

Surface contact temperature / tube contact temperature measuring transducers, incl. strap, compact variant, calibratable, with Modbus connection

Calibratable surface-contact temperature measuring transducer (compact variant)

THERMASGARD® ALTM1-Modbus-T3 with Modbus connection, in an impact-resistant plastic housing with quick-locking screws, optionally with /without display, incl. strap.

The 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.

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
Measuring range:	-50...+150 °C T_{max} up to +100 °C (compact variant)
Temperature deviation:	typically ± 0,2 K at +25 °C
Zero point offset:	± 10 °C
Ambient temperature:	Measuring transducer -30...+70 °C
Bus protocol:	Modbus (RTU mode), address range 0... 247 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) 108 x 78,5 x 45,8 mm (Tyr 3 with display)
Cable connection:	cable gland , plastic (2x M20 x 1,5; with strain relief, exchangeable, inner diameter 8-13 mm) or M12 connector according to DIN EN 61076-2-101 (optional on request)
Electrical connection:	0,2 - 1,5 mm², using push-in terminals
Permissible air humidity:	< 95 % r. H., non-precipitating air
Protection class:	III (according to EN 60 730)
Protection type:	IP 65 (according to EN 60 529)
Standards:	CE conformity, electromagnetic compatibility according to EN 61326, according to EMC Directive 2014 / 30 / EU
Equipment:	Display with illumination , 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:	Error 1 at sensor breakage Error 2 at sensor short circuit

ACCESSORIES

see table

ALTM 1 - Modbus - T3

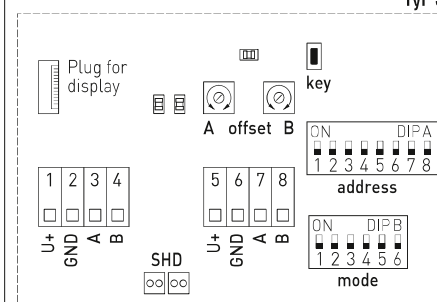


Device version
with **M12 connector**
(optional on request)



Schematic diagram

**Modbus
Tyr 3**



DIP A: Bus address
DIP B: Bus parameters (Baud rate, parity...)
Telegram indicator Reception (LED green)
Error (LED red)
LED (internal status)
Offset correction
Reset button
Shielding

Programmable
display screen

**Modbus
Tyr 3**



**NEW**

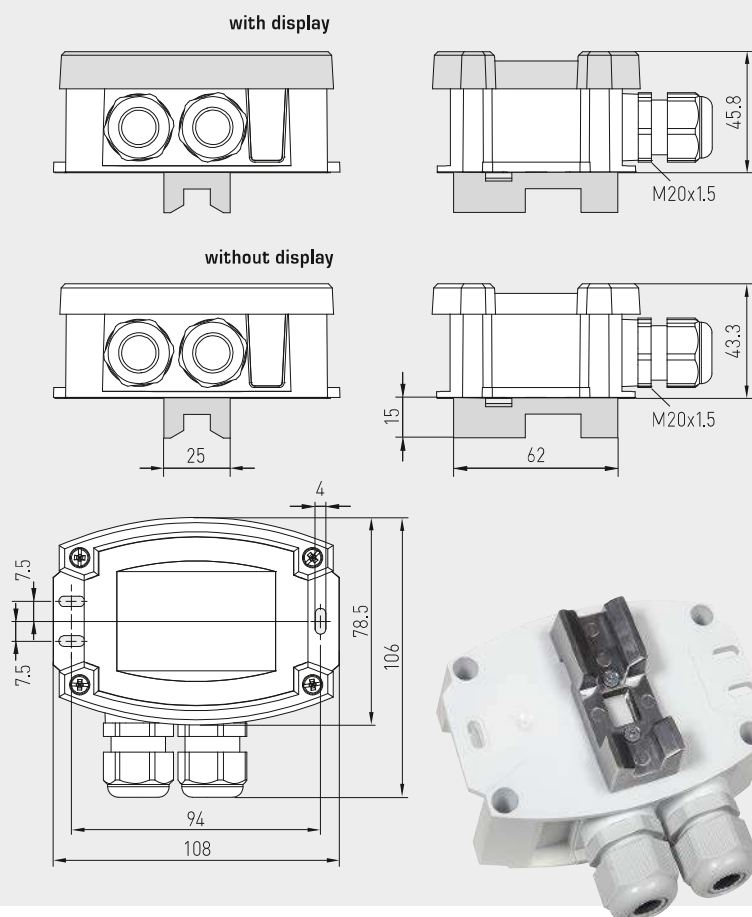
S+S REGELTECHNIK

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Dimensional drawing

ALTM1 - Modbus - T3

ALTM1 - Modbus - T3
with display**THERMASGARD® ALTM1 - Modbus - T3** Surface contact temperature / tube contact temperature measuring transducers

Type / WG01	Sensor	Output	Type	Display	Item No.
ALTM1 - Modbus - T3					
ALTM1-MODBUS-T3	Pt1000	Modbus	Compact		1101-12B6-0000-000
ALTM1-MODBUS-T3 LCD	Pt1000	Modbus	Compact	■	1101-12B6-4000-000
Optional:	Cable connection with M12 connector according to DIN EN 61076-2-101				on request

ACCESSORIES

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

For further information, see last chapter Accessories!