THERMASGARD® ATM 2 - Modbus-SD

Outside temperature / wet room temperature measuring transducers, calibratable, with Y-adapter, with Modbus connection (not galvanically isolated)

S+S REGELTECHNIK

Calibratable outside temperature measurement transducer **THERM**ASGARD® **ATM 2 - Modbus-SD**, with Modbus connection (Y-adapter), external sensor, housing made from impact-resistant plastic with quick-release screws, optionally with / without display, measures temperature (–50...+150 °C / –58...+302 °F). International system of units **SI** (default) can be changed to **imperial** (via Modbus).

The on-wall sensor is used to detect the temperature in gaseous media. It is used outside or in wet rooms, in cold storage buildings and greenhouses, in the industrial sector and in agriculture. Installation on outside walls is preferably performed on the north side 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 **SS02** (on request).

Modbus sensor SD with RS485 Modbus interface (not galvanically isolated), selectable bus termination resistance, DIP switch for setting the bus parameters and bus address in current-free state, internal LEDs for telegram status display (illuminated, with customised programming). Uses **internal diagnostics** to detect sensor breakage or sensor short circuit as errors. The sensor is factory-calibrated; an environmental precisionadjustment by an expert is possible.

ATM 2 - Modbus-SD



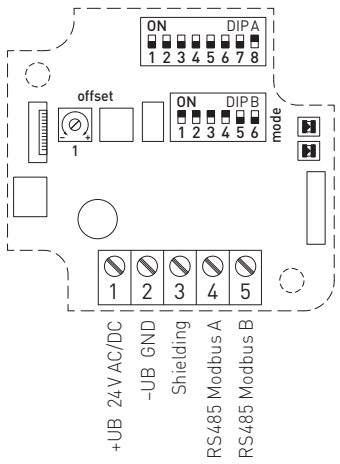


ATM 2 - Modbus-SD
with SS-02

TECHNICAL DATA

Voltage supply:	24 V AC (±20 %) and 15...36 V DC (±10 %)
Power consumption:	< 1.0 W / 24 V DC; < 2.2 VA / 24 V AC
System of units:	**SI** (default) or **Imperial** (switchable via Modbus)
Data points:	Temperature [°C] [°F]
Sensor:	Pt1000, DIN EN 60751, class B (**Perfect Sensor Protection**)
Measuring range:	–50...+150 °C / –58...+302 °F
Accuracy temperature:	typical ±0.2 K at +25 °C
Zero point offset:	±10 °K
Ambient temperature:	Measuring transducer –30...+70 °C
Medium:	clean air and non-aggressive, non-combustible gases
Error detection:	Sensor breakage, sensor short circuit
Bus interface:	RS485, **not galvanically isolated**, bus termination activatable via DIP switches. Up to 32 devices possible in one segment. In case of a greater number of devices, RS485 repeaters must be used.
Bus protocol:	Modbus (RTU mode) address range 0...**247** selectable
Baud rate:	9600, 19200, 38400 Baud
Status display:	LED green = Telegram valid LED red = Telegram error
Signal filtering:	0.3 s / 1 s / 10 s
Protective tube:	made from stainless steel **V4A** (1.4571), Ø 6 mm, NL = 65 mm
Housing:	Plastic, UV-resistant, 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 dimension:	72 x 64 x 37.8 mm (Tyr 1 without display) 72 x 64 x 43.3 mm (Tyr 1 with display)
Cable connection:	**Cable gland**, plastic 2x M12 x 1.5 (Y-adapter); with strain relief, exchangeable, max. inner diameter 6 mm
electrical connection:	0.14 - 1.5 mm², via terminal screws
Process connection:	by screws
Permissible humidity:	< 95 % RH, non-precipitating air
Protection class:	III (according to EN 60730)
Protection type:	**IP65** (according to EN 60529) housing tested, TÜV SÜD, Report No.713139052 (Tyr 1)
Standards:	CE conformity according to EMC Directive 2014 / 30 / EU
Optional:	**Display with illumination,** two-line, programmable, cutout approx. 36 x 15 mm (W x H), for displaying the actual temperature, error message or an individually programmable display value
ACCESSORIES	see table

Schematic diagram **THERM**ASGARD **xx-Modbus-SD**



DIP A: Bus address

DIP B: Bus parameters (Baud rate, parity ...)

