

HN-EK SERIES

WALL MOUNTING TYPE TEMPERATURE / HUMIDITY METER



“Proper Measurement” for air condition management

HN-EK series is thin designed wall-mounting type to eliminate the exterior disturbance to the utmost.

Recommended for pharmaceutical storage / warehouse, incubation room, etc., which requires high accuracy temperature and humidity measurement.

■ FEATURES

- Regress the heat conduction effect from the installment surface and realize high accuracy measurement.
- Easy maintenance by exchanging sensor unit.
- Thin design, installable to anyplace.

■ MODELS

HN-EK□□N

- Output signal
 - A : Temperature : 4 to 20mADC (2-wire transmission)
Humidity : 4 to 20mADC (2-wire transmission)
 - B : Temperature: Pt100, 3-wire
Humidity : 4 to 20mADC (2-wire transmission)
 - 1 : Temperature range -10 to 55 °C
 - 2 : Temperature range 0 to 50 °C

*Temperature 4 to 20 mADC only HN-EKB2N is not set



HN-EPK001

【Accessories】Thermoplate fixing Screws

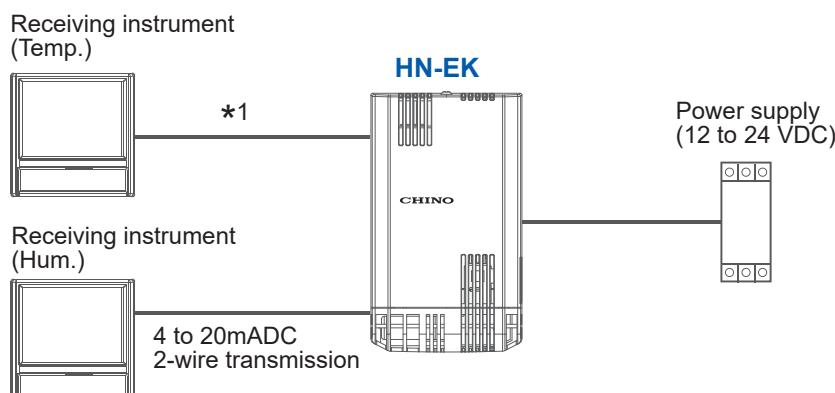
(Flat M4L10)2 NOS

Instruction Manual 1

【Note】DIN RAIL (Width 35MM) is not provided

- Option part HN-EPK001
DIN rail mounting plate

■ CONFIGURATION



*1 HN-EKA□N : 4 to 20mADC (2-wire transmission)
HN-EKB1N : Pt100, 3-wire

High accuracy sensor equipped

Realize $\pm 2\%$ RH measurement at vast range.

Adopt platinum resistance thermometer (accuracy: $\pm 3^\circ\text{C}$)

(Select output from either 4 to 20mADC 2-wire transmission or Pt100 Ω 3-wire).

Sensor unit exchangeable

Traceability certificate issuable just for the exchanging sensor unit.

Model name: HN-ESKA9N for HN-EKA□N, HN-ESK9BN for HN-EKB1N.

Annual exchanging is recommended.



Easy installment

Installable to general purpose embedded box.

(Installation pitch 83.5mm (JIS C8435))

Regress the heat conduction effect from the installment surface

Thermo-plate to cut the heat from large heat capacity wall or pillar is standard attached.

