Operating Instructions (14575-24 V)
Wind speed sensor ECONOMY

Measuring Principle

The rotation cups of the wind speed sensor 14575 are linked to a disk with black and white sectors. An infrared LED is illuminating the back and white sectors. The light is absorbed by the black sectors, reflected by the white and detected by a photo-transistor.

The processed rectangle signal of the transistor is proportional to the velocity of the wind speed.

Electrical Wiring

For connection a 12-pole plug connector is used. We recommend shielded 10 x AWG 24 CUL sw cable with 0.22 mm^2 cross section. The length of the cable should not exceed 100 m. In case the sensor is connected with the power supply 14962 and an electric indicator, a 2-wire cable between indicator and power supply is sufficient.

Sensor Installation

The wind speed sensor 14575 is designed for an installation on a pipe with 49 to 51 mm (2“) in diameter. First the cable is pulled through the pipe and fastened to the sensor. Then the sensor is plugged on top of the pipe and fixed with the 4 mm Allen key provided.

Maintenance

Maintenance is not required.

Trouble shooting

If the sensor is not delivering a signal, check the following:

1) Is the cup assembly rotating? Got the sensor frozen? For heated sensors check the voltage for heating between pin M and pin G.

2) The voltage for sensor supply can be measured between pin J and pin H. If there is no voltage, check power supply and cable.

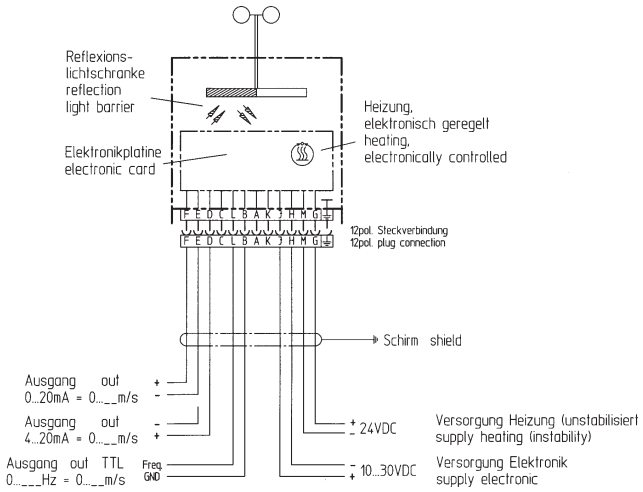
If 1) and 2) are failing, return sensor to the manufacturer.

Please note the loss of warranty and non-liability by unauthorised manipulation of the system. You need a written permission from LAMBRECHT meteo GmbH for changes of system components. These activities must be operated by a qualified technician.

The warranty does not cover:

1. Mechanical damages caused by external impacts (e. g. icefall, rockfall, vandalism).
2. Impacts or damages caused by over-voltages or electromagnetic fields which are beyond the standards and specifications in the technical data.
3. Damages caused by improper handling, e. g. by wrong tools, incorrect installation, incorrect electrical installation (false polarity) etc.
4. Damages which are caused by using the device beyond the specified operation conditions.

Electrical wiring



Color code for the connection cable

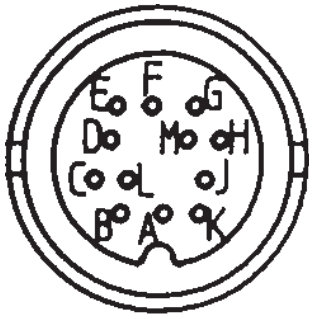
Ader core	AWG-Farbcode		AWG color code		Pin-Nr.
1	schwarz	sw	black	blk	F
2	braun	br	brown	brn	E
3	rot	rt	red	red	D
					C
4	orange	or	orange	ora	L
5	gelb	ge	yellow	yel	B
6	grün	gn	green	grn	A
					K
7	blau	bl	blue	blu	J
8	violett	vi	violet	vio	H
9	grau	gr	gray	gry	M
10	weiß	ws	white	wht	G

Technical Data

Operating range:	0.7...50 m/s
Output:	
Id.-No.	
00.14575.200 004	1: 0...700 Hz = 0...35 m/s
	2: 0...20 mA = 0...35 m/s
	3: 4...20 mA = 0...35 m/s (maximum load
	500 ohms for 15 VDC)
Threshold.	<0.7 m/s
Environmental.	-30...+70 °C
	0...70 °C without heating
Power supply:	10...30 VDC
Heating:	24 VDC / max. 600 mA
Dimensions:	74 mm Ø
Total height:	160 mm
Weight:	approx. 0.4 kg
Accessories:	12-pole plug connector 4 mm Allen key
Mounting Ø:	49...51 mm (1 29/32“ - 2“)

Plug connector pinning

F:	+ output 0...20 mA
E:	- output 0...20 mA
	resp. - output 4... 20 mA
D:	+ output 4...20 mA
L:	output TTL: 0...700 Hz = 0...35 m/s
B:	output TTL: GND
J:	+10...30 VDC power supply sensor
H:	-10...30 VDC power supply sensor
M:	-24 VDC power supply heating
G:	+24 VDC power supply heating



Quality System certified by DQS according to DIN EN ISO 9001:2008 Reg. No. 003748 QM08

Subject to change without notice.

LAMBRECHT meteo GmbH
Friedländer Weg 65-67
37085 Göttingen
Germany

Tel +49-(0)551-4958-0
Fax +49-(0)551-4958-312
E-Mail info@lambrecht.net
Internet www.lambrecht.net