



THS88ECO Industrial Dew Point Transmitter



| Features |

- OEM Economic-Type Bulk Products
- Wide measuring range : -80 ... +20°C dew point, with fast response $t_{90} < 20s$
- Standardized installation : Universal 1/2" G thread for easy integration and simple maintenance
- Interference resistance & reliability : EMC immunity, anti-condensation design, and low sensitivity to temperature variations ensure precise performance even in harsh environments
- Premium materials : Aluminum alloy housing, SUS304 probe, and SUS316 sintered filter for durability and corrosion resistance
- High consistency : Mixed-gas calibration and cyclic verification (IEC 61298 & ISO 17025 procedures) ensure measurement consistency with laboratory-grade equipment

| Applications |

Compressed air system / Air separation equipment / Freezer / Adsorption machine / Plastic dryer / Industrial drying process / Paper / Chemical process monitoring

| Specification |

Input

Input type Capacitive humidity sensor & Pt100

Operating range of dew point -80 ... +20 dp°C

Output

Max. scaling range Dew point : -80... +20 dp°C

Output signal Standard 4 ... 20 mA+RS-485 /

0 ... 10 V+RS-485 on request

Signal connection 3-wire

Linear accuracy -60 ... +20 dp°C : ± 2.5 dp°C

-80 ... -60 dp°C : ± 5 dp°C

Load resistance Current output : $\leq 500 \Omega$

Voltage output : $\geq 100 K\Omega$

Output calibration Software

(ZERO & SPAN)adjustment range <20 sec

Response time t90

(Temp. at+25°C)

Electrical

Power supply DC 24 V $\pm 15\%$

Current consumption DC 24 V / 50 mA

Electrical connection M12 connector

Environment

Medium Air

Operating Temp. for housing -40 ... +60°C

Operating Humid. for housing 0 ... 95%RH (Non-condensing)

Operating Temp. for probe -40 ... +60°C

Storage temperature -25 ... +60°C

Installation

Installation 1/2"G

Protection

IP rating IP65(Probe : IP20)

Electrical protection ■ Reverse polarity

■ Over-voltage

■ Short-circuit

Material

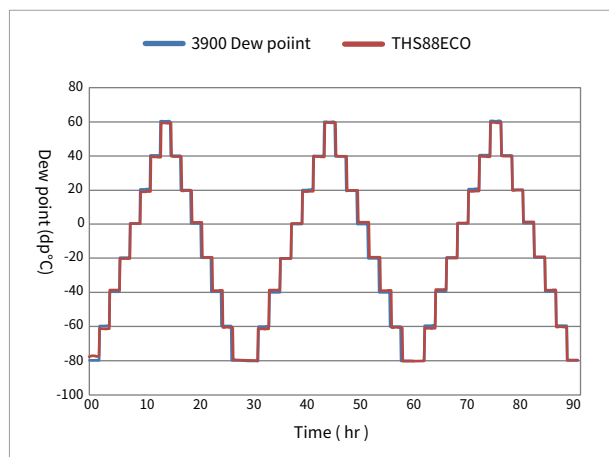
Housing Aluminum alloy

Probe S.S.(SUS304) / SUS sintered filter(SUS316)

