

## Datasheet – Environmental Cartridge NMO-CE1

### Environmental sensing cartridge for Nubo Air system

- Certified Swiss sensor technology
- High reliability and long-term stability
- Factory calibrated
- Redundant sensor components
- PM2.5, humidity, temperature & barometric pressure



#### Product Summary

Designed for optimal reliability at lowest operating costs, the first cartridge for the Nubo Air system allows for parallel measurement of particulate matter, temperature, humidity and barometric pressure. All components of the PM sensing unit are redundant. Compatible with Nubo Air's Nubo Monitor One IoT sensor node.

The NMO-CE1 cartridge requires the Nubo Monitor One IoT base system for operation. For easy testing and evaluation, we recommend the evaluation Kit NMO-EVAL-CE1, which includes various mounting options, a wall-socket power supply and solar panels. On top the package includes one year of a free Nubo Cloud subscription.

#### System Specifications

Feature	Specification
Compatibility	Requires Nubo Monitor One sensor node and Nubo Cloud subscription for operation
Enclosure	In combination with Nubo Monitor One IP3x
Weight	141 g
Operating temperature range	-10 ... 50°C
Sensor failure detection	Redundant sensor health check, surveillance of component level parameters
Maintenance cycle	Indicated by maintenance algorithm, typically > 1 year
Certifications	MCERTS certified (Sira MC 200352/01) in combination with NMO-LTE

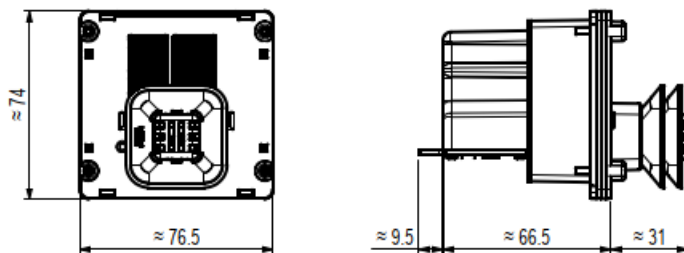
For further technical specification of the system please consult the Datasheet of Nubo Monitor One NMO-LTE at: <https://www.nubo-air.com/document/ds-nmo-lte>

### Performance Specifications

Parameter	Range	Accuracy	Averaging time	Comment
PM1.0	0 – 1000 µg/m <sup>3</sup>	R2 > 0.8	1 min	Consistency (1σ) in laboratory conditions.
PM2.5		Max of ±5 µg/m <sup>3</sup> or ±5%		Correlation with FRM instrument
Temperature	-40 – 120°C	±0.05 °C	1 min	Consistency (1σ) in laboratory conditions
		±0.5 °C		Consistency (1σ) on device level. Note that exposure to the sun leads to strong local inhomogeneity.
Relative humidity	0 – 100% RH	±1.5% RH	1 min	Consistency (1σ) in laboratory conditions
		±4% RH		Consistency (1σ) on device level. Note that exposure to the sun leads to strong local inhomogeneity.
Dew point	-40 – 120°C	±1 °C	1 min	Consistency (1σ) on device level. Independent of sun exposure
Pressure	260 - 1260 hPa	0.5hPa	1 min	Absolute pressure accuracy

All performance specifications are valid if used with a grid powered Nuboo Monitor One.  
Please contact us for further information concerning field performance.

### Technical Drawings



### Document Revision History

Date	Revision	Page(s)	Changes
07.05.2021	1.1	1	Added link to DS of NMO-LTE
07.05.2021	1.1	1	Updated MCERTS certificate
12.03.2021	1.0	All	Initial Version

### Contact and further information

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