



THM14EX

www.eyc-tech.com

EX-Series Temp. and Humidity Transmitter



| Features |

- IP rating : IP 66
- Rugged aluminum case
- Stainless steel probe
- High measurement accuracy
- High long-term stability

| Introduction |

The THM14EX is used to measure relative humidity or temperature or relative humidity and temperature in air and other non-aggressive gases in explosion hazardous areas and in locations with inflammable dust.

| Applications |

Semiconductor / Electronics / Steel Industry / Food, Chemical, Pharmaceutical, Biotechnology Industries

| Specification |

Input

| | |
|-----------------|--------------------------------------|
| Input | Capacitive Humidity Sensor & Pt 1000 |
| Measuring range | Temperature : -20 ... +80°C |
| | Humidity : 0 ... 100%RH |

Output

| | |
|---|--|
| Output | 4 ... 20 mA |
| Signal connection | 2-wire |
| Accuracy | Temperature : $\pm 0.3^{\circ}\text{C} + 0.002^{\circ}\text{C} \times t_{\text{actual}}$ |
| | Humidity : $\pm 2\% \text{RH}$ (20 ... 80%RH) |
| Temperature error | 0.2%RH/°C |
| Load resistance | 4 ... 20 mA $\leq 500 \Omega$ |
| Output calibration (ZERO & SPAN) | 10% of zero-point and full-scale |
| Adjustment Span | |
| Response time | t90 < 20 sec |
| (Temp. : +25°C ; Air velocity ≥ 1 m/s) | |

Electrical

| | |
|-----------------------|---|
| Power supply | DC 24 V $\pm 10\%$ |
| | U _i =24V Li=100mA Pi=0.78W Ci \approx 0 Li \approx 0 |
| Current consumption | DC < 43 mA |
| Electrical connection | 1/2" NPT Internal thread |

Environment

| | |
|---------------------|-------------------------------|
| Medium | Air |
| Operating Temp. | -20 ... +80°C |
| Operating Humid. | 0 ... 100%RH (Non-condensing) |
| Storage temperature | -20 ... +80°C |

Installation

| | |
|--------------|----------------|
| Installation | Movable thread |
|--------------|----------------|

Protection

| | |
|-----------------------|--|
| IP rating | IP66 |
| Electrical protection | <input checked="" type="checkbox"/> Reverse polarity <input checked="" type="checkbox"/> Over voltage <input checked="" type="checkbox"/> Short circuit |

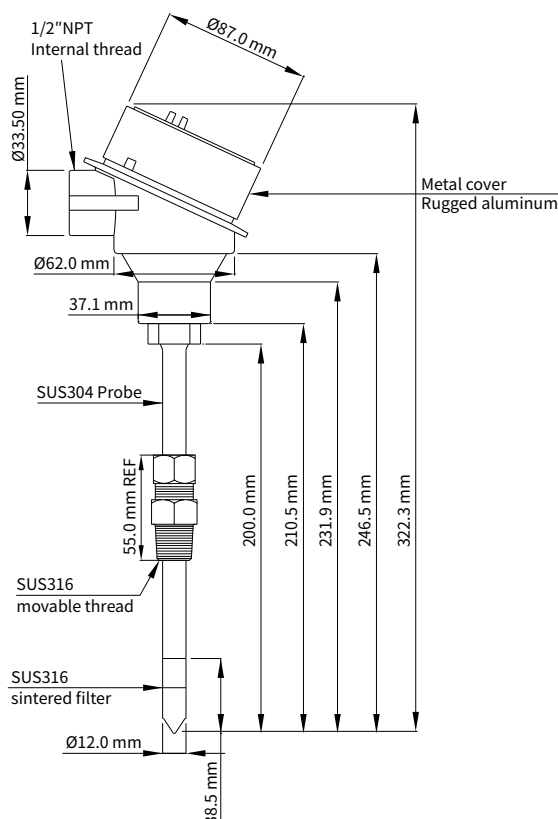
Certification

| | |
|-------------------------------|--|
| Certification | CE |
| Explosion-proof certification | II 2G D Ex db IIC Gb Ex tb IIIC Db |

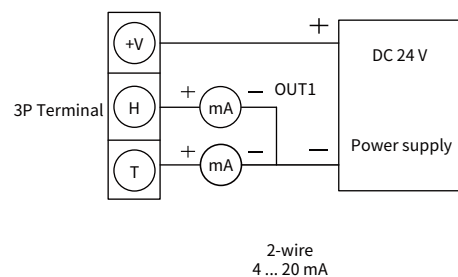
Material

| | |
|----------------------------------|------------------------------|
| Cover | Rugged aluminum |
| Probe | SUS304 |
| Sintered filter / Movable thread | SUS316 |
| Weight | Metal : 650 g (without wire) |

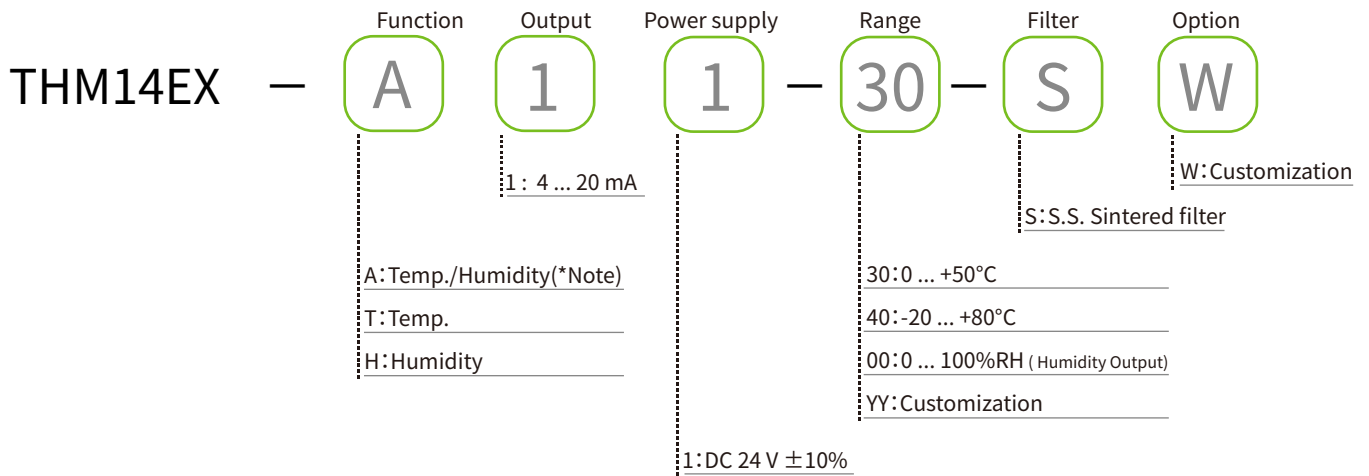
| Dimension |



| Diagram |



| Ordering Guide |



Note : THM14EX - A, Humidity default : 0 ... 100%RH, select the temperature range only.

| 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 |
|------------|------------------------------|
| Hygrometer | Temperature : 0°C ... 69.5°C |
| | Humidity : 10% ... 95% |

■ ISO 9001

| Project | Measurand level or range |
|--------------------------|-----------------------------|
| Temperature and Humidity | Temperature : 0°C ... 200°C |
| | Humidity : 0.1% ... 99.8% |