

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

## Benefits

### *High reliability*

- Contact free opto-electronic angular encoder

### *Great measurement quality*

- Very low starting threshold
- Narrow angular resolution
- No blind spot

### *Robustness*

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

### *Easy set up and maintenance*

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



## Operation

This sensor has been designed specifically to be mounted on Cimel's automatic weather stations, operating with Cimel's innovating custom MicroAmps technology

- The sensor vane is resistant plastic PVC counterbalanced by an adjustable weight
- A device attached to the sensor axis hides the detector beam and generates an univocal cyclic Gray code (accuracy 10°).
- It does not require any adjustment
- The transducer state is calibrated with the pulse in order to reduce the consumption and to increase the transducer's lifespan (> 200000 h)

**Technical features**

<i>Measurements</i>	<i>Wind</i>	<i>Value</i>
<b>Wind direction</b>	Operating range	0-360°
	Reaction time	0,25s
	Threshold	<0,3m/s
	Measuring range	0 to 80 m/s (0 to 288 km/h)
	Damping factor	0,5
	Coder resolution	2.5° vectorial average
	Precision	±1°
	Blind spot	No blind spot
<b>Output signal</b>		Logical level pulse train
<b>Power</b>		Through the data logger
<b>Operating environment</b>	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
<b>General</b>	Axis	Stainless steel AISI 316
	Body vane	PVC anti UV treated body (no oxidation)
	Body diameter	40 mm
	Weight	576g

## Commissioning and maintenance

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

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



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



## Accessories

In any case: Tubular rack and cable are provided (supplied)

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