

Rosemount 2051T In-Line Pressure Transmitter



2051T In-Line
Wireless Pressure Transmitter

Configuration	Transmitter Output Code
4-20 mA HART® 2051 2051 with Selectable HART ⁽¹⁾	A
Lower Power 2051 2051 with Selectable HART ⁽¹⁾	M
FOUNDATION Fieldbus	F
Profibus	W
Wireless	X

(1) The 4-20mA with Selectable HART device can be ordered with Transmitter Output option code A plus any of the following options codes: M4, QT, DZ, CR, CS, CT, HR5, HR7.

Additional Information

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Table 2. Rosemount 2051T In-Line Pressure Transmitter Ordering Information

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery. The Expanded offering is subject to additional delivery lead time.

Model	Transmitter Type		
Standard			Standard
2051T	In-Line Pressure Transmitter		★
Pressure Type			
Standard			Standard
G	Gage		★
A ⁽¹⁾	Absolute		★
Pressure Range			
Standard			Standard
	2051TG	2051TA	★
1	-14.7 to 30 psi (-1.0 to 2.1 bar)	0 to 30 psi (0 to 2.1 bar)	★
2	-14.7 to 150 psi (-1.0 to 10.3 bar)	0 to 150 psi (0 to 10.3 bar)	★
3	-14.7 to 800 psi (-1.0 to 55 bar)	0 to 800 psi (0 to 55 bar)	★
4	-14.7 to 4000 psi (-1.0 to 276 bar)	0 to 4000 psi (0 to 276 bar)	★
5	-14.7 to 10000 psi (-1.0 to 689 bar)	0 to 10000 psi (0 to 689 bar)	★

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Transmitter Output			
Standard			Standard
A ⁽²⁾	4–20 mA with Digital Signal Based on HART Protocol		★
F	FOUNDATION fieldbus Protocol		★
W	PROFIBUS PA Protocol		★
X	Wireless		★
Expanded			
M	Low-Power, 1–5 Vdc with Digital Signal Based on HART Protocol		
Process Connection Style			
Standard			Standard
2B	1/2–14 NPT female		★
2C ⁽³⁾	G1/2 A DIN 16288 male (Available in SST for Range 1-4 only)		★
Expanded			
2F ⁽⁴⁾	Coned and Threaded, Compatible with Autoclave Type F-250-C (Range 5 only)		
Isolating Diaphragm		Process Connection Wetted Parts Material	
Standard			Standard
2 ⁽⁵⁾	316L SST	316L SST	★
3 ⁽⁵⁾	Alloy C-276	Alloy C-276	★
Sensor Fill Fluid			
Standard			Standard
1	Silicone		★
2 ⁽⁴⁾	Inert		★
Housing Material		Conduit Entry Size	
Standard			Standard
A	Aluminum	1/2–14 NPT	★
B	Aluminum	M20 × 1.5	★
J	SST	1/2–14 NPT	★
K ⁽⁶⁾	SST	M20 × 1.5	★
P ⁽⁷⁾	Engineered Polymer	No Conduit Entries	★
Expanded			
D	Aluminum	G1/2	
M ⁽⁶⁾	SST	G1/2	

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Wireless options (Requires Wireless output code X and Engineered Polymer housing code P)

Wireless Transmit Rate, Operating Frequency and Protocol		
Standard		Standard
WA3	User Configurable Transmit Rate, 2.4GHz WirelessHART	★
Antenna and SmartPower		
Standard		Standard
WP5	Internal Antenna, Compatible with Green Power Module (I.S. Power Module Sold Separately)	★

Options (Include with selected model number)

PlantWeb Control Functionality		
Standard		Standard
A01	FOUNDATION fieldbus Advanced Control Function Block Suite	★
Manifold Assemblies		
Standard		Standard
S5 ⁽⁸⁾	Assemble to Rosemount 306 Integral Manifold	★
Seal Assemblies		
Standard		Standard
S1 ⁽⁸⁾	Assemble to one Rosemount 1199 diaphragm seal	★
Mounting Bracket		
Standard		Standard
B4	Bracket for 2-in. Pipe or Panel Mounting, All SST	★

