Rosemount 3051T In-Line Pressure Transmitter

3051T In-Line
Pressure Transmitter

Rosemount 3051T In-line Pressure Transmitters are the industry standard for Gage, and Absolute pressure measurement. The in-line, compact design allows the transmitter to be connected directly to a process for quick, easy and cost effective installation. Capabilities include:

- Power Advisory can proactively detect degraded electrical loop integrity issues (Option Code **DA0**)
- Local Operator Interface with straightforward menus and built-in configuration buttons (Option Code **M4**)
- Scaled variable, process alerts and selectable HART (Option Code **HR5** or **HR7**)
- Safety Certification (Option Code **QT**)

See "Specifications" on page 47 and options for more details on each configuration.

Additional Information

Specifications: page 47
Certifications: page 57
Dimensional Drawings: page 63

Table 2. 3051T 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		
3051T	In-Line Pressure Transmitter		
Pressure type			
Standard			**Standard**
G	Gage		★
A[1]	Absolute		★
Pressure range			
	Gage (3051TG)[2]	**Absolute (3051TA)**	
Standard			**Standard**
1	-14.7 to 30 psi (-1,01 to 2,07 bar)	0 to 30 psia (0 to 2,07 bar)	★
2	-14.7 to 150 psi (-1,01 to 10,34 bar)	0 to 150 psia (0 to 10,34 bar)	★
3	-14.7 to 800 psi (-1,01 to 55,16 bar)	0 to 800 psia (0 to 55,16 bar)	★
4	-14.7 to 4000 psi (-1,01 to 275,79 bar)	0 to 4000 psia (0 to 275,79 bar)	★
5	-14.7 to 10000 psi (-1,01 to 689,48 bar)	0 to 10000 psia (0 to 689,48 bar)	★
Transmitter output			
Standard			**Standard**
A[3]	4–20 mA with Digital Signal Based on HART Protocol		★
F	FOUNDATION fieldbus Protocol		★
W[4]	PROFIBUS PA Protocol		★
X[5]	Wireless (Requires wireless options and engineered polymer housing)		★
Expanded			
M[6]	Low-Power 1-5 Vdc with Digital Signal Based on HART Protocol (See Option C2 for 0.8-3.2 Vdc Output)		

Table 2. 3051T In-Line Pressure Transmitter ordering information

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Process connection style			
Standard			**Standard**
2B	1/2–14 NPT Female		★
2C[7]	G½ A DIN 16288 Male (Range 1–4 only)		★
Expanded			
2F[8]	Coned and Threaded, Compatible with Autoclave Type F-250-C (Range 5 only)		
61[8]	Non-threaded Instrument flange (Range 1-4 only)		
Isolating diaphragm		**Process connection wetted parts material**	
Standard			**Standard**
2[9]	316L SST	316L SST	★
3[9]	Alloy C-276	Alloy C-276	★
Sensor fill fluid			
Standard			**Standard**
1	Silicone		★
2[8]	Inert		★
Housing material		**Conduit entry size**	
Standard			**Standard**
A	Aluminum	½–14 NPT	★
B	Aluminum	M20 × 1.5	★
J	SST	½–14 NPT	★
K	SST	M20 × 1.5	★
P[10]	Engineered polymer	No conduit entries	★
Expanded			
D	Aluminum	G½	
M	SST	G½	

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)	★

HART Revision Configuration (Requires HART Protocol output code A)

Standard		**Standard**
HR5[13][11]	Configured for HART Revision 5	★
HR7[13][12]	Configured for HART Revision 7	★

Options (Include with selected model number)

PlantWeb control functionality		
Standard		**Standard**
A01	FOUNDATION fieldbus Advanced Control Function Block Suite	★
PlantWeb Diagnostic functionality		
Standard		**Standard**
DA0[13][20]	Power Advisory HART Diagnostic	★
D01	FOUNDATION fieldbus Diagnostics Suite	★

