

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

- Option part HN-EPK001
DIN rail mounting plate



HN-EPK001

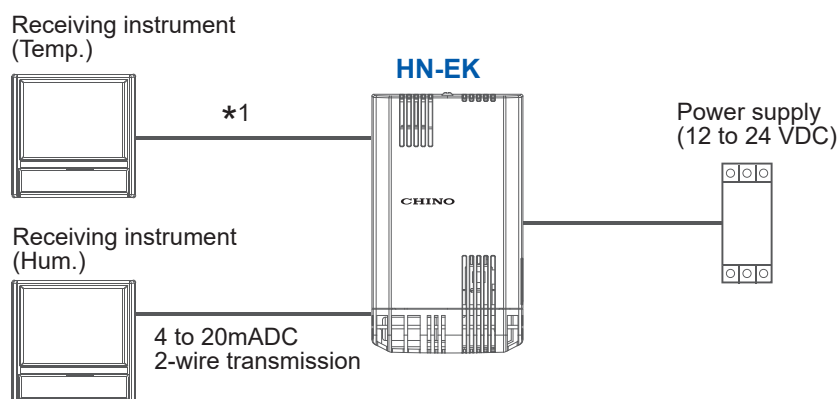
【Accessories】Thermoplate fixing Screws

(Flat M4L10)2 NOS

Instruction Manual 1

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

■ CONFIGURATION



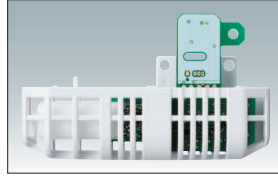
*1 HN-EKA□N : 4 to 20mADC (2-wire transmission)
HN-EKB1N : Pt100, 3-wire

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 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.



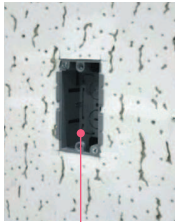
Easy installment

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

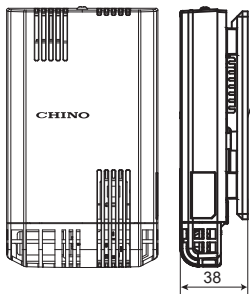
After attachment



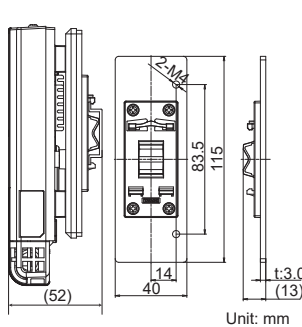
Thermo-plate

External dimensions

When attached to DIN RAIL mounting plate



DIN RAIL mounting plate

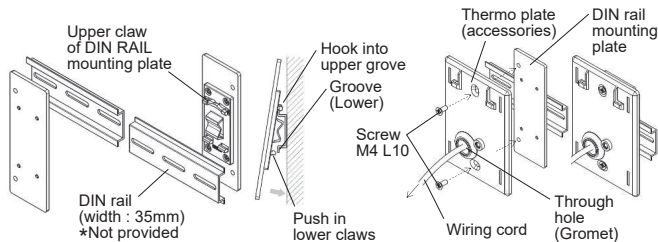


Unit: mm

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 thermo-plate

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

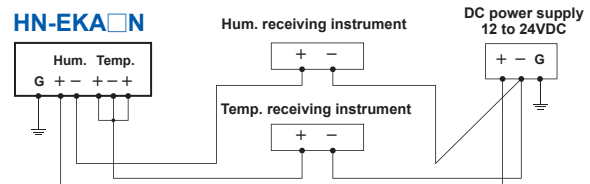
Specifications

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	500Ω 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 (100Ω at 0°C) 3-wire
Resistance load	500Ω 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)		
CE Marking	EMC: F2014/30/EU EN61326-1: F2013 Class A Stability/ Hum. $\pm 3\%$ RH, (Temp. $\pm 1.5^\circ\text{C}$ only for HN-EKA) *Under the test environment by EMC directives. RoHS: 2011/65/EC, EN50581: 2012		

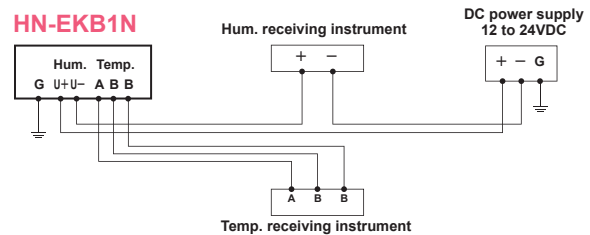
*1 : Response condition: Step response to humidification

Connection

HN-EKA□N



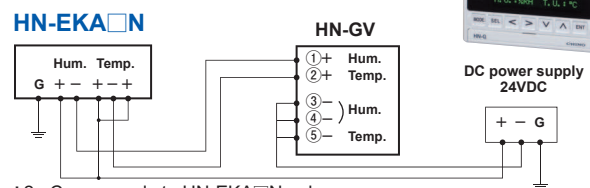
HN-EKB1N



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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