

# Rosemount™ 644 HART® Temperature Transmitter Configuration Data Sheet

**BOLD** = Required value

★ = Default

Select only one of the items provided

One or more of the listed items can be selected

Customer information	
Customer: _____	Contact name: _____
Phone number: _____	Fax no./email: _____
P.O./reference no.: _____	P.O. line item: _____
Quote no.: _____	Model no.: _____
Customer sign-off: _____	

Tagging
Hardware tag: _____ (13 characters maximum)
Software tag <sup>(1)</sup> : _____ (8 characters maximum)
Long software tag <sup>(1)(2)</sup> : _____ (32 characters maximum)

1. Default is hardware tag.

2. Requires HR7 code.

Sensor configuration (sensor 1)			
<b>RTDs</b>	<b>Thermocouples</b>	<b>Other sensor types</b>	<b>Measurement range</b>
<input type="radio"/> Pt 100★ (α = 0.00385) IEC	<input type="radio"/> Type B NIST	<input type="radio"/> mV	Upper range value (100%)
<input type="radio"/> Pt 200 (α = 0.00385) IEC	<input type="radio"/> Type E NIST	<input type="radio"/> ohm	_____ (100 °C★)
<input type="radio"/> Pt 500 (α = 0.00385) IEC	<input type="radio"/> Type J NIST	<b>Number of leads</b>	Lower range value (0%)
<input type="radio"/> Pt 1000 (α = 0.00385) IEC	<input type="radio"/> Type K NIST	<input type="radio"/> 2-wire	_____ (0 °C★)
<input type="radio"/> Pt 100 (α = 0.003916) JIS	<input type="radio"/> Type N NIST	<input type="radio"/> 3-wire	
<input type="radio"/> Pt 200 (α = 0.003916) JIS	<input type="radio"/> Type R NIST	<input type="radio"/> 4-wire★	
<input type="radio"/> Ni 120 Edison Curve No. 7	<input type="radio"/> Type S NIST	<b>Units</b>	
<input type="radio"/> Cu 10 Edison Copper Winding No. 15	<input type="radio"/> Type T NIST	<input type="radio"/> mV	
<input type="radio"/> Pt 50 (α = 0.00391) GOST 6651-94	<input type="radio"/> Type L DIN	<input type="radio"/> ohms	
<input type="radio"/> Pt 100 (α = 0.00391) GOST 6651-94	<input type="radio"/> Type U DIN	<input type="radio"/> K	
<input type="radio"/> Cu 50 (α = 0.00426) GOST 6651-94	<input type="radio"/> Type W5Re/W26Re ASTM	<input type="radio"/> °R	
<input type="radio"/> Cu 50 (α = 0.00428) GOST 6651-94	<input type="radio"/> Type L GOST	<input type="radio"/> °C★	
<input type="radio"/> Cu 100 (α = 0.00426) GOST 6651-94		<input type="radio"/> °F	
<input type="radio"/> Cu 100 (α = 0.00428) GOST 6651-94			

Sensor configuration (sensor 2) - requires dual sensor option code S or T <sup>(1)</sup>		
<b>RTDs</b>	<b>Thermocouples</b>	<b>Other sensor types</b>
<input type="radio"/> Pt 100 ( $\alpha = 0.00385$ ) IEC	<input type="radio"/> Type B NIST	<input type="radio"/> mV
<input type="radio"/> Pt 200 ( $\alpha = 0.00385$ ) IEC	<input type="radio"/> Type E NIST	<input type="radio"/> ohm
<input type="radio"/> Pt 500 ( $\alpha = 0.00385$ ) IEC	<input type="radio"/> Type J NIST	<b>Number of leads</b>
<input type="radio"/> Pt 1000 ( $\alpha = 0.00385$ ) IEC	<input type="radio"/> Type K NIST	<input type="radio"/> 2-wire
<input type="radio"/> Pt 100 ( $\alpha = 0.003916$ ) JIS	<input type="radio"/> Type N NIST	<input type="radio"/> 3-wire
<input type="radio"/> Pt 200 ( $\alpha = 0.003916$ ) JIS	<input type="radio"/> Type R NIST	<b>Units</b>
<input type="radio"/> Ni 120 Edison Curve No. 7	<input type="radio"/> Type S NIST	<input type="radio"/> mV
<input type="radio"/> Cu 10 Edison Copper Winding No. 15	<input type="radio"/> Type T NIST	<input type="radio"/> ohms
<input type="radio"/> Pt 50 ( $\alpha = 0.00391$ ) GOST 6651-94	<input type="radio"/> Type L DIN	<input type="radio"/> K
<input type="radio"/> Pt 100 ( $\alpha = 0.00391$ ) GOST 6651-94	<input type="radio"/> Type U DIN	<input type="radio"/> °R
<input type="radio"/> Cu 50 ( $\alpha = 0.00426$ ) GOST 6651-94	<input type="radio"/> Type W5Re/W26Re ASTM	<input type="radio"/> °C
<input type="radio"/> Cu 50 ( $\alpha = 0.00428$ ) GOST 6651-94	<input type="radio"/> Type L GOST	<input type="radio"/> °F
<input type="radio"/> Cu 100 ( $\alpha = 0.00426$ ) GOST 6651-94		
<input type="radio"/> Cu 100 ( $\alpha = 0.00428$ ) GOST 6651-94		

