

HTX62C/D-EX Series

Humidity(Dewpoint) & Temperature Transmitters With Display, Communication

FEATURES

- The Built-in FND Display (Inside of case)
- Digital Calibration Function
- Maximum & Minimum Value Display
- Error Display

APPLICATIONS

- HVAC System
 - Clean room / Humidifier / Dehumidifier
 - AHU (Air Handling Unit)
- Building Automation
 - Botanical Garden & Farm / R&D Center
 - Museum / Exhibition Hall / Laboratory
- Industry (Production / Storage)
 - Semi-Conductor / Electric Railway
 - Train / Rotary Machine Room
 - Pharmacy / Food / Factory Automation
- Environmental Detection System
 - Climate / Road
 - Mobile Communication Base Station

EXPLOSION-PROOF TECHNICAL DATA

Certificates:

Empty enclosure: PTB 01 ATEX 1061U
Terminal enclosure: PTB 00 ATEX 1002

Material:

Glassfibre-reinforced duroplastic polyester, graphite added

Colour:

Similar to RAL 9011, black

Ingress protection:

IP 66, EN 60529

Impact resistance:

>7 Joule, EN 50014

Flammability:

Self-extinguishing, UL 94/V0

Surface resistance:

<109 Ohm, EN 50014 / IEC 60079-0

Water absorption:

Max. 0.7 %, ASTM D570

Toxicity:

Halogenfree

Weather resistance:

UV-stabilized

Temperature range of application acc. EN:

-20° to + 40°C
(corresponds T6 = 85°C surface temperature)
-20° to + 55°C
(corresponds T5 = 100°C surface temperature)
-55°C with special marking on request

HUMITRON® HTX62C-EX Series is sensor for environment measurement which provide high accuracy and stability using the microprocessor.

Explosion protection:

Ⓔ Ex II 2 G / 2 D

EEx e II T6 (increased safety)

EEx ia IIC T6 (intrinsic safety)

EEx e(ia) IIC T6 (mixed fitting)

Temperature class T5 on request

- Variety of Power Input
 - DC9V ... DC24V
 - On 4 ... 20mA, use DC24V
- Support RS485, MOD-BUS PROTOCOL
 - Modbus RTU/ASCII
- Support Exclusive Software
 - State Display, Logging Function etc

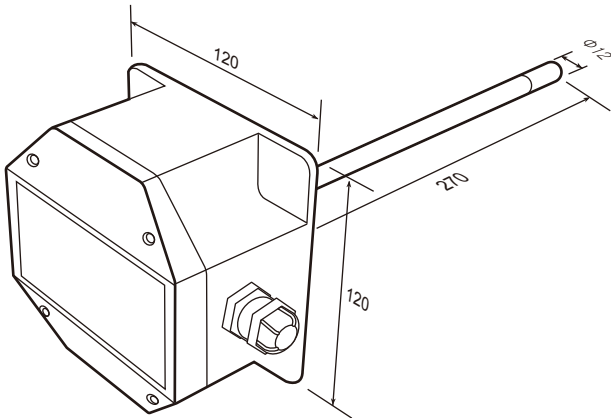


SPECIFICATIONS

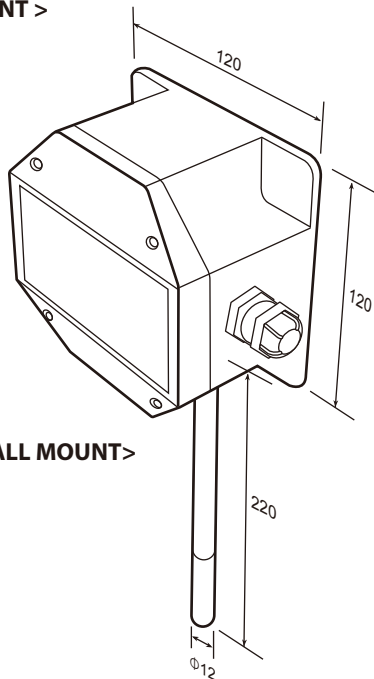
| Item | Model | HTX62C(W/D/R)-EX | HTX62D-EX |
|---------------------|---------------|---|------------------------|
| Humidity | Working Range | 0...100%RH (Non-Condensation) | -40...120°C (Dewpoint) |
| | Accuracy | ± 1.8%RH | ± 2.0 °C |
| | Repeatability | ± 0.1%RH | ± 0.1 °C |
| | Response | Max. 10Sec. : 1/e (63%) at 25°C, 1m/s air | |
| | Output | 4...20mA | |
| Temperature | Working Range | -20...80 °C | |
| | Accuracy | 25 °C @ ± 0.3 °C | |
| | Repeatability | ± 0.1 °C | |
| | Response | 5...30Sec., 1/e (63%) | |
| | Output | 4...20mA (-30...70°C : Output Range Settable) | |
| Self Diagnostic | | Sensor Fault Detect, Communication Fault Detect | |
| Power Supply | | DC24V, Max 0.2A | |
| Dimension(W×H×Dmm) | | Case : 120x120x75.5 / Duct : 270mm x 12 / Wall : 125mm x 15 | |
| BPS Speed, Protocol | | Modbus RTU/ASCII, 2400, 4800, 9600, 19200, 38400 BPS | |
| Cablegrand | | PG9 (Bright Black, Anti-Drag, 3...6.5mm) | |
| Wiring Method | | 4-Pin X 2ea Terminal Block, 14...22AWG | |
| Storage Condition | | -25...60°C, Non-condensation | |
| Operating Condition | | -20...55°C 0...95%RH | |
| Housing | | ABS, Water-Proof(IP65) | |
| Weight | | Duct : 757g / Wall : 764g | |