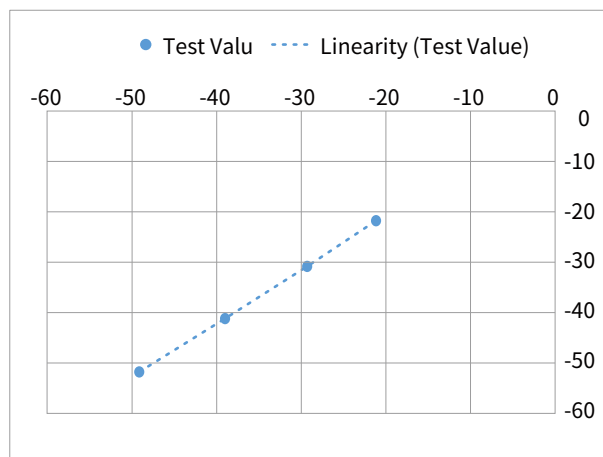
Weight 168 g

| 3-cycle Curve |

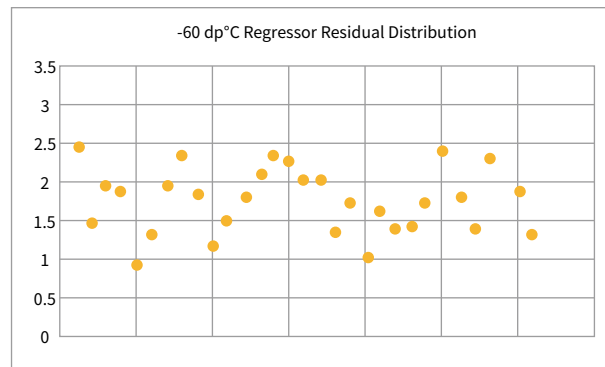
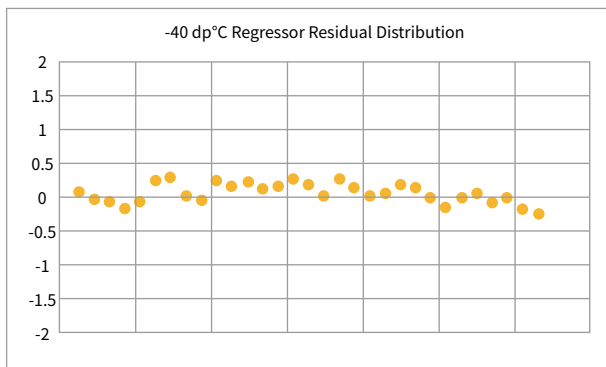
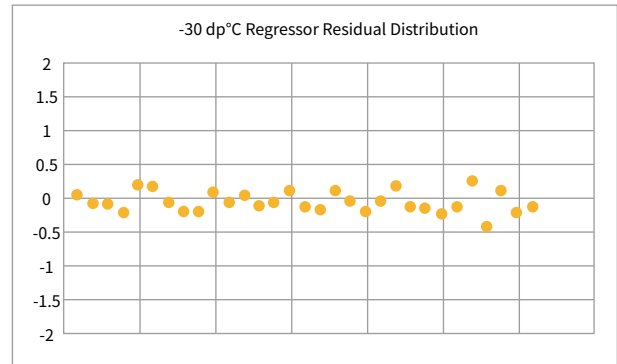
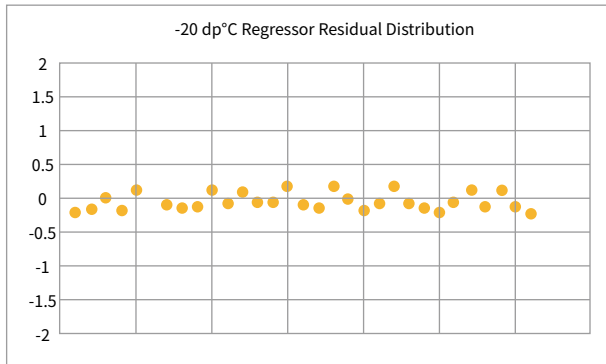
*According to IEC 61298 and ISO 17025 standard to measuring 3-cycle curve.
As the charts result, accuracy of test sample match with accuracy chart of humidity generator + dew point mirror



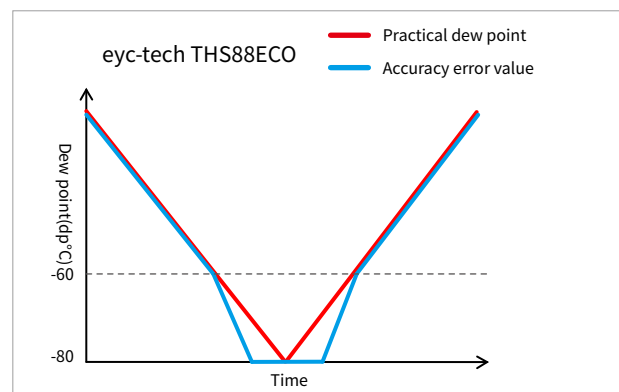
| Linear Regression Algorithm |



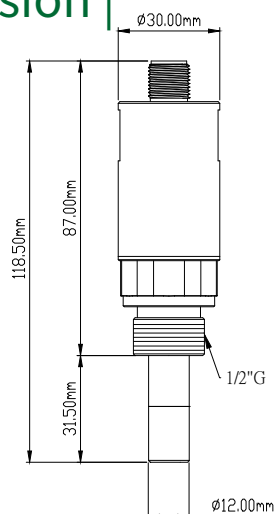
| Linear Regression Residual Distribution Plot |



