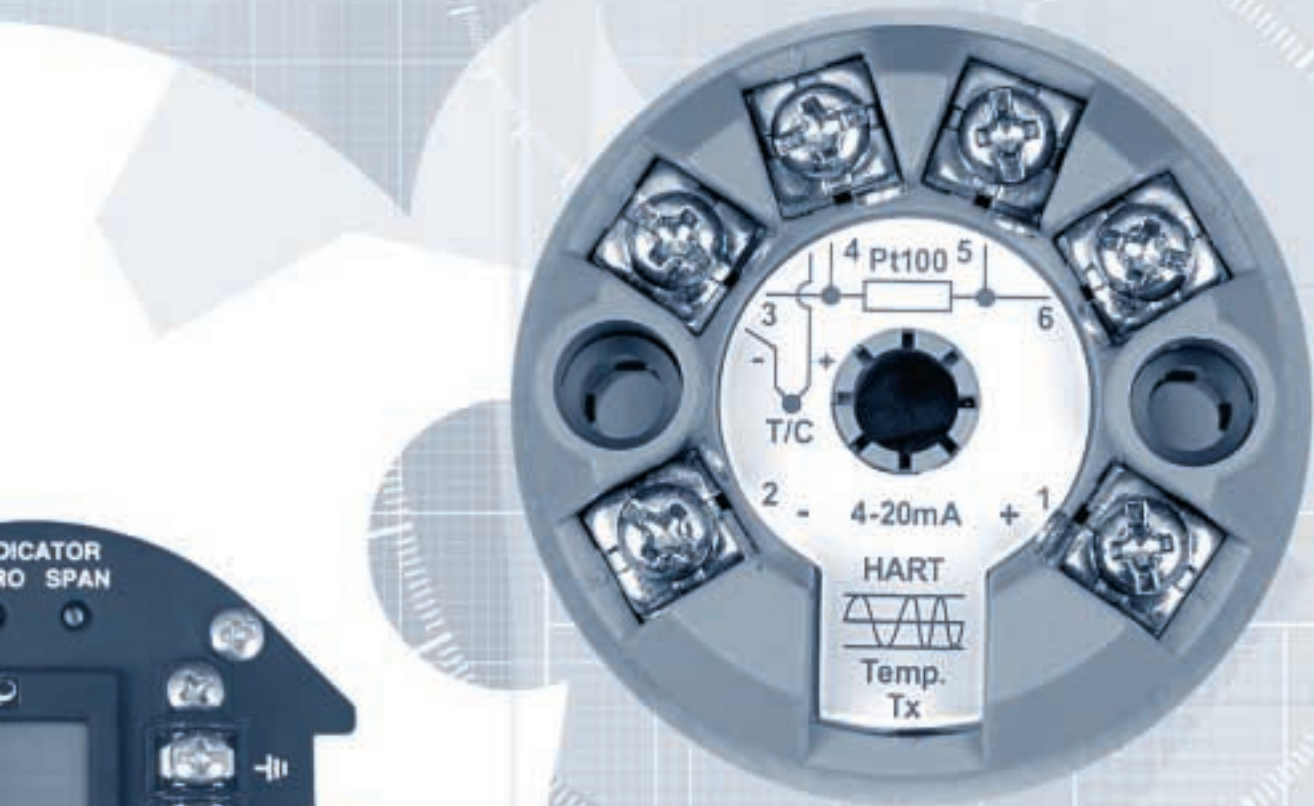




BURNS
ENGINEERING



**New Transmitters
Add HART® and
Thermocouple Capability
To Burns Temperature
Solutions.**



Model **TA**

- ▶ Fully Linearized
- ▶ 0.10% Accuracy
- ▶ DIN Style
- ▶ Adjustable Range



Model **TL**

- ▶ 0.05% Accuracy
- ▶ Fully Linearized
- ▶ FM Approved
- ▶ Intrinsically Safe
- ▶ Fits #3 and #5 Connection Heads

Keep The Process Up With Reliable, Stable Sensor and Transmitter Solutions.



Model **TLI**

- ▶ Fully Linearized
- ▶ Local Indication
- ▶ Fits #10 Connection Head



Model **TD**

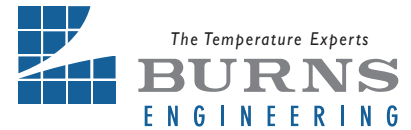
- ▶ Universal Input
- ▶ Fully Isolated
- ▶ Fully Linearized
- ▶ CE Marked
- ▶ RFI/EMI - Immunity
- ▶ 0.10% Accuracy
- ▶ 5 Year Warranty



Model **TH**

- ▶ High Performance RTD Operation
- ▶ FM Approved
- ▶ CE Marked
- ▶ Operates with Asset Managers like AMS Plant Web®
- ▶ Configure with HART® Communicator or PC and HART® Modem

