

Outside temperature / wet room temperature measuring transducers, calibratable, with multi-range switching and active output

Calibratable outside temperature measuring transducer **THERMASGARD® ATM 2** with eight switchable measuring ranges, external sensor, continuous output, housing made from impact-resistant plastic with quick-release screws, optionally **with/without display**, with **cable gland** or **M12 connector** according to DIN EN 61076-2-101.

It is used to detect outside temperatures, temperatures in wet rooms, e.g. for installation on outside walls, in cold storage buildings and greenhouses, in the industrial sector and in agriculture. Installation in outdoor areas preferably at the north side of a building or in a protected place. In case of direct solar irradiation, we recommend the use of our sun and ball-impact protection hood **WS01** or **WS04** (accessories) or the device version with the installed sun protection hood **SS02** (on request).

The sensor is factory-calibrated; an environmental precision adjustment by an expert is possible.

TECHNICAL DATA

| | |
|---------------------------|---|
| Power supply: | 24 V AC / DC (± 10%) for U variant 15...36 V DC for I variant, depending on working resistance, residual ripple stabilised ± 0.3 V |
| Working resistance: | $R_a \text{ (ohm)} = (U_b - 14 \text{ V}) / 0.02 \text{ A}$ for I variant, see load resistance diagram |
| Load resistance: | $R_L > 5 \text{ kOhm}$ for U variant |
| Power consumption: | < 1.0 VA / 24 V DC; < 2.2 VA / 24 V AC |
| Sensor: | Pt1000, DIN EN 60751, class B, (Perfect Sensor Protection) Sensor external |
| Measuring ranges: | multi-range switching with 8 switchable measuring ranges see table (other measuring ranges optional) operating range -30...+70 °C with manual zero point correction (± 10K) |
| Deviation in temperature: | typically ± 0.2 K at +25 °C |
| Output: | 0 - 10 V or 4...20 mA |
| Connection type: | 2- or 3-wire connection |
| Electrical connection: | 0.14 - 1.5 mm², via screw terminals |
| Cable connection: | cable gland, stainless steel V2A (1.4305) (M20 x 1.5; with strain relief, exchangeable, inner diameter 6 - 12 mm) or M12 connector (male, 5-pin, A-code) according to DIN EN 61076-2-101 |
| Housing: | plastic, UV-resistant, material polyamide, 30% glass-globe reinforced, with quick-release screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), cover for display is transparent! |
| Housing dimensions: | 72 x 64 x 37.8 mm (Tyr 1 without display) 72 x 64 x 43.3 mm (Tyr 1 with display) |
| Protective tube: | made from stainless steel V4A (1.4571), Ø 6 mm, NL = 65 mm |
| Process connection: | by means of screws (on the housing base) |
| Ambient temperature: | measuring transducer -30...+70 °C |
| Permissible humidity: | < 95 % r.H., non-precipitating air |
| Protection class: | III (according to EN 60 730) |
| Protection type: | IP 65 (according to EN 60 529) Housing tested, TÜV SÜD, Report No.713139052 (Tyr 1) |
| Standards: | CE conformity, electromagnetic compatibility according to EN 61326, according to EMC Directive 2014 / 30 / EU |
| Optional: | display with illumination , two-line, cut-out approx. 36 x 15 mm (B x H), to display the actual temperature and internal diagnostics (measuring range exceeded, measuring range not reached, sensor breakage, sensor short circuit) |

ACCESSORIES (see table)

