

Mean value temperature measuring transducers, incl. mounting flange, calibratable, with Modbus connection

Calibratable mean value temperature measuring transducer (rod sensor) **THERMASGARD® MWTM-Modbus** with Modbus connection, flexible, fully active sensor rod and plastic-coated copper protective tube (robust version), enclosure made from impact-resistant plastic with quick-locking screws. The sensor is used for detecting average temperatures (mean values) in gaseous media, e.g. in ventilation and air conditioning ducts over the entire cross-section, or over a defined length. Laid along a meandering route, it uniformly detects the surrounding temperature as a duct sensor. The mean value sensors are factory-calibrated. Adjustment / fine adjustment by the user is possible (zero point offset is adjustable). The MWTM is available in lengths of 0.4...20 m and is supplied with a mounting flange as standard. Mounting clamps **MK-05-M** are available as optional accessories.

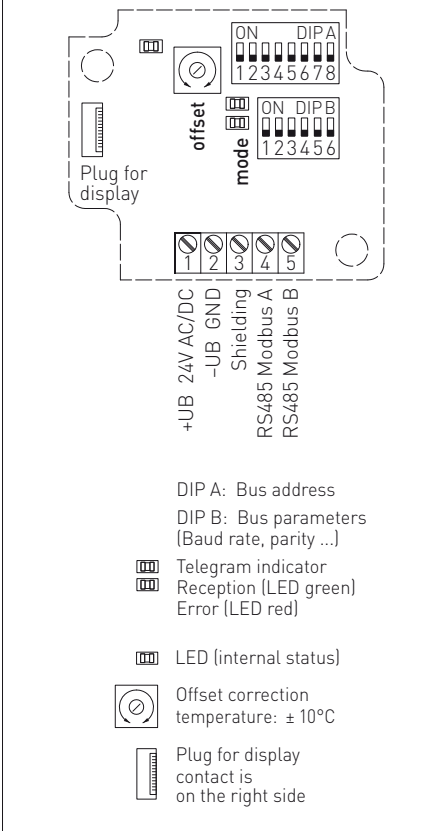
MWTM-Modbus



TECHNICAL DATA

Voltage supply:	24 V AC (±20%) and 15...36 V DC
Power consumption:	< 1.0 VA / 24 V DC; < 2.2 VA / 24 V AC
Sensor:	Pt1000, DIN EN 60751, class B
Measuring range:	-50...+150 °C; T_{min} -50 °C, T_{max} +80 °C
Temperature deviation:	±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
Error detection:	sensor breakage, sensor short circuit
Bus protocol:	Modbus (RTU mode), address range 0... 247 selectable
Signal filtering:	0.3 s / 1 s / 10 s
Sleeve:	stainless steel V4A (1.4571)
Rod material:	copper sensor tube, plastic-coated , with spring for buckling protection
Sensor and rod dimensions:	Ø = 5.0 mm, nominal length (NL) = 0.4 m / 3 m / 6 m (nominal length optional up to max. 20 m)
Active length:	active along the entire sensor length
Enclosure:	plastic, UV-stabilised, material polyamide, 30% glass-globe reinforced, with quick-locking screws (slotted / Phillips head combination), colour traffic white (similar to RAL 9016), enclosure cover for display is transparent!
Enclosure dimensions:	72 x 64 x 37.8 mm (Tyr 1 without display) 72 x 64 x 43.3 mm (Tyr 1 with display)
Cable gland:	2x M12x1.5 (Y-adapter); with strain relief, exchangeable, max. inner diameter 6 mm
Installation:	observe minimum bending radius of 35 mm and permissible vibration load, ≤ ½ G
Process connection:	by mounting flange, plastic (galvanised steel optional, see accessories) and mounting clamps MK-05-M
Permissible air humidity:	<95% r.H., non-precipitating air
Protection class:	III (according to EN 60730)
Protection type:	IP 65 (according to EN 60529)
Standards:	CE conformity, electromagnetic compatibility according to EN 61326, according to EMC Directive 2014 / 30 / EU
Optional:	two-line display with illumination , programmable, cutout approx. 36 x 15 mm (W x H), for displaying the actual temperature or an individually programmable display value (The Modbus interface allows the display to be individually configured in the 7-segment area and in the dot-matrix area.)
ACCESSORIES	see table
MODBUS-Y	Y-adapter for cable gland M16x1.5 (on 2x M12x1.5), plastic (included in the scope of delivery)

