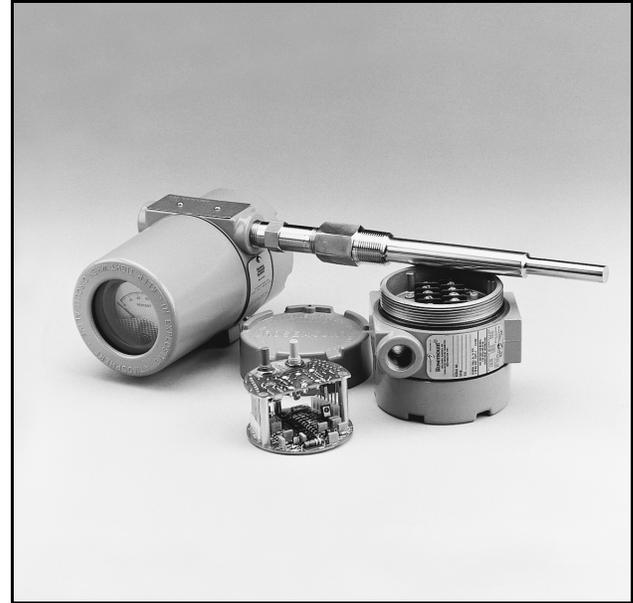


# Alphaline<sup>®</sup> Temperature Transmitters

- *Accepts RTD and thermocouple inputs*
- *Available with an integral meter*
- *Dual compartment housing provides the highest reliability in harsh industrial environments*
- *Offers a low-powered version that is ideal for remote locations*
- *Provides an installation-ready solution including transmitter, sensor, and thermowell*



Model 444

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# Model 444

## Analog Temperature Transmitter

The Model 444 Alphaline<sup>®</sup> Temperature Transmitter is an integral part of the Rosemount<sup>®</sup> family of temperature transmitters. The Model 444 is field-mountable and is capable of withstanding the harshest process environments. It has continuous span and zero field adjustability and removable and interchangeable plug-in circuit boards.

### INTEGRAL METER

Analog or LCD integral display is available that provides local indication of temperature measurement.

### SUPERIOR HOUSING DESIGN

Designed with dual-compartment housing that provides the highest reliability in harsh environments. The dual-compartment housing provides isolation between the electronics and the zero and span adjustments, the sensor terminals, and the signal wiring terminals.

### FLEXIBLE INPUTS

Available for RTD and thermocouple inputs

### LOW-POWER FEATURE

The Model 444LL and 444LM are low-powered that are compatible with solar or battery powered systems. The substantial reduction in power consumption makes it an ideal choice for remote locations.

### INSTALLATION READY

The complete temperature measurement assembly includes the transmitter, sensor, extension, and thermowell (calibrated, wired, and configured). Upon delivery, it can be installed immediately into the process.

## Rosemount Temperature Solutions

### Model 3144P Temperature Transmitter

Field mount style available with HART<sup>®</sup> protocol.

### Model 3244MV Temperature Transmitter

Field mount style available with FOUNDATION<sup>™</sup> fieldbus and Profibus-PA protocols.

### Model 644 Smart Temperature Transmitter

Head or rail mount styles available with HART protocol.

### Model 848T Eight Input Temperature Transmitter

Eight input transmitter available with FOUNDATION fieldbus protocol.

### Model 244E Temperature Transmitters

Head or rail mount styles that are PC-programmable.

### Model 144H Temperature Transmitters

PC-programmable head mount style for 2- and 3-wire RTD sensor inputs.

### Rosemount sensors, thermowells, and extensions

Rosemount has a broad offering of RTD and thermocouples that are designed to meet plant requirements.

# Specifications

## TRANSMITTER

### Functional

#### Inputs

Models 444RL, LL, and LM

- 100 Ω R<sub>0</sub> platinum RTD per IEC 751 Class B.

Model 444T

- Thermocouple types J and K (grounded or ungrounded) per National Institute of Standards and Technology (NIST).

#### Spans

RTD		
	Minimum	Maximum
Pt100	45 °F (25 °C)	135 °F (75 °C)
	125 °F (70 °C)	380 °F (210 °C)
	360 °F (200 °C)	1080 °F (600 °C)
Thermocouples		
	Minimum	Maximum
Types J, K	180 °F (100 °C)	540 °F (300 °C)
Type J	504 °F (280 °C)	1458 °F (810 °C)
Type K	504 °F (280 °C)	1510 °F (840 °C)
Type K	845 °F (470 °C)	1540 °F (1410 °C)

#### Outputs

Linear with temperature for RTD inputs.

Linear with millivolt input signal for thermocouple inputs.

#### NOTE

The 4–20 mA output is not linear with temperature when the thermocouple's millivolt input signal is not linear with temperature.

