

Multifunctional Industrial Transmitter

for Humidity / Temperature / Dew Point / Absolute Humidity
/ Relative humidity / Enthalpy

HMX 350 Series



- ▶ HMX350W : Wall Mounting Type
- HMX350R : Remote Sensing Probe Type (Sensor separated from main body)
- HMX350P : Remote Sensing Probe type for high pressure (Maximum 20 bars)

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HMX 350 Series

HUMITRON® HMX350 series is easy to apply various environment. HMX350 is not only available to measure relative humidity and temperature, but also can measure various water data such as absolute humidity, dew point temperature, enthalpy, dry bulb temperature, wet-bulb temperature, water vapor pressure, water vapor saturation pressure, mixing ratio, water activity etc. It is equipped with stability and resolution at the same time by adopting VFD module suitable for industry environment at display part.

Measurable Parameter

RH	Relative humidity
T	Temperature
Td	Dew-point temperature
Tf	Frost-point temperature
Tw	Wet-bulb temperature
Pw	Water vapour pressure
A	Absolute humidity
x	mixture ratio
h	Enthalpy

Various installation method and protection filter

HMX350W : Wall mounting type

HMX350R : Remote sensing probe type
(Sensor separated from main body)

HMX350P : Remote sensing probe type for high pressure
(Maximum 20 bars)

Probe length is possible to select among 65mm/220mm/330mm
It is possible to select between mesh filter for high humidity and standard sintered alloy filter.

It is easy to compose networking using RS485 communication and Ethernet.

Can do remote data monitoring and data recording etc. by composing network easily through RS485 communication and Ethernet (install conversion module on outside).

Built-in strong self-logging function

Self logging function saves temperature, humidity and dew point according to time interval which designed by user in non-volatile memory installed on inside of HMX350's main body. So that it is easy to analyze in computer utilizing HMX data logging and analysis software.

Built-in multi channel 4~20mA output

HMX350 has built-in 4~20mA output of 3 points, it allows user to select measurement item needed transmission output user want to. In addition, user can set up output range.

Built-in relay output of 3 points

HMX350 has built-in relay output of 3 points, it allows user to select measurement item needed relay output user want to. In addition, user can set up contact output by various methods.



HMX350 cable type



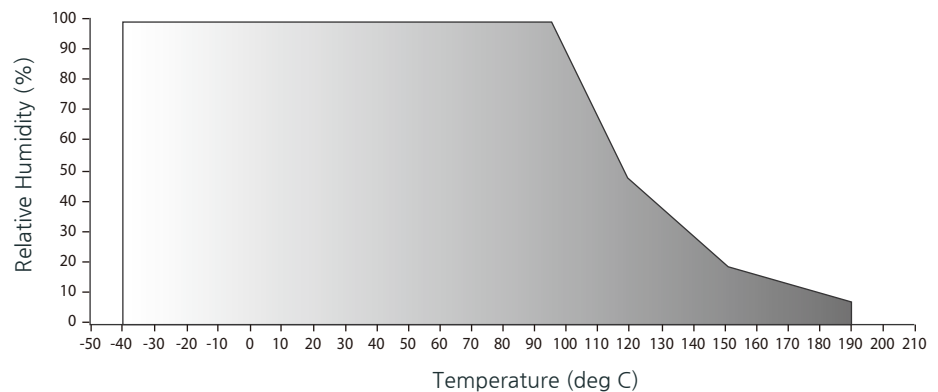
Stainless flange(MF-500)

Housing / Mounting Dimension

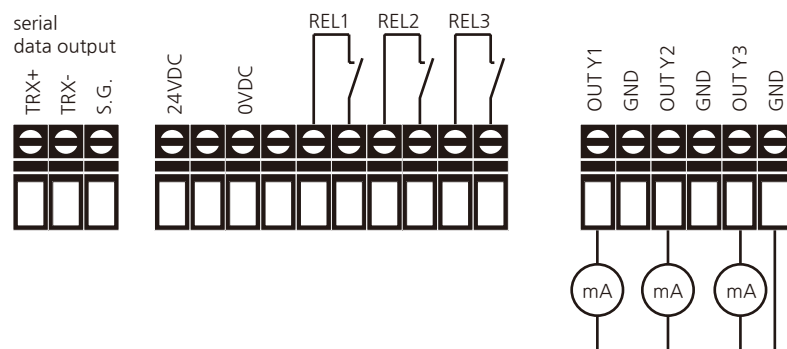
Relative humidity		
Working range	0...100%RH	
Accuracy (including hysteresis, non-linearity and repeatability)		
standard	±2.0%RH	±3.0%RH (≥90%RH)
special calibration	±1.0%RH	±2.0%RH (≥90%RH)
Response time with metal grid filter at 20°C / t90	≤ 15 Sec	
Temperature		
Working range	-50...200°C (Short term 220°C)	
Temperature sensor element	PT100 (Tolerance class A)	
Accuracy	±0.2 °C (Full Range)	
Transmission Outputs		
Three freely selectable and scaleable analogue outputs	4~20mA (3 points)	Load Resistance ≤ 500 ohm
Relay Outputs		
Three freely selectable relay outputs	contact (3 points)	
General		
Supply voltage	15...32V DC 12...24V AC	
Current consumption	for 24V DC/AC: type. 200mA	
Pressure range for pressure tight probe	0.01...20bar (0.15...300psi)	
System requirements for software	Windows 2000 or later, serial interface	
Housing / protection class	AI / IP65 (NEMA 4)	
Cable grand	Three M12(Aluminum)	
Electrical connection	screw therminals up to max. 1.5mm ⁱ (AWG16)	
Working and storage temperature of electronics	-40...60°C	

Working Range

- Gray area of graph in right is showing measurement area of humidity sensor.
- If escape measurable area, we cannot guarantee for hygrometry accuracy.



