

Surface contact temperature / tube contact temperature measuring transducers, incl. strap, with detached sensor head, calibratable, with Modbus connection

Calibratable surface-contact temperature measuring transducer (detached variant) **THERMASGARD® ALTM2-Modbus-T3** with Modbus connection, in an impact-resistant plastic housing with quick-locking screws, optionally with /without display, cable sensor with a pipe feeder, incl. strap.

The pipe surface-contact sensor is used to detect the temperature on lines, pipes (e.g., cold and warm water) or on heating sections for heating control.

**Innovative Modbus sensor** with galvanically separated RS485 Modbus interface, selectable bus termination resistance, DIP switch for setting the bus parameters and bus address in current-free state, LEDs for telegram status display, two separate push-in terminals and large three-line display (illuminated, with customised programming in the 7-segment range and dot-matrix range). Uses **internal diagnostics** to detect sensor breakage or sensor short circuit as errors. The error messages can be retrieved via Modbus and are shown on the display. The sensor is factory-calibrated; an environmental precision adjustment by an expert is possible.

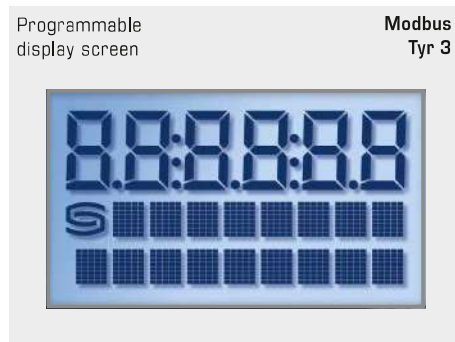
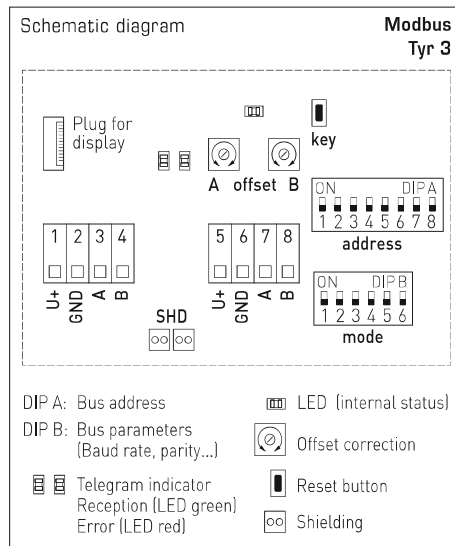
ALTM 2 - Modbus - T3



Device version with **M12 connector** (optional on request)



| TECHNICAL DATA            |  |
|---------------------------|--|
| Voltage supply:           | 24 V AC (±20%) and 15...36 V DC  |
| Power consumption:        | < 1,2 W / 24 V DC; < 1,8 VA / 24 V AC  |
| Sensor:                   | Pt1000, DIN EN 60751, class B<br><b>(Perfect Sensor Protection with IP68)</b>  |
| Measuring range:          | -50...+150 °C<br><b>T<sub>max</sub> to +150 °C</b> (detached sensor variant)   |
| Temperature deviation:    | typically ±0,2 K at +25 °C   |
| Zero point offset:        | ± 10 °C  |
| Ambient temperature:      | Measuring transducer -30...+70 °C  |
| Medium:                   | clean air and non-aggressive, non-combustible gases  |
| Bus protocol:             | Modbus (RTU mode), address range 0... <b>247</b> selectable  |
| Signal filtering:         | 0,3 s / 1 s / 10 s   |
| Process connection:       | endless metal strap and metal tightener (included in scope of delivery)  |
| Strap dimensions:         | Ø = 13-92 mm (¼-3"), L = 300 mm  |
| Housing:                  | plastic, UV-stabilised, material polyamide, 30% glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), housing cover for display is transparent! |
| Housing dimensions:       | 108 x 78,5 x 43,3 mm (Tyr 3 without display)<br>108 x 78,5 x 45,8 mm (Tyr 3 with display)  |
| Cable connection:         | <b>cable gland</b> , plastic (2x M20 x 1,5; with strain relief, exchangeable, inner diameter 8 - 13 mm) or <b>M12 connector</b> according to DIN EN 61076-2-101 (optional on request)  |
| Electrical connection:    | 0,2 - 1,5 mm <sup>2</sup> , using push-in terminals  |
| Connection cable:         | silicone, SiHF, 2 x 0,25 mm <sup>2</sup> , cable length (KL) = 1,5 m (other lengths and range limits optional, e.g. PTFE leads up to +250 °C or glass fibre with steel wire mesh up to +350 °C)                                |
| Permissible air humidity: | < 95% r. H., non-precipitating air   |
| Protection class:         | III (according to EN 60 730)   |
| Protection type:          | <b>IP65</b> (according to EN 60 529) humidity-tight stamped <b>IP68</b> (optional sensor sleeve watertight compound-filled*)   |
| Standards:                | CE conformity, electromagnetic compatibility according to EN 61326, according to EMC Directive 2014 / 30 / EU  |
| Equipment:                | <b>Display with illumination</b> , three-line, programmable, cutout approx. 51 x 29 mm (W x H), for displaying the actual temperature, error message or an individually programmable display value                             |
| Internal diagnostics:     | <b>Error 1</b> at sensor breakage<br><b>Error 2</b> at sensor short circuit  |
| <b>ACCESSORIES</b>        | see table  |



