HN-EK SERIES
WALL MOUNTING TYPE TEMPERATURE / HUMIDITY METER

PS PERFORMANCE SPECIFICATION
CHINO

"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.
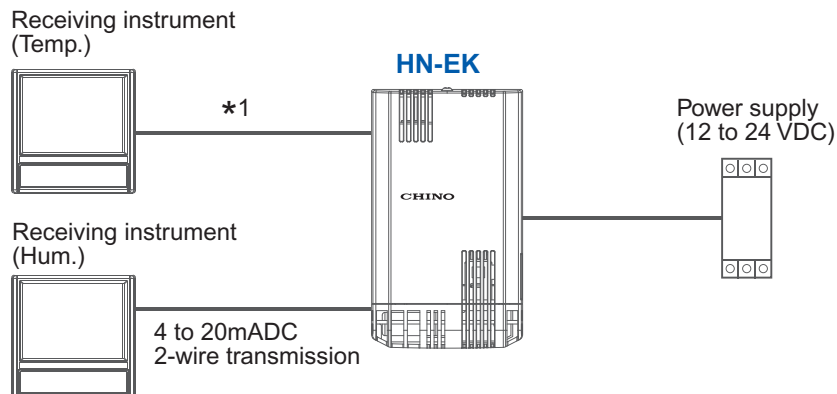● Thin design, installable to anyplace.

■ 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

Receiving instrument (Temp.)

*1

HN-EK

Power supply (12 to 24 VDC)

Receiving instrument (Hum.)

4 to 20mADC 2-wire transmission

*1 HN-EKA1N: 4 to 20mADC (2-wire transmission)
    HN-EKB1N: Pt100, 3-wire

PSE-713A

High accuracy sensor equipped

Realize ±2%RH measurement at vast range
Adopt platinum resistance thermometer (accuracy: ±3 ℃)
(Select output from either 4 to 20mADC 2-wire transmission or Pt100Ω 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))

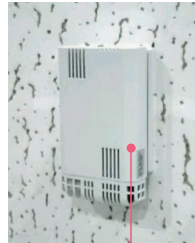## Regress the heat conduction effect from the installment surface

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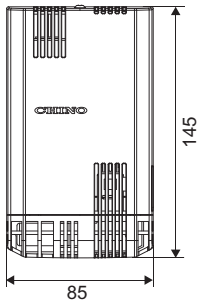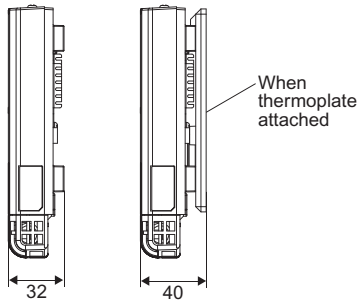
●Before attachment

Embedded box

●After attachment

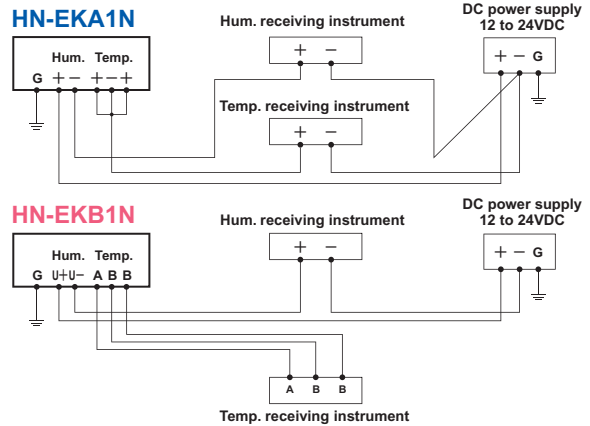Thermoplate

External dimensions

●Front

145

85

●Side

When thermoplate attached

32   40

Unit: mm

Specifications

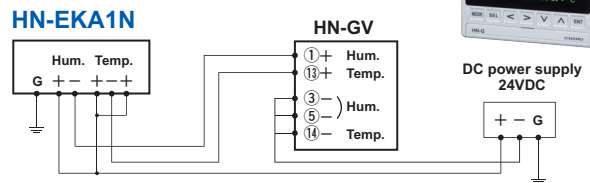| Model	HN-EKA1N	HN-EKB1N
Humidity sensor	High-polymer capacitance type	
Measuring range	0 to 95%RH	
Accuracy rating	±2%RH (at 5 to 90%RH, 25ºC)	
Response time	Within 15 seconds [1]	
Output signal	4 to 20mADC 2-wire transmission (for 0 to 100%RH)	
Resistance load	500Ω or less (at 24VDC power supply)	
Temperature sensor	Platinum resistance thermometer, Pt100 equivalent	
Measuring range	-10 to 55ºC	
Accuracy rating	±0.3ºC	
Response time	Within 10 minutes (at 0.15m/s ventilation)	
Output signal	4 to 20mADC 2-wire transmission (for -10 to 55ºC)	Pt100 (100Ω at 0ºC) 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	-15 to 60ºC, 0 to 95%RH (no dew condensation)	
CE Marking	EMC: F2014/30/EU EN61326-1: F2013 Class A Stability/ Hum. ±3%RH, (Temp. ±1.5ºC 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-EKA1N

Hum. Temp.
G + − + − +

Hum. receiving instrument
+ −

Temp. receiving instrument
+ −

DC power supply 12 to 24VDC
+ − G

HN-EKB1N

Hum. Temp.
G U+U− A B B

Hum. receiving instrument
+ −

DC power supply 12 to 24VDC
+ − G

A B B

Temp. receiving instrument

●Humidity converter HN-GV [2]

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

HN-EKA1N

Hum. Temp.
G + − + − +

HN-GV
①+ Hum.
⑬+ Temp.
③− Hum.
⑤−
⑭− Temp.

DC power supply 24VDC
+ − G

[2] : Corresponds to HN-EKA1N only

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