

Rosemount™ 3144P Configuration Data Sheet

HART® 4–20 mA and Safety Certified Transmitter

BOLD = Required value
* = Default

Select only one of the items provided
 One or more of the listed items can be selected

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

Tagging
Hardware tag: _____ _____ (2 lines, 28 characters maximum per line)
Software tag: _____ (8 characters maximum - default is first 8 characters of the hardware tag)
Long software tag ⁽¹⁾ : _____ (32 characters maximum)

1. Requires HR7 code.

Sensor 1	Sensor 2 (dual sensor option)
Type	Type
<input type="radio"/> Pt 100, $\alpha = 0.00385$ * <input type="radio"/> Pt 100, $\alpha = 0.003916$ <input type="radio"/> Pt 200, $\alpha = 0.00385$ <input type="radio"/> Pt 200, $\alpha = 0.003916$ <input type="radio"/> Pt 500, $\alpha = 0.00385$ <input type="radio"/> Pt 1000, $\alpha = 0.00385$ <input type="radio"/> Cu 10 <input type="radio"/> Ni 120 <input type="radio"/> Transmitter Sensor Matching (C2 Option) <input type="radio"/> Nonstandard (C7 Option), Attach Calibration Schedule ⁽¹⁾ <input type="radio"/> Ohms <input type="radio"/> NIST Type B T/C <input type="radio"/> NIST Type E T/C	<input type="radio"/> Not used* <input type="radio"/> Pt 100, $\alpha = 0.00385$ <input type="radio"/> Pt 100, $\alpha = 0.003916$ <input type="radio"/> Pt 200, $\alpha = 0.00385$ <input type="radio"/> Pt 200, $\alpha = 0.003916$ <input type="radio"/> Pt 500, $\alpha = 0.00385$ <input type="radio"/> Pt 1000, $\alpha = 0.00385$ <input type="radio"/> Cu 10 <input type="radio"/> Ni 120 <input type="radio"/> Transmitter sensor matching (C2 Option) <input type="radio"/> Nonstandard (C7 Option), Attach calibration schedule ⁽¹⁾ <input type="radio"/> Ohms <input type="radio"/> NIST Type B T/C <input type="radio"/> NIST Type E T/C <input type="radio"/> NIST Type J T/C <input type="radio"/> NIST Type K T/C
<input type="radio"/> NIST Type J T/C <input type="radio"/> NIST Type K T/C <input type="radio"/> NIST Type N T/C <input type="radio"/> NIST Type R T/C <input type="radio"/> NIST Type S T/C <input type="radio"/> NIST Type T T/C <input type="radio"/> mV <input type="radio"/> DIN Type L T/C <input type="radio"/> DIN Type U T/C <input type="radio"/> Type W5Re/W26Re T/C <input type="radio"/> GOST Pt 50, $\alpha = 0.00391$ <input type="radio"/> GOST Pt 100, $\alpha = 0.00391$ <input type="radio"/> GOST Cu 50, $\alpha = 0.00426$ <input type="radio"/> GOST Cu 100, $\alpha = 0.00428$ <input type="radio"/> GOST Cu 100, $\alpha = 0.00428$ <input type="radio"/> GOST Cu 100, $\alpha = 0.00428$ <input type="radio"/> GOST Type L T/C	<input type="radio"/> NIST Type N T/C <input type="radio"/> NIST Type R T/C <input type="radio"/> NIST Type S T/C <input type="radio"/> NIST Type T T/C <input type="radio"/> mV <input type="radio"/> DIN Type L T/C <input type="radio"/> DIN Type U T/C <input type="radio"/> Type W5Re/W26Re T/C <input type="radio"/> GOST Pt 50, $\alpha = 0.00391$ <input type="radio"/> GOST Pt 100, $\alpha = 0.00391$ <input type="radio"/> GOST Cu 50, $\alpha = 0.00426$ <input type="radio"/> GOST Cu 100, $\alpha = 0.00428$ <input type="radio"/> GOST Cu 100, $\alpha = 0.00428$ <input type="radio"/> GOST Cu 100, $\alpha = 0.00428$ <input type="radio"/> GOST Type L T/C
<p>Note Default depends on option ordered A1: Default is "Not Used" A2: Default is PT100 3-wire</p>	

1. A nonstandard sensor type can only be used for Sensor 1 or Sensor 2, not both.

Number of leads						
<input type="radio"/> 2-wire	<input type="radio"/> 3-wire	<input type="radio"/> 4-wire*	<input type="radio"/> 2-wire	<input type="radio"/> 3-wire	<input type="radio"/> 4-wire	
4 mA value:	<input type="radio"/> 0 °C*	<input type="radio"/> ____ °C	<input type="radio"/> ____ °F	<input type="radio"/> ____ °R	<input type="radio"/> ____ mV	<input type="radio"/> ____ K <input type="radio"/> ____ Ohms
20 mA value:	<input type="radio"/> 100 °C	<input type="radio"/> ____ °C	<input type="radio"/> ____ °F	<input type="radio"/> ____ °R	<input type="radio"/> ____ mV	<input type="radio"/> ____ K <input type="radio"/> ____ Ohms

