

WindSafe®

2D-Tower Vibration Sensor KS22-U

The sensor measures the vibrations of the wind turbine tower. The purpose of the measurement is to monitor and record the operating conditions.

The KS22 which is integrated into the control system signals:

- Tower vibrations
- Blade resonances
- Unbalances
- Overstressing

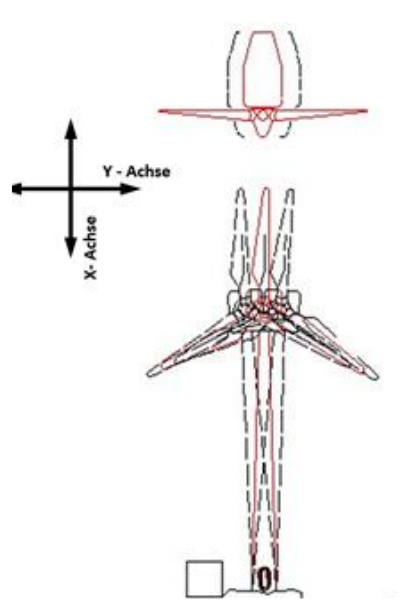
Measured-value acquisition:

- 2 axes simultaneously
- Vibration acceleration

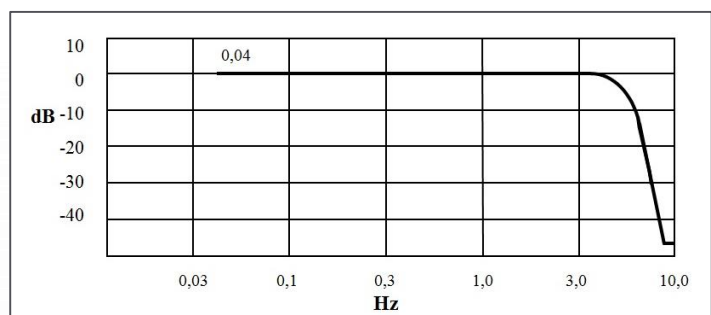
DMT Sensor KS22



Vibration of a Wind Turbine Tower

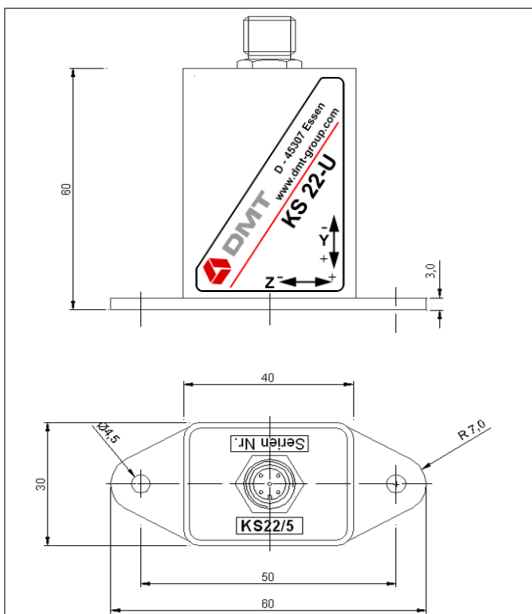


Frequency response KS22-U



Technical Data		
Measuring axes	2	x/y
Sensor constant	1	V/m/s ²
Measuring range	± 3	m/s ²
Supply consumption	18-26 (kurzz. 30)	V DC
Power consumption	10	mA
Frequency range	0,01 ... 5	Hz
Attenuation at 10 Hz	>20	dB
Chebyshev filter (fourth order)	0,5	dB ripple
Analog output / Zero position	5 ±0,1	V
Output range	5 ± 3	V
Setting time	30 ±	seconds
Weight (without cable)	282	gram
Connection	Axial	
Type: Connector SACC-E-M12MS-5CON-PG9/0,5	1671111	Phoenix
Temperature range	-40° / +65°	Celsius
Degree of protection	66	IP
Output resistance	100	Ω
Dimensions	See drawing	
Housing material	V2A high-grade steel	

Dimension drawing: We reserve the right to make changes in the interest of technical development.



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Note:

Subjecting the sensor housing to mechanical stress can lead to malfunctions and invalidate the warranty.

Do not drop the sensor and protect from severe impact, static charge and overload.

Pin assignment

Sensor – Actuator – Connector
 Pin 1 = brown – +24V DC
 Pin 2 = white – Acceleration signal Z
 Pin 3 = blue – GND
 Pin 4 = black – Acceleration signal Y
 Pin 5 = grey – NC