#### Isolation

Thermocouple and millivolt models input/output isolated to 500 V dc.

Model	Limit
444RL and T	4-20 mA
444LL	0.8-3.2 V DC
444LM	1.0-5.0 V DC

#### Span and Zero

Continuously adjustable, as defined in the ordering table. Adjustments are accessible from the terminal side of the transmitter housing.

#### Turn-on Time

- 2 seconds
- No warm-up required

#### Power Supply

Model	Limit
444RL and T	12 to 45 V dc at terminals of transmitter
444LL	5 to 12 V dc (over-voltage protected to 24 V dc Max current = 1.5 mA)
444LM	8 to 12 V dc (over-voltage protected to 24 V dc Max current = 2.0 mA)

#### Approximate Output Limits

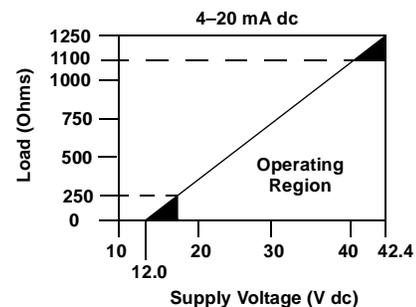
Models 444RL and T	
Low	3.9 mA dc
High	30.0 mA dc
Model 444LL	
Low	0.1 V dc
High	4.2 V dc
Model 444LM	
Low	0.125 V dc
High	6.2 V dc

#### Load Limitations

Models 444RL and T

- 4-20 mA

$$\text{Maximum Load} = 43.5 \times (\text{Supply Voltage} - 12.0)$$



#### Transmitter Temperature Limits

- –13 to 185 °F (–25 °C to 85 °C), transmitter operates within specifications.
- –40 to 212 °F (–40 °C to 100 °C), transmitter operates without damage.
- –58 to 248 °F (–50 °C to 120 °C), storage.
- –13 to 149 °F (–25 °C to 65 °C), transmitter operates within specifications for meter option.

#### Loss of Input

Upscale burnout indication is standard for RTD inputs, downscale burnout indication is optional. Upscale burnout indication is standard for thermocouple inputs; downscale burnout indication or no indication is optional.

# Model 444

## Performance

### Accuracy

±0.2% of calibrated span (or, for thermocouple ±0.02 millivolts, whichever is greater). Includes combined effects of transmitter repeatability, hysteresis, linearity (conformity instead of linearity for thermocouple input), and adjustment resolution. Does not include sensor error.

### Stability

±0.2% of calibrated span for 6 months.

### Ambient Temperature Effect

Errors shown for 50 °F (28 °C) change in ambient temperature.

#### RTD Inputs

Zero	± 0.17 °C	plus
Span	± 0.22%	plus
Elevation/ Suppression	± 0.083% of base temperature in °C	

#### Thermocouple Inputs (Included the effect of cold junction)

Zero	± 1.38 °C	plus
Span	± 0.28%	plus
Elevation/ Suppression	±0.11% of base temperature in °C	

### Input Impedance (Thermocouple Inputs)

Greater than 1 megohm with burnout resistors disconnected.

### Power Supply Effect

±0.01% of span per volt maximum.

### Load Effect

No load effect other than the change in voltage supplied to the transmitter.

### Vibration Effect

±0.05% of span per g to 200 Hz in any axis for 3 g's up to 33 Hz, 2 g's from 33 to 70 Hz and 1 g from 70 to 200 Hz.

### Mounting Position Effect

None

## Physical

### Materials of Construction

Electronics Housing

- Low-copper aluminum. NEMA 4X, IP54, IP65, IP66, IP67, IP68

Housing Paint

- Polyurethane

Housing O-rings

- Buna-N

Sensor and Conduit Connections

- 1/2-inch conduit on electronics housing. Screw terminals and integral test jacks compatible with miniature banana plugs (Pomona 2944, 3690 or equal).

### Weight

Transmitter

- 3 lb (1.4 kg)

Transmitter with mounting bracket

- 4 lb (1.8 kg)

## LCD METER<sup>(1)</sup>

## Functional

### Configuration

The sum of the 4 mA point and span must not exceed 9999. Adjustments are made using non-interactive zero and span buttons.

- 4 mA point limits: -999 to 1000.
- Span limits: 0200 to 9999.

### Temperature Limits

- Storage: -40 to 85 °C (-40 to 185 °F).
- Operating: -20 to 70 °C (-4 to 158 °F).
- Between -40 and -20 °C (-40 and -4 °F) loop is intact and the meter is not damaged.

### Humidity Limitation

- 0 to 95% non-condensing relative humidity

### Update Period

- 750 ms

### Response Time

Responds to changes in input within a maximum of two update periods. If the filter is activated, then the display responds to the change within nine update periods.