Rosemount X-well™ Technology temperature measurement configuration ⁽¹⁾ (PT option required)		
<input type="radio"/> Standard		<input type="radio"/> Custom ⁽²⁾
Pipe material	Pipe schedule	Pipe material: _____
<input type="radio"/> Carbon steel	<input type="radio"/> 40	Pipe schedule: _____
<input type="radio"/> Painted carbon steel	<input type="radio"/> 80	Pipe conduction coefficient: _____ (value must be between 0 and 1)
<input type="radio"/> 304 stainless steel	<input type="radio"/> 120	
<input type="radio"/> 316 stainless steel		

1. 4-wire sensor configuration required for Rosemount X-well Technology.

2. For custom configuration, consult factory with pipe material and pipe schedule for the appropriate pipe conduction coefficient.

Note

Custom configuration information below this note requires C1 option code.

Transmitter information		
Damping	<input type="radio"/> 5 Seconds*	<input type="radio"/> Other _____ (Value must be less than 32 seconds)
LCD display (selections with multiple variables will be alternating)		Rosemount X-well LCD display option
<input type="radio"/> Analog output and primary variable	<input type="radio"/> Percent of range	<input type="radio"/> Sensor 1 and surface temperature
<input type="radio"/> Sensor 1, Sensor 2, and differential temperature	<input type="radio"/> Sensor 1 temperature	<input type="radio"/> Sensor 1 and surface temperature and analog output
<input type="radio"/> Sensor 1 and Sensor 2 temperature	<input type="radio"/> Sensor 2 temperature	
<input type="radio"/> Average temperature	<input type="radio"/> Analog output	
<input type="radio"/> Differential temperature	<input type="radio"/> Not used	
<input type="radio"/> Primary variable		
Descriptor	<input type="checkbox"/>	_____ (16 characters maximum)
Message	<input type="checkbox"/>	_____ (32 characters maximum)
<input type="radio"/> Date	Day __ (numeric)	Month ___ (alphabetic) Year __ (numeric)
Jumper selection		
Failure mode	<input type="radio"/> High*	<input type="radio"/> Low
Software security	<input type="radio"/> Off*	<input type="radio"/> On




Signal selection
<input type="radio"/> 4–20 mA with simultaneous digital signal based on HART protocol [★]
<input type="radio"/> Burst mode of HART digital process variable <p style="margin-left: 20px;">Burst mode output options:</p> <input type="radio"/> Primary variable in engineering units <input type="radio"/> Primary variable in percentage of range <input type="radio"/> All dynamic variables in engineering units and the primary variable mA value
<input type="radio"/> Multidrop communication (not applicable for safety certified transmitter) <p style="margin-left: 20px;">Note: This option fixes the transmitter's analog output at 4 mA.</p> <input type="checkbox"/> _____ provide transmitter address (1 [★] –15) <p style="margin-left: 20px;">Note: The default transmitter address is 1 if multidrop communication is selected.</p>

Alarm and saturation values												
<input type="radio"/> Rosemount standard [★]												
<input type="radio"/> NAMUR-compliant ⁽¹⁾ .												
<input type="radio"/> Custom (field left blank will default to Rosemount standard values) <table style="margin-left: 20px; border: none;"> <tr> <td><input type="checkbox"/> High alarm level</td> <td>_____</td> <td>mA (must be between 21.0 and 23.0 mA)</td> </tr> <tr> <td><input type="checkbox"/> Low alarm level</td> <td>_____</td> <td>mA (must be between 3.5 and 3.75 mA)</td> </tr> <tr> <td><input type="checkbox"/> High saturation level</td> <td>_____</td> <td>mA (must be between 20.5 to 20.9 mA)</td> </tr> <tr> <td><input type="checkbox"/> Low saturation level</td> <td>_____</td> <td>mA (must be between the low alarm value plus 0.1 mA and 3.9 mA, minimum 3.7 mA)</td> </tr> </table>	<input type="checkbox"/> High alarm level	_____	mA (must be between 21.0 and 23.0 mA)	<input type="checkbox"/> Low alarm level	_____	mA (must be between 3.5 and 3.75 mA)	<input type="checkbox"/> High saturation level	_____	mA (must be between 20.5 to 20.9 mA)	<input type="checkbox"/> Low saturation level	_____	mA (must be between the low alarm value plus 0.1 mA and 3.9 mA, minimum 3.7 mA)
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<input type="checkbox"/> Low alarm level	_____	mA (must be between 3.5 and 3.75 mA)										
<input type="checkbox"/> High saturation level	_____	mA (must be between 20.5 to 20.9 mA)										
<input type="checkbox"/> Low saturation level	_____	mA (must be between the low alarm value plus 0.1 mA and 3.9 mA, minimum 3.7 mA)										

1. Available with option code A1 or CN.




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