

Immersion / screw-in / duct

temperature measuring transducer, Bluetooth-enabled,
with EtherCATP port

Networkable temperature measuring transducer with sensor tube **THERMASGARD® TM65-EtherCATP** with M8 plug-in connector (EtherCATP-encoded), Bluetooth-enabled, in an impact-resistant plastic housing with quick-locking screws, optionally with /without display and bar graph.

The duct sensor is used to detect the temperature in liquid or gaseous media. Use the stainless steel immersion sleeves for aggressive media. It is used in heating engineering, ventilation and air conditioning ducts, pipes, storage systems, compact district heating stations, warm and cold water systems, oil and lubrication cycle systems, machine and systems engineering and the entire industry sector. The sensor is factory-calibrated.

EtherCATP-enabled measuring transducer for industrial requirements with maximum reliability: includes easy PLC integration using the device's ESI configuration file, diagnostics (such as communication failure counter), advanced settings options, access to historical data (min / max) and establishing the sensor's service interval. Optionally with large illuminated display (3-line, customised programming in the 7-segment and dot-matrix range) and bar graph (7-digit, LEDs freely configurable) for graphical display, e.g., as a traffic light indicator.

TECHNICAL DATA

Power supply:	24VDC via EtherCATP (U _S)
Power consumption:	< 3W
Bus protocol:	EtherCAT
Radio technology:	Bluetooth (LE)
Sensor:	Pt1000, DIN EN 60751, class B (Perfect Sensor Protection)
Measuring range:	-50...+150°C
Deviation in temperature:	Typically ± 0.2K at +25°C
Medium:	Clean air and non-aggressive, non-combustible gases; liquids depending on selected immersion sleeve (accessory)
Protective tube:	Stainless steel, V4A (1.4571), Ø = 6mm, installation length (IL) = 50–400mm (see table)
Housing:	Plastic, UV-resistant, polyamide material, 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!
Dimensions:	126 x 90 x 50mm (Tyr2)
Cable connection:	M8 plug-in connector , EtherCATP-encoded
Ambient temperature:	Measuring transducer -30...+70°C
Permitted humidity:	< 95% r. H., non-precipitating air
Protection class:	III (according to EN 60730)
Protection type:	IP 54 (according to EN 60529) when built-in
Standards:	CE conformity, according to EMC Directive 2014 / 30 / EU, according to RED 2014 / 53 / EU
Equipment:	Display with illumination , 3-line, customised programming, cutoff approx. W51 x H29mm, to display the actual temperature or a customised display value. Bar graph , 7-digit, LEDs freely configurable, to graphically display the reading.

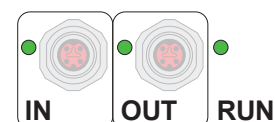
ACCESSORIES See table

EtherCAT P	LED status display
1. LED	"IN"
off	no connection to upstream EtherCAT module
illuminated	LINK: connection to upstream EtherCAT module
blinking	ACT: communication with upstream EtherCAT module
2. LED	"OUT"
off	no connection to downstream EtherCAT module
illuminated	LINK: connection to downstream EtherCAT module
blinking	ACT: communication with downstream EtherCAT module
3. LED	"RUN"
off	EtherCAT module is in "Init" state
quickly blinking	EtherCAT module is in "Pre-Operational" state
slowly blinking	EtherCAT module is in "Safe-Operational" state
illuminated	EtherCAT module is in "Operational" state
The status LEDs are next to the cable connection.	