Table 2. 3051T 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.**

Integral assembly		
Standard		**Standard**
S5[14]	Assemble to Rosemount 306 Integral Manifold	★
Diaphragm seal assemblies		
Standard		**Standard**
S1[14]	Assemble to one Rosemount 1199 seal	★
Mounting bracket[15]		
Standard		**Standard**
B4	Bracket for 2-in. Pipe or Panel Mounting, All SST	★
Product certifications		
Standard		**Standard**
E8	ATEX Flameproof and Dust Certification	★
I1[16]	ATEX Intrinsic Safety and Dust	★
IA	ATEX Intrinsic Safety for FISCO; for FOUNDATION fieldbus protocol only	★
N1	ATEX Type n Certification and Dust	★
K8	ATEX Flame-proof, Intrinsic Safety, Type n, Dust (combination of E8, I1 and N1)	★
E4[17]	TIIS Flameproof	★
E5	FM Explosion-proof, Dust Ignition-proof	★
I5[18]	FM Intrinsically Safe, Division 2	★
IE	FM FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only	★
K5	FM Explosion-proof, Dust Ignition-proof, Intrinsically Safe, and Division 2	★
C6	CSA Explosion-proof, Dust Ignition-proof, Intrinsically Safe, and Division 2	★
I6 [10]	CSA Intrinsic Safety	★
K6	CSA and ATEX Explosion-proof, Intrinsically Safe, and Division 2 (combination of C6, E8, and I1)	★
E7	IECEx Flameproof, Dust Ignition-proof	★
I7	IECEx Intrinsic Safety	★
N7	IECEx Type n Certification	★
K7	IECEx Flameproof, Dust Ignition-proof, Intrinsic Safety, and Type n (combination of I7, N7, and E7)	★
E2	INMETRO Flameproof	★
I2	INMETRO Intrinsic Safety	★
K2	INMETRO Flameproof, Intrinsic Safety	★
E3	China Flameproof	★
I3	China Intrinsic Safety	★
N3	China Type n	★
KB	FM and CSA Explosion-proof, Dust Ignition-proof, Intrinsically Safe, and Division 2 (combination of K5 and C6)	★
KD	FM, CSA, and ATEX Explosion-proof, Intrinsically Safe (combination of K5, C6, I1, and E8)	★
Drinking water approval		
Standard		**Standard**
DW[19]	NSF drinking water approval	★
Shipboard approvals		
Standard		**Standard**
SBS[8]	American Bureau of Shipping	★
Custody transfer		
Standard		**Standard**
C5	Measurement Canada Accuracy Approval (Limited availability depending on transmitter type and range. Contact an Emerson Process Management representative)	★

Table 2. 3051T In-Line Pressure Transmitter ordering information

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery.
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Calibration certification		
Standard		**Standard**
Q4	Calibration Certificate	★
QG	Calibration Certificate and GOST Verification Certificate	★
QP	Calibration Certification 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[20]	Prior-use certificate of FMEDA Data	★
QT[13][20]	Safety certified to IEC 61508 with certificate of FMEDA	★
Configuration buttons		
Standard		**Standard**
D4[20]	Analog Zero and Span	★
DZ[21]	Digital Zero Trim	★
Display and interface options		
Standard		**Standard**
M4[22]	LCD Display with Local Operator Interface	★
M5	LCD Display	★
Wireless SST sensor module		
Standard		**Standard**
WSM[10]	Wireless SST Sensor Module	★
Conduit Plug		
Standard		**Standard**
DO[8][23]	316 SST Conduit Plug	★
Transient terminal block		
Standard		**Standard**
T1[8][24]	Transient Protection Terminal Block	★
Software configuration		
Standard		**Standard**
C1[21]	Custom Software Configuration (Completed CDS 00806-0100-4007 for wired and 00806-0100-4100 for wireless required with order)	★
Expanded		
C2	0.8-3.2 Vdc Output with Digital Signal Based on HART Protocol (Available with Output code M only)	★
Alarm levels		
Standard		**Standard**
C4[20][25]	Analog Output Levels Compliant with NAMUR Recommendation NE 43, Alarm High	★
CN[20][25]	Analog Output Levels Compliant with NAMUR Recommendation NE 43, Low Alarm	★
CR[13][20]	Custom alarm and saturation signal levels, high alarm (requires C1 and Configuration Data Sheet)	★
CS[13][20]	Custom alarm and saturation signal levels, low alarm (requires C1 and Configuration Data Sheet)	★
CT[13][20]	Low alarm (standard Rosemount alarm and saturation levels)	★
Pressure testing		
Expanded		
P1	Hydrostatic Testing with Certificate	