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Product Certifications		
Standard		Standard
E1 ⁽⁶⁾	ATEX Flameproof	★
E2 ⁽⁶⁾	INMETRO Flameproof	★
E3 ⁽⁶⁾	China Flameproof	★
E4 ⁽⁶⁾	TIIS Flameproof	★
E5	FM Explosion-proof, Dust Ignition-proof	★
E6	CSA Explosion-proof, Dust Ignition-proof, Division 2	★
E7 ⁽⁶⁾	IECEX Flameproof	★
EW ⁽⁶⁾	India (CCOE) Flameproof Approval	★
I1 ⁽⁶⁾	ATEX Intrinsic Safety	★
I2 ⁽⁶⁾	INMETRO Intrinsically Safe	★
I3 ⁽⁶⁾	China Intrinsic Safety	★
I4 ⁽⁶⁾⁽⁷⁾	TIIS Intrinsic Safety	★
I5	FM Intrinsically Safe, Division 2	★
I6	CSA Intrinsically Safe	★
I7 ⁽⁶⁾	IECEX Intrinsic Safety	★
IA ⁽¹⁰⁾	ATEX FISCO Intrinsic Safety	★
IE ⁽¹⁰⁾	FM FISCO Intrinsically Safe	★
IF ⁽¹⁰⁾	CSA FISCO Intrinsically Safe	★
IG ⁽¹⁰⁾	IECEX FISCO Intrinsically Safe	★
IW ⁽⁶⁾	India (CCOE) Intrinsic Safety Approval	★
K1 ⁽⁶⁾	ATEX Flameproof, Intrinsic Safety, Type n, Dust	★
K5	FM Explosion-proof, Dust Ignition-proof, Intrinsically Safe, Division 2	★
K6	CSA Explosion-proof, Dust Ignition-proof, Intrinsically Safe, Division 2	★
K7 ⁽⁶⁾	IECEX Flameproof, Intrinsic Safety, Type n, Dust	★
KA ⁽⁶⁾	ATEX and CSA Flameproof, Intrinsically Safe, Division 2	★
KB	FM and CSA Explosion-proof, Dust Ignition-proof, Intrinsically Safe, Division 2	★
KC ⁽⁶⁾	FM and ATEX Explosion-proof, Intrinsically Safe, Division 2	★
KD ⁽⁶⁾	FM, CSA, and ATEX Explosion-proof, Intrinsically Safe	★
N1 ⁽⁶⁾	ATEX Type n	★
N7 ⁽⁶⁾	IECEX Type n	★
ND ⁽⁶⁾	ATEX Dust	★
Drinking Water Approval		
Standard		Standard
DW ⁽⁹⁾	NSF Drinking Water Approval	★

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Shipboard Approvals		
Standard		Standard
SBS ⁽⁴⁾	American Bureau of Shipping (ABS) Type Approval	★
SBV ⁽⁴⁾	Bureau Veritas (BV) Type Approval	★
SDN ⁽⁴⁾	Det Norske Veritas (DNV) Type Approval	★
SLL ⁽⁴⁾	Lloyds Register (LR) Type Approval	★
Display and Interface Options		
Standard		Standard
M4 ⁽¹⁰⁾	LCD Display with Local Operator Interface	★
M5	LCD display	★
Hardware Adjustments		
Standard		Standard
D4 ⁽¹¹⁾	Zero and Span Configuration Buttons	★
DZ ⁽¹²⁾	Digital Zero Trim	★
Wireless SST Sensor Module		
Standard		Standard
WSM ⁽⁷⁾	Wireless SST Sensor Module	★
Conduit Plug		
Standard		Standard
DO ⁽⁴⁾⁽¹³⁾	316 SST Conduit Plug	★
Ground Screw		
Standard		Standard
V5 ⁽⁴⁾⁽¹⁴⁾	External Ground Screw Assembly	★
Performance		
Standard		Standard
P8 ⁽¹⁵⁾	High Performance Option	★
Terminal Blocks		
Standard		Standard
T1 ⁽⁴⁾⁽¹⁶⁾	Transient Protection Terminal Block	★
Software Configuration		
Standard		Standard
C1 ⁽¹²⁾	Custom Software Configuration (Completed CDS 00806-0100-4101 or 00806-0100-4100 for Wireless required with order)	★

