



Product info sheet no. B 1.6
Humidity sensing elements, Modules
 Humidity frequency converter

Description

The MELA®-*humidity frequency converter* is an OE subassembly which converts the humidity signal into a calibrated frequency signal.

The advantages of it are:

- compact dimensions
- calibrated output signal
- low operating voltage
- low power consumption
- attractive price

Use of MELA®-capacitive *humidity sensor elements* is a guarantee of:

- high long-term stability
- good dynamic performance
- resistance to dew formation
- small hysteresis.

Technical data

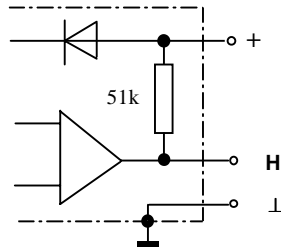
Humidity

Measuring range (10...90%rh).....	57.9...48.4 kHz
Accuracy (MB 10...90% rh at 10...40°C, 1m/s)	±3% rh
at <10°C, >40°C	<0.1%/K additional
Response time	10s
Ambiant temperature	-20...+80°C

Other data

Operating voltage	6...30V
Power consumption	approx. 1mA
Weight	approx. 3g

Output
Circuit



Typical form of
the output signal



The electrical connection must only be carried out by properly qualified personnel.

User instructions

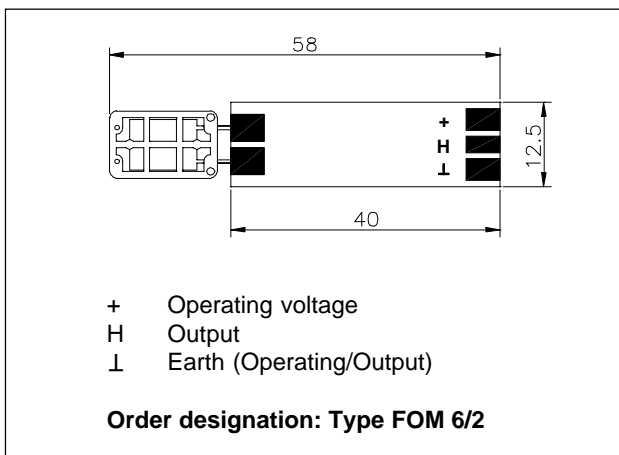
Install the MELA®-*humidity frequency converter* at a place in or on the equipment where characteristic levels of humidity can be measured. Avoid installing it close to heaters in places where it is likely to be splashed. Ensure that the sensing element is in a well ventilated area.

Dust does not cause any harm to the humidity sensor, however, it does affect dynamic performance. Do not touch the highly sensitive sensor element.

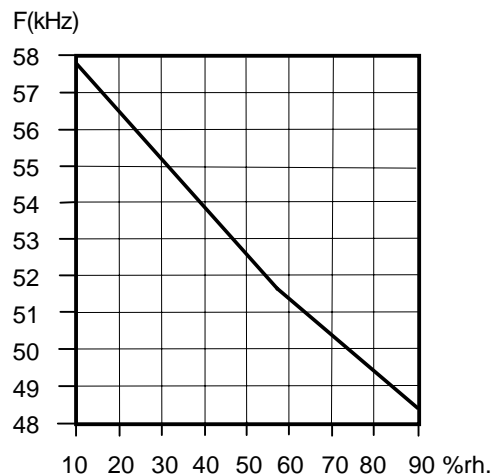
Intrinsic capacity (construction parts connected with earth) can result in additional error.

Please consult the „*application instructions for the sensing elements*“ (product info sheet no. A 1) or check with the manufacturer for further information which you need to bear in mind when using humidity sensors with capacitive

Dimensions



Frequency at the output as a function of relative humidity:



This information is based on current knowledge and is intended to provide details of our products and their possible applications. It does not, therefore, act as a guarantee of specific properties of the products described or of their suitability for a particular application. It is our experience that the equipment may be used across a broad spectrum of applications under the most varied conditions and loads. We cannot appraise every individual case. Purchasers and/or users are responsible for checking the equipment for suitability for any particular application. Any existing industrial rights of protection must be observed. The perfect quality of our products is guaranteed under our General Conditions of Sale. Issue : March 2004 B16_E. Subject to modifications.