Table 2. 3051T In-Line Pressure Transmitter ordering information

★ The Standard offering represents the most common options. The starred options (★) should be selected for best delivery.
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Cleaning process area[26]		
Expanded		
P2	Cleaning for Special Service	
P3	Cleaning for <1 PPM Chlorine/Fluorine	
High accuracy		
Standard		**Standard**
P8[27]	0.04% Accuracy to 5:1 turndown	★
Ground screw		
Standard		**Standard**
V5[8][28]	External Ground Screw Assembly	★
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	★
Conduit electrical connector		
Standard		**Standard**
GE[8]	M12, 4-pin, Male Connector (eurofast®)	★
GM[8]	A size Mini, 4-pin, Male Connector (minifast®)	★
NACE Certificate		
Standard		**Standard**
Q15[29]	Certificate of Compliance to NACE MR0175/ISO 15156 for wetted materials	★
Q25[29]	Certificate of Compliance to NACE MR0103 for wetted materials	★
Typical model number:	**3051T G 5 F 2A 2 1 A B4**	

(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 P).

(2) 3051TG lower range limit varies with atmospheric pressure.

(3) HART Revision 5 is the default HART output. The Enhanced 3051 can be factory or field configured to HART Revision 7. To order HART Revision 7 factory configured, add option code HR7.

(4) For local addressing and configuration, M4 (Local Operator Interface) is required.

(5) Available approvals are FM Intrinsically Safe, (option code I5), CSA Intrinsically Safe (option code I6), ATEX Intrinsic Safety (option code I1), and IECEx Intrinsic Safety (option code I7).

(6) Only available with C6, E2, E5, I5, K5, KB and E8 approval. Not available with GE, GM, P8, SBS, DA0, M4, D4, DZ, QT, HR5, HR7, CR, CS, CT.

(7) 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).

(8) Not available with Wireless output (output code X).

(9) 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.

(10) Only available with Wireless output (output code X).

(11) Configures the HART output to HART Revision 5. The device can be field configured to HART Revision 7 if needed.

(12) Configures the HART output to HART Revision 7. The device can be field configured to HART Revision 5 if needed.

(13) Select Configuration Buttons (option code D4 or DZ) or Local Operator Interface (option code M4) if local configuration buttons are required.

(14) “Assemble-to” items are specified separately and require a completed model number.

(15) Panel mounting bolts are not supplied.

(16) Dust approval not applicable to output code X. See "IEC 62591 (WirelessHART Protocol)" on page 62 for wireless approvals.

(17) Only available with output codes A - 4-20 mA HART and F - FOUNDATION fieldbus

(18) Intrinsically Safe only available with Wireless.

(19) Not available with Alloy C-276 isolator (3 code), assemble-to manifolds (S5 code), assemble-to seals (S1 code), surface finish certification (Q16 code), and remote seal system report (QZ code).

(20) Only available with HART 4-20 mA output (output code A).

(21) Only available with HART 4-20 mA output (output code A) and Wireless output (output code X).

(22) Not available with FOUNDATION Fieldbus (output code F) and Wireless output (output code X) or Low Power (output code M).

(23) Transmitter is shipped with 316 SST conduit plug (uninstalled) in place of standard carbon steel conduit plug.

(24) The T1 option is not needed with FISCO Product Certifications; transient protection is included in the FISCO product certification codes IA and IE.

(25) NAMUR-Compliant operation is pre-set at the factory and cannot be changed to standard operation in the field for the standard 3051.

(26) Not valid with Alternate Process Connection S5.

(27) Only available with Standard 3051 range 2- 4. See specification section for more information.

(28) The V5 option is not needed with T1 option; external ground screw assembly is included with the T1 option.

