

Rosemount 3051

Rosemount 3051 HART Configuration Data Sheet

* = Defaults

CONFIGURATION DATA SHEET	
Customer _____	P.O. No. _____
Model No. _____	Line Item _____

OUTPUT INFORMATION: (Software Selectable)	
Eng. Units =	<input type="checkbox"/> InH₂O⁽²⁾ * <input type="checkbox"/> psi ⁽³⁾ <input type="checkbox"/> Pa <input type="checkbox"/> ftH ₂ O <input type="checkbox"/> MPa <input type="checkbox"/> inHg <input type="checkbox"/> bar <input type="checkbox"/> kPa <input type="checkbox"/> g/cm ² <input type="checkbox"/> mbar <input type="checkbox"/> Torr <input type="checkbox"/> mmH ₂ O <input type="checkbox"/> inH ₂ O at 4 °C <input type="checkbox"/> Atm <input type="checkbox"/> kg/cm ² <input type="checkbox"/> mmHg <input type="checkbox"/> mmH ₂ O at 4 °C
output =	<input type="checkbox"/> Linear * <input type="checkbox"/> Square Root (For DP transmitters only)
Transmitter Sensor Temp. Units ⁽¹⁾ =	<input type="checkbox"/> °C * <input type="checkbox"/> °F
Range Points: 4mA =	_____ (0) * 20mA = _____ (URL) *
Damping ⁽¹⁾ (0–60 sec.):	_____ (0.4 sec.) *

TAGGING INFORMATION	
<input type="checkbox"/> Wired (5 lines of 17 characters)	
_____ _____ _____ _____ _____	
<input type="checkbox"/> Permanent (3 lines of 40 characters)	
_____ _____ _____	
Standard Software Tag: _____ (First 8 characters of wired or permanent tagging information—8 characters max)	

TRANSMITTER INFORMATION ⁽¹⁾	
Descriptor:	_____ (16 characters)
Message:	_____ (32 characters)
Date:	<input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> / <input type="checkbox"/> <input type="checkbox"/> Day Month Year

(1) Requires a C1 option code.
 (2) H2O Range 0-3
 (3) PSI Range 4-5, and all 3051T

DIGITAL DISPLAY INFORMATION (One or more of the listed variables can be selected to be displayed on the LCD display.)

- Engineering Units ***
- % of Range
- Scaled Variable
- Sensor Temperature

SIGNAL SELECTION⁽¹⁾

- 4–20 mA with simultaneous digital signal based on HART protocol ***
- Burst mode of HART digital process variable⁽¹⁾
 - Burst mode output options:
 - Primary variable
 - All dynamic variables in engineering units
 - Primary variable in percent of range and mA
 - All dynamic variables in engineering units and the primary variable mA value
- Multidrop Communication
- Transmitter Address (1-15): (default = 0)

SECURITY INFORMATION ⁽¹⁾

Write Protect: On **Off *** Local Zero and Span: **Enabled *** Disabled

ANALOG OUTPUT ALARM AND SATURATION SIGNAL LEVELS ⁽¹⁾

All categories must be completed for custom configuration. Rosemount or NAMUR NE 43 values should be selected via option code.

Custom (Requires Option CR or CS)= Low Alarm: (\leq mA)—values must be between 3.8 and 3.6

Low Saturation (mA)—values must be between 3.9 and 3.7

Low alarm must be 0.1 mA lower than the low saturation value.

High Alarm (\geq mA)—values must be between 20.2 and 23.0

High Saturation (mA)—values must be between 20.1 and 21.5

High alarm must be at least 0.1 mA higher than the high saturation value.

For Reference Only:

Alarm Values: Values (mA) the transmitter outputs if it detects a gross malfunction condition.

Saturation Values: Values (mA) the transmitter outputs if applied pressure goes outside the 4–20 mA range values.

Standard * =	Low Alarm: (\leq 3.75 mA)	Low Saturation (3.9 mA)
	High Alarm (\geq 21.75 mA) *	High Saturation (20.8 mA)
NAMUR NE 43 (Option CN or C4) =	Low Alarm: (\leq 3.6 mA)	Low Saturation (3.8 mA)
	High Alarm (\geq 22.5 mA)	High Saturation (20.5 mA)

PROCESS VARIABLE OUTPUT ASSIGNMENTS

- | | | | |
|---------------------------|---|---|--|
| Primary Variable * | <input type="checkbox"/> Measured Pressure * | <input type="checkbox"/> Scaled Variable | |
| Secondary Variable: | <input type="checkbox"/> Measured Pressure | <input type="checkbox"/> Scaled Variable | <input type="checkbox"/> Device Temperature * |
| Tertiary Variable: | <input type="checkbox"/> Measured Pressure | <input type="checkbox"/> Scaled Variable * | <input type="checkbox"/> Device temperature |

(1) Requires a C1 option code.

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SCALED VARIABLE INFORMATION ⁽¹⁾	
Scaled Units = _ _ _ _ _ _ _ _ (5 characters max—spaces consume 0-9, A-Z, /, %, -, and * character positions)	
Transfer Function=	
<input type="checkbox"/> Linear *	<input type="checkbox"/> Square Root
Linear Scaled Variable (with Linear option only)	Square Root Scaled Variable (with Square Root option only)
Low pressure value _ _ _ _ _ _ _ _ (Eng. Units)	Low pressure value: 0 (Eng. Units)
High pressure value _ _ _ _ _ _ _ _ (Eng. Units)	High pressure value _ _ _ _ _ _ _ _ (Eng. Units)
Low scaled value _ _ _ _ _ _ _ _ (Scaled Units)	Low scaled value: 0 (Scaled Units)
High scaled value _ _ _ _ _ _ _ _ (Scaled Units)	High scaled value _ _ _ _ _ _ _ _ (Scaled Units)
Linear Offset _ _ _ _ _ _ _ _ (Eng. Units)	Low Flow Cut <input type="checkbox"/> On <input type="checkbox"/> Off * _ _ _ _ _ _ _ _ (Scaled unit)
Range Values—both categories must be completed. (used when scaled variable is set to primary variable)	
LRV _ _ _ _ _ _ _ _ (Scaled Unit) (seven characters max)	URV _ _ _ _ _ _ _ _ (Scaled Unit) (seven characters max)
PROCESS ALERT SETPOINTS ⁽¹⁾	
Process alert setpoints are values set by the user where the transmitter outputs a HART message and digital display information when the applied pressure or temperature goes outside the designated range. The pressure values are limited to the range of the transmitter.	
Pressure Process Alert (HART signal only) <input type="checkbox"/> On <input type="checkbox"/> Off *	Temperature Process Alert (HART signal only) <input type="checkbox"/> On <input type="checkbox"/> Off *
<input type="checkbox"/> Low alert _ _ _ _ _ _ _ _ (Eng. Unit)	<input type="checkbox"/> Low alert _ _ _ _ _ _ _ _ (Temp. Unit -40°F, -40 °C)
(LRL ≤ Low Alert ≤ High Alert ≤ URL)	
<input type="checkbox"/> High Alert _ _ _ _ _ _ _ _ (Eng. Unit)	<input type="checkbox"/> High Alert _ _ _ _ _ _ _ _ (Temp. Unit 185°F, 85 °C)

(1) Requires a C1 option code.