CES155
Opto-electronic anemometer

This sensor is meant for measuring wind speed with high accuracy especially in the most severe weather conditions

Benefits

High reliability

- Free contact detection with optoelectronic detector / optical sensor without contact

Great measurement quality

- Low starting threshold
- Excellent linearity
- No adjustment required

Robustness

- Tightness IP 66-3
- Passive surge suppressor against lightning
- Harsh conditions resistant : salt fog, sand and dust wind, oil steams

Easy set up and maintenance

- Two parts easy to dismount without tools (checking and maintenance)

Operation

It has been specifically designed to be mounted on Cimel's automatic weather stations and to operate using Cimel's innovating custom MicroAmps technology

- 3 cups pulse sensor
- Three hemispherical light-weight cups are mounted at the top of an axis , the system is equipped of accurate ball bearing
- The chopper embodied on anemometer axis disc attached to the cup wheel's shaft hides the optical sensor beam transducer periodically
- The transducer state is calibrated with narrow pulse sampled in order to reduce the consumption and to increase the detector's lifespan (>200 000h)

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S.A.S. CAPITAL 37.000 €
SIRET : 562 017 201 00036
R.C. PARIS 66 B1720 APE 2651B
Identification CEE FR96562017201

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Technical features

Measurements		*Value*
Wind speed	Operating range	0-80 m/s (0 to 288 km/h)
	Starting threshold	<0,2m/s
	Distance constant	< 1,5 m
	Accuracy	0,1 m/s
Operating environment	Operating temperature	From - 40 to 60°
	Operating humidity	From 0 to 100% HR
	Environment	Salt fog, sand and dust wind, oil steams
	Tightness	Vibrations IP 66-3
	Protection against lightning	Passive surge suppressor
General	Axis	Stainless steel AISI 316
	Cups	Three cups made with supple plastic
	Body	Ø 40 mm
		PVC anti UV treated body (no oxidation)
		Weight 576g
		Fixed on a tubular mast Ø 25 mm
	MTBF except the ball bearings	>10 years

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Commissioning and maintenance

The sensor can be fixed on a tubular rack (Ø 25 mm) by a holding ring and be mounted either on

- Top of a mast, 10 m above ground for OMM meteorological applications

- On weather station's main structure, 2 m above ground for particular applications (harbors, transportation, agriculture…)

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Accessories

In any case: tubular rack and cable are provided

- For mounting at 2 m high : 3 m cable
- For mounting at 10 m high : 10 m mast and 20 m coated cable

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