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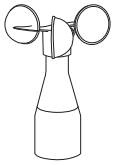
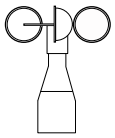
Schneider Electric

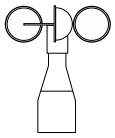
Wind sensor with 0-10 V interface

Operating instructions





Wind sensor with 0-10 V interface
Art. no. MTN663591



Wind sensor with 0-10 V interface and heating
Art. no. MTN663592

For your safety

DANGER

Risk of fatal injury from electrical current

The device may only be installed and connected by skilled electricians. Observe the regulations valid in the country of use.

Getting to know the sensor

The wind sensor (called **sensor** below) is for converting wind speed into electrical signals. The signals are created by a reed contact that is closed by magnets. A shaft that is fixed to the cup anemometer and rotates in the friction bearings leads the magnets past the reed contact. This generates impulses which are turned into an output voltage that is proportional to the wind speed.

The sensor is mounted on the roof or on the outside wall of the building and can be connected to the weather station (art. no. MTN682991) and to the analogue input (art. no MTN682191). These devices provide the supply voltage necessary to operate the sensor.

The wind sensor with heating (art. no. MTN663592) features a PTC heating element to protect the electronics.

CAUTION

The device can become damaged

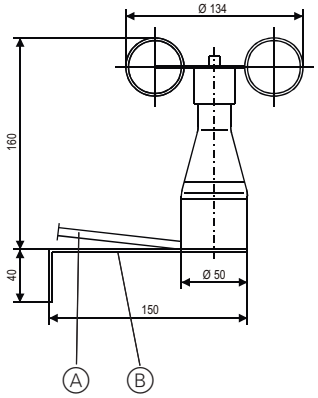
The sensor's heating protects the electronics from moisture and condensation in the specified temperature range. It does not protect the housing or moving parts from ice.

CAUTION

The awning / blind can become damaged

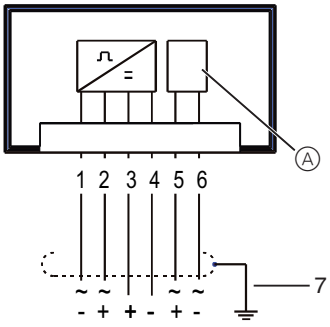
In low temperatures, the sensor can freeze and does not give measured values anymore. If this happens, connected awnings / blinds are not protected against strong wind.

Dimensions



Ⓐ Incoming cable
Ⓑ Mounting bracket

Connections, displays and operating elements



Ⓐ Heating (only art. no. MTN663592)

1 (white)	Power supply 18–32 V DC (-)
2 (brown)	Power supply 18–32 V DC (+)
3 (green)	Output 0–10 V = 0.7–40 m/s (+)
4 (yellow)	Output 0–10 V = 0.7–40 m/s (-)
5 (grey)	Power supply, heating (+)
6 (pink)	Power supply, heating (-)
7	Earth

Selecting the installation site

In general, wind measuring devices should record the wind conditions in a broad radius. To obtain comparable values when determining the surface wind, measurements should be taken at a height of 10 metres above even, undisrupted ground. Undisrupted ground means that the distance between the anemometer and the obstacle should be at least ten times the height of the obstacle If this regulation cannot be complied with, the anemometer should be installed at a height so that the measured values are influenced as little as possible by the obstacles (approx. 6 to 10 m above the obstacle). On flat roofs, the anemometer should be placed in the middle of the roof instead of on the edge so that any preferential directions are avoided.

How to install the sensor

The wind sensor is screwed onto a cross member with a mounting bracket, mast etc. It must then be adjusted horizontally. The measured-value cable is fitted tightly to, for example, the cross member with clips, cable binders or similar fixing material so that the cable is not damaged at higher wind speeds by flapping and wearing through.

Maintenance and care

If the device is installed correctly, it is maintenance-free. High levels of environmental pollution can block the slit on the wind sensor between the rotating and fixed parts. This slit must always be kept clean.

Technical data

Measuring range:	0.7–40 m/s
Electrical output:	0–10 V DC at 40 m/s
Supply voltage:	18–32 V DC
Current consumption:	6-12 mA
Output current:	Max. 8 mA
Residual ripple:	0.6% from the output end value
Time constant:	1.1 s
Contact type:	Reed switch
Load:	Max. 60 m/s temporary
Heating (Art. no. MTN663592):	24 V AC /DC (80°C)
Starting current:	Max. 1 A
Ambient temperature:	-25 up to +60°C, non-icing
Type of protection:	IP 65
Mounting position:	Vertical
Material:	ABS plastic
Colour of device:	Polar white
Incoming cable:	LiYY 6 x 0.25 mm^2 (Art. no. MTN663592) LiYY 4 x 0.5 mm^2 (Art. no. MTN663591) 3 m long
Weight:	0.3 kg

Schneider Electric Industries SAS

If you have technical questions, please contact the Customer Care Center in your country.

www.schneider-electric.com

This product must be installed, connected and used in compliance with prevailing standards and/or installation regulations. As standards, specifications and designs develop from time to time, always ask for confirmation of the information given in this publication.

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