(1) Available with Models 444RL 1, 2, and 3 only.

**Performance**

**Digital Display Resolution**

- 0.05% of calibrated range  $\pm 1$  digit

**Analog Bar Graph Resolution**

- 0.05% of calibrated range

**Indication Accuracy**

- 0.25% of calibrated range  $\pm 1$  digit

**Stability**

- Over Time: 0.1% of calibrated range  $\pm 1$  digit per six months

**Temperature Effect**

- 0.01% of calibrated range per °C on zero
- 0.02% of calibrated range per °C on span over the operating temperature range

**Power Interrupt**

All calibration constants are stored in EEPROM memory and are not affected by power loss.

**Failure Mode**

LCD meter failure will not affect transmitter operation.

**Under/Over Range Indication**

- Input current < 3.5 mA: Display blank
- Input current > 22.0 mA: Display flashes 112.5% of full scale value or 9999, whichever is less

**Physical**

**Meter Size**

2<sup>1</sup>/<sub>4</sub>-inch diameter face with four, <sup>1</sup>/<sub>2</sub>-inch high characters.

**Options**

Option	Relationship Between Input Signal and Digital Display
L in	Linear
L inF	Linear with 5 second filter
Srt	Square root <sup>(1)</sup>
SrtF	Square root with 5 second filter <sup>(1)</sup>

*(1) Square root function for use with differential pressure flow applications only, and is only related to the digital display. The bar graph output remains linear with the current signal when the meter is set to the square root function.*

**ANALOG METER**

**Functional**

**Meter Indication**

- 0 to 100% linear scale
- Special optional ranges

**Temperature Limits**

- -40 to 65 °C (-40 to 150 °F)

**Humidity Limits**

- 0 to 100% relative humidity

**Zero Adjustment**

- Adjustment screw on face of meter

**Performance**

**Indication Accuracy**

- $\pm 2\%$  of calibrated span

**Temperature Effect**

Less than 2% of full scale at any point within the temperature limits.

**Physical**

**Meter Size**

- 2<sup>1</sup>/<sub>4</sub>-inch diameter face with 2-inch long scale

# Model 444

## Low-Power Temperature Transmitter

### MODEL 444LL, 444LM

The low-powered Model 444 is compatible with solar or battery-powered systems. A nominal 24V dc power supply is no longer required. The Model 444LL operates on 5–12 V dc; the Model 444LM operates on 8–12 V dc. The substantial reduction in power consumption makes these temperature transmitters an ideal choice for remote location. The electronic circuit boards used in these transmitters work on a lower supply voltage and provide a voltage output that is linear with temperature. These boards are not interchangeable with the standard Model 444.

### SPECIFICATIONS

#### Functional

##### Input

- 100-ohm platinum RTD

##### Zero and Span Adjustability

Base Temperature

- –25 to 50 °F (–32 to 10 °C)

Spans

- Minimum: 75 °F (42 °C)  
Maximum: 150 °F (83 °C)

##### Outputs

- Model 444LL: 0.8 to 3.2 volts
- Model 444LM: 1.0 to 5.0 volts

##### Power Supply

- Model 444LL: Supply ranges 5 to 12 V dc
- Model 444LM: Supply ranges 8 to 12 V dc

##### Indication

- No meter available

##### Loss of Input

- Upscale burnout indication only

##### Current Consumption

- Model 444LL: 1.5 mA
- Model 444LM: 2.0 mA

#### Performance

##### Accuracy

±0.2% of calibrated span. Includes linearity, hysteresis, and repeatability.

##### Ambient Temperature Effect

±0.7% of calibrated span per 50 °F (28 °C) change in ambient temperature.

##### Power Supply Effect

- ±0.05% per volt

##### Over-voltage Protection

Unit capable of sustaining a 24 V supply across the signal terminals without damaging the transmitter.

---

##### NOTE

All other functional and performance specifications are identical to Model 444RL.

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## Hazardous Locations Certifications

### Factory Mutual (FM) Approvals

**E5** Explosion Proof: Class I, Division 1, Groups B, C, and D.  
Dust Ignition Proof: Class II, Division 1, Groups E, F, and G;  
Class III, Division 1 hazardous locations. Indoor and outdoor  
use. NEMA Enclosure Type 4X. (See Table 1.)

**NOTE**

Approval valid only when wired in accordance with Rosemount  
drawing 00444-0261.

**I5** Intrinsic Safety: Class I, Division 1, Groups A, B, C, and D;  
Class II, Division 1, Groups E, F, and G; Class III, Division 1  
hazardous locations; Intrinsic safety approval only when  
wired in accordance with Rosemount drawing 01151-0214  
and used with approved barrier systems shown in Table 1.  
Non-Incendive: Class I, Division 2, Groups A, B, C, and D;  
Indoor and outdoor use. NEMA Enclosure Type 4X.

**K5** Combination of E5 and I5

TABLE 1. FM Entity Approvals

Model 444 Parameters	Associated Equipment Parameters	FM Approved for Class I, II, III, Division 1, Groups		
		A	B	C to G
$V_o = 40\text{ V}$	$V_{OC}$ or $V_T \leq 40\text{ V}$	•	•	•
$I_o = 165\text{ mA}$	$I_{SC}$ or $I_T \leq 165\text{ mA}$	•	•	•
$C_i = 0.044\mu\text{F}$	$C_o > 0.044\mu\text{F}$	•	•	•
$L_i = 0$	$L_o > 0$	•	•	•
$V_o = 40\text{ V}$	$V_{OC}$ or $V_T \leq 40\text{ V}$	NA	NA	•
$I_o = 225\text{ mA}$	$I_{SC}$ or $I_T \leq 225\text{ mA}$	NA	NA	•
$C_i = 0.044\mu\text{F}$	$C_o > 0.044\mu\text{F}$	NA	NA	•
$L_i = 0$	$L_o > 0$	NA	NA	•

### Canadian Standards Association (CSA) Approvals

**C6** Combination of E6 and I6. Explosion Proof: Class I, Division  
1, Groups C and D; Class II, Division 1, Groups E, F, and G;  
Class III, Division 1 hazardous locations; Suitable for Class  
I, Division 2, Groups A, B, C, and D; CSA Enclosure Type  
4X. Intrinsic Safety: Class I, Division 1, Groups A, B, C, and  
D. Intrinsically safe system only when wired in accordance  
with Rosemount drawing 00444-0034 and used with  
approved barrier systems shown in Table 2. Temperature  
code T2D. CSA Enclosure Type 4X. (See Table 2.)

TABLE 2. CSA Entity Parameters

Barrier Manufacturer/Model	CSA Approved for Class I, Division 1 Groups			
	A	B	C	D
<b>Any CSA approved zener barrier</b>				
$\leq 30\text{ V}, \geq 330\ \Omega$	•	•	•	•
$\leq 28\text{ V}, \geq 300\ \Omega$	•	•	•	•
$\leq 22\text{ V}, \geq 180\ \Omega$	•	•	•	•
<b>Foxboro Converters</b>				
2AI-I2V-CGB	NA	•	•	•
2AI-I3V-CGB	NA	•	•	•
2AS-I2I-CGB	NA	•	•	•
2AS-I3I-CGB	NA	•	•	•
3AD-I3IA CS-E/CGB-A	NA	•	•	•
3A2-I2D CS-E/CGB-A	NA	•	•	•
3A2-I3D CS-E/CGB-A	NA	•	•	•
3A4-I2DA CS-E/CGB-A	NA	•	•	•
3F4-I2DA1 CS-E/CGB-A	NA	•	•	•
<b>Any CSA approved zener barrier</b> $\leq 30\text{ V}, \geq 150\ \Omega$	NA	NA	•	•

# Model 444

## Standards Association of Australia (SAA) Certifications

- E7** Flameproof:  
Ex d IIB+H2 T6  
Class I, Zone 1.  
DIP T6  
Class II.

### SPECIAL CONDITIONS FOR SAFE USE (X):

For transmitters having NPT or PG cable entry thread, an appropriate flameproof thread adaptor shall be used to facilitate application of certified flameproof cable glands. Only SAA-certified flameproof temperature sensors shall be used with the Model 444 Temperature Transmitter if fitted directly into the tapped entry of the enclosure.

- I7** Intrinsic Safety:  
Ex ia IIC T6 ( $T_{amb} = 40\text{ °C}$ )  
Ex ia IIC T5 ( $T_{amb} = 70\text{ °C}$ )  
Class I, Zone 0.

TABLE 3. Entity Parameter

#### Power/Loop

$U_i = 30\text{ V dc}$

$I_i = 200\text{ mA}$

$P_i = 1.0\text{ W}$

$C_i = 0.024\text{ }\mu\text{F}$

$L_i = 0\text{ }\mu\text{H}$

### NOTE

Approval valid only when wired in accordance with Rosemount drawing 00444-0264.

### Special Conditions for Safe Use (X):

The equipment has been assessed to the "Entity" concept and upon installation the barrier/entity parameters must be taken into account.

## Centro Elettrotecnico Sperimentale Italiano (CESI/CENELEC) Certifications

- E8** Flameproof:  
EEx d IIC T6
- I8** Intrinsic Safety:  
Model 444RL
- EEx ia IIC T6 ( $T_{amb} = 40\text{ °C}$ ) [ $P_i = 0.75\text{ W}$ ]
  - EEx ia IIC T5 ( $T_{amb} = 55\text{ °C}$ ) [ $P_i = 1.0\text{ W}$ ]
  - EEx ia IIC T4 ( $T_{amb} = 80\text{ °C}$ ) [ $P_i = 1.0\text{ W}$ ]
- Model 444T
- EEx ib IIB T6 ( $T_{amb} = 40\text{ °C}$ ) [ $P_i = 0.75\text{ W}$ ]
  - EEx ib IIB T5 ( $T_{amb} = 55\text{ °C}$ ) [ $P_i = 1.0\text{ W}$ ]
  - EEx ib IIB T4 ( $T_{amb} = 80\text{ °C}$ ) [ $P_i = 1.0\text{ W}$ ]

TABLE 4. Input Entity Parameters

#### Power/Loop

$U_i = 30\text{ V dc}$

$I_i = 200\text{ mA}$

$P_i = 0.75\text{ W (T6)}$

$P_i = 1.0\text{ W (T5)}$

$P_i = 1.0\text{ W (T4)}$

$C_i = 0.024\text{ }\mu\text{F (Model 444RL)}$

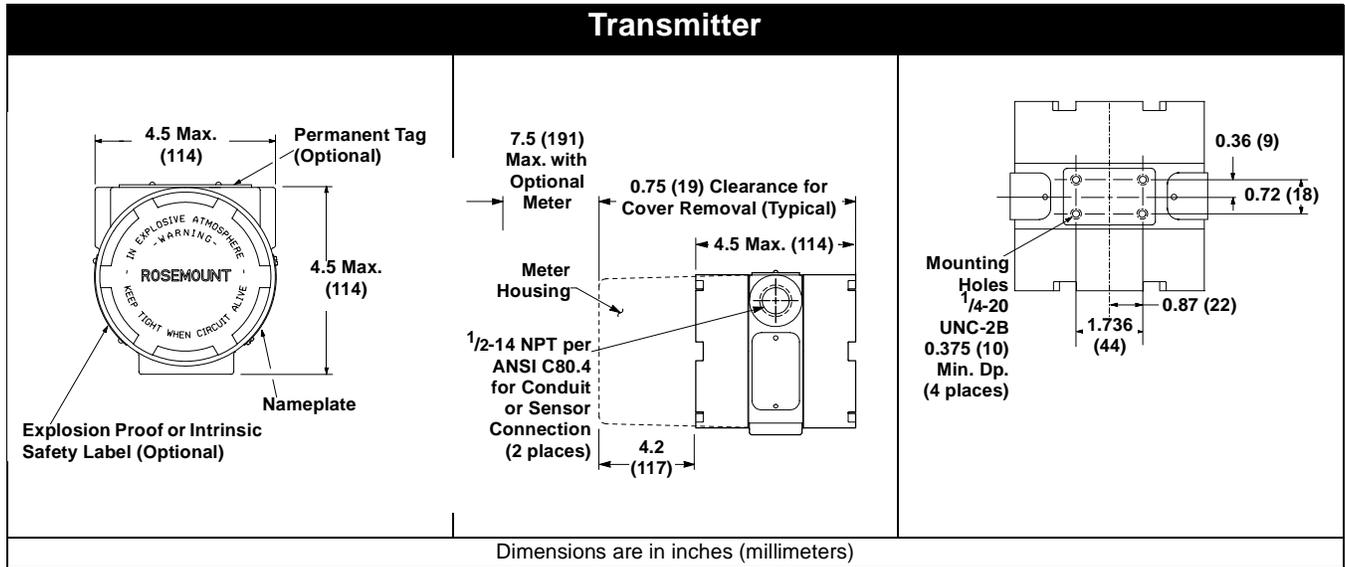
$C_i = 0.024\text{ }\mu\text{F (Model 444T)}$

$L_i = 0\text{ }\mu\text{H}$

### Special Conditions for Safe Use (X):

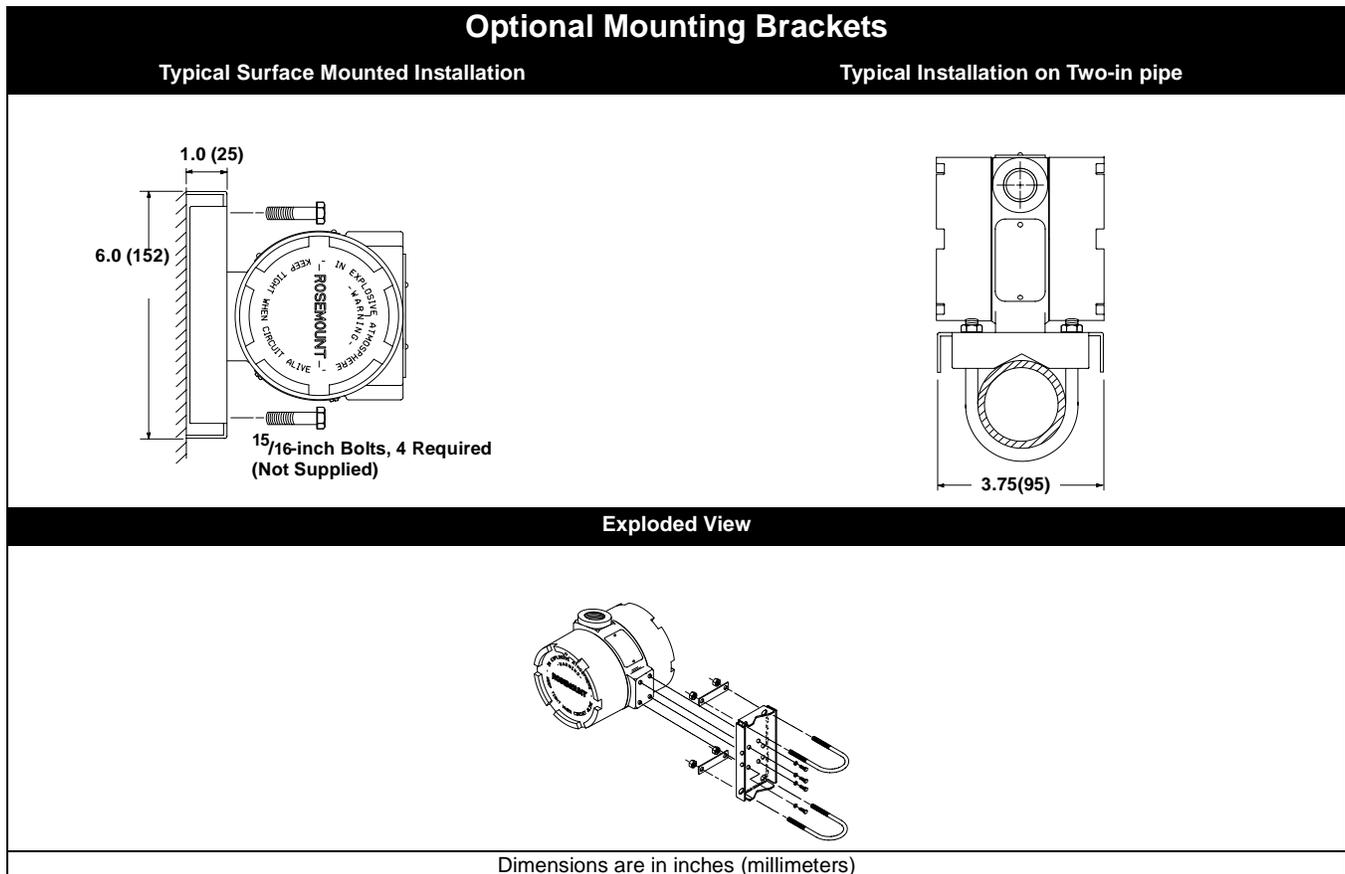
If the temperature sensor connected to the input circuit does not tolerate an alternating tension of 500V for 60 seconds, the certified transducers must be powered by galvanically-insulated equipment. Model 444RL temperature transducers must be connected to associated electronic equipment certified to EN 50.014/EN 50.020 standards.

## Dimensional Drawings



444\_51LTC05A, G05A, F05A

Model 444

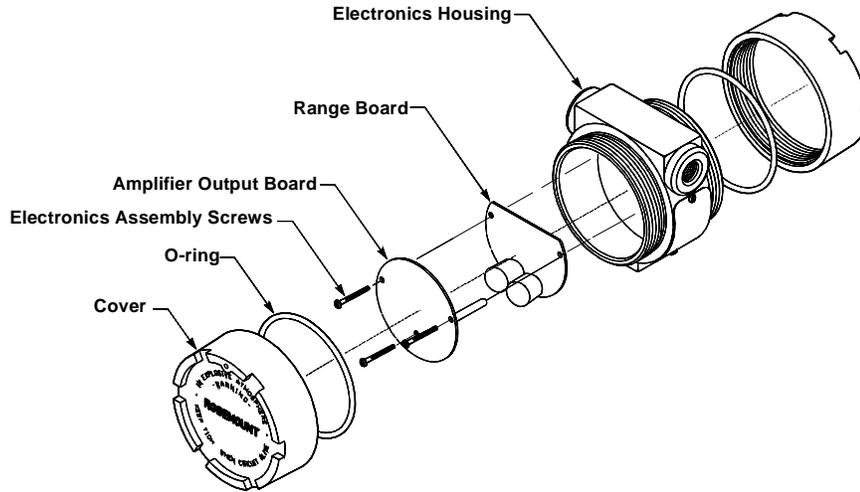


444\_51LTC05A, D05A

444\_51LTF04A

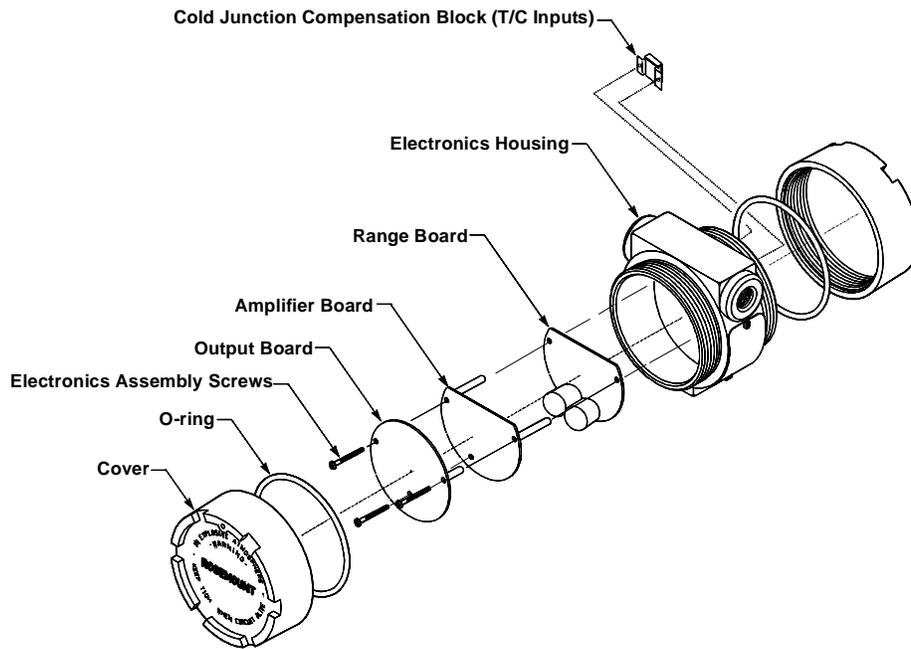
## Standard Model 444 Assemblies

### Model 444RL



1151\_1151B02E

### Model 444T



1151\_1151B02C

## Ordering Information

TABLE 5. Model 444 Standard Transmitter Ordering Information

Model	Product Description					
444	Standard AlphaLine <sup>®</sup> Temperature Transmitter					
Code	Input Type	Temperature Span		Base Temperature (4mA Point)		Upper Range Limit
Pt 100 Ω RTD						
		Minimum	Maximum	Minimum	Maximum	
RL1	Linearized output	45 °F (25 °C)	135 °F (75 °C)	-58 °F (-50 °C)	300 °F (150 °C)	435 °F (225 °C)
RL2	Linearized output	125 °F (70 °C)	380 °F (210 °C)	-58 °F (-50 °C)	300 °F (150 °C)	680 °F (360 °C)
RL3	Linearized output	360 °F (200 °C)	1080 °F (600 °C)	-58 °F (-50 °C)	300 °F (150 °C)	1380 °F (750 °C)
Thermocouple						
TJ1	Type J	180 °F (100 °C)	540 °F (300 °C)	-58 °F (-50 °C)	300 °F (150 °C)	840 °F (450 °C)
TJ2	Type J	504 °F (280 °C)	1458 °F (810 °C)	-58 °F (-50 °C)	930 °F (500 °C)	1400 °F (760 °C)
TK1	Type K	180 °F (100 °C)	540 °F (300 °C)	-58 °F (-50 °C)	300 °F (150 °C)	840 °F (450 °C)
TK2	Type K	504 °F (280 °C)	1510 °F (840 °C)	-58 °F (-50 °C)	930 °F (500 °C)	2440 °F (1340 °C)
TK3	Type K	845 °F (470 °C)	2540 °F (1410 °C)	-58 °F (-50 °C)	930 °F (500 °C)	2500 °F (1370 °C)
Code	Loss of Input Indication					
U	Upscale (standard for all input types)					
D	Downscale					
N	None (not available for platinum RTD inputs)					
Code	Calibration					
1	Trim to IEC 751 class B (RTD) or NIST curve (thermocouple)					
2	Trim to specific Model 68/78 calibration schedule					
3	Trim to other nominal curve (customer must specify separately)					
Code	Meter Options					
A	None					
B	Integral analog meter, special scale (must specify range, mode, and engineering units)					
C	Integral analog meter, 0–100% Scale					
D <sup>(1)</sup>	Integral LCD meter, 0–100% Scale					
E <sup>(1)</sup>	Integral LCD meter, special scale (must specify range, mode, and engineering units)					
Code	Mounting Bracket					
1	None					
2	Mounting bracket for 2-inch pipe or surface mounting					
Code	Hazardous Area Certifications					
NA	No certification required					
E5	FM explosion-proof approval					
I5	FM intrinsic safety and non-incendive approval					
K5	FM intrinsic safety and explosion-proof approval combination					
C6	CSA intrinsic safety and explosion-proof approval combination					
E7	SAA flameproof certification					
I7	SAA Intrinsic safety certification					
E8	CESI flameproof certification					
I8	CESI intrinsic safety certification					
Code	Assembly Options <sup>(2)</sup>					
X1	Assemble transmitter to a sensor assembly (hand tight, <i>Teflon</i> <sup>®</sup> (PTFE) tape where appropriate, fully wired)					
X2	Assemble transmitter to a sensor assembly (hand tight, no <i>Teflon</i> (PTFE) tape, unwired)					
X3	Assemble transmitter to a sensor assembly (wrench tight, <i>Teflon</i> (PTFE) tape where appropriate, fully wired)					
Code	Options					
Q4	2-Point calibration certificate					
A1	One (1) 1/2 NPT to M20 (CM 20) SST thread adaptor					
A2	Two (2) 1/2 NPT to M20 (CM 20) SST thread adaptors					
<b>Typical Model Number: 444 RL3 U 1 A 2 E5</b>						

(1) LCD meters are only available with RL1, RL2, and RL3. (May be reconfigured in the field.)

(2) If ordering X1, X2, or X3 options, specify the same code on the sensor model number. Option codes X1 and X3 are not available with CSA approval (Hazardous Area Certifications C6.)

# Product Data Sheet

00813-0100-4263, Rev BA  
October 2001

# Model 444

TABLE 6. Model 444LL and LM Transmitter Ordering Information

Model		Temperature Span		Base Temperature (4mA Point)	
Code	Input Type	Minimum	Maximum	Minimum	Maximum
444	Alphaline <sup>®</sup> Low-Power Temperature Transmitter				
<b>Pt 100 Ω RTD</b>					
LL1	Linearized output (5-12 V dc)	75 °F (42 °C)	150 °F (83°C)	-25 °F (-32 °C)	50 °F (10 °C)
LM1	Linearized output (8-12 V dc)	75 °F (42 °C)	150 °F (83 °C)	-25 °F (-32 °C)	50 °F (10 °C)
<b>Code Loss of Input Indication</b>					
U	Upscale				
<b>Code Calibration</b>					
1	Trim to IEC 751 Class B curve (RTD)				
2	Trim to specific Model 68/78 calibration schedule				
<b>Code Meter Options</b>					
A	None				
<b>Code Mounting Bracket</b>					
1	None				
2	Mounting bracket for 2-inch pipe or surface mounting				
<b>Code Hazardous Area Certifications</b>					
NA	No certification required				
E5	FM explosion-proof approval				
C6	CSA intrinsic safety and explosion-proof approval combination				
<b>Code Assembly Options<sup>(1)</sup></b>					
X1	Assemble transmitter to a sensor assembly (hand tight, <i>Teflon</i> <sup>®</sup> (PTFE) tape where appropriate, fully wired)				
X2	Assemble transmitter to a sensor assembly (hand tight, no <i>Teflon</i> (PTFE) tape, unwired)				
X3	Assemble transmitter to a sensor assembly (wrench tight, <i>Teflon</i> (PTFE) where appropriate, fully wired)				
<b>Code Options</b>					
Q4	2-Point calibration certificate				
A1	One (1) 1/2 NPT to M20 (CM 20) SST thread adaptor				
A2	Two (2) 1/2 NPT to M20 (CM 20) SST thread adaptors				
<b>Typical Model Number: 444 LM1 U 1 A 2 E5</b>					

(1) If ordering X1, X2, or X3 options, specify the same code on the sensor model number. Option codes X1 and X3 are not available with CSA approval (Hazardous Area Certifications C6.)

### Calibration

Customer must specify calibrated range. If no calibrated range is specified, the transmitter will be shipped trimmed to maximum span with 0 °C base temperature.

### Tagging

- no charge
- tagged in accordance with customer requirements
- tags are stainless steel
- permanently attached to the transmitter
- character height is 1/8-in (3 mm)
- wired-on tag is available upon request

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*FOUNDATION is a trademark of the Fieldbus Foundation.*

*HART is a registered trademark of the HART Communication Foundation.*

*Teflon is a registered trademark of E.I. du Pont de Nemours & Co.*

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### Emerson Process Management

#### Rosemount Inc.

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