ATM 2
with cable gland
and SS-02



ATM 2 - Q
with M12 connector





S+S REGELTECHNIK

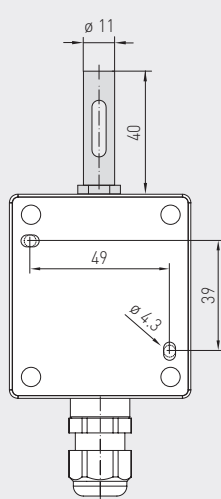
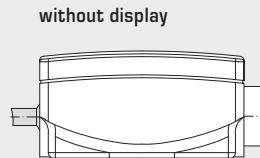
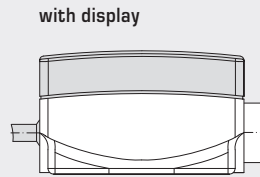
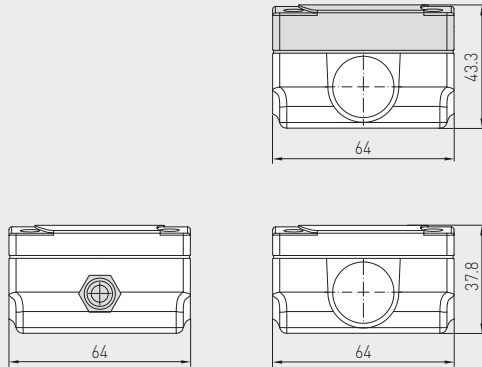
THERMASGARD® ATM 2

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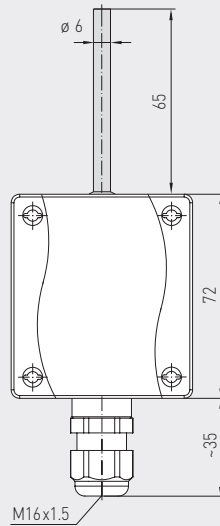


Dimensional drawing

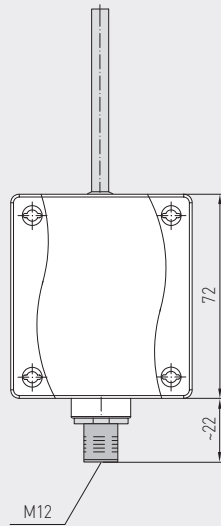
ATM 2



Housing with SS-02 (on request)



