



OMC-4XX Temperature Sensors

The Temperature humidity range consists of several sensors and accessories, for measuring air temperature, sea water temperature and relative humidity. As standard an OMC-406 is used for measurement of temperature and humidity. This sensor is supplied with two 4..20 mA outputs and should be mounted into a radiation shield. When only air temperature is required the OMC-443 may be applied. This sensor is also used on board ships for sea water temperature. In this last case the sensor is mounted into a the sea water inlet using a thermo well.

Features

- OMC-406
 - Combined temperature and humidity sensor
 - High accuracy
 - 4...20 mA outputs
- OMC-443
 - Temperature sensor
 - High accuracy (A class)
 - 4...20 mA output
- OMC-422
 - Multiplate radiation shield
 - Used for air temperature and/or rel. humidity measurement

On request Ex sensors are available



Cruise ship



Met station near dam

GENERAL

OMC-406

The air temperature and humidity probe OMC-406 provides accurate and precise measurements of both temperature and humidity in two 4...20 mA outputs. The temperature sensor within this probe is a Pt100 element while the principle of humidity measurement is based on a capacitive measuring device.

OMC443/448

The air temperature sensor OMC-443/448 provides an accurate measurement of temperature using a Pt100 sensing element. A build-in amplifier is provided with a 4...20 mA output. This corresponds with -40 to +60 deg. C. Of course other ranges are available on request.

The OMC-443 has a 1" NPT connection and fits in the OMC-422 (air temperature). The OMC-448 has a 1/2" NPT connection and fits in the OMC-449 (water temperature).

OMC-422

The OMC-422 multiplate anti-radiation shield is a naturally ventilated shield, designed for ambient temperature and relative humidity sensors. The convenient size and weight of this type make it useful for a wide range of applications.

OMC-449

The OMC-449 Thermowell is made of stainless steel 316 and has a 1/2" NPT connection.

DATA SUMMARY

OMC-406

HUMIDITY

- Measuring range 0 to 100% RH
- Accuracy at 23 deg. C $< \pm 1.5\%$ RH between 10 to 95%
- Reproducibility $< \pm 0.5\%$ RH
- Hysteresis for a 4 hour cycle $< 1\%$ RH
- Time constant at 23 deg. C < 15 sec.
- Temperature error $\pm 0.5\%$ RH
- Linear output 4...20 mA = 0...100 %



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TEMPERATURE

- Measuring range -40 to +60 deg. C
- Accuracy $< \pm 0.5$ deg. C.
- Reproducibility $< \pm 0.1$ deg. C.
- Time constant 15 sec.
- Linear output 4...20 mA
- Measuring system Pt100, 1/3 DIN

GENERAL

- Power supply 10 to 30 Vdc, 50 mA
- Protection of the sensors wire mesh filter
- Dimensions L. 265 mm, 25 mm dia
- Net weight 0.17 kg

OMC-443/448

TEMPERATURE

- Measuring range -40 to +60 deg. C.
- Accuracy $< \pm 0.3$ deg. C.
- Reproducibility $< \pm 0.1$ deg. C.
- Time constant 10 sec.
- Linear output 4...20 mA
- Measuring system Pt100, DIN class A
- Connection 2-wire

GENERAL

- Power supply 10 to 30 Vdc
- LED indication for proper connection
- Dimensions L. 225 mm, 65mm dia
- Net weight 0.25 kg

OMC-422 RADIATION SHIELD

- Dimensions overall 12 cm dia, height 27 cm, plates 2 mm thick, 11 mm spacing.
- Mounting V-block and U-bolt fit vertical pipe 25,50 mm dia.
- Net weight 0.7 kg