LED (internal status)
Telegram indicator
Reception (LED green)
Error (LED red)

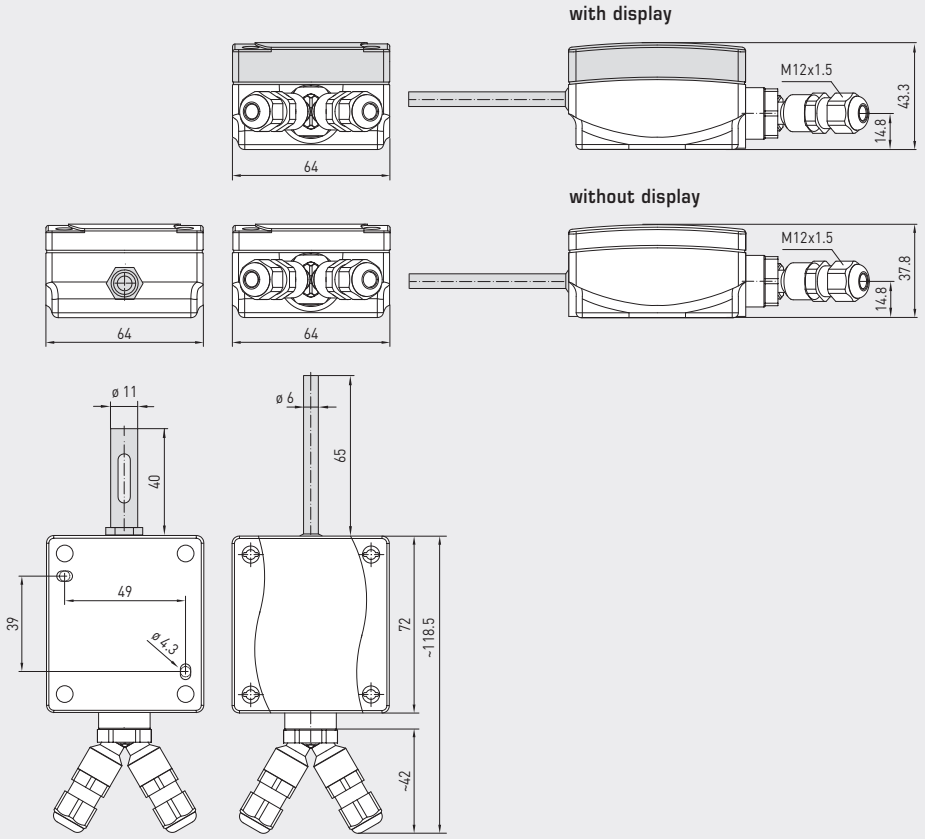
Plug for display (contact on right side)

Offset correction ca. ±10 K (temperature)

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Dimensional drawing [mm]

ATM 2 - Modbus-SD



ATM 2 - Modbus-SD
with display



High-performance encapsulation against vibration, mechanical stress and humidity

PS-PROTECTION
PERFECT SENSOR PROTECTION

THERMASGARD® **ATM 2 - Modbus - SD**	Outside temperature / wet room temperature measuring transducer with Modbus connection (not galvanically isolated)			
Type / WG01	**Output**	**Display**	**Item No.**	**Price**
ATM 2 - Modbus - SD				
ATM2-Modbus-SD	Modbus		1101-129H-0000-000	**137,61 €**
ATM2-Modbus-SD LCD	Modbus	■	1101-129H-2000-000	**193,78 €**
Extra charge:	with sun protection hood **SS02**		on request	
Note:	System of units **SI** (default) or **imperial** (can be changed via Modbus).			
ACCESSORIES				
KA2 -Modbus	**Communication adapter** (USB/RS485) for system connection		1906-1200-0000-100	**236,11 €**
LA -Modbus	**Line termination device** (with terminating resistor) as an active bus termination		1906-1300-0000-100	**88,05 €**
WS-01	**Sun and ball-impact protection hood,** 184 x 180 x 80 mm, stainless steel **V2A** (1.4301)		7100-0040-2000-000	**35,05 €**
WS-04	**Weather and sun protection hood,** 130 x 180 x 135 mm, stainless steel **V2A** (1.4301)		7100-0040-7000-000	**41,35 €**
	For further information, see last chapter Accessories!			