

Humidity Sensor Module HSM 100

The humidity sensor module HSM 100 extends the functionality of STM 33x / STM 330C / STM 33xU / STM 431J temperature sensor modules.

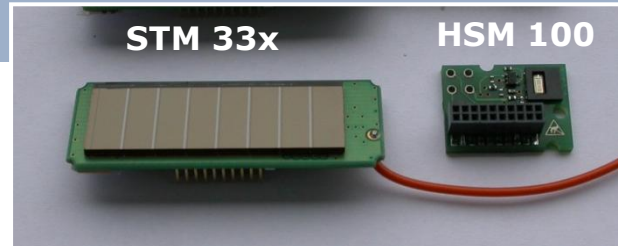
Functional Principle

HSM 100 contains an internal calibrated humidity sensor. It can be plugged onto members of the STM 33x / STM 431J module family via a 20 pin connector. The sensor signal is read via the ADIO3 input of STM 33x / STM 431J.

In order to be able to read the sensor signal, STM 33x / STM 431J has to be configured to an EEP supporting humidity. This can be done via Dolphin Studio.

Features Overview

Humidity sensor	measurement range 0%-100% r.h. resolution 0.4% r.h. accuracy typ. $\pm 5\%$ r.h. between 30%-70% r.h. and 0-40°C
Power supply	via SWPWR pin from STM 33x / STM 330C / STM 33xU / STM 431J
Module dimensions	18 x 13 mm
Operating temperature	-20 up to +60 °C



