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# ***Combined Display Instrument***

**4.3228.xx.000**



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## **1 Models**

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<b>Description</b>	<b>Order-No.</b>	<b>Operating Voltage</b>	<b>Suitable Wind transmitter</b>
Combined Display instr.	4.3228.30.000	230 V AC; 12...24 V DC	4.3515.30.000 4.3127.40.000
Combined Display instr.	4.3228.40.000	230 V AC; 12...24 V DC	4.3518.00.000 4.3128.00.000
Combined Display instr.	4.3228.44.000	115 V / 50-60Hz; 12...24 V DC	4.3518.00.000 4.3128.00.000

**Table 1: Models**

## **2 Application**

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In combination with the suitable measuring value transmitters the combined display instrument is designed for the display of wind direction and wind speed. It offers a high reliability and an optimum display of the wind parameters. Red light diodes (LED's) are used for the display in order to allow a good readability under different lighting conditions and distances.

### 3 Display

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#### **Wind Speed (WS):**

The wind speed is indicated as instantaneous value on the 3digit red LED display.

The measuring units are “m/s” (meter/second), or “kn” (knots). A red lighting LED indicates the selected measuring unit.

#### **Wind Direction (WD):**

16 rectangular LED's are arranged in a circle for the display of the wind direction. The display is carried out as instantaneous value by red LED's in 22,5° increments from 0 ... 237,5°.

The scale label is yellow on black ground.

### 4 Recommendation Site Selection

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The device is designed for inside installation. If used outside, an additional external housing including the appropriated type of protection is necessary.

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#### **Remark**

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

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### 5 Installation

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#### **Attention**

***The instrument must be mounted and wired only by a qualified expert, who knows and observes the generalities of technics, and applicable regulations and norms.***

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#### **Comment**

*Before installation, the settings of the instrument are possibly to be changed (ref. chapter 7).*

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#### **5.1 Mechanical Mounting:**

The Wind display LED is designed for installation in a control panel. The necessary control panel opening must be  $92^{+0,8} \times 92^{+0,8}$  mm in size. The scope of supply includes two fixing brackets. After the device has been inserted in the control panel, the fixing brackets are clamped into the housing. The instrument is screwed into place on the control panel, afterwards.

## 5.2 Electrical Mounting:

All connections are on the back side of the Combined Display Instrument.  
The connection is carried out acc. to the connecting diagram chapter 9

### 5.2.1 Connecting Combination:

Comb. Display Instrument	Wind Speed Transmitter	Wind Direction Transmitter
4.3228.30.000	4.3515.30.000	4.3127.40.000
4.3228.40.000	4.3518.00.000	4.3128.00.000
4.3228.44.000	4.3518.00.000	4.3128.00.000

Table 2: Connecting Combination

## 6 Settings

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By removing the bridge at clamps 13 and 14 on the back side of the instrument the measuring unit can be changed from "m/s" into "kn" ("m/s" is delivery status).

## 7 Maintenance

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### Cleaning

To clean the face plate and housing a damp cloth should be used without chemical cleaning agents.

### Storage

The Combined Display Instrument should be stored in a dry dust-free room at temperatures between -20.. + 50°C. We recommend storing the device in a box.

### Fuse

There is a mains fuse on the rear of the wind display LED. The fuse holder can be opened using a screwdriver.

#### **Attention**

*In case of a defect only the following fuses should be used:*

*250V; 80 mA medium time-lag (4.3228.30.000)*

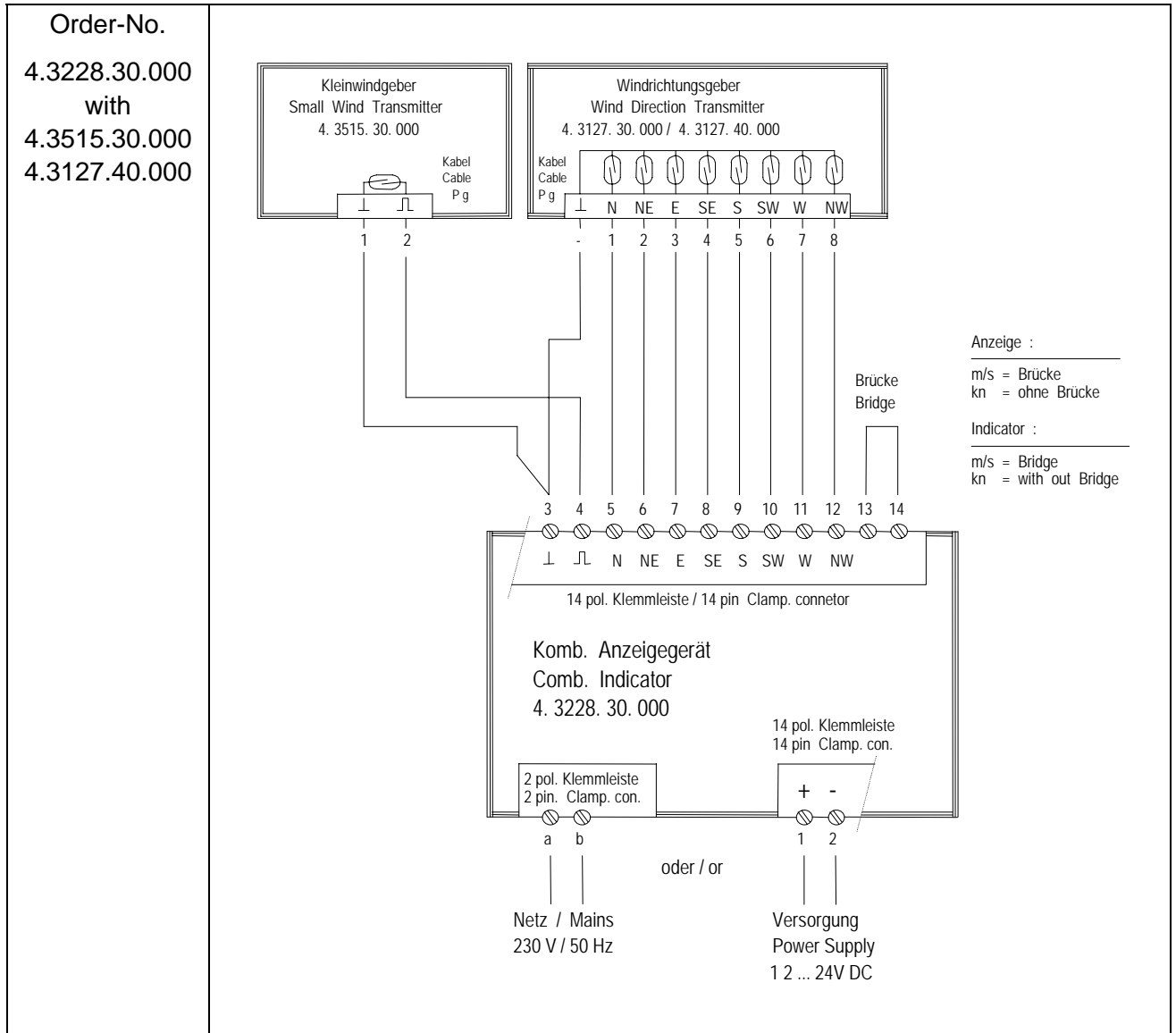
*250V; 100 mA medium time-lag (4.3228.40.000)*

*115V; 200 mA medium time-lag (4.3228.44.000)*

**Attention**

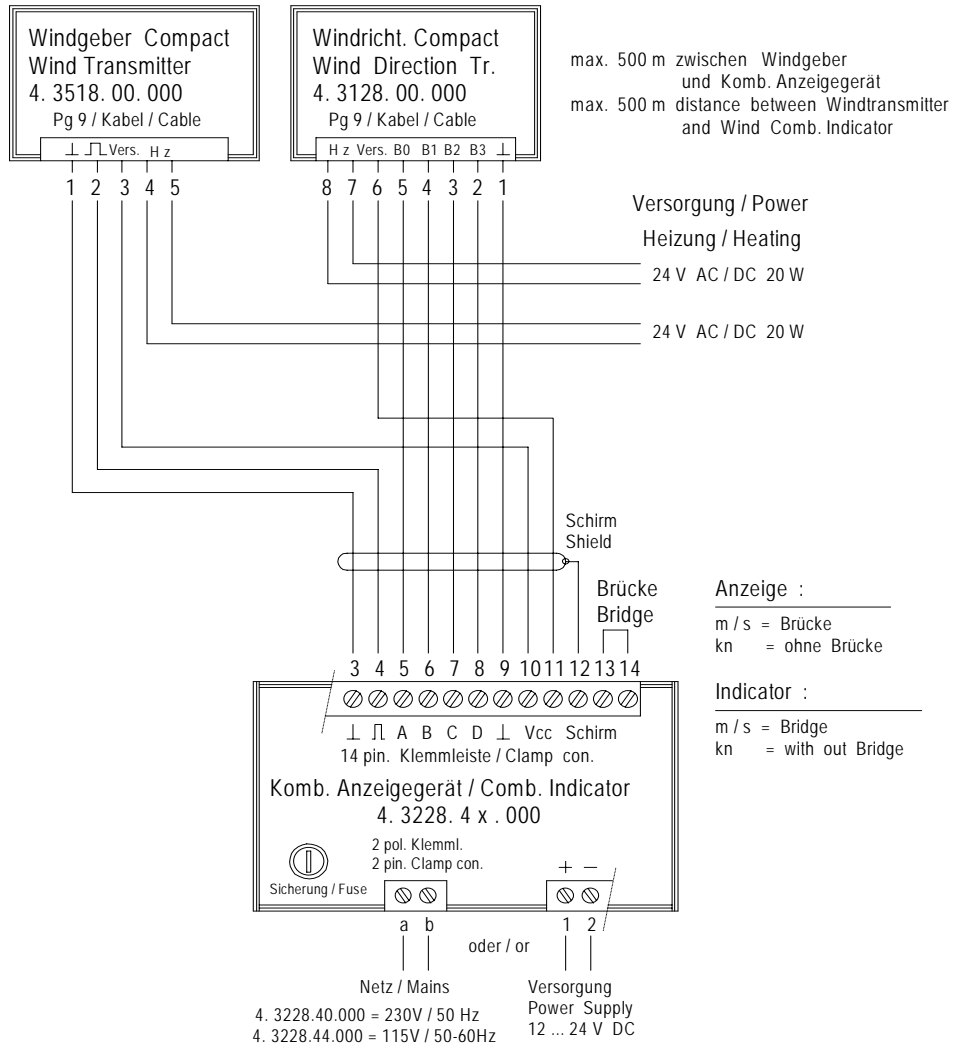
*The fuse must be replaced only by a qualified expert, who knows and observes the generalities of technics, and applicable regulations and norms..*

