

TOWER CRANES WIND SPEED MONITORING



The WINDCRANE Mini system comes with a high impact case, making it strong enough to survive the construction environment.

Supplied with an anemometer, power supply, heavy duty cable and an optional LCD display, this system is most often used in tower cranes with the data logger and display situated inside the cabin.

WINDCRANE gives you LIVE and HISTORICAL wind data specific to your site and crane.

Your information is saved to a cloud platform which you can access 24/7, worldwide from the WINDCRANE mobile app or dashboard.



WINDCRANE Cloud Data Service & Software

Wind speed measurement

Average & max wind data with turbulence intensity

24/7 Cloud Storage

Daily and weekly back-up, archiving and recovery services

Mobile Network Communications

10 minute data transfer to cloud portal using global multi-network roaming SIM
Worldwide Mobile Network connectivity

Data sampling

1Hz to IEC61400 & BSI EN 13000

Hosting services

Fully managed enterprise class servers, ISO27001 Tier 3 Data Centres

Wind Data

Fleet management dashboard and mobile app
Detailed site specific live and historical wind speed reports

Wind Speed Alerts

Unlimited mobile phone wind speed alert notifications

Technical support

Email, phone and WhatsApp

Technical Specifications

WINDCRANE Mini AC Power

Enclosure/Mechanical

Compact weatherproof case (IP67 rated) with loops for mounting straps or lanyards
M12 connector pigtail for sensor

Dimensions and weight:

220 x 130 x 65 mm (LxWxH incl cable glands)
0.9 kg approx (incl mains AC PSU)

Mounting

2no heavy-duty straps through enclosure loops
(110W x 115H mm centres)

Operating Temperature:

30°C to +60°C

Power

Pre-wired inline mains power supply for 100-240VAC,
10W max consumption, with 3m cable and 230V plug

Sensor Options

1x wind speed anemometer (pulse/switch).
Connects via pre-wired M12 connector pigtail
Internal temperature, humidity and barometric pressure and supply voltage sensors

Data Connectivity

Built-in cellular connectivity with internal antenna and worldwide coverage
Data automatically transmitted to WINDCRANE web portal and app

Accessories/Options

Live data in-cab display module - shows second-by-second wind speed
Pre-wired to logger enclosure on 5m cable

LCD In Crane Display

Real time display unit

Refreshes wind speed every second in any unit format you need, m/s, mph, Kph
Internal adjustable back light

Dimensions and weight

200 x 200 x 160 mm
0.5 kg

Enclosure

Magnetic swivel bracket for easy mounting
Not fully waterproof, to be situated indoors



WINDCRANE Q20 Wind Speed Sensor

Dimensions and weight

Sensor height 130 mm, rotor diameter 190 mm
Mount tube + sensor height 300 mm approx
0.7 kg incl. fixings and cable

Materials

Lexan/polycarbonate rotor and ABS body, PVC weather boot, black colour
Low-friction self-lubricating bearings

Mounting

Integral mounting tube, 250 mm length, 12.7 mm dia.
2no galvanised U-bolts and saddles to suit tubular pole of 25-40 mm diameter.

Working Temperature

-40 °C to +60 °C (non-icing)

Measurement range

0.75 - 50 m/s (3-180 km/h, 2-112 mph)
(survival 90 m/s, 320 km/h, 200 mph)

Accuracy

1% nominal, ± 0.1 m/s (5-25 m/s) or 1 km/h (3-15 km/h), consensus standard
(MEASNET calibrated version also available)

Power & Connection

Powered by logger (max 24 V / 10 mA)
Logger connection via M12 cable supplied separately
M12 4-pole male connector on pre-wired 1.5 m pigtail

Output signal

Pulse frequency output proportional to wind speed
 $\text{Speed m/s} = 0.382 \times \text{Hz}$
(conversion from frequency signal to wind speed units is handled by WINDCRANE system)

