



## 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

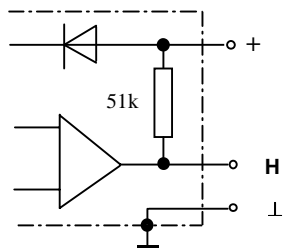
##### Humidity

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  
"subject to technical modifications"

Output  
Circuit



Typical form of  
the output signal



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

#### User instructions

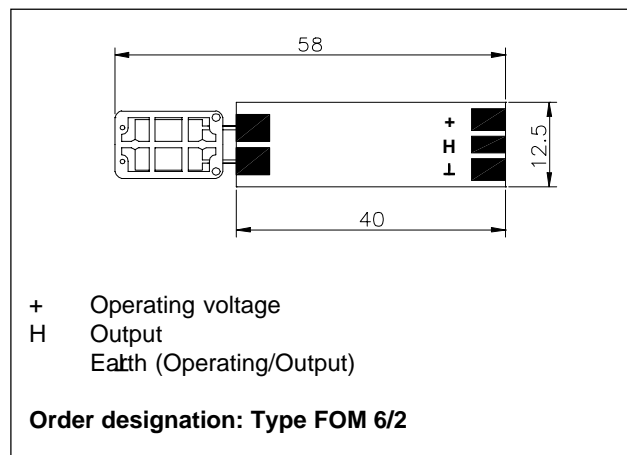
Install the MELA®-*humidity frequency converter* at a place in or on the equipment where characteristic levels of humidity can be measured. Avoid installing it close to heaters in places where it is likely to be splashed. Ensure that the sensing element is in a well ventilated area.

**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:

