

## Ordering Information

TABLE 11. 3051C Differential, Gage, and Absolute Pressure Transmitters — = Not Applicable • = Applicable

Model	Transmitter Type (Select One)			CD	CG	CA
3051CD	Differential Pressure Transmitter			•	—	—
3051CG	Gage Pressure Transmitter			—	•	—
3051CA	Absolute Pressure Transmitter			—	—	•
	3051CD	3051CG <sup>(1)</sup>	3051CA	CD	CG	CA
0 <sup>(2)</sup>	–3 to 3 inH <sub>2</sub> O/0.1 inH <sub>2</sub> O (–7,5 to 7,5 mbar/0,25 mbar)	Not Applicable	Not Applicable	•	—	•
1	–25 to 25 inH <sub>2</sub> O/0.5 inH <sub>2</sub> O (–62,2 to 62,2 mbar/1,2 mbar)	–25 to 25 inH <sub>2</sub> O/0.5 inH <sub>2</sub> O (–62,2 to 62,2 mbar/1,2 mbar)	0 to 30 psia/0.3 psia (0 to 2,1 bar/20,7 mbar)	•	•	•
2	–250 to 250 inH <sub>2</sub> O/2.5 inH <sub>2</sub> O (–623 to 623 mbar/6,2 mbar)	–250 to 250 inH <sub>2</sub> O/2.5 inH <sub>2</sub> O (–623 to 623 mbar/6,2 mbar)	0 to 150 psia/1.5 psia (0 to 10,3 bar/0,1 bar)	•	•	•
3	–1000 to 1000 inH <sub>2</sub> O/10 inH <sub>2</sub> O (–2,5 to 2,5 bar/25 mbar)	–393 to 1000 inH <sub>2</sub> O/10 in H <sub>2</sub> O (–0,98 to 2,5 bar/25 mbar)	0 to 800 psia/8 psia (0 to 55,2 bar/0,55 bar)	•	•	•
4	–300 to 300 psi/3 psi (–20,7 to 20,7 bar/0,2 bar)	–14.2 to 300 psi/3 psi (–0,98 to 20,7 bar/0,2 bar)	0 to 4000 psia/40 psia (0 to 275,8 bar/2,8 bar)	•	•	•
5	–2000 to 2000 psi/20 psi (–137,9 to 137,9 bar/1,4 bar)	–14.2 to 2000 psig/20 psi (–0,98 to 137,9 bar/1,4 bar)	Not Applicable	•	•	—
Code	Output			CD	CG	CA
A	4–20 mA with Digital Signal Based on HART Protocol			•	•	•
M <sup>(3)</sup>	Low-Power, 1–5 V dc with Digital Signal Based on HART Protocol (See Option C2 for 0.8–3.2 V dc)			•	•	•
F	FOUNDATION fieldbus Protocol			•	•	•
W	Profibus — PA			•	•	•
Code	Materials of Construction			CD	CG	CA
	Process Flange Type	Flange Material	Drain/Vent			
2	Coplanar	SST	SST	•	•	•
3 <sup>(4)</sup>	Coplanar	Alloy C	Hastelloy C276	•	•	•
4	Coplanar	Monel	Monel	•	•	•
5	Coplanar	Plated CS	SST	•	•	•
7 <sup>(4)</sup>	Coplanar	SST	Hastelloy C276	•	•	•
8 <sup>(4)</sup>	Coplanar	Plated CS	Hastelloy C276	•	•	•
0	Alternate Flange—See Options on page 26			•	•	•
Code	Isolating Diaphragm			CD	CG	CA
2 <sup>(4)</sup>	316L SST			•	•	•
3 <sup>(4)</sup>	Hastelloy C276			•	•	•
4	Monel			•	•	•
5	Tantalum (Available on 3051CD and CG, Ranges 2–5 only. Not available on 3051CA)			•	•	—
6	Gold-plated Monel (Use in combination with O-ring Option Code B.)			•	•	•
7	Gold-plated SST			•	•	•
Code	O-ring					
A	Glass-filled PTFE			•	•	•
B	Graphite-filled PTFE			•	•	•
Code	Fill Fluid			CD	CG	CA
1	Silicone			•	•	•
2	Inert fill (Halocarbon)			•	•	—