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Alarm Limits		
Standard		Standard
C4 ⁽¹¹⁾⁽¹⁷⁾	Analog Output Levels Compliant with NAMUR Recommendation NE 43, Alarm High	★
CN ⁽¹¹⁾⁽¹⁸⁾	Analog Output Levels Compliant with NAMUR Recommendation NE 43, Alarm Low	★
CR ⁽¹¹⁾	Custom Alarm and saturation signal levels, high alarm (requires C1 and Configuration Data Sheet)	★
CS ⁽¹¹⁾	Custom Alarm and saturation signal levels, low alarm (requires C1 and Configuration Data Sheet)	★
CT ⁽¹¹⁾	Low Alarm (standard Rosemount alarm and saturation levels)	★
Pressure Testing		
Expanded		
P1	Hydrostatic testing with certificate	
Cleaning Process Area⁽¹⁹⁾		
Expanded		
P2	Cleaning for Special Service	
P3	Cleaning for <1 PPM Chlorine/Fluorine	
Calibration Certification		
Standard		Standard
Q4	Calibration Certificate	★
QG	Calibration Certificate and GOST Verification Certificate	★
QP	Calibration Certificate and tamper evident seal	★
Material Traceability Certification		
Standard		Standard
Q8	Material Traceability Certification per EN 10204 3.1	★
Quality Certification for Safety		
Standard		Standard
QS ⁽¹⁸⁾	Prior-use certificate of FMEDA data	★
QT ⁽¹⁸⁾	Safety Certified to IEC 61508 with certificate of FMEDA	★
Surface Finish		
Standard		Standard
Q16	Surface finish certification for sanitary remote seals	★
Toolkit Total System Performance Reports		
Standard		Standard
QZ	Remote Seal System Performance Calculation Report	★

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Conduit Electrical Connector		
Standard		
GE ⁽⁴⁾	M12, 4-pin, Male Connector (eurofast [®])	★
GM ⁽⁴⁾	A size Mini, 4-pin, Male Connector (minifast [®])	★
HART Revision Configuration		
Standard		Standard
HR5 ⁽¹¹⁾⁽²⁰⁾	Configured for HART Revision 5	★
HR7 ⁽¹¹⁾⁽²¹⁾	Configured for HART Revision 7	★
Typical Model Number:	2051T G 3 A 2B 2 1 A B4 M5	

- (1) Wireless Output (code X) only available in absolute measurement type (code A) in range 1-5 with 1/2 14 NPT process connection (code 2B), and housing code (code P)
- (2) HART Revision 5 is the default HART output. The Rosemount 2051 with Selectable HART can be factory or field configured to HART Revision 7. To order HART Revision 7 factory configured, add option code HR7.
- (3) Wireless output (code X) only available in G1/2 A DIN 16288 Male process connection (code 2C) with range 1-4, 316 SST isolating diaphragm (code 2), silicone fill fluid (code 1), and housing code (code P).
- (4) Not available with output code X.
- (5) Materials of Construction comply with recommendations per NACE MR0175/ISO 15156 for sour oil field production environments. Environmental limits apply to certain materials. Consult latest standard for details. Selected materials also conform to NACE MR0103 for sour refining environments.
- (6) Not available with Low Power output code M.
- (7) Only available with output code X.
- (8) "Assemble-to" items are specified separately and require a completed model number.
- (9) Not available with coned and threaded connection (2F code), assemble-to manifold (S5 code), assemble-to seal (S1 code), surface finish certification (Q16 code), remote seal system report (QZ code).
- (10) Not available with FOUNDATION fieldbus output code F or Wireless output code X
- (11) Only Available with HART 4-20 mA (output codes A and M).
- (12) Only available with HART 4-20 mA Output (output code A and M) and Wireless Output (output code X).
- (13) Transmitter is shipped with 316 SST conduit plug (uninstalled) in place of standard carbon steel conduit plug.
- (14) The V5 option is not needed with the T1 option; external ground screw assembly is included with the T1 option.
- (15) Available with 4-20 mA HART output code A, Wireless output code X, FOUNDATION fieldbus output code F, 2051C Ranges 2-5 or 2051T Ranges 1-4, SST diaphragms and silicone fill fluid. High Performance Option includes 0.05% Reference Accuracy, 5 year stability and improved ambient temperature effect specifications. See Performance Specifications for details.
- (16) The T1 option is not needed with FISCO Product Certifications; transient protection is included in the FISCO product certification codes IA and IE.
- (17) NAMUR-Compliant operation is pre-set at the factory and cannot be changed to standard operation in the field.
- (18) Only available with HART 4-20 mA output (output code A).
- (19) Not valid with Alternate Process Connection S5.
- (20) Configures the HART output to HART Revision 5. The device can be field configured to HART Revision 7 if needed.
- (21) Configures the HART output to HART Revision 7. The device can be field configured to HART Revision 5 if needed.