● Before attachment



Embedded box

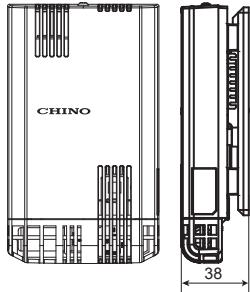
● After attachment



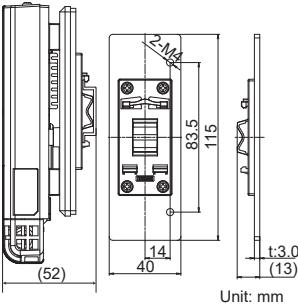
Thermoplate

External dimensions

● When attached to DIN RAIL mounting plate



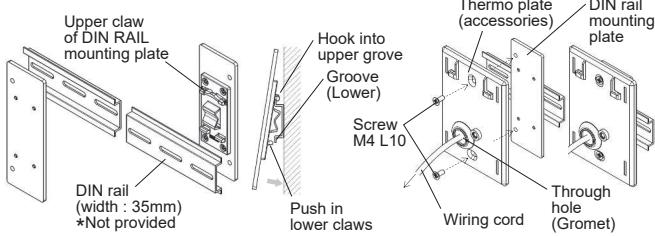
● DIN RAIL mounting plate



Installation method of DIN rail mounting plate

● How to mount on DIN RAIL

Hook the upper claw of the DIN-rail mounting plate onto the upper groove of the existing DIN rail (width 35 mm, recommended length 100 mm or more) fixed to a wall or other surface, and then press the lower claw into the lower groove to fit it.



● How to attach thermoplate

Pass the wiring cord through the through-hole (grommet) of the thermoplate (provide with the main unit) from the back side. Secure it to the installed DIN-rail mounting plate using two thermoplate mounting screws (flat head M4, length 10 mm) provided.

Specifications

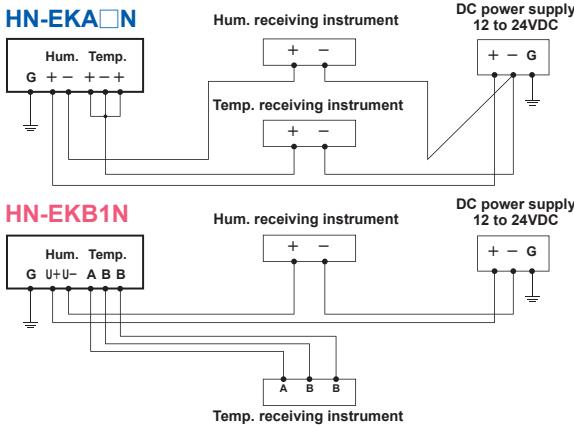
Model	HN-EKA1N	HN-EKA2N	HN-EKB1N
Humidity sensor	High-polymer capacitance type		
Measuring range	0 to 95%RH		
Accuracy rating	$\pm 2\%$ RH (at 5 to 90%RH, 25°C)		
Response time	Within 15 seconds *1		
Output signal	4 to 20mADC 2-wire transmission (for 0 to 100%RH)		
Resistance load	500 Ω or less (at 24VDC power supply)		
Temperature sensor	Platinum resistance thermometer, Pt100 equivalent		
Measuring range	-10 to 55°C	0 to 50°C	-10 to 55°C
Accuracy rating	$\pm 0.3^\circ\text{C}$		
Response time	Within 10 minutes (at 0.15m/s ventilation)		
Output signal	4 to 20mADC 2-wire transmission (for -10 to 55°C) (for 0 to 50°C)		Pt100 (100 Ω at 0°C) 3-wire
Resistance load	500 Ω or less (at 24VDC power supply)		
Sensor compatibility	Compatible by sensor unit		
Power supply	12 to 24VDC		
Connection	Spring type terminal board (AWG 14 to 28)		
Installation	Screw terminal (M4 screw x 2 each)		
Working temp./ hum. range	-10 to 55°C, 0 to 95%RH (no dew condensation)		
	EMC: F2014/30/EU		
CE Marking	EN61326-1: F2013 Class A		
	Stability/ Hum. $\pm 3\%$ RH, (Temp. $\pm 1.5^\circ\text{C}$ only for HN-EKA)		

*1 Under the test environment by EMC directives.

RoHS: 2011/65/EC, EN50581: 2012

*1 : Response condition: Step response to humidification

Connection

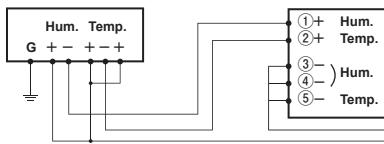


● Humidity converter HN-GV *2

Converts and output to absolute humidity, relative humidity, mixing ratio, vapor pressure and dew point.



HN-EKA□N



*2 : Corresponds to HN-EKA□N only

Specifications subject to change without notice. Printed in Japan (I) 2026. 1

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