(29) NACE compliant wetted materials are identified by Footnote (9).

Table 3. Rosemount 3051CFA Annubar Flowmeter ordering information

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Expanded		
140	14-in. (350 mm)	
160	16-in. (400 mm)	
180	18-in. (450 mm)	
200	20-in. (500 mm)	
240	24-in. (600 mm)	
300	30-in. (750 mm)	
360	36-in. (900 mm)	
420	42-in. (1066 mm)	
480	48-in. (1210 mm)	
600	60-in. (1520 mm)	
720	72-in. (1820 mm)	
780	78-in (1950 mm)	
840	84-in. (2100 mm)	
900	90-in. (2250 mm)	
960	96-in (2400 mm)	
Pipe I.D. range		
Standard		**Standard**
C	Range C from the Pipe I.D. table	★
D	Range D from the Pipe I.D. table	★
Expanded		
A	Range A from the Pipe I.D. table	
B	Range B from the Pipe I.D. table	
E	Range E from the Pipe I.D. table	
Z	Non-standard Pipe I.D. Range or Line Sizes greater than 12 inches	
Pipe material / mounting assembly material		
Standard		**Standard**
C	Carbon steel (A105)	★
S	316 Stainless Steel	★
0	No Mounting (Customer Supplied)	★
Expanded		
G	Chrome-Moly Grade F-11	
N	Chrome-Moly Grade F-22	
J	Chrome-Moly Grade F-91	
Piping orientation		
Standard		**Standard**
H	Horizontal Piping	★
D	Vertical Piping with Downwards Flow	★
U	Vertical Piping with Upwards Flow	★
Annubar type		
Standard		**Standard**
P	Pak-Lok	★
F	Flanged with opposite side support	★
Expanded		
L	Flange-Lok	
G	Gear-Drive Flo-Tap	
M	Manual Flo-Tap	
Sensor material		
Standard		**Standard**
S	316 Stainless Steel	★

Table 3. Rosemount 3051CFA Annubar Flowmeter ordering information

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Expanded				
H	Alloy C-276			
Sensor size				
Standard				**Standard**
1	Sensor size 1 — Line sizes 2-in. (50 mm) to 8-in. (200 mm)			★
2	Sensor size 2 — Line sizes 6-in. (150 mm) to 96-in. (2400 mm)			★
3	Sensor size 3 — Line sizes greater than 12-in. (300 mm)			★
Mounting type				
Standard				**Standard**
T1	Compression or Threaded Connection			★
A1	150# RF ANSI			★
A3	300# RF ANSI			★
A6	600# RF ANSI			★
D1	DN PN16 Flange			★
D3	DN PN40 Flange			★
D6	DN PN100 Flange			★
Expanded				
A9[(1)]	900# RF ANSI			
AF[(1)]	1500# RF ANSI			
AT[(1)]	2500 # RF ANSI			
R1	150# RTJ Flange			
R3	300# RTJ Flange			
R6	600# RTJ Flange			
R9[(1)]	900# RTJ Flange			
RF[(1)]	1500# RTJ Flange			
RT[(1)]	2500# RTJ Flange			
Opposite side support or packing gland				
Standard				**Standard**
0	No opposite side support or packing gland (Required for Pak-Lok and Flange-Lok models)			★
	Opposite Side Support – Required for Flanged Models			
C	NPT Threaded Opposite Support Assembly – Extended Tip			★
D	Welded Opposite Support Assembly – Extended Tip			★
Expanded				
	Packing Gland – Required for Flo-Tap Models			
	Packing Gland Material	*Rod Material*	*Packing Material*	
J[(2)]	Stainless Steel Packing Gland / Cage Nipple	Carbon Steel	PTFE	
K[(2)]	Stainless Steel Packing Gland / Cage Nipple	Stainless Steel	PTFE	
L[(2)]	Stainless Steel Packing Gland / Cage Nipple	Carbon Steel	Graphite	
N[(2)]	Stainless Steel Packing Gland / Cage Nipple	Stainless Steel	Graphite	
R	Alloy C-276 Packing Gland / Cage Nipple	Stainless Steel	Graphite	
Isolation valve for Flo-Tap Models				
Standard				**Standard**
0	Not Applicable or Customer Supplied			★
Expanded				
1	Gate Valve, Carbon Steel			
2	Gate Valve, Stainless Steel			
5	Ball Valve, Carbon Steel			
6	Ball Valve, Stainless Steel			

