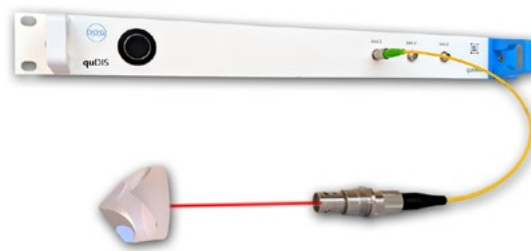




quDIS

Interferometric distance measurement



Key Features

- Signal stability < 0.05 nm
- 12 ... 2000 mm working distance
- 25 kHz bandwidth
- 1 m/s target speed
- 3 sensor axes, multiple devices
- Absolute distance measurement *3

quDIS Specifications

Sensor	
Sensor axes	3
Working distance *1	12 ... 2000 mm
Resolution	1 pm
Signal stability *2	< 0.05 nm
Bandwidth	25 kHz
max. target velocity	1 m/s
Fiber input connectors	FC/APC Mating Sleeves

Interferometer	
Laser source	DFB laser (class 1)
Laser power	< 400 μ W
Wavelength (IR)	1 535 nm
Laser linewidth	<5 MHz

Alignment Laser *3	
Laser source	Fiber-coupled diode
Laser power	< 1 mW
Wavelength	650 nm

Interfaces *3	
PC interface	USB 3.0
Digital out	AquadB & HSSL
Connector	HDMI
Signal levels AquadB / HSSL	LVTTTL / LVDS

Applications

- Interferometric distance measurement
- Vibration analysis
- Beam interrupt compensation
- Gap and edge measurement
- Angular measurement
- Environment analysis

Operation	
Operating systems	Windows, Linux
Supplied software	GUI, DLL, LabView, Python, Command line
Alignment support	Numerical, graphical

Hardware	
Dimensions	440 x 350 x 50 mm
Weight	4 kg
Power consumption	< 30 W, at 90 to 264 VAC

AMU - Ambient measurement unit *3	
Dimensions	38 mm x \varnothing 58 mm
Connector	RJ45
Cable length	4 m
Weight	75 g
Sampling rate	10 Hz
Temperature	$\pm 0.1^{\circ}\text{C}$ (-5 ... 50 $^{\circ}\text{C}$)
Pressure	± 1 hPa (300 ... 1100 hPa, 0 ... 65 $^{\circ}\text{C}$)
Relative humidity	$\pm 2\%$ (10... 90% RH, 5... 55 $^{\circ}\text{C}$)
AMU accuracy	± 1 ppm

*1: sensor head dependent *2: RMS@ 100Hz, 2s, 200mm *3: optional available

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