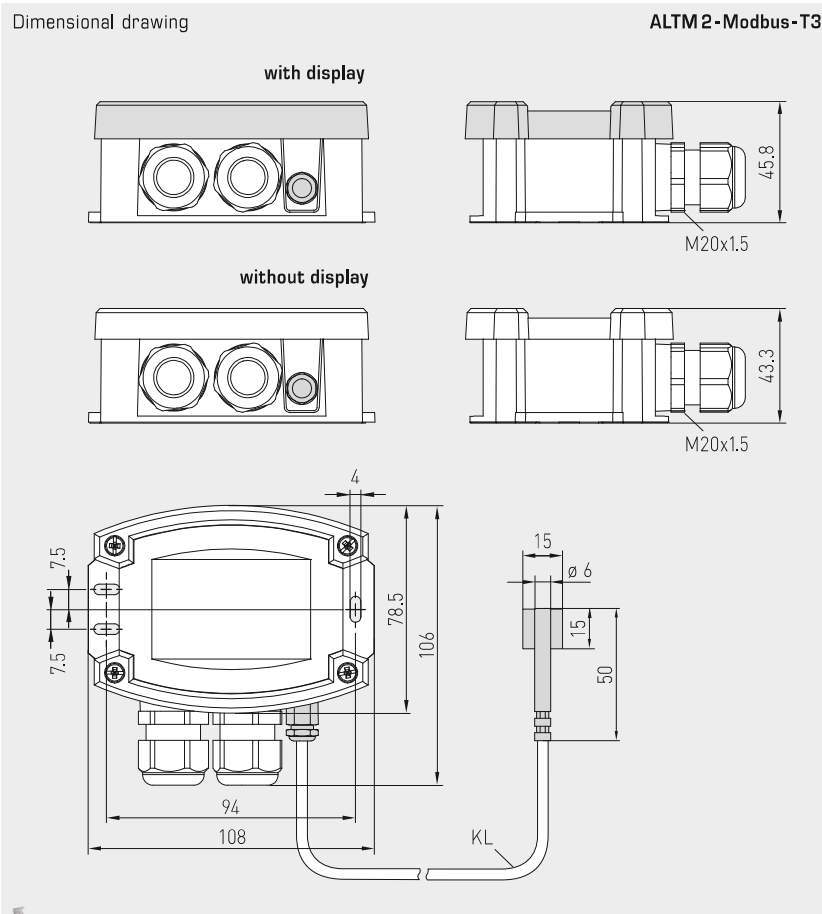


**NEW**

S+S REGELTECHNIK

THERMASGARD® **ALTM 2 - Modbus - T3**

Surface contact temperature / tube contact temperature measuring transducers, incl. strap, with detached sensor head, calibratable, with Modbus connection



**ALTM 2 - Modbus - T3**  
with display



High-performance encapsulation against vibration, mechanical stress and humidity

**PS-PROTECTION**  
PERFECT SENSOR PROTECTION

**THERMASGARD® ALTM 2 - Modbus - T3** Surface contact temperature / tube contact temperature measuring transducers

| Type / WG01                 | Sensor  | Output | Type          | Display | Item No.           |
|-----------------------------|---|--------|---------------|---------|--------------------|
| <b>ALTM 2 - Modbus - T3</b> |   |        |               |         |                    |
| ALTM2-MODBUS-T3             | Pt1000  | Modbus | Remote sensor |         | 1101-62B6-0210-000 |
| ALTM2-MODBUS-T3 LCD         | Pt1000  | Modbus | Remote sensor | ■       | 1101-62B6-4210-000 |
| Extra charge:               | Protection type <b>IP 68</b> (sensor sleeve watertight compound-filled) per running metre of connecting lead ( <b>silicone / PTFE / glass fibre</b> ) |        |               |         | on request         |
|                             | Cable connection with <b>M12 connector</b> according to DIN EN 61076-2-101  |        |               |         | on request         |

**ACCESSORIES**

|                   |   |                    |
|-------------------|---|--------------------|
| <b>KA2-Modbus</b> | <b>Communication adapter</b> (USB/RS485) for system connection                          | 1906-1200-0000-100 |
| <b>LA-Modbus</b>  | <b>Line termination device</b> (with terminating resistor) as an active bus termination | 1906-1300-0000-100 |
| <b>WLP-1</b>      | <b>Heat-conductive paste</b> , silicone-free  | 7100-0060-1000-000 |

For further information, see last chapter Accessories!