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Temperature measurement		
Standard		**Standard**
T	Integral RTD – not available with Flanged model greater than class 600#	★
0	No Temperature Sensor	★
Expanded		
R	Remote Thermowell and RTD	
Transmitter connection platform		
Standard		**Standard**
3	Direct-mount, Integral 3-valve Manifold– not available with Flanged model greater than class 600	★
5	Direct -mount, 5-valve Manifold – not available with Flanged model greater than class 600	★
7	Remote-mount NPT Connections ($^1/_2$-in. NPT)	★
Expanded		
6	Direct-mount, high temperature 5-valve Manifold – not available with Flanged model greater than class 600	
8	Remote-mount SW Connections ($^1/_2$-in.)	
Differential pressure range		
Standard		**Standard**
1	0 to 25 in H_2O (0 to 62,16 mbar)	★
2	0 to 250 in H_2O (0 to 621,60 mbar)	★
3	0 to 1000 in H_2O (0 to 2,49 bar)	★
Transmitter output		
Standard		**Standard**
A(3)	4–20 mA with digital signal based on HART Protocol	★
F	FOUNDATION fieldbus Protocol	★
W(4)	PROFIBUS PA Protocol	★
X(5)	Wireless (Requires wireless options and engineered polymer housing)	★
Expanded		
M(6)	Low-Power 1-5 Vdc with Digital Signal Based on HART Protocol (see Option C2 for 0.8-3.2 Vdc Output)	

Transmitter housing material		**Conduit entry size**	
Standard			**Standard**
A	Aluminum	$^1/_2$-14 NPT	★
B	Aluminum	M20 x 1.5	★
J	SST	$^1/_2$-14 NPT	★
K	SST	M20 x 1.5	★
P(7)	Engineered polymer	No conduit entries	★
Expanded			
D	Aluminum	G$^1/_2$	
M	SST	G$^1/_2$	

Transmitter Performance Class		
Standard		**Standard**
1	1.8% flow rate accuracy, 8:1 flow turndown, 5-yr. stability	★

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)	★

Table 3. Rosemount 3051CFA Annubar Flowmeter ordering information

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HART Revision configuration (Requires HART Protocol output code A)

Standard		Standard
HR5[8][15]	Configured for HART Revision 5	★
HR7[9][15]	Configured for HART Revision 7	★

Options (Include with selected model number)

Pressure testing		
Expanded		
P1[10]	Hydrostatic Testing with Certificate	
PX[10]	Extended Hydrostatic Testing	
Special cleaning		
Expanded		
P2	Cleaning for Special Services	
PA	Cleaning per ASTM G93 Level D (Section 11.4)	
Material testing		
Expanded		
V1	Dye Penetrant Exam	
Material examination		
Expanded		
V2	Radiographic Examination	
Flow calibration		
Expanded		
W1	Flow Calibration (Average K)	
Special inspection		
Standard		**Standard**
QC1	Visual & Dimensional Inspection with Certificate	★
QC7	Inspection & Performance Certificate	★
Surface finish		
Standard		**Standard**
RL	Surface finish for Low Pipe Reynolds # in Gas & Steam	★
RH	Surface finish for High Pipe Reynolds # in Liquid	★
Material traceability certification		
Standard		**Standard**
Q8[11]	Material Traceability Certification per EN 10474:2004 3.1	★
Code conformance[12]		
Expanded		
J2	ANSI/ASME B31.1	
J3	ANSI/ASME B31.3	
Materials conformance		
Expanded		
J5[13]	NACE MR-0175 / ISO 15156	
Country certification		
Standard		**Standard**
J6	European Pressure Directive (PED)	★
Expanded		
J1	Canadian Registration	

