

# Industrial Smart Temperature Transmitter

## Model: MDTT

### Applications

- Monitoring of plants
- Control and regulation of processes
- For gaseous and liquid aggressive
- Process industry: Chemical/petro chemical, power stations, food and beverage, offshore oil rigs, pulp and paper, environmental technology, machine building and general plant construction

### Special features

- Accuracy 0.075 and 0.04,0.02
- Dual and single sensor input
- Best accuracy, reproducibility and long-term stability
- Local zero and span adjustments
- The wide LCD and bargraph indicator
- Intrinsically safe and explosion proof
- Easy menu-guided commissioning via local display,
- Out put 4 to 20mA with HART, PROFIBUS PA, FOUNDATION Fieldbus
- Cost savings with modular concept for easy replacement of sensor, display or electronics
- Multi input RTD, Thermocouples & millivolt



### Description

- **Accuracy class** 0.075 standard and 0.04,0.02 (option)
- **Accuracy stability** Accuracy will be held for the nominal range for a minimum of 3 years
- **Transfer function** Linear
- **Response time** 0.1 second
- **Sensor material** Stainless steel 316, Stainless steel 316L  
Hastelloy, Monel, Tantalum(option)
- **Process connection** Stainless steel 316, Stainless steel 316L  
Hastelloy, Monel, Tantalum(option)
- **Temperature comp. range** -20 to +85 °C
- **Ambient temperature** -40 to +85 °C

■ <b>Out put error</b>	± 0.04 * Z °C
■ <b>Damping</b>	0...60 sec adjustable
■ <b>Long stability</b>	±0.1%F.S/year
■ <b>Protection</b>	IP67
■ <b>Power supply</b>	10 - 36VDC
■ <b>Output signal</b>	4 ... 20mA, 0.5 ... 4.5VDC, 1 ... 5VDC, 1 ... 10VDC
■ <b>Intrinsically safe</b>	II 1/2 Ex ia IIC T4/T5
■ <b>Explosion-proof</b>	II 1/2 Exia/d IIC T5/T6
■ <b>Pressure port</b>	1/2NPTF, 1/4NPTF or customize
■ <b>Housing material</b>	Aluminum, Stainless steel
■ <b>Message</b>	Self diagnosis message
■ <b>Conduit entry size</b>	1/2NPTF or M20*1.5
■ <b>shock</b>	50g /11ms
■ <b>Pressure limit</b>	360 psi

These transmitters can be configured utilizing any of the three following methods: **(1)** locally configuring the instrument (zero, range, shift, characteristics and damping ratio) by means of pushbuttons on the transmitter, **(2)** by a PC with a dedicated interface and the MADECO smart configuration software ; **(3)** with having the capability of digital communication, they may be configured using MADECO hand-held terminal with HART protocol or other hand-held communicators\*. The data interchange with the transmitter enables the user to identify the transmitter, calibrate the sensor, read the immediate measured value of the input and the current output of the transmitter. User may alter the measurement unit and the range, introduce zero elevation, apply measurement inversion, take a square root or squar the value of the measurement and set the damping time. Additionally the operator may force an output current with a set value.

In the version “with Ex protection Ex II 1/2 G Ex ia IIC T6 Ga/Gb, the transmitter can be mounted within the hazardous area Zone 1, for connect ion to Zone 0.

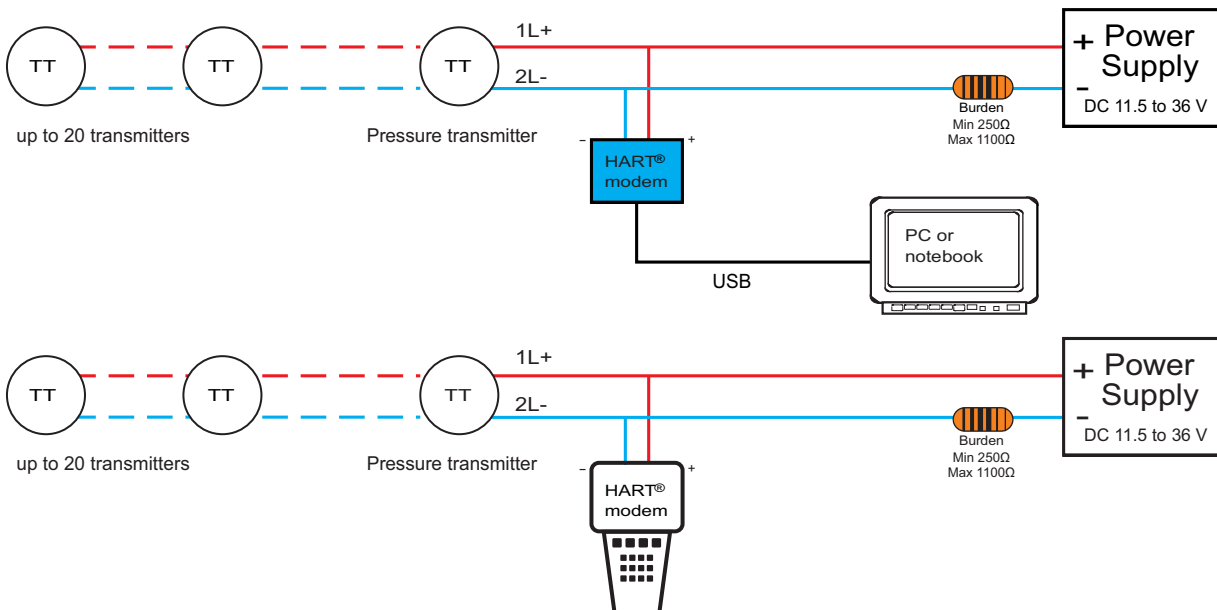




**MDTT Industrial Smart Temperature Transmitter**

ORDERING CODE	Example:	MDTT	P	1	S	2	AT	H	N	2	N	W3	Note
<b>Input Sensor</b>													
P - PT100			P										
T - Thermocouple													
M - millivolt													
<b>Measurement Configuration</b>													
1 - Single - sensor input				1									
2 - Dual - sensor input													
<b>Housing material</b>													
A - Aluminum													
S - Stainless Steel					S								
C - Customer													
<b>Conduit Entry Size</b>													
2 - 1/2NPT						2							
4 - M20*1.5													
C - Customer													
<b>Accuracy</b>													
AT - 0.075% (std.)							AT						
AC - 0.04%													
AS - 0.02%													
<b>Transmitter Output</b>													
H - 4...20mA signal based on HART® protocol								H					
F - Foundation™ fieldbus protocol													
P - PROFIBUS® PA Protocol													
L - Low power 1...5 VDC													
W - Wireless													
<b>Certificate</b>													
N - None									N				
I - Intrinsically safe (II 1/2 Ex ia IIC T4/T5)													
E - Explosion proof (II 1/2 Exia/d IIC T5/T6)													
M - Marine certificate-DNV													
<b>Immersion Length</b>													
XXX Please specify in mm										2			
<b>Display</b>													
N - None											N		
D - LCD display													
<b>Options</b>													
BR - Bracket for 2-in. pipe or panel mounting. sst													
CC - Calibration certificate													
CM - Material Traceability certification													
CP - Hydrostatic testing with certificate													
CL - Cleaning for special service													
CR - special calibration range (please specify the range)													
AN - Analog zero and spam trim													
NH - Stainless steel tag wired to case													
AT - ATEX													
W3 - 3 year warranty												W3	
W5 - 5 year warranty													
Other													







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