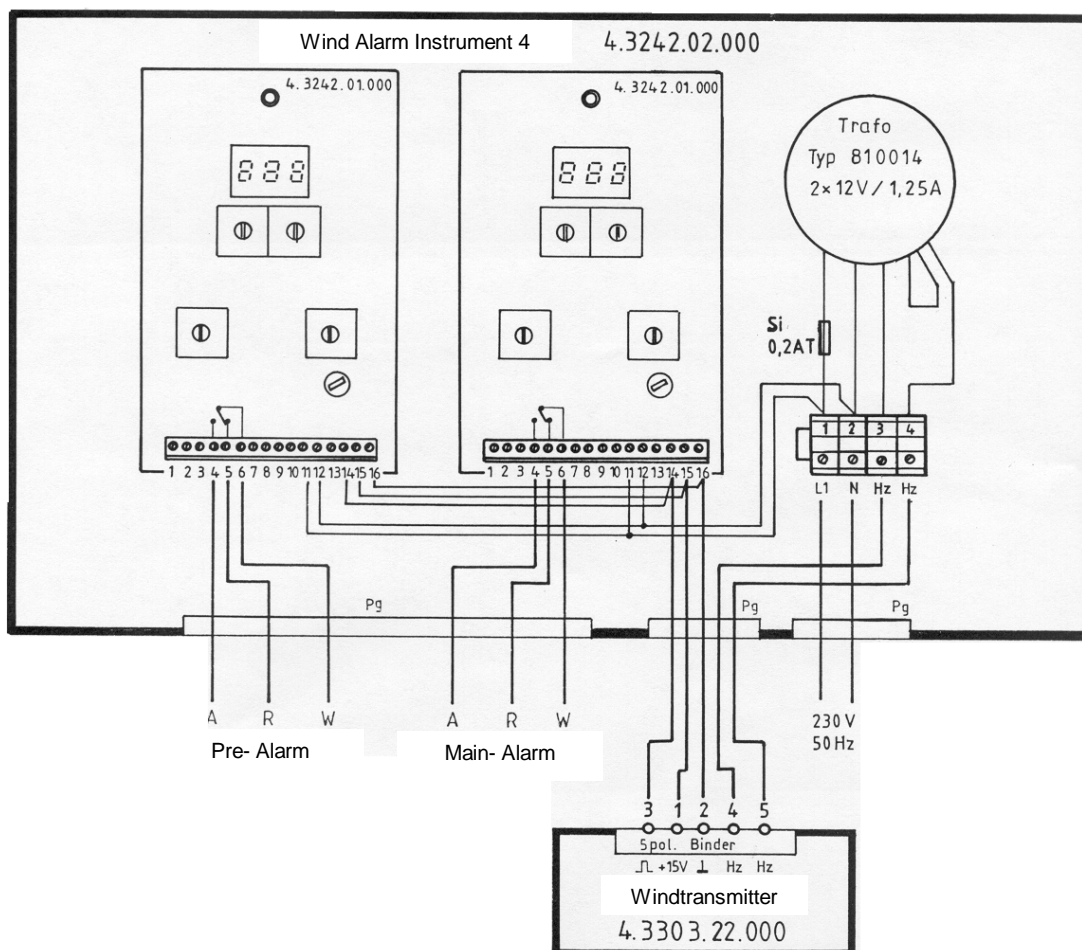
The following recommendation applies for the operation of a wind transmitter with heating:

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

## 6 Circuit Diagram

**Attention:**

*Circuit diagram below shows the relay in “alarm off” position. The condition is valid when operating voltage is supplied to the wind warn unit and alarm set point is not reached.*



## 7 Operation

A 3-digit LED display indicates the instantaneous value of the wind velocity.