## 8 Connecting Diagrams



Order-No.

4.3228.40/44.000  
with  
4.3518.00.000  
4.3128.00.000



## 9 Technical Data

### Description

#### Input of measuring value at instrum. 4.3228.40.000

Wind direction	Type	Wind direction transmitter compact 4.3128.00.000
	Input	4 bit Gray Code, parallel
Wind speed	Type	Wind transmitter compact 4.3518.00.000
	Input	Frequency 2...573 Hz
Wind transm. supply		External, see connecting diagram

#### at instrum. 4.3228.30.000

Wind direction	Type	Wind transmitter 4.3127.40.000
	input	Reed contact
Wind speed	Type	Small wind transm. 4.3515.30.000
	input	Reed contact 50Hz at 40m/s
Wind transm. supply		From comb. display (see circuit diagram)

### Operating voltage

	at 4.3228.30.000	230V AC or 12 ... 24 V DC
	at 4.3228.40.000	230V AC or 12 ... 24 V DC
	at 4.3228.44.000	115V / 50-60 Hz or 12 ... 24 V DC

### Mains fuse

	at 4.3228.30.000	250V/80 mA (medium time-lag)
	at 4.3228.40.000	250V/100 mA (medium time-lag)
	at 4.3228.44.000	115V/200 mA (medium time-lag)

### Display

Wind speed	Dimension	m/s, kn
	WG - Display	3digit LED, height 8 mm
	Resolution	0,1 m/s 0,1 kn
Wind direction	Resolution	22,5 °
	LED's	16 units; 2 x 4mm, colour: rot

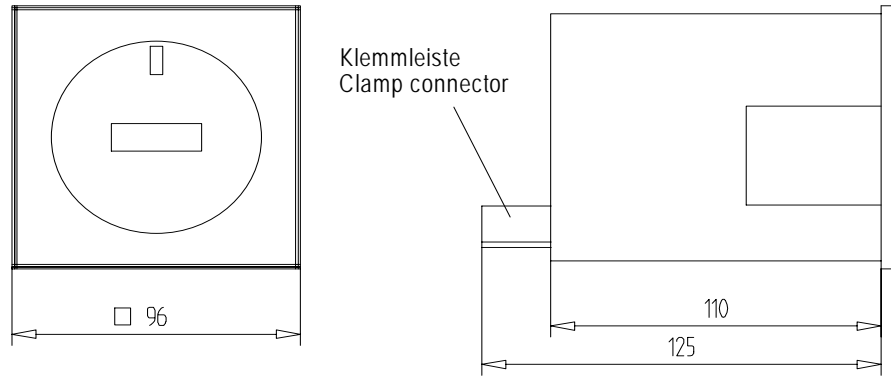
### General

	Temperature range	-10....+50 °C
	Humidity range	Non-condensing

### Housing

	Material	plastic
	Dimensions	96 x 96 mm Depth: 125 mm
	Weight	0,6 kg
	Protection	IP42

# 10 Dimensional Diagram



Control panel opening  
 Acc. to DIN 43700  
 $92^{+0,8} \times 92^{+0,8}$

Fixing brackets, alternatively  
 right/left or up/down  
 Insertable from control panel side

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