

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.



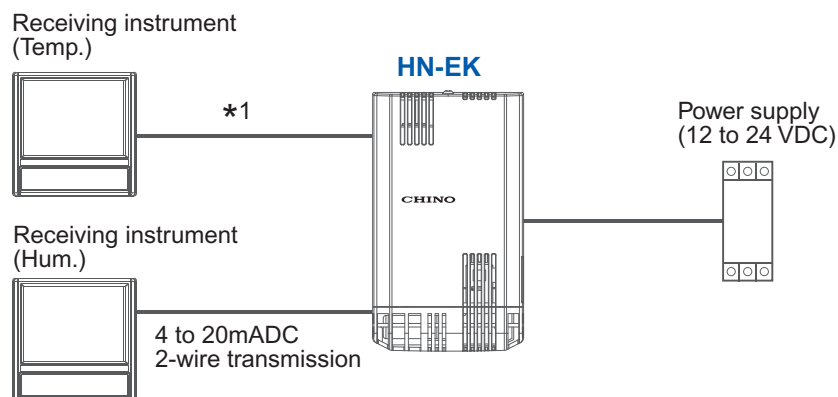
MODELS

HN-EK□1N

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)

CONFIGURATION



*1 HN-EKA1N: 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-EKA1N, HN-ESK9BN for HN-EKB1N.
Annual exchanging is recommended.



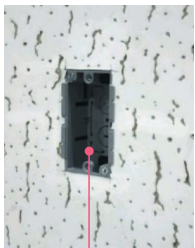
Easy installment

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

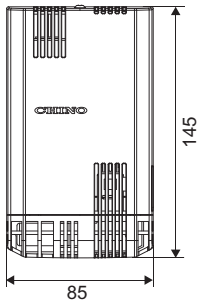
After attachment



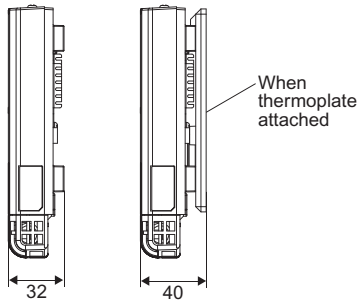
Thermoplate

External dimensions

Front



Side



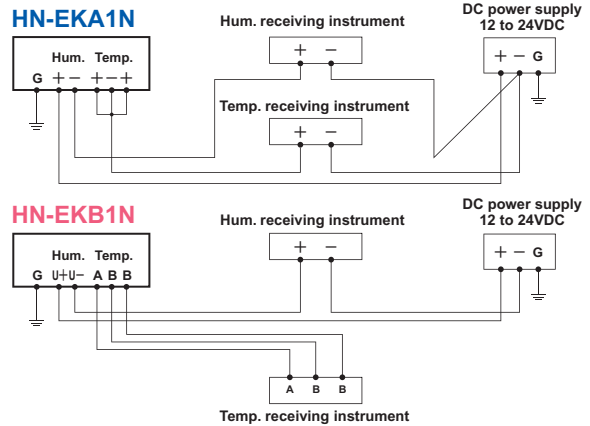
Unit: mm

Specifications

Model	HN-EKA1N	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	
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)	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	-15 to 60°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	

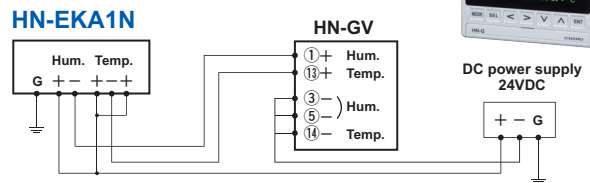
*1 : Response condition: Step response to humidification

Connection



Humidity converter HN-GV *2

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



*2 : Corresponds to HN-EKA1N only

Specifications subject to change without notice. Printed in Japan (I) 2017. 11

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