

Manual & Data sheet

Wind-sensor FW-1

The weather-proofed (IP67) and power-free wind-sensor FW-1 protects jalousies, marquees, blinds, shutters, mobile / extendable masts, wind-energy systems, cranes, mobile installations, tents, ventilation flaps, roof hatches and build-ups against damage due to strong wind by detecting and gathering wind speed.

The 3-bowl anemometer mechanism is maintenance-free, pivot-mounted on two ball bearings. The power-free sensor converts contactless rotation speed of the anemometer into a square-wave signal by a potential-free contact. The potential-free contact (no) is closed 2x per cycle. The signal frequency is proportional to the wind speed.

An integrated body heating guarantees an error-free operation during winter time.



Connection – Installation – Commissioning:

! Connection, installation and commissioning only by qualified and skilled person with electrical education !

! Mount devices at the provided positions and wire according to the schematics !

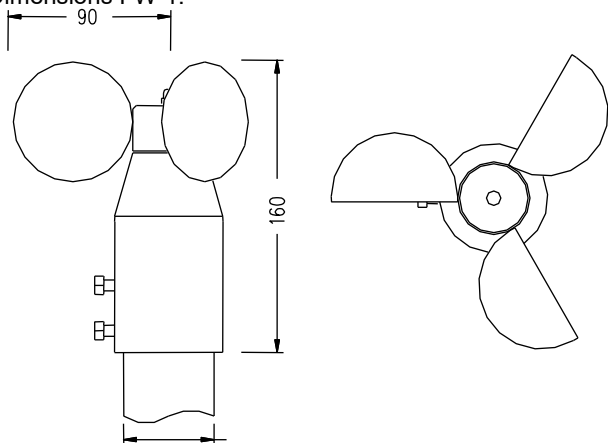
Caution: Wrong connecting may cause damage of the instrument and sensor !

Check for correct wiring before switching on the power supply !

Technical data FW-1:

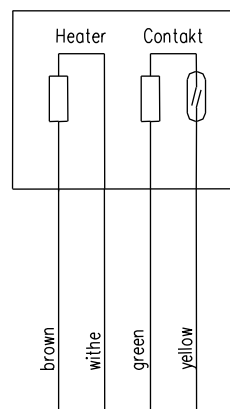
Measurement range:	0.1...40 m/s (= 144 km/h) = 0.1...40 Hz
Output signal:	24 V square-wave-signal, 2 impulses / cycle = 1 Hz (potential-free Reed-contact (no), max. 30 V / 25 mA, with serial protecting resistor)
Protection degree:	IP 67 (wind-sensor, connection cable depending on installed connection box)
Ambient temperature:	-30...+80 °C
Integrated heating:	24 V AC/DC $\pm 10\%$, 0.22 A, 5 W (powered by control unit AW-2 or separate power supply)
Connection:	ca. 2 m wired-ready cable, 4 wire, LiY 4x 0.25...0.34 mm ² (Ø 4.3...4.8mm)
Housing:	aluminium, coated, RAL 7035
Size body:	60 (D) x 160 (H) mm
Size anemometer:	180 (D) x 70 (H) mm

Dimensions FW-1:

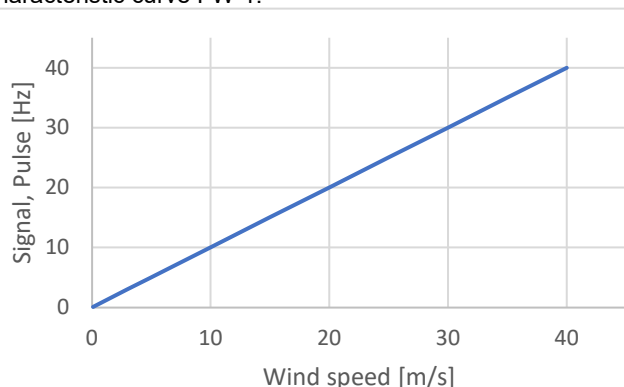


Mast tube Dmax. 50mm

Connecting plan FW-1:



Characteristic curve FW-1:



Beaufort	m/s	km/h	knots
0	~ 0	< 1	< 1
1	~ 1	1-5	1-3
2	2-3	6-11	4-6
3	3-5	12-19	7-10
4	5-8	20-28	11-16
5	8-11	29-38	17-21
6	11-14	39-49	22-27
7	14-17	50-61	28-33
8	17-21	62-74	34-40
9	21-24	75-88	41-47
10	24-28	89-102	48-55
11	28-33	103-117	56-63
12	33+	118-133	64-71
13		134-149	72-80
14		150-166	81-89
15		167-183	90-99