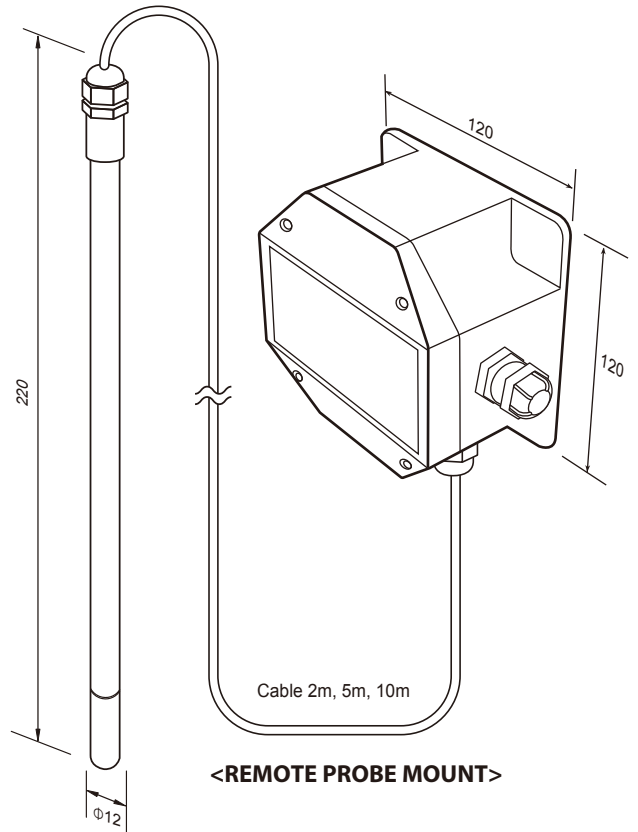
Full Dimensions of each types



<DUCT MOUNT>

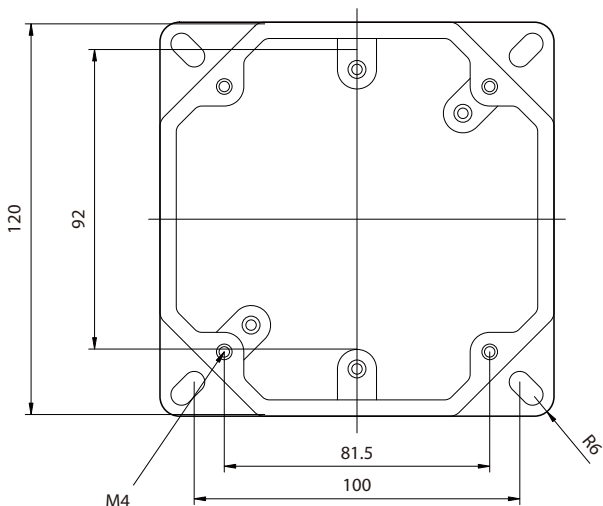


<WALL MOUNT>



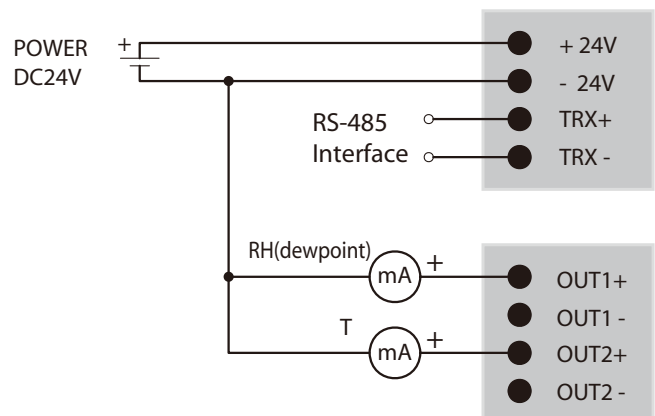
<REMOTE PROBE MOUNT>

Housing / Mounting Dimension



<BASE PART>

Connection Diagram



Ordering Guide

| Basic No. | Series | Mount | Type | Cable length | Description |
|-----------|--------|-------|------|--------------|---|
| HTX | | | | | HUMITRON HTX Series Transmitters |
| | 62C | | | | RH : $\pm 2.0\%$, Temp : $\pm 0.3^\circ\text{C}$ |
| | 62D | | | | Dewpoint & Temperature |
| | | W | | | Wall Mount Type |
| | | D | | | Duct Mount Type |
| | | R | | | Remote Probe Type (2m, 5m, 10m) |
| | | | | 00 | Display Only |
| | | | | 10 | 4...20mA Output Function |
| | | | | 01 | RS-485 MODBUS Communication Function |
| | | | | 11 | 4...20mA Output & Communication Function |

Parameter List

| Item | Name Of Parameter | Name Of Parameter | Setting Range (Description) | Initial Value | User Setting Value |
|------|-------------------|--|---|-----------------|--------------------|
| 1 | <i>r.oFS</i> | Measure humidity(dewpoint) offset value | -10.0 ... +10.0 % -10.0 ... +10.0 Td | 0.0 % 0.0 Td | |
| 2 | <i>r.SCH</i> | Max. humidity(dewpoint) of Transmission output Scale (at 20mA) | 0 ... 100 % -40 ... 120 Td | 100 % 80 Td | |
| 3 | <i>r.SCL</i> | Min. humidity(dewpoint) of Transmission output Scale (at 4mA) | 0 ... 100 % -40 ... 120 Td | 0 % -40 Td | |
| 4 | <i>r.OoF</i> | Offset humidity(dewpoint) of Transmission output | -3.00 ... + 3.00 mA | 0.00 mA | |
| 5 | <i>t.oFS</i> | Measure temperature offset value | -10.0 ... +10.0 °C | 0.0 °C | |
| 6 | <i>t.SCH</i> | Max. temperature of Transmission output Scale (at 20mA) | -40 ... 120 °C | 70 °C | |