An LED signals the alarm status with the **pre-alarm**:

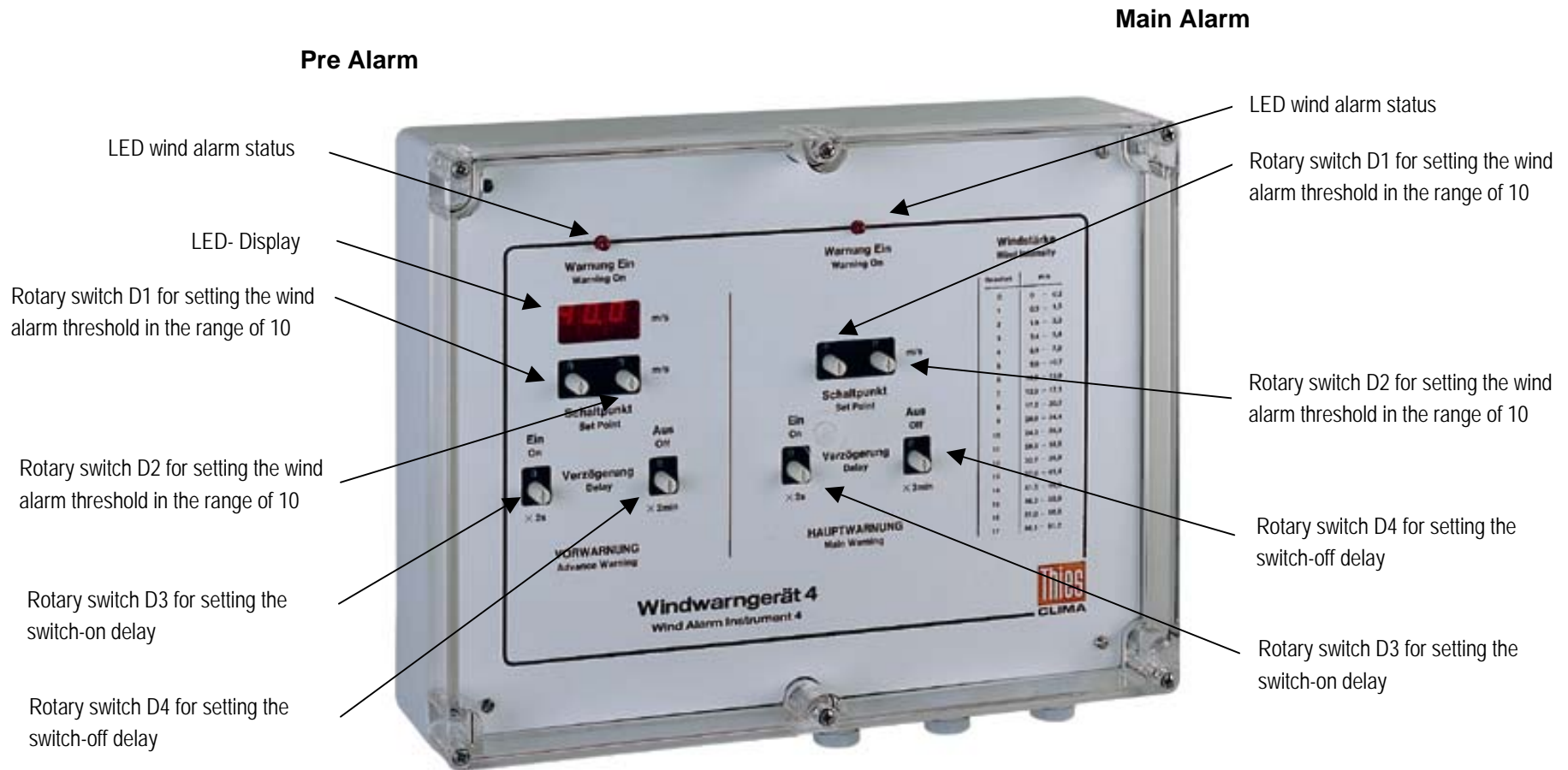
Red = Threshold exceeded / wind alarm on.

An LED signals the alarm status with the **main alarm**:

Red = Threshold exceeded / wind alarm on.

The rotary switches for the settings are marked , see chapter 7.1.

## 7.1 View



## 7.2 Setting Pre-Alarm:

### 7.2.1 Setting the Wind Alarm Threshold:

The threshold is set in double figures directly; hereby, the figures appearing in the field display the value.

The switching point of the wind alarm threshold is selectable in the range from 0...50 m/s by means of the **rotary switches 1 and 2**.

Rotary switches 1 range of 10	Rotary switches 2 range of 1	Alarm threshold
Position	Position	Depending on position
0	0	1 –50 m/s
1	1	
2	2	
3	3	
	4	
	5	
	6	
	7	
	8	
	9	

Setting example: R1 = 2 and R2 = 1 = Alarm threshold **21** m/s

### 7.2.2 Switch-On Delay:

By means of **rotary switch 3** the switch-on delay of the wind alarm is set for the case of a permanent exceeding of the wind alarm threshold .