Housing with cable gland



Housing with M12 connector



ATM 2 with cable gland and display



ATM 2-Q with M12 connector and display



Display and internal diagnostics

THERMASGARD® Measuring transducer with display



Standard



Measuring range exceeded



Measuring range not reached



Sensor breakage

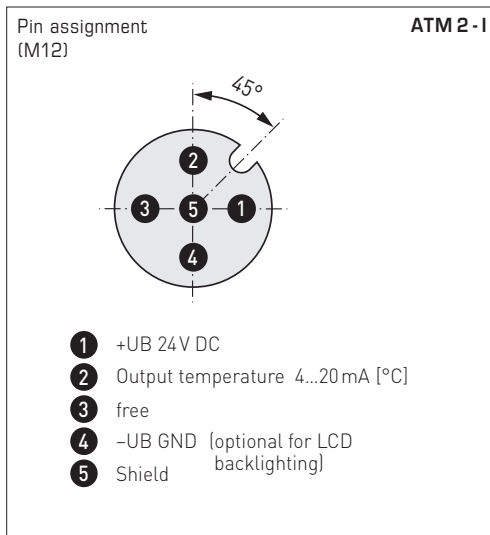
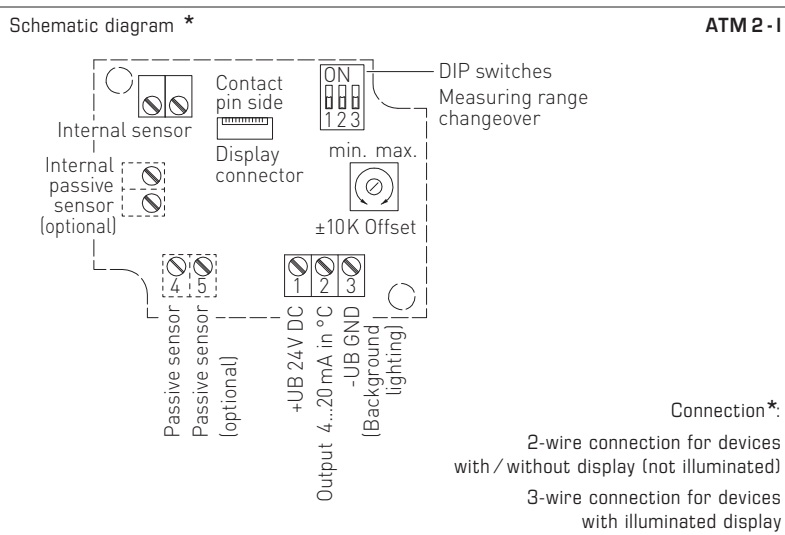
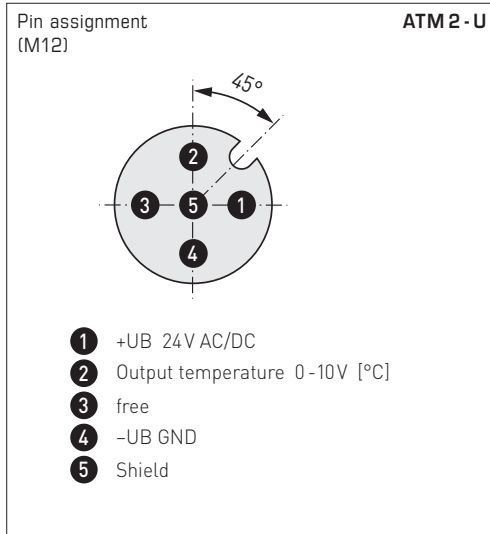
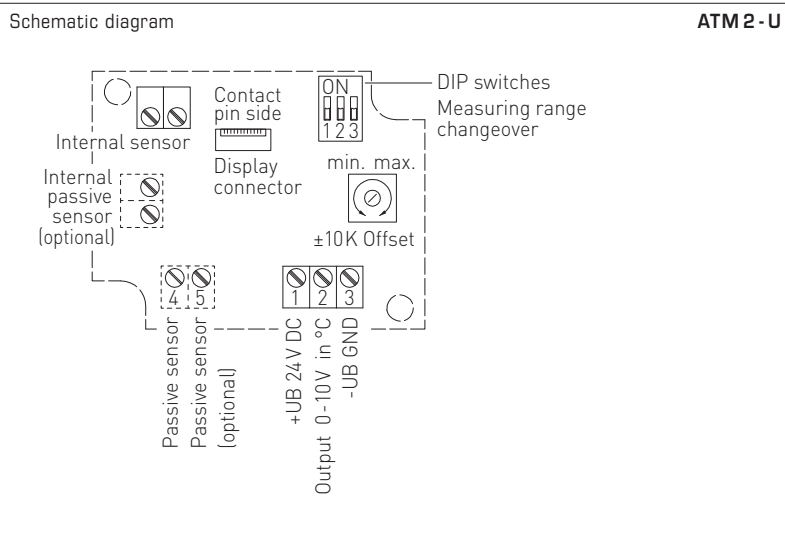


Sensor short circuit

High-performance encapsulation against vibration, mechanical stress and humidity

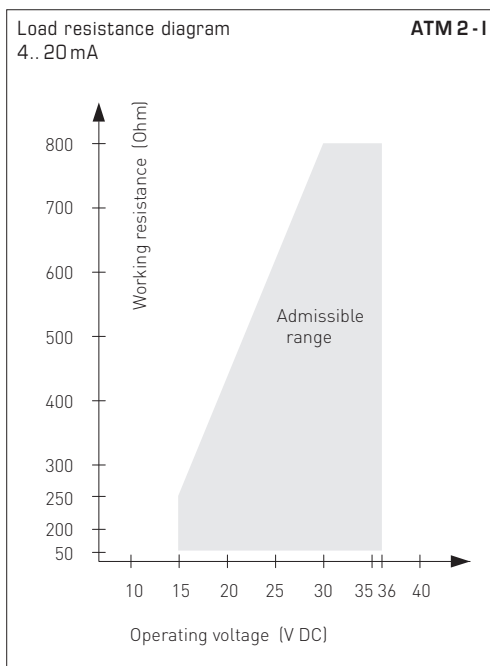
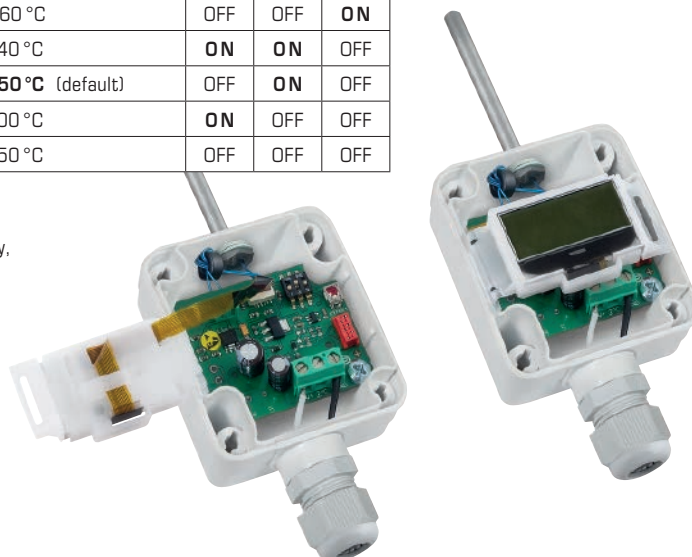
PS-PROTECTION
PERFECT SENSOR PROTECTION