Table 3. Rosemount 3051CFA Annubar Flowmeter ordering information

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Installed in flanged pipe spool section		
Expanded		
H3	150# Flanged Connection with Rosemount Standard Length and Schedule	
H4	300# Flanged Connection with Rosemount Standard Length and Schedule	
H5	600# Flanged Connection with Rosemount Standard Length and Schedule	
Instrument connections for remote mount options		
Standard		**Standard**
G2	Needle Valves, Stainless Steel	★
G6	OS&Y Gate Valve, Stainless Steel	★
Expanded		
G1	Needle Valves, Carbon Steel	
G3	Needle Valves, Alloy C-276	
G5	OS&Y Gate Valve, Carbon Steel	
G7	OS&Y Gate Valve, Alloy C-276	
Special shipment		
Standard		**Standard**
Y1	Mounting Hardware Shipped Separately	★
Special dimensions		
Expanded		
VM	Variable Mounting	
VT	Variable Tip	
VS	Variable length Spool Section	
PlantWeb control functionality		
Standard		**Standard**
A01[14]	FOUNDATION fieldbus Advanced Control Function Block Suite	★
PlantWeb diagnostic functionality		
Standard		**Standard**
DA0[15][16]	Power Advisory HART Diagnostic	★
D01[14]	FOUNDATION fieldbus Diagnostics Suite	★
Product certifications		
Standard		**Standard**
E8	ATEX Flameproof, Dust	★
I1[17]	ATEX Intrinsic Safety and Dust	★
IA	ATEX FISCO Intrinsic Safety; for FOUNDATION fieldbus protocol only	★
N1	ATEX Type n and Dust	★
K8	ATEX Flameproof, Intrinsic Safety, Type n, Dust (combination of E8, I1 and N1)	★
E5	FM Explosion-proof, Dust Ignition-proof	★
I5[18]	FM Intrinsically Safe, Division 2	★
IE	FM FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only	★
K5	FM Explosion-proof, Dust Ignition-proof, Intrinsically Safe, and Division 2 (combination of E5 and I5)	★
C6	CSA Explosion-proof, Dust Ignition-proof, Intrinsically Safe, and Division 2	★
I6[7]	CSA Intrinsically Safe (Wireless only)	★
K6	CSA and ATEX Explosion-proof, Intrinsically Safe, and Division 2 (combination of C6, E8, and I1)	★
E7	IECEx Flameproof, Dust Ignition-proof	★
I7	IECEx Intrinsic Safety	★
N7	IECEx Type n	★
K7	IECEx Flameproof, Dust Ignition-proof, Intrinsic Safety, and Type n (combination of I7, N7 and E7)	★
E2	INMETRO Flameproof	★
I2	INMETRO Intrinsic Safety	★

Table 3. Rosemount 3051CFA Annubar Flowmeter 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.

Standard		**Standard**
K2	INMETRO Flameproof, Intrinsic Safety	★
E3	China Flameproof	★
I3	China Intrinsic Safety	★
KB	FM and CSA Explosion-proof, Dust Ignition-proof, Intrinsically Safe, and Division 2	★
KD	CSA, FM, and ATEX Explosion-proof, Intrinsically Safe	★
Sensor fill fluid and o-ring options		
Standard		**Standard**
L1[19]	Inert Sensor Fill Fluid *Note: Silicone fill fluid is standard.*	★
L2	Graphite-Filled (PTFE) O-ring	★
LA[19]	Inert Sensor Fill Fluid and Graphite-Filled (PTFE) O-ring	★
Shipboard approvals		
Standard		**Standard**
SBS[19]	American Bureau of Shipping	★
Display and interface options		
Standard		**Standard**
M4[20]	LCD Display with Local Operator Interface	★
M5	LCD Display	★
Transmitter calibration certification		
Standard		**Standard**
Q4	Calibration Certificate for Transmitter	★
Quality certification for safety		
Standard		**Standard**
QS[16]	Prior-use certificate of FMEDA data	★
QT[15][16]	Safety certified to IEC 61508 with certificate of FMEDA	★
Transient protection		
Standard		**Standard**
T1[19][21]	Transient terminal block	★
Manifold for remote mount option		
Standard		**Standard**
F2	3-Valve Manifold, Stainless Steel	★
F6	5-Valve Manifold, Stainless Steel	★
Expanded		
F1	3-Valve Manifold, Carbon Steel	
F3	3-Valve Manifold, Alloy C-276	
F5	5-Valve Manifold, Carbon Steel	
F7	5-Valve Manifold, Alloy C-276	
Software configuration		
Standard		**Standard**
C1	Custom Software Configuration (Completed CDS 00806-0100-4007 for wired and 00806-0100-4100 for Wireless required with order)	★
Expanded		
C2	0.8-3.2 Vdc Output with Digital Signal based on HART Protocol (Available with Output code M only)	
Alarm levels		
Standard		**Standard**
C4[16][22]	NAMUR Alarm and Saturation Levels, High Alarm	★
CN[16][22]	NAMUR Alarm and Saturation Levels, Low Alarm	★
CR[15][16]	Custom alarm and saturation signal levels, high alarm (requires C1 and Configuration Data Sheet)	★