TM65-EtherCATP

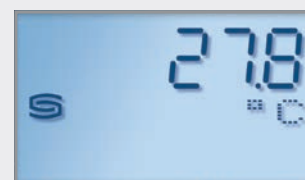


EtherCATP
Cable connection and
LED status display



Display screen
Reading

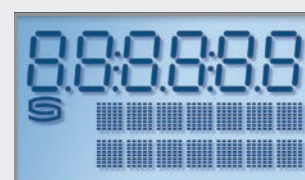
xx-ECATP
Tyr 2



Temperature

Programmable
display screen

xx-ECATP
Tyr 2



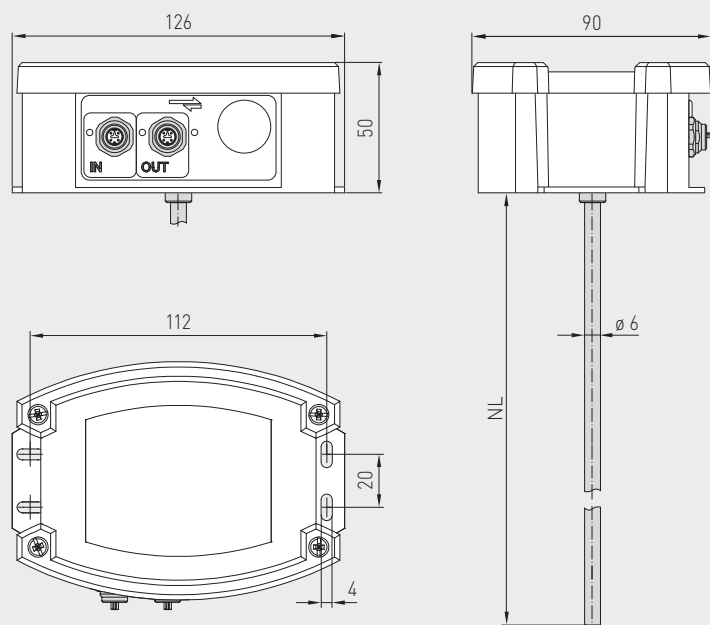
**NEW**

S+S REGELTECHNIK

THERMASGARD® TM65-EtherCAT PImmersion / screw-in / duct
temperature measuring transducer, Bluetooth-enabled,
with EtherCAT port

Dimensional drawing

TM65-EtherCAT P

**M8-plug-in connector**
EtherCAT P-encoded**TM65-EtherCAT P**
with display and bar graphHigh-performance encapsulation against
vibration, mechanical stress and humidity**PS-PROTECTION**
PERFECT SENSOR PROTECTION**THERMASGARD®**
TM65-EtherCAT PTemperature measuring transducer (basic unit),
with EtherCAT port

Type / WG02	Measuring Range Temperature	Output	Inserted Length	Bar graph Display	Item No.	Price
TM65-ECATP xx			(EL)			
TM65-ECATP 50mm	-50...+150 °C	EtherCAT P	50 mm	☐ ☒	2001-4201-9100-011	325,67 €
TM65-ECATP 50mm LCD				☐ ☒	2001-4202-9100-011	369,73 €
TM65-ECATP 100mm	-50...+150 °C	EtherCAT P	100 mm	☐ ☒	2001-4201-9100-021	326,08 €
TM65-ECATP 100mm LCD				☐ ☒	2001-4202-9100-021	370,14 €
TM65-ECATP 150mm	-50...+150 °C	EtherCAT P	150 mm	☐ ☒	2001-4201-9100-031	326,51 €
TM65-ECATP 150mm LCD				☐ ☒	2001-4202-9100-031	370,56 €
TM65-ECATP 200mm	-50...+150 °C	EtherCAT P	200 mm	☐ ☒	2001-4201-9100-041	326,92 €
TM65-ECATP 200mm LCD				☐ ☒	2001-4202-9100-041	370,97 €
TM65-ECATP 250mm	-50...+150 °C	EtherCAT P	250 mm	☐ ☒	2001-4201-9100-051	327,32 €
TM65-ECATP 250mm LCD				☐ ☒	2001-4202-9100-051	371,37 €
TM65-ECATP 300mm	-50...+150 °C	EtherCAT P	300 mm	☐ ☒	2001-4201-9100-061	327,74 €
TM65-ECATP 300mm LCD				☐ ☒	2001-4202-9100-061	371,79 €
TM65-ECATP 400mm	-50...+150 °C	EtherCAT P	400 mm	☐ ☒	2001-4201-9100-081	328,15 €
TM65-ECATP 400mm LCD				☐ ☒	2001-4202-9100-081	372,20 €
Note: Cable connection with M8 plug-in connector (EtherCAT P-encoded)						

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One basic device in four variants ...



**TM65-ECATP +
TH -ms/xx**

Immersion / screw-in
temperature sensor
with immersion sleeve,
brass, nickel-plated



**TM65-ECATP +
TH -VA/xx**

Immersion / screw-in
temperature sensor
with immersion sleeve,
stainless steel, V4A



**TM65-ECATP +
TH -VA/xx/90**

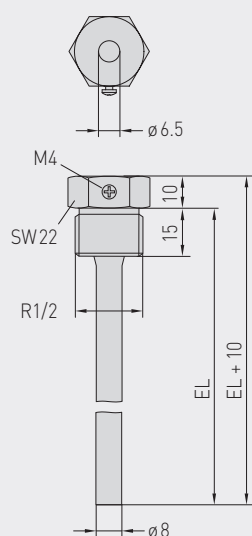
Immersion / screw-in
temperature sensor with
immersion sleeve with
neck tube, stainless steel, V4A