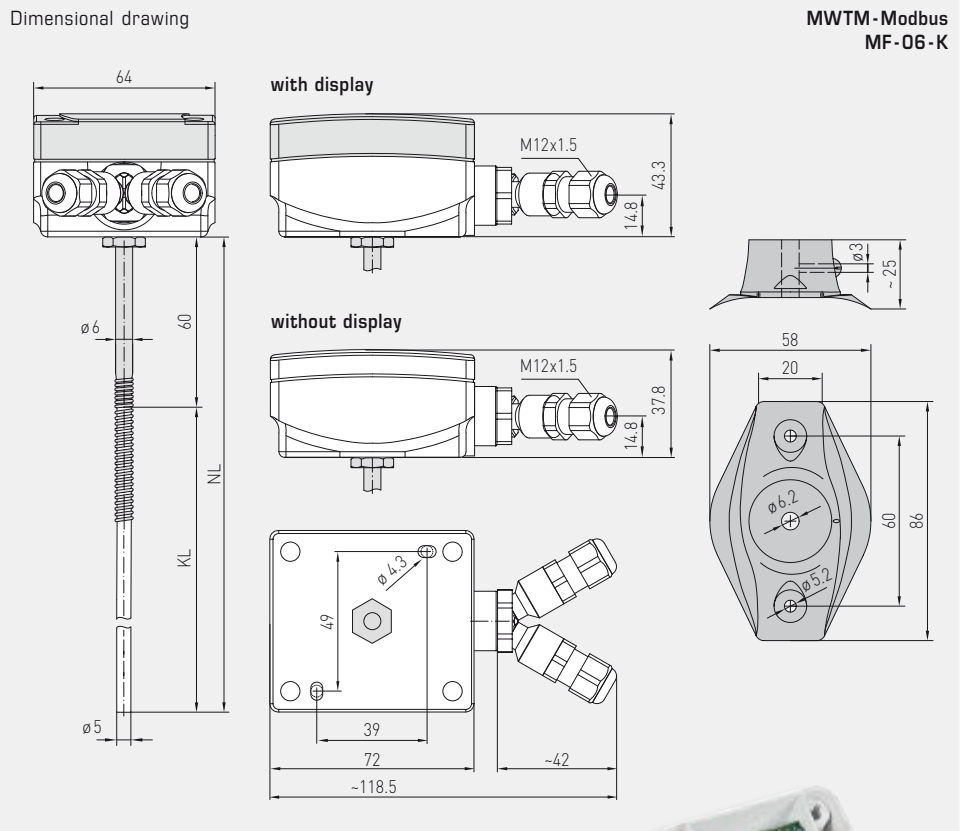
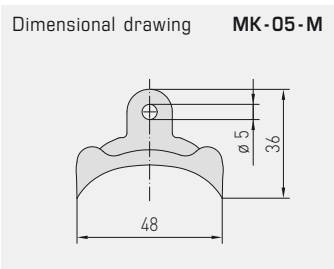
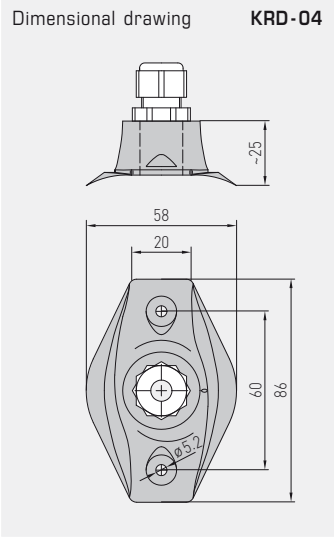
Schematic diagram **THERMASGARD® MODBUS**





S+S REGELTECHNIK

Mean value temperature measuring transducers,
incl. mounting flange, calibratable,
with Modbus connection



MK-05-M
Galvanised steel
mounting clamps



KRD-04
Capillary tube
gland bracket, plastic



MF-06-K
Mounting flange,
plastic



THERMASGARD® MWTM - Modbus – Mean value temperature measuring transducers

Type / WG01	Sensor	Output	Rod Length (NL)	Display	Item No.	Price
MWTM-Modbus					IP65	
MWTM-MODBUS 0,4M	Pt1000	Modbus	0.4 m		1101-3236-0080-000	
MWTM MODBUS 0,4M DISPLAY	Pt1000	Modbus	0.4 m	■	1101-3236-2080-000	
MWTM MODBUS 3M	Pt1000	Modbus	3.0 m		1101-3236-0230-000	
MWTM MODBUS 3M DISPLAY	Pt1000	Modbus	3.0 m	■	1101-3236-2230-000	
MWTM MODBUS 6M	Pt1000	Modbus	6.0 m		1101-3236-0260-000	
MWTM MODBUS 6M DISPLAY	Pt1000	Modbus	6.0 m	■	1101-3236-2260-000	
Extra charge:	Per meter sensor cable (from 6 m to max. 20 m)					on request

Accessories

KA-2	Modbus communication adapter with USB/RS485 interface for system connection or/and as an active bus termination resistance					on request
MF-06-K	Mounting flange, plastic (included in the scope of delivery)				7100-0030-1000-000	
MF-06-M	Mounting flange, metal, galvanised steel, Ø = 35 mm				7100-0030-5000-000	
KRD-04	Capillary tube gland bracket, plastic				7100-0030-7000-000	
MK-05-M	Galvanised steel mounting clamps (6 pieces)				7100-0034-0000-000	

For further information, see last chapter Accessories!