Table 3. Rosemount 3051CFA Annubar Flowmeter 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.

Standard		**Standard**
CS[15][16]	Custom alarm and saturation signal levels, low alarm (requires C1 and Configuration Data Sheet)	★
CT[15][16]	Low alarm (standard Rosemount alarm and saturation levels)	★
Configuration buttons		
Standard		**Standard**
D4[16]	Analog Zero and Span	★
DZ[23]	Digital Zero Trim	★
Ground screw		
Standard		**Standard**
V5[19][24]	External Ground Screw Assembly	★
Typical model number: 3051CFA D L 060 D C H P S 2 T1 0 0 0 3 2 A A 1		

(1) Available in remote mount applications only.

(2) The cage nipple is constructed of 304 SST.

(3) HART Revision 5 is the default HART output. The Enhanced 3051 can be factory or field configured to HART Revision 7. To order HART Revision 7 factory configured, add option code HR7.

(4) For local addressing and configuration, M4 (Local Operator Interface) is required.

(5) Available approvals are FM Intrinsically Safe, (option code I5), CSA Intrinsically Safe (option code I6), ATEX Intrinsic Safety (option code I1), and IECEx Intrinsic Safety (option code I7).

(6) Only available with C6, E2, E5, I5, K5, KB and E8 approval. Not available with GE, GM, P8, SBS, DA0, M4, D4, DZ, QT, HR5, HR7, CR, CS, CT.

(7) Only available with Wireless output (output code X).

(8) Configures the HART output to HART Revision 5. The device can be field configured to HART Revision 7 if needed.

(9) Configures the HART output to HART Revision 7. The device can be field configured to HART Revision 5 if needed.

(10) Applies to assembled flowmeter only, mounting not tested.

(11) Instrument Connections for Remote Mount Options and Isolation Valves for Flo-tap Models are not included in the Material Traceability Certification.

(12) Not available with Transmitter Connection Platform 6.

(13) Materials of Construction comply with metallurgical requirements within NACE MR0175/ISO 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.

(14) Only valid with FOUNDATION fieldbus output (output code F).

(15) Select Configuration Buttons (option code D4 or DZ) or Local Operator Interface (option code M4) if local configuration buttons are required.

(16) Only available with 4-20 mA HART output (output Code A).

(17) Dust approval not applicable to output code X. See "IEC 62591 (WirelessHART Protocol)" on page 62 for wireless approvals

(18) Intrinsically Safe only available with Wireless.

(19) Not available with Wireless output (output code X).

(20) Not available with FOUNDATION fieldbus (Output Code F) or Wireless output (Output Code X).

(21) The T1 option is not needed with FISCO Product Certifications, transient protection is included with the FISCO Product Certification code IA.

(22) NAMUR-Compliant operation is pre-set at the factory and cannot be changed to standard operation in the field for the standard 3051.

(23) Only available with 4-20 mA Hart output (Output Code A) and Wireless output (Output Code X).

(24) The V5 option is not needed with the T1 option; external ground screw assembly is included with the T1 option.