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Code	Housing Material	Conduit Entry Size	CD	CG	CA
A	Polyurethane-covered Aluminum	½–14 NPT	•	•	•
B	Polyurethane-covered Aluminum	M20 × 1.5 (CM20)	•	•	•
C	Polyurethane-covered Aluminum	PG 13.5	•	•	•
D	Polyurethane-covered Aluminum	G½	•	•	•
J	SST	½–14 NPT	•	•	•
K	SST	M20 × 1.5 (CM20)	•	•	•
L	SST	PG 13.5	•	•	•
M	SST	G½	•	•	•
Code	PlantWeb Functionality		CD	CG	CA
A01	Advanced Control Function Block Suite		•	•	•
D01	FOUNDATION fieldbus Diagnostics Suite		•	•	•
Code	Alternate Flange Options (Requires Materials of Construction Code 0)		CD	CG	CA
H2	Traditional Flange, 316 SST, SST Drain/Vent		•	•	•
H3 <sup>(4)</sup>	Traditional Flange, Alloy C, Hastelloy C276 Drain/Vent		•	•	•
H4	Traditional Flange, Monel, Monel Drain/Vent		•	•	•
H7 <sup>(4)</sup>	Traditional Flange, 316 SST, Hastelloy C276 Drain/Vent		•	•	•
HJ	DIN Compliant Traditional Flange, SST, 7/16 in. Adapter/Manifold Bolting		•	•	•
HK	DIN Compliant Traditional Flange, SST, 10 mm Adapter/Manifold Bolting		•	•	•
HL	DIN Compliant Traditional Flange, SST, 12mm Adapter/Manifold Bolting (Not available on 3051CD0)		•	•	•
FA	Level Flange, SST, 2 in., ANSI Class 150, Vertical Mount		•	•	•
FB	Level Flange, SST, 2 in., ANSI Class 300, Vertical Mount		•	•	•
FC	Level Flange, SST, 3 in., ANSI Class 150, Vertical Mount		•	•	•
FD	Level Flange, SST, 3 in., ANSI Class 300, Vertical Mount		•	•	•
FP	DIN Level Flange, SST, DN 50, PN 40, Vertical Mount		•	•	•
FQ	DIN Level Flange, SST, DN 80, PN 40, Vertical Mount		•	•	•
Code	Integral Mount Manifold Options (Requires Materials of Construction Code 0)		CD	CG	CA
S5	Assemble to Rosemount 305 Integral Manifold (specified separately, see the Rosemount 305 and 306 Integral Manifolds PDS (document number 00813-0100-4733))		•	•	•
Code	Integral Mount Primary Elements (Optional)		CD	CG	CA
S4	Factory Assembly to Rosemount Primary Element (Rosemount Annubar or Rosemount 1195 Integral Orifice) <i>(With the primary element installed, the maximum operating pressure will equal the lesser of either the transmitter or the primary element. Option is available for factory assembly to range 1–4 transmitters only)</i>		•	—	—
S3	Factory Assembly to Rosemount 405 Primary Element		•	—	—
Code	Diaphragm Seal Assemblies (Optional)		CD	CG	CA
	<b>NOTE: Standard flange and adapter bolts are austenitic 316 SST.</b>		CD	CG	CA
S1	One Diaphragm Seal (Direct Mount or Capillary Connection Type)		•	•	•
S2	Two Diaphragm Seals (Direct Mount or Capillary Connection Type)		•	—	—
Code	Optional All Welded Diaphragm Seal Systems (for high vacuum applications)		CD	CG	CA
	<b>NOTE: Standard flange and adapter bolts are austenitic 316 SST.</b>		CD	CG	CA
S7	One Diaphragm Seal, All-Welded System (Capillary Connection Type)		•	•	•
S8	Two Diaphragm Seals, All-Welded System (Capillary Connection Type)		•	—	—
S0	One Diaphragm Seal, All-Welded System (Direct Mount Connection Type)		•	•	•
S9	Two Diaphragm Seals, All-Welded System (One Direct Mount and One Capillary Connection Type)		•	—	—

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TABLE 11. 3051C Differential, Gage, and Absolute Pressure Transmitters — = Not Applicable • = Applicable

