

DMTHM80x

Rel. Feuchte & Temperatur Sensor [rel. humidity & temperature Transducer]

- Messbereich: 0-100%rF & -40 bis +200°C
[range: 0-100%rH & -40 to +200°C]
- Druckfest bis 10 bar
[pressure proofed up to 10 bar]
- Wand- oder Kanalmontage und abgesetzter Sensor
[wall or duct or remote sensor]
- Analogausgänge: 0-5 V, 0-10 V, 4-20mA, RS485
[analog outputs: 0-5 V, 0-10 V, 4-20mA, RS485]
- Genauigkeit: $\pm 2\%$ rF & $\pm 0,15^\circ\text{C}$
[accuracies: $\pm 2\%$ rF & $\pm 0,15^\circ\text{C}$]
- Marke: eYc
[brand: eYc]



Spezifikationen [specifications]

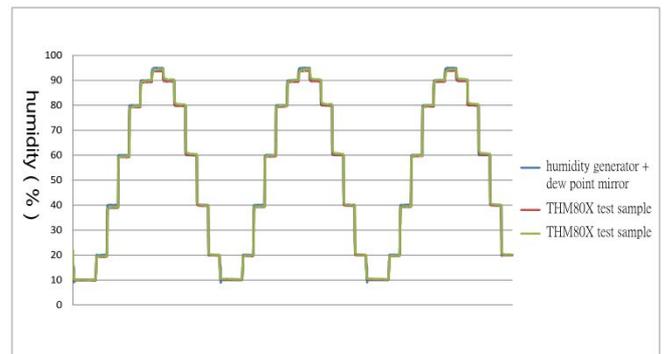
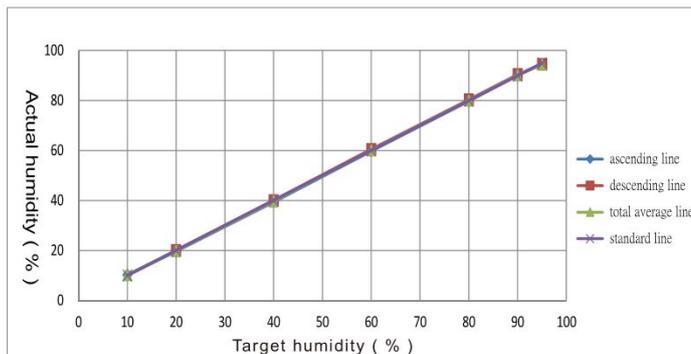
Messbereiche-Feuchte [ranges-humidity]	<p>Kapazitives Messelement [capacitive sensor]</p> <p>0 – 100%rF [rH]</p> <p>Berechnet [calculated]</p> <p>-40 - +60°C Taupunkt [dew point]</p> <p>-40 – 0°C Frostpunkt [frost point]</p> <p>0 – 100°C Feuchtkugeltemperatur [wet bulb temp]</p> <p>0 – 1100 mbar Wasserdampfdruck [vapor pressure]</p> <p>0 – 999 g/kg Mischungsverhältnis [mixture ratio]</p> <p>0 – 700 g/m³ Absolute Feuchte [absolute humidity]</p> <p>0 – 2800 kJ/kg Spezifische Enthalpie [specific enthalpy]</p>
Messbereich-Temperatur [range-temperature]	<p>PT100 Toleranzklasse [class] A</p> <p>-40 - +80°C Wandmontage [wall mounted]</p> <p>-40 - +120°C Kanalmontage [duct mounted]</p> <p>-40 - +200°C abgesetzter Sensor [remote sensor]</p>
Genauigkeit Temperatur [Accuracy temperature] @25°C	$\pm 0,15^\circ\text{C} \pm 0,002^\circ\text{C} \times t_{\text{actual}}$
Genauigkeit Feuchte [Accuracy humidity] @25°C	<p>0 – 90% rF [rH]:</p> <p>Nichtlinearität [non-linearity]: $\pm 1,2\%$rF [rH]</p> <p>Hysterese [hysteresis]: $\pm 0,8\%$rF [rH]</p> <p>Wiederholbarkeit [repeatability]: $\pm 0,4\%$rF [rH]</p> <p>90 – 100% rF [rH]: $\pm 2\%$rF [rH]</p>
Thermischer Empfindlichkeitsfehler [thermal sensitivity temp error]	0,05%rF/°C [rH/°C]

Versorgungsspannung [supply voltage]	8-35 VDC / 12-30 VAC
Stromaufnahme [power consumption]	24VDC: 60mA / 12VDC: 120mA 24VAC: 140mA / 12VAC: 230mA
Lastwiderstand [Load resistor]	mA: < 500 Ω V: >10 kΩ
Ausgangssignal [output signal]	0-5V, 0-10V, 0-1V, 0-20mA, 4-20mA (3-Leiter [3 wire]) RS485 + 2 Analogausgänge [analog outputs]
Ansprechzeit [response time] t90 @ 25°C	<30s (gesinterter [sintered] Filter)
Nullpunkt & Spanne Kalibrierung [zero & span calibration]	Software & Tastatur [keyboard]
Anzeigetyp [display type]	LCD mit Hintergrundbeleuchtung, 2 Zeilen [with back light, double line]
Messmedium [media measured]	Luft [air]
Feuchtebereich - Gehäuse [working humidity - housing]	0 – 95%rF nichtkondensierend [rH, non-cond.]
Betriebstemperatur - Gehäuse [operating temperature - housing]	-20°C+80°C
Betriebstemperatur – Gehäuse mit Anzeige [operating temperature – housing with display]	-20°C+60°C
Betriebstemperatur – abgesetzter Sensor [operating temperature – external probe]	Wandmontage [wall type]: -40 - +80°C Kanalmontage [duct type]: -40 - +120°C Externer Sensor [remote probe]: -40 - +200°C
Lagertemperatur [storage temperature]	-25°C.....+60°C
Druckdichtigkeit des abgesetzten Sensors [proof pressure for external probe]	10 bar
Elektrischer Anschluss [electrical connection]	M12 Stecker [connector] oder [or] Klemmleiste [terminal]
Schutzart [protect degree]	Gehäuse [housing]: IP67 Sensor [sensor]: IP20
Gewicht [weight]	450 – 640 g

3-cycle curve

※ According to IEC 61298 and ISO 17025 standard to measuring 3-cycle curve.

As the charts result, accuracy of test sample match with accuracy chart of humidity generator + dew point mirror



Bestellinformationen [ordering information]

type	DMTHM80	3	—	T	48	1	H	00	1	—	D	N	S	2
installation	wall duct remote	1 2 3	— — —											
physical quantity output 1	temperature humidity dew point frost-point web-bulb temperature vapor pressure mixture ratio absolute humidity specific enthalpy RS-485 (default temp.)			T H D F W E R V S N										
physical quantity scale 1	0 ... 50°C 0 ... 80°C 0 ... 100°C 0 ... 120°C 0 ... 180°C 0 ... 200°C -20 ... +40°C -40 ... +60°C -40 ... +120°C -40 ... +180°C -40 ... +200°C -70 ... +180°C as physical quantity measuring range list (H, F, W, E, R, V, S) special range				30 38 40 42 48 47 13 14 16 18 20 49 00 YY									
signal output 1	4 ... 20 mA 0 ... 20 mA 0 ... 10 V 0 ... 5 V 0 ... 1 V RS-485					1 2 6 7 8 9								
physical quantity output 2	temperature humidity dew point frost-point web-bulb temperature vapor pressure mixture ratio absolute humidity specific enthalpy RS-485 (default temp.)						T H D F W E R V S N							
physical quantity scale 2	0 ... 50°C 0 ... 80°C 0 ... 100°C 0 ... 120°C 0 ... 180°C 0 ... 200°C -20 ... +40°C -40 ... +60°C -40 ... +120°C -40 ... +180°C -40 ... +200°C -70 ... +180°C as physical quantity measuring range list (H, F, W, E, R, V, S) special range							30 38 40 42 48 47 13 14 16 18 20 49 00 YY						
signal output 2	4 ... 20 mA 0 ... 20 mA 0 ... 10 V 0 ... 5 V 0 ... 1 V RS-485								1 2 6 7 8 9					
display	no yes										X D			
electric connector	M16 metal cable gland M12 metal connector											N M		
filter	S.S. metal grid filter with mesh sintered filter												M S	
remote cable (max. length : 10 m)	2 m TEFLON cable 5 m TEFLON cable other length													2 5 —
option / other request	other request (quote as demand) RS-485 + analogue													W U

Abmessungen [dimensions]