| 7 | <i>t.SCL</i> | Min. temperature of Transmission output Scale (at 4mA) | -40 ... 120 °C | -30 °C | |
| 8 | <i>t.OoF</i> | Offset temperature of Transmission output | -3.00 ... + 3.00 mA | 0.00 mA | |
| 9 | <i>C.Adr</i> | Address for End Address | 1 ... 64 | 1 | |
| 10 | <i>C.Pro</i> | Protocol Mode | 0 : MODBUS RTU 1 : MODBUS RTU2 2 : MODBUS RTU3 | 0 | |
| 11 | <i>C.bPS</i> | Baud-rate | 0 : 600, 1 : 1200 2 : 2400, 3 : 4800 4 : 9600, 5 : 19200 6 : 38400 | 4 : 9600 bps | |
| 12 | <i>C.Pr1</i> | Parity | 0 : None 1 : Even 2 : Odd | 0 : None | |
| 13 | <i>C.StP</i> | Stop bit | 1 : 1-bit 2 : 2-bit | 1 : 1-bit | |
| 14 | <i>C.dLn</i> | Data bit | 7 : 7-bit 8 : 8-bit (fixed) | 8 : 8-bit | |

Operation Sequence and Parameter map

o Set display mode

▲ Pushing for 3Sec. + **Set**

23.2 °C
58.2 %
Display Temperature / Humidity

12.32 °C
15.82 %
Retrans. Display
(Unit : mA)

-dP- °C
10.2 %
Dew point Display
(Unit : °C)

r.nA4 °C
70.2 %
Humidity Max.
(Unit : %)

▼ Reset

r.n 1n °C
38.2 %
Humidity Min.
(Unit : %)

▼ Reset

t.nA4 °C
38.2 %
Temperature Max.
(Unit : °C)

▼ Reset

t.n 1n °C
10.2 %
Temperature Min.
(Unit : °C)

▼ Reset

Prno °C
1130 %
Program No. Display

o Set point change mode

Set Pushing for 3Sec.

r.oFS Cal. of Humidity(dewpoint)
r.SCH Range Max. of Humidity(dewpoint)
r.SCL Range Min. of Humidity(dewpoint)
r.Dof Cal. of Humidity(dewpoint) Retrans

t.oFS Cal. of Temperature
t.SCH Range Max. of Temperature
t.SCL Range Min. of Temperature
t.Dof Cal. of Temp Retrans

CAdr Communication ID
CPro Communication Protocol Method
CbPS BPS Set
CPr 1 Communication Parity bit set
CStP Communication Stop bit set
CdLn Communication Data Length set

n.d 15 Display interval set

Set

Set Pushing for 3Sec.