Code	Mounting Bracket Options	CD	CG	CA
B4	Coplanar Flange Bracket for 2-in. Pipe or Panel Mounting, all SST	•	•	•
B1	Traditional Flange Bracket for 2-in. Pipe Mounting, CS Bolts	•	•	•
B2	Traditional Flange Bracket for Panel Mounting, CS Bolts	•	•	•
B3	Traditional Flange Flat Bracket for 2-in. Pipe Mounting, CS Bolts	•	•	•
B7	B1 Bracket with Series 300 SST Bolts	•	•	•
B8	B2 Bracket with Series 300 SST Bolts	•	•	•
B9	B3 Bracket with Series 300 SST Bolts	•	•	•
BA	SST B1 Bracket with Series 300 SST Bolts	•	•	•
BC	SST B3 Bracket with Series 300 SST Bolts	•	•	•
Code	Hazardous Locations Certification Options	CD	CG	CA
E5	FM Explosionproof Approval	•	•	•
I5	FM Non-incendive and Intrinsic Safety Approval	•	•	•
K5	FM Explosionproof and Intrinsic Safety Approval	•	•	•
I1 <sup>(5)</sup>	ATEX Intrinsic Safety and Dust Certification	•	•	•
N1 <sup>(5)</sup>	ATEX Type N and Dust Certification	•	•	•
E8	ATEX Flame-proof and Dust Certification	•	•	•
E4 <sup>(5)</sup>	JIS Flame-proof Certification			
	JIS Intrinsic Safety Certification ( <i>Only available with HART Option Code A</i> )			—
C5 <sup>(6)</sup>	Measurement Canada Accuracy Approval ( <i>Limited availability depending on transmitter type and range. Contact an Emerson Process Management representative</i> )			
C6	CSA Explosion-proof and Intrinsic Safety Approval	•	•	•
K6 <sup>(5)</sup>	CSA and ATEX Explosion-proof and Intrinsic Safety Approval (combination of C6 and K8)	•	•	•
KB	FM and CSA Explosion-proof and Intrinsic Safety Approvals (combination of K5 and C6)	•	•	•
K7	SAA Flame-proof and Intrinsic Safety Approvals (combination of I7, N7, and E7)	•	•	•
K8 <sup>(5)</sup>	ATEX Flame-proof and Intrinsic Safety Approvals (combination of I1 and E8)	•	•	•
KD <sup>(5)</sup>	FM, CSA, and ATEX Explosion-proof and Intrinsically Safe combination of K5, C6, I1, and E8	•	•	•
I7	SAA Intrinsic Safety Certification	•	•	•
E7	SAA Flame-proof Certification	•	•	•
N7	SAA Type N Certification	•	•	•
IA	ATEX Intrinsic Safety for FISCO; for <i>FOUNDATION</i> fieldbus protocol only	•	•	•
Code	Bolting Options	CD	CG	CA
L4	Austenitic 316 SST Bolts	•	•	•
L5	ASTM A 193, Grade B7M Bolts	•	•	•
L6	Monel Bolts	•	•	•
Code	Meters (Optional)	CD	CG	CA
M5	LCD display for Aluminum Housing (Housing Codes A, B, C, and D only)	•	•	•
M6	LCD display for SST Housing (Housing Codes J, K, L, and M only)	•	•	•

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TABLE 11. 3051C Differential, Gage, and Absolute Pressure Transmitters — = Not Applicable • = Applicable

Code	Other Options	CD	CG	CA
Q4	Calibration Data Sheet	•	•	•
Q8	Material Traceability Certification per EN 10204 3.1.B (Only available for the sensor module housing and Coplanar or traditional flanges and adapters (3051C), and for the sensor module housing and low-volume Coplanar flange and adapter (3051C with Option Code S1))			
Q16	Surface finish certification for sanitary remote seals			
QP	Calibration certification and tamper evident seal			
QS	Certificate of FMEDA Data			
J1 <sup>(6)(7)</sup>	Local Zero Adjustment Only			
J3 <sup>(6)(7)</sup>	No Local Zero or Span Adjustment			
T1	Transient Protection Terminal Block			
C1 <sup>(6)</sup>	Custom Software Configuration (Completed CDS 00806-0100-4001 required with order)	•	•	•
C2 <sup>(6)</sup>	0.8–3.2 V dc Output with Digital Signal Based on HART Protocol (Output Code M only)			
C3	Gage Calibration (3051CA4 only)	—	—	•
C4 <sup>(6)(8)</sup>	Analog Output Levels Compliant with NAMUR Recommendation NE 43			
CN <sup>(6)(8)</sup>	Analog Output Levels Compliant with NAMUR Recommendation NE 43 Alarm Configuration—Low			
P1	Hydrostatic Testing with Certificate	•	•	•
P2	Cleaning for Special Service	•	•	•
P3	Cleaning for <1 PPM Chlorine/Fluorine	•	•	•
P4	Calibrate at line pressure (Specify Q48 on order for corresponding certificate)	•	•	•
DF	1/2 -14 NPT flange adapter(s)— Material determined by flange material	•	•	•
D7	Coplanar Flange Without Drain/Vent Ports	•	•	•
D8	Ceramic Ball Drain/Vents	•	•	•
D9	JIS Process Connection—RC 1/4 Flange with RC 1/2 Flange Adapter	•	•	•
P8	0.04% accuracy to 5:1 turndown (Range 2-4)	•	•	•
P9	4500 psig Static Pressure Limit (3051CD Ranges 2–5 only)	•	—	—
V5 <sup>(9)</sup>	External Ground Screw Assembly	•	•	•
<b>Typical Model Number: 3051CD 2 A 2 2 A 1 A B4</b>				

- (1) 3051CG lower range limit varies with atmospheric