

ESO-A 200

EnOcean Sensor Outdoor Air Temperature and Relative Humidity Sensor

ESO-A enables precise measurements of temperature and humidity in indoor and outdoor conditions. It is designed for use with the EnOcean Monitoring Outdoor Sensor (EMOS) module.



ESO-A implements dedicated sensor functionality capable of measuring both air temperature and absolute air humidity at the same location. The relative humidity is then calculated based on these two parameters.

ESO-A is connected to the EMOS via one of its Sensor Interfaces.

Outdoor usage is recommended with an protective cone to prevent false measurement due direct radio of sunlight or humidity contact. Protec-

tive cone can be ordered from various second sources.

TYPE
ESO-A 200

ORDERING CODE
H6095-A200

Features overview

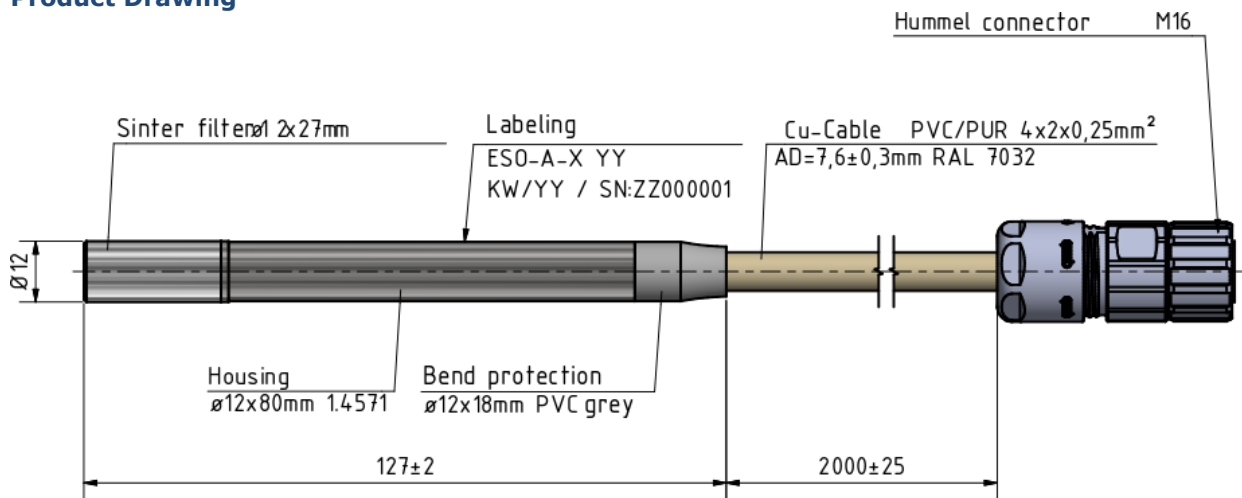
Used internal Sensor	SHT35 Sensirion
Temperature Measurement Range	-40 °C ... +90 °C
Temperature Measurement Resolution	0.1°C
Temperature Measurement Accuracy	+/- 0.2°C
Relative Humidity Measurement Range	0 % r.h. ... 100 % r.h.
Relative Humidity Measurement Resolution	0.5 % r.h.
Relative Humidity Measurement Accuracy	+/- 1,5% r.h. between 20 % r.h. ... 80 % r.h.
Sensor Data format	GSI with conversion to GP @ EMOS (NOTE 3)
GSI Sensor Type	Trigger Sensor (not powered constantly)
GP Data Channel Temperature	IDX:0 (12 bit, 0.15 °C step size)
GP Data Channel Humidity	IDX:1 (8 bit, 0.4% step size)
Sensor Product ID (6 bytes)	E0: Manufacturer ID 0001: Product ID CCCCC: Unique Sensor ID
Operating Temperature	-40 °C ... +60 °C
Operating Humidity	0 % r.h ... 100 % r.h. (Note 1)
Cable length	2000 mm +/- 25 mm
Protection Level of Housing	IP 67 (Note 2)

NOTE 1: ESO-A Temperature and Relative Humidity Sensor can be operated in moist environments with humidity levels up to 100% relative humidity. Exposing the sensor to condensing humidity or direct water impact will result in full scale readings until the water has cleared away from the sensor surface.

NOTE 2: For correct operation in outdoor condition a protecting cone is required.

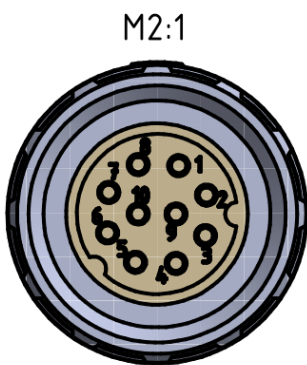
NOTE 3: For details see Generic Sensor Interface Specification.

Product Drawing



Pin Assignment

See Generic Sensor interface specification for details. Short overview listed below.



Pin configuration M16:

- Pin 1 = VDD_Switched
- Pin 2 = VDD_Permanent
- Pin 3 = SCL
- Pin 4 = GND
- Pin 5 = Sensor TRQ
- Pin 6 = GND
- Pin 7 = SDA
- Pin 8 = GND
- Pin 9 / 10 = Shortcut in connector

Label on Packaging



Date Code "KW/JJ": e.g. 04/18
 Step Code „YY": e.g. DA
 Order Code: H6095-A200

Date code on product refers to production date, date code on packaging refers to packaging date. There can be 1-3 days difference between these process steps.

Packaging Information

Each ESO-A is individually packet in a plastic protection 240x170mm. Sensor cable is rolled and fixed with rubber band.