The switch-on delay is set in single figure from 0...18 seconds in switch positions of 10. Please consider that the figure appearing in the window is to be multiplied by „2“.

Rotary switch 3	Switch-on delay
Position	[Seconds]
0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18

Setting example: R3 = 3 = Switch-on delay **6** sec

### 7.2.3 Switch-Off Delay:

By means of **rotary switch 4** the switch-off delay of the wind alarm is set for the case of a permanent falling below the wind alarm threshold.

The switch-off delay is set in single figure from 0...18 minutes in switch positions of 10. Please consider that the figure appearing in the window is to be multiplied by „2“.

<b>Rotary switch 4</b>	<b>Switch-off delay</b>
Position	[Minutes]
0	0
1	2
2	4
3	6
4	8
5	10
6	12
7	14
8	16
9	18

Setting example: R4 = **5** = Switch-off delay **10** min

### 7.3 Setting Main Alarm:

See chapter 7.2.1, chapter 7.2.2 and chapter 7.2.3

**After completion of all mounting- and setting works the wind alarm instrument 3 is to be closed again by installing the front plate and clear cover.**

## 8 Maintenance

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With proper mounting the instrument operates maintenance-free.

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**Remark:**

*Please pay attention to maintenance advices of the wind transmitter*

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## 9 Technical Data

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Wind alarm range	0...50 m/s
Resolution	1 m/s
Display	00,0...99,9 m/s Led red, 8 mm higt
Measuring value input	Pulses (0- 1042Hz = 0- 50 m/s)
Switch-on delay	1...18 sec
Switch-off delay	1...18 min
Relay output	2 x throw-over switch, one-pole, potential-free
Contact rating	200 W, 24 V DC,
	100 W, 250 V DC
	1000 VA, max. 8 A
Operating voltage	230 V (-10...+15%), 50 Hz, 6 VA
Ambient temperature	0...40° C
Construction	Panel mounting
Connection	Screwed cable gland, 2 x connecting strip, 16 pole
Dimensions	300 x 230 x 87 mm (W x H x D)
Type of protection	IP 65 acc. DIN 40050
Weight	2.6 kg

# 10 EC-Declaration of Conformity

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Month: 06 Year: 08

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Description of Product: **Wind Alarm Instrument**

Article No.	<b>4.3241.00.000</b>	<b>4.3241.00.001</b>	<b>4.3241.02.000</b>	<b>4.3241.02.001</b>
	<b>4.3241.02.900</b>	<b>4.3241.03.000</b>	<b>4.3242.01.000</b>	<b>4.3242.02.000</b>
	<b>4.3242.05.000</b>	<b>4.3242.06.000</b>	<b>4.3242.14.000</b>	

specified technical data in the document: **020713/04/08; 020534/02/99**

The indicated products correspond to the essential requirement of the following European Directives and Regulations:

- 2004/108/EC DIRECTIVE 2004/108/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 15 December 2004 on the approximation of the laws of the Member States relating to electromagnetic compatibility and repealing Directive 89/336/EEC
- 2006/95/EC DIRECTIVE 2006/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 12 December 2006 on the harmonisation of the laws of Member States relating to electrical equipment designed for use within certain voltage limits
- 552/2004/EC Regulation (EC) No 552/2004 of the European Parliament and the Council of 10 March 2004 on the interoperability of the European Air Traffic Management network (the interoperability Regulation)

The indicated products comply with the regulations of the directives. This is proved by the compliance with the following standards:

Reference number	Specification
IEC 61000-6-2: 2005	Electromagnetic compatibility Immunity for industrial environment
IEC 61000-6-3: 2006	Electromagnetic compatibility Emission standard for residential, commercial and light industrial environments
IEC 61010-1: 2001	Safety requirements for electrical equipment for measurement, control and laboratory use. Part 1: General requirements

Place: Göttingen

Date: 27.06.2008

Legally binding signature:

issuer:

  
.....  
Wolfgang Behrens, General Manager

  
.....  
Joachim Beinhorn, Development Manager

This declaration certifies the compliance with the mentioned directives, however does not include any warranty of characteristics. Please pay attention to the security advises of the provided instructions for use.





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