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| Measuring ranges (adjustable) | DIP 1 | DIP 2 | DIP 3 |
|-------------------------------|-------|-------|-------|
| -20... +150 °C | ON | ON | ON |
| -50... +50 °C | OFF | ON | ON |
| -20... +80 °C | ON | OFF | ON |
| -30... +60 °C | OFF | OFF | ON |
| 0... +40 °C | ON | ON | OFF |
| 0... +50 °C (default) | OFF | ON | OFF |
| 0... +100 °C | ON | OFF | OFF |
| 0... +150 °C | OFF | OFF | OFF |

ATM2-xx
with display, hinged





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THERMASGARD® ATM 2

Outside temperature / wet room temperature measuring transducers, calibratable, with multi-range switching and active output

ATM 2-Q
with M12 connector



ATM 2
with cable gland

| THERMASGARD® ATM 2 | | Outside temperature / wet room temperature measuring transducers (with cable gland) | | |
|-------------------------|---|---|---------|--------------------|
| Type / WG01 | Sensor | Output | Display | Item No. |
| ATM 2 | | | | |
| ATM2-I | Pt1000 | 4...20 mA | | 1101-1142-0009-900 |
| ATM2-I LCD | Pt1000 | 4...20 mA | ■ | 1101-1142-2009-900 |
| ATM2-U | Pt1000 | 0-10 V | | 1101-1141-0009-900 |
| ATM2-U LCD | Pt1000 | 0-10 V | ■ | 1101-1141-2009-900 |
| Housing variant: | Cable connection with cable gland | | | |
| Extra charge: | other measuring ranges optional with sun protection hood SS02 | | | on request |

| THERMASGARD® ATM 2-Q | | Outside temperature / wet room temperature measuring transducers (with M12 connector) | | |
|-----------------------------|--|---|---------|--------------------|
| Type / WG01 | Sensor | Output | Display | Item No. |
| ATM 2-Q | | | | |
| ATM2-I Q | Pt1000 | 4...20 mA | ● | 2001-6111-2100-001 |
| ATM2-I Q LCD | Pt1000 | 4...20 mA | ● ■ | 2001-6112-2100-001 |
| ATM2-U Q | Pt1000 | 0-10 V | ● | 2001-6111-1100-001 |
| ATM2-U Q LCD | Pt1000 | 0-10 V | ● ■ | 2001-6112-1100-001 |
| Housing variant "Q": | Cable connection with M12 connector (male, 5-pin, A-code) | | | |
| Extra charge: | see table above! | | | |

| ACCESSORIES | | | |
|--|--|--------------------------|--------------------|
| WS-01 | protection contre le soleil et pare-balle, 184 x 180 x 80 mm, en acier inox V2A (1.4301) | | 7100-0040-2000-000 |
| WS-04 | protection contre le soleil et les intempéries, 130 x 180 x 135 mm, en acier inox V2A (1.4301) | | 7100-0040-7000-000 |
| Special accessories for M12 connector | | see chapter Accessories! | |

