Wind Transmitter-compact

Instruction for use 4.3519.x0.140 ... 961



General

The wind transmitter detects the horizontal wind velocity. The measured values are available at the output as analogue voltage or current signal, for example to control for instance wind power plant.

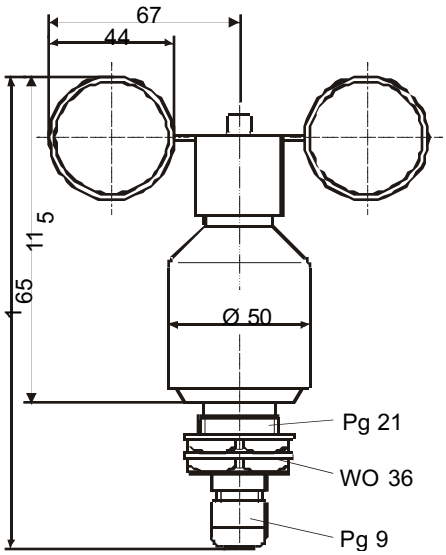
An electronically-regulated heating system has been installed for wintertime use, in order to prevent the ball -bearing and the external rotation parts from freezing.
Power for the heating system could be provided for instance by our **Power Supply Unit**, Order No. **9.3388.00.000**.

When using fastening adapters (angle, traverses etc.) please notice that turbulences could possibly influence the characteristic curve.

Technical Data

Measuring range	: 0,5 ... 50 m/s
Accuracy	: ± 0,5 m/s or ± 3 % of measuring value
Resolution	: < 0,1 m/s
Measuring principle	: opto-electronically (slit disc)
Operating voltage	: 9 - 30 V DC or 24 V AC/DC
for 0 - 10 V Output	13 - 30 V DC
Heating	: 24 V AC/DC max. 20 W
Ambient temperature	: - 30 °C ... + 70 °C
Cable	: 12 m long, LiYCY 6 x 0,25 mm^2
Mounting	: for example, onto a mast tube with boring thread Pg 21 or boring ∅ 29 mm
Weight	: 0,75 kg

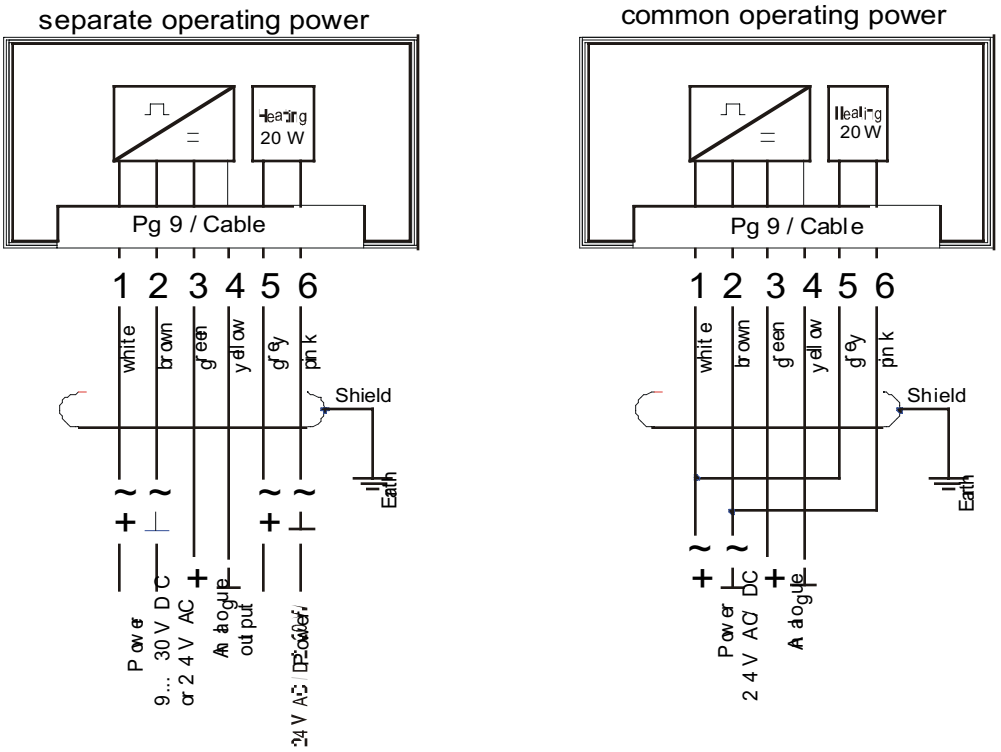
Scale drawing



Order - No.:

4.3519.00.140	Electr.	0 - 20 mA	Load max. 500Ω
.141	Output	4 - 20 mA	Load max. 500Ω
.161		0 - 10 V	Load resistance min. 1 kΩ
.167		0 - 2 V	Load resistance min. 1 kΩ
.173		0 - 5 V	Load resistance min. 1 kΩ
.961		0 - 10 V	Load resistance min. 1 kΩ , **Meas. range 0,5 ... 15 m/s**
.10.441	w/o heating !	4 – 20 mA	Load max. 500Ω , **Meas. range 0,5 ... 40 m/s**

Connecting diagrams



Order.-No. 4.3519.10.441 (without Heating), cable 5 and 6 not connected

Preparing for use

Selecting a site

In general wind measurement instruments should be able to detect the wind conditions of a large area. In order to obtain comparable values when determining the surface wind, measurements should be taken at a height of 10 meters over an even area with no obstacles. An area with no obstacles means that the distance between the wind transmitter and an obstacle should be at least 10 times the height of the obstacle. If it is not possible to fulfil this condition, then the wind transmitter should be set up a height where local obstacles do not influence the measured values to any significant extent (approx. 6-10 m above the obstacle).

The wind transmitter should be set up in the centre of flat roofs not on the avoid bias in the direction (privileged directions).

Mounting

The mounting of the transmitter could be done for example onto a central mast tube with a boring thread Pg 21 or on hangers with a boring of 29 mm ∅.

When using fastening adapters (angle, traverses etc.) please notice that turbulences could possibly influence the characteristic curve

After flexible connection cable is passed through the boring, wind transmitter could be fixed with hexagonal nut (WO 36). For electrical connection please refer to the connection diagram.

Attention: Storing, mounting and operation under weather conditions is permissible only in vertical position, as otherwise water can get into the instrument

Maintenance

After proper mounting the instruments works maintenance free.

Heavy pollution can clog up the slit between the rotating and the stationary parts of the wind transmitter. This slit must be kept clean.

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TÜV CERT DIN EN ISO 9001 Zertifikat: 08/100/1688