Improve Process Results With Matched Sensor/Transmitter Assemblies



10201 Bren Road East Minnetonka, Minnesota 55343

SPECIFICATIONS FOR RTD TRANSMITTERS

SPECIFICATION	MODEL TA	MODEL TL	MODEL TLI	MODEL TD	MODEL TH
Accuracy	+/- 0.10%	+/- 0.05%	+/- 0.05%	+/- 0.1%	+/- 0.01 FRI +/-0.07% Rdg
Linearity	+/- 0.10%	Included above	Included above	Included above	Included above
Temperature Range Zero Span Absolute	-50 to 50C 50 to 550C -50 to 500C	-200 to 400C 50 to 700C -200 to 500C	0 to 400C 50 to 500C 0 to 500C	-200 to 400C 25 to 700C -200 to 500C	-200 to 400C 25 to 700C -200 to 500C
Drift	Zero +/- 0.02% Span +/- 0.02%	+/- 0.01% of span or +/- 0.01C per C change in ambient temp	+/- 0.01% of span or +/- 0.01C per C change in ambient temp	Zero 0.01%/C Span +/- 0.005%/C Long term 0.05%/yr	Zero 0.008C/C Span 100ppm/C
Adjust	Zero +/- 50C Span +/- 50C	Zero +/- 25C Span +/- 25% of span (rangeable -200 to 600C)	Zero +/- 25C Span +/- 25% of span (Tmax must ≥ 5xTmin)	Programmable via PC	Programmable via PC, HART®
Ambient Temp. Range, C	-20 to 70	-40 to 85	0 to 50	-30 to 85	-40 to 85
Sensor Burnout Indication	Upscale	Upscale	Upscale	Upscale	Upscale
Supply Voltage	12V min 36V max	10V min 40V max	12V min 20V max	10V min 40V max	10V min 40V max
Output Limits	(High) 33mA (Low) 3.2mA	(High) 33mA (Low) 3.2mA	(High) 33mA (Low) 3.2mA		(High) 20.2mA (Low) 3.8mA
EMI/RFI Immunity	Input/output filtering	Input/output filtering	Input/output filtering	<1% (DC to 1GHz)	Emissions EN50081-1 Immunity EN50082-2
Power Supply Effect	+/- 0.01%	+/- 0.005%	+/- 0.005%	+/- 0.001%/V	0.2microA/V
Other Features	DIN sized for head mounting	Metal foil pots/snap track and remote mounting/FM listed	Local indication/ metal foil pots	Fully isolated/2 line tagging/CE/DIN sized for head mounting	Isolated/DIN sized for head mounting/ CE/FM/HART

CODE	TWO-WIRE (LOOP POWERED) TEMPERATURE TRANSMITTER WITH 4-20mA OUTPUT
TA	RTD Transmitter, linearized, adjustable range, 0.1% accuracy DIN style
TL	RTD Transmitter, linearized, 0.05% accuracy, FM approved
TLI	RTD Transmitter, indicating, linearized, 0.05% accuracy, FM approved
TD	RTD Transmitter, programmable, isolated, DIN style, CE marked
TH	RTD Transmitter, HART® programmable, DIN style, CE marked, FM approved
CODE	SENSOR TYPE
21	100 Ohm, 3-wire, Platinum RTD, Alpha = 0.00385
CODE	CALIBRATION
M	Transmitter and sensor matched for improved performance
Blank	Not matched
CODE	TEMPERATURE RANGE
[Tmin to Tmax]	Tmin = Temperature for 4mA output Tmax = Temperature for 20mA output
CODE	TEMPERATURE UNITS
C	Degrees Celsius
F	Degrees Fahrenheit

ORDERING INFORMATION

Thermocouple Transmitters From The Temperature Experts.

SPECIFICATIONS FOR THERMOCOUPLE TRANSMITTERS

SPECIFICATION	MODEL TD	MODEL TH
Accuracy	+/- 0.1%	+/- 0.04%FRI +/- 0.04%Rdg or 0.5C which ever greater
Linearity	Included above	Included above
Temperature Range	Min span 50C E -200 to 870C J 0 to 1200C K -200 to 1180C T -200 to 350C	Min span 50C E -200 to 870C J 0 to 1200C K -200 to 1180C T -200 to 350C
Drift	Zero 0.01%/C Span 0.005%/C Long term 0.05%/yr	Span 100ppm/C
Adjust	Programmable via PC	Programmable via PC, HART®
Ambient Temp. Range, C	-30 to 85	-40 to 85
Sensor Burnout Indication	Upscale	Upscale
Supply Voltage	10V min 40V max	10V min 40V max
Output Limits		(High) 20.2mA (Low) 3.8mA
EMI/RFI Immunity	<1% (DC to 1GHz)	Emissions EN50081-1 Immunity EN50082-2
Power Supply Effect	+/- 0.001%/V	0.2microA/V
Other Features	Fully isolated/2 line tagging/ CE/DIN sized for head mounting	Isolated/DIN sized for head mounting/ CE/FM/HART

CODE	TWO-WIRE (LOOP POWERED) TEMPERATURE TRANSMITTER WITH 4-20mA OUTPUT
TD	Thermocouple Transmitter, programmable, isolated, DIN style, CE
TH	Thermocouple Transmitter, HART® programmable, DIN style, CE, FM approved

CODE	SENSOR TYPE
E	E Type Thermocouple
J	J Type Thermocouple
K	K Type Thermocouple
T	T Type Thermocouple

CODE	TEMPERATURE RANGE
[Tmin to Tmax]	Tmin = Temperature for 4mA output Tmax = Temperature for 20mA output

CODE	TEMPERATURE UNITS
C	Degrees Celsius
F	Degrees Fahrenheit

ORDERING INFORMATION



The Temperature Experts
BURNS
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Minnetonka, Minnesota 55343
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www.burnsengineering.com