| Accuracy Curve |

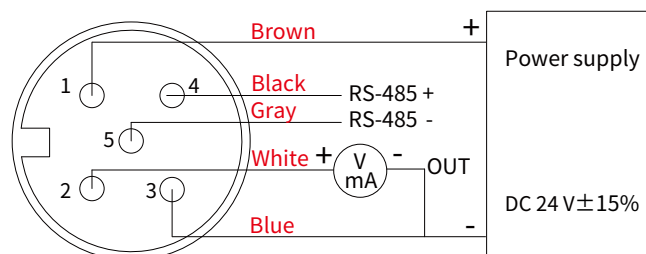


| Dimension |



※ Standard — M12-5PIN 2M waterproof cable

| Diagram |



M12 connector

*Please make sure the product and the device which connect with RS-485 are on common ground, avoid damaged product.

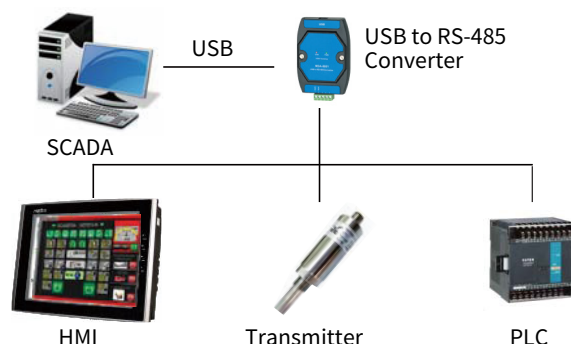
| Dew Point Automatic Inspection System |



■ System Facility

- Humidity generator
- Dew point mirror
- Laboratory level facility to produce products, and automatic QC inspection sheet printing and factory report

| USB to Isolated RS-485 Application |



■ Require Device

- PC / RS-485 to USB Converter / Power supply / UI software

| Ordering Guide |

Product ordering number	Product Specifications
THS88ECO-D2	O/P : -80 ... +20 dp°C, 4 ... 20 mA + RS-485, 1/2" G

| Optional Combination |

eyc-tech THS88 ECO + eyc-tech SD05 + eyc-tech 8203104023
Industrial Dew Point Transmitter + Integrated Signal Indicator + Dew point measuring chamber

eyc-tech THS88ECO

Input type : Capacitive humidity sensor & Pt100

Output signal : Analog, RS-485

Linear accuracy : -60 ... +20 dp°C : ± 2.5 dp°C

-80 ... -60 dp°C : ± 5 dp°C

Response time t90(Temp. at+25°C) : <20 sec

IP rating : IP65(Probe : IP20)



eyc-tech SD05

Display method : 4-digit LED(Height of word : 9.2 mm)

Display range : -1999 ... +9999

Accuracy : 0.2%F.S.

Power supply : 4 ... 20 mA

Parameter setting : Programmable by pressing the button

Housing material : ABS(UL94V-0) + PC(UL94V-2)

eyc-tech Dew point measuring chamber

Pressure range : 2 ... 16 bar

Flow : 4 ... 8 LPM

Connection : G1/2" threads

Quick coupler : Japanese C-type

Material : SUS304

| Additional Option Test Report |

For more detailed information please contact us.

■ ILAC / TAF

YUDEN-TECH CO.,LTD. Calibration Laboratory - (ILAC / TAF) Test report.

(TAF accreditation : 3032, complying with ISO / IEC 17025) TAF has mutual recognition arrangement with ILAC MRA

Project	Measurand level or range
Dew point transmitter	≥ -80 dp°C ... ≤ 60 dp°C

■ ISO 9001

Project	Measurand level or range
Dew point	≥ -95 dp°C ... ≤ 60 dp°C