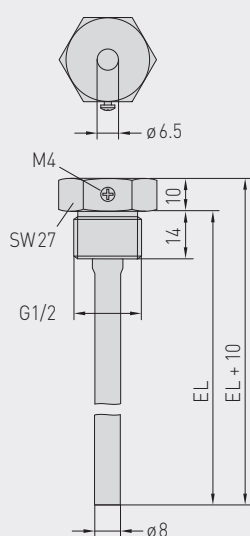
**TM65-ECATP +
MF-06-K**

Duct temperature sensor
with mounting flange,
plastic

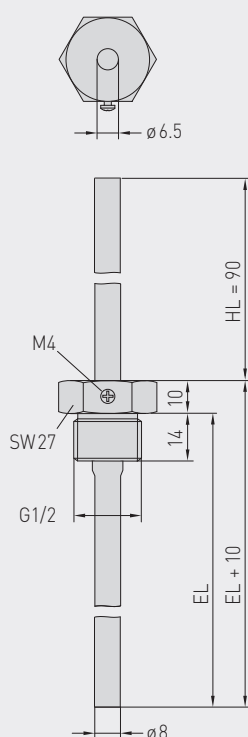
Dimensional drawing
TH-ms/xx



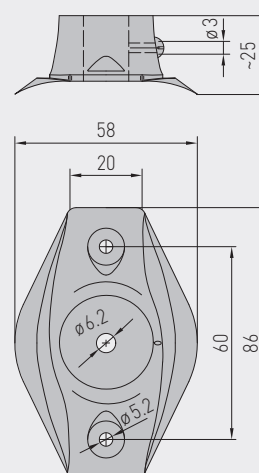
Dimensional drawing
TH-VA/xx



Dimensional drawing
TH-VA/xx/90



Dimensional drawing
MF-06-K





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NEW

THERMASGARD® TM65-EtherCAT P

Immersion / screw-in / duct
temperature measuring transducer, Bluetooth-enabled,
with EtherCAT port

...through combination with accessories:



TH -ms/xx

Immersion sleeve,
brass, nickel-plated,
thread-sealing, conical,
according to DIN 10226



TH -VA/xx

Immersion sleeve,
stainless steel, V4A,
flat-sealing, cylindrical,
according to DIN 228



TH -VA/xx/90

Immersion sleeve with neck tube,
stainless steel, V4A,
flat-sealing, cylindrical,
according to DIN 228



MF-06-K

Mounting flange,
plastic

THERMASGARD® TH Immersion sleeve Ø 8 mm (Accessories)					
Type / WG01	p _{max} (static)	T _{max}	Inserted Length (EL)	Item No.	Price
TH -ms / xx	Brass nickel-plated			without neck tube	
TH-MS 50MM	10 bar	+150 °C	50 mm	7100-0011-0010-001	8,87 €
TH-MS 100MM	10 bar	+150 °C	100 mm	7100-0011-0020-001	10,10 €
TH-MS 150MM	10 bar	+150 °C	150 mm	7100-0011-0030-001	10,67 €
TH-MS 200MM	10 bar	+150 °C	200 mm	7100-0011-0040-001	11,01 €
TH-MS 250MM	10 bar	+150 °C	250 mm	7100-0011-0050-001	12,75 €
TH-MS 300MM	10 bar	+150 °C	300 mm	7100-0011-0060-001	13,10 €
TH-MS 350MM	10 bar	+150 °C	350 mm	7100-0011-0070-001	13,21 €
TH-MS 400MM	10 bar	+150 °C	400 mm	7100-0011-0080-001	13,33 €
TH -VA / xx	Stainless steel V4A (1.4571)			without neck tube	
TH-VA 50MM	40 bar	+600 °C	50 mm	7100-0012-0010-001	19,31 €
TH-VA 100MM	40 bar	+600 °C	100 mm	7100-0012-0020-001	21,34 €
TH-VA 150MM	40 bar	+600 °C	150 mm	7100-0012-0030-001	22,93 €
TH-VA 200MM	40 bar	+600 °C	200 mm	7100-0012-0040-001	24,17 €
TH-VA 250MM	40 bar	+600 °C	250 mm	7100-0012-0050-001	30,05 €
TH-VA 300MM	40 bar	+600 °C	300 mm	7100-0012-0060-001	31,40 €
TH-VA 350MM	40 bar	+600 °C	350 mm	7100-0012-0070-001	31,61 €
TH-VA 400MM	40 bar	+600 °C	400 mm	7100-0012-0080-001	32,17 €
TH -VA / xx / 90	Stainless steel V4A (1.4571)			with neck tube (90 mm)	
TH-VA 50/90MM	40 bar	+600 °C	50 mm	7100-0012-2010-001	27,66 €
TH-VA 100/90MM	40 bar	+600 °C	100 mm	7100-0012-2020-001	28,90 €
TH-VA 150/90MM	40 bar	+600 °C	150 mm	7100-0012-2030-001	30,32 €
TH-VA 200/90MM	40 bar	+600 °C	200 mm	7100-0012-2040-001	31,61 €
TH-VA 250/90MM	40 bar	+600 °C	250 mm	7100-0012-2050-001	33,13 €
TH-VA 300/90MM	40 bar	+600 °C	300 mm	7100-0012-2060-001	35,91 €
Note: inner diameter of socket 6.5 mm For further information see last chapter!					
Mounting flange (Accessories)					
Type / WG01				Item No.	Price
MF xx					
MF-06-K	Mounting flange, plastic, 56.8 x 84.3 mm, Ø 6.2 mm tube gland, T _{max} +100 °C			7100-0030-1000-000	5,83 €
Note: For information see last chapter!					