Type
HSM 100

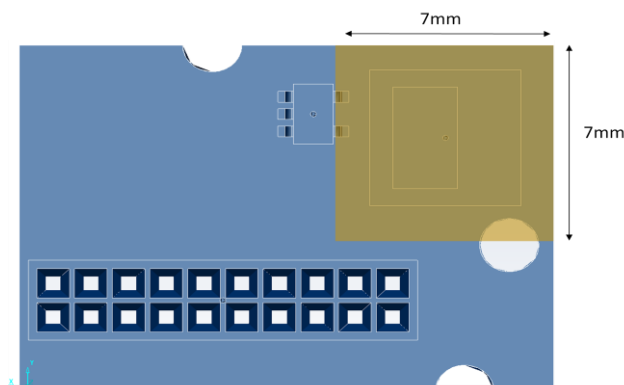
Ordering Code
S3095-D100

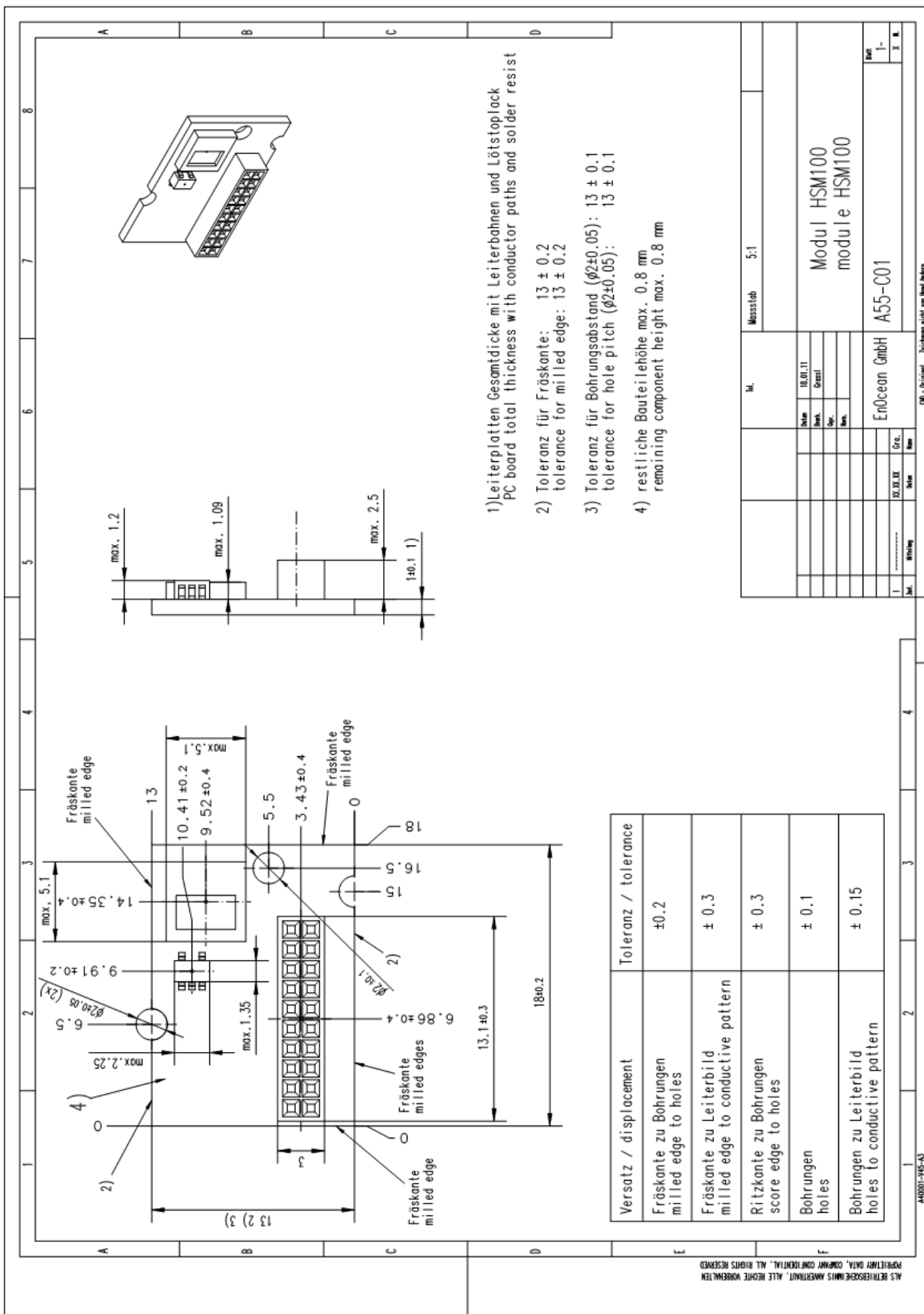


Please ensure sufficient ventilation of air inside the housing. Otherwise the measurement will not represent ambient humidity.



Please avoid any material within 2mm distance from the 7mm x 7mm area depicted in the figure below (in plane as well as above and below the PCB). The measurement might be influenced by detuning the capacitive sensor.





- 1) Leiterplatten Gesamtdicke mit Leiterbahnen und Lötstoplack
PC board total thickness with conductor paths and solder resist
- 2) Toleranz für Fräskante: 13 ± 0.2
tolerance for milled edge: 13 ± 0.2
- 3) Toleranz für Bohrungsabstand (Ø2±0.05): 13 ± 0.1
tolerance for hole pitch (Ø2±0.05): 13 ± 0.1
- 4) restliche Bauteilhöhe max. 0.8 mm
remaining component height max. 0.8 mm

Versatz / displacement	Toleranz / tolerance
Fräskante zu Bohrungen milled edge to holes	± 0.2
Fräskante zu Leiterbild milled edge to conductive pattern	± 0.3
Ritzkante zu Bohrungen score edge to holes	± 0.3
Bohrungen holes	± 0.1
Bohrungen zu Leiterbild holes to conductive pattern	± 0.15

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Rev.	Gr.	Rev.	Gr.	Rev.	Gr.	Rev.	Gr.	Rev.	Gr.
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EnOcean GmbH		EnOcean GmbH		EnOcean GmbH		EnOcean GmbH		EnOcean GmbH	
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Modul HSM100		Modul HSM100		Modul HSM100		Modul HSM100		Modul HSM100	
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Zurückgang stellt von Hand ablesen									