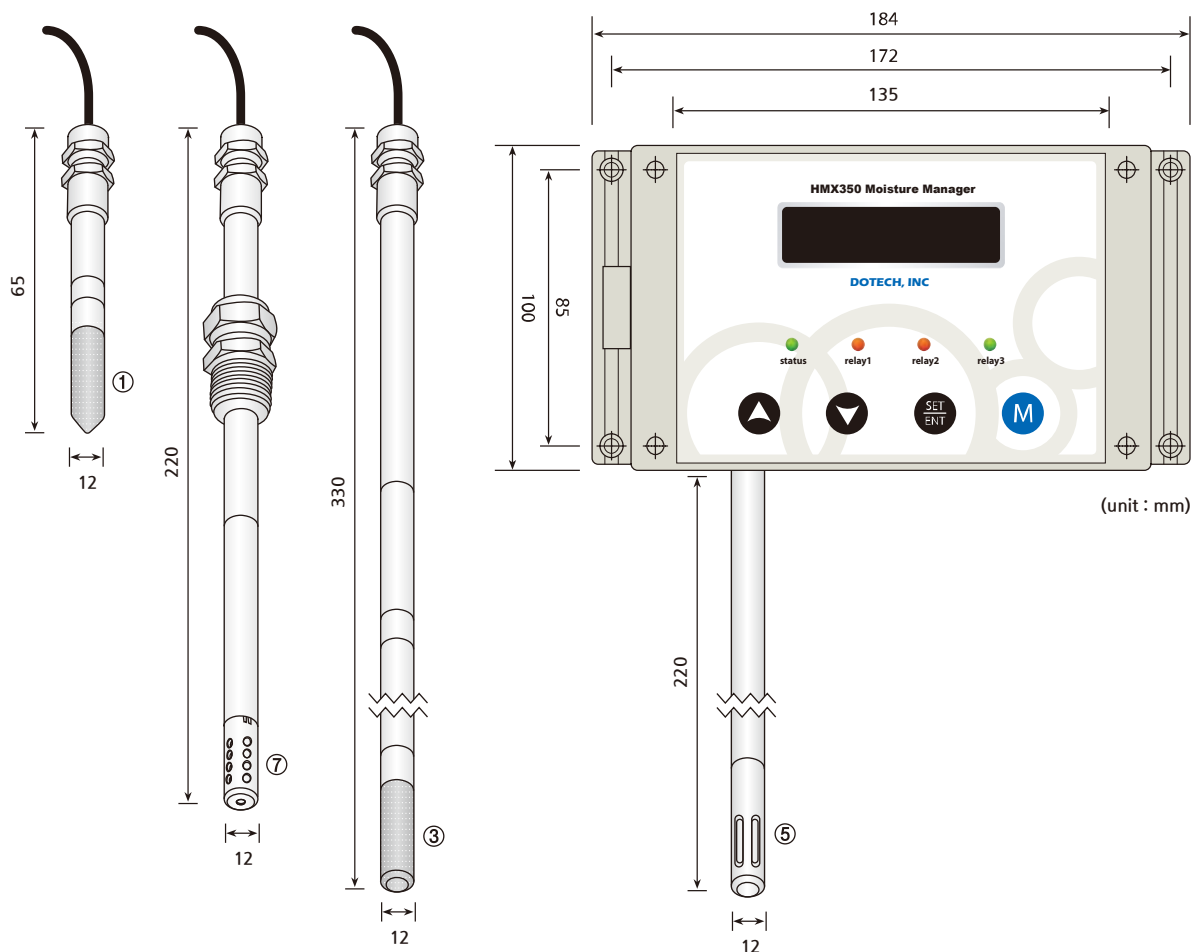
Connection Diagram



Ordering Guide

Serie	Mount	Probe length	Cable length	Filter	Calibration	Description	
HMX350	W					wall	
	R					remote control sensing probe	
	P					remote control sensing probe (pressure tight up to 40bar)	
			-				for HMX350W type
			S				65mm
			M				220mm
			L				330mm
				02			remote cable 2m
				05			remote cable 5m
				10			remote cable 10m
				20			remote cable 20m
					1		stainless steel sintered filter
					2		stainless steel mesh filter (low)
					3		stainless steel mesh filter (high) : standard
					5		stainless steel grid filter
					7		stainless steel hole filter
						-	2% calibration standard
					CA1	1% calibration	
Accessories		MF-500 Flange					
		MF-700 Flange					

Outline Dimension



Some contents could be changed without prenotification / Edition 07/2009