1. When using 644T...RK, the second sensor type must match the first sensor type (i.e. RTD or Thermocouple).

### Options

Custom configuration information below this line requires C1 option code.

Transmitter information	
Descriptor: _____	(16 characters maximum)
Message: _____	(32 characters maximum)
Date: _____	(MM/DD/YYYY; default is date of final configuration)
Failure mode switch: <input type="radio"/> High★ <input type="radio"/> Low	

Damping		
<input type="radio"/> 0 second	<input type="radio"/> 5 seconds★	<input type="radio"/> Other <sup>(1)</sup> : _____

1. 0.5 to 32 in 0.1 second increments for single sensor, 1.0 to 32 in 0.1 second increments for dual sensor.

LCD display configuration (requires option code M4 or M5) <sup>(1)</sup>		
Select the variables to be displayed on the transmitter LCD display (selections with multiple variables will be alternating).		
<input type="radio"/> Analog output and primary variable★	<input type="radio"/> Average temperature	<input type="radio"/> Sensor 1, sensor 2, and differential temperature
<input type="radio"/> Primary variable	<input type="radio"/> Differential temperature	<input type="radio"/> Analog output
<input type="radio"/> Sensor 1 temperature	<input type="radio"/> Percent of range	<input type="radio"/> Not used
<input type="radio"/> Sensor 2 temperature	<input type="radio"/> Sensor 1 and sensor 2 temperature	

1. Not available on rail mount configurations.

Diagnostic configuration <sup>(1)</sup>	
Hot Backup™ Primary Variable:	<input type="radio"/> First good★ <input type="radio"/> Average
Sensor drift alert <sup>(1)</sup>	
Sensor drift alert mode:	<input type="radio"/> Warning★ (select sensor drift alert limit and unit) <input type="radio"/> Alarm (select sensor drift alert limit and unit)
Sensor drift alert limit:	<input type="radio"/> 3 °C★ <input type="radio"/> Other _____ (value must be greater than 1 °C, in 0.1 degree increments)
Sensor drift alert unit:	<input type="radio"/> °C★ <input type="radio"/> °F <input type="radio"/> °R <input type="radio"/> mV

1. Requires option code DC (Diagnostics: Hot Backup and sensor drift alert).




Alarm and saturation values	
<input type="radio"/> Rosemount standard levels★ (High Alarm = 21.75 mA; low alarm = 3.75 mA; high saturation = 20.5 mA; low saturation = 3.9 mA)	
<input type="radio"/> NAMUR - compliant (available with option codes A1 or CN)	
<input type="radio"/> Custom (option code C1)	
High alarm level:	_____ mA (must be between 21.0 and 23.0 mA)
Low alarm level:	_____ mA (must be between 3.5 and 3.75 mA)
High saturation level:	_____ mA (must be between 20.5 to 20.9 mA)
Low saturation level:	_____ mA (must be between the low alarm value plus 0.1 mA, and 3.9 mA, minimum 3.7 mA)

Security information	
Software write protection <sup>(1)</sup> :	<input type="radio"/> Enable <input type="radio"/> Disabled★

1. If ordering with Custody Transfer option code D4, software write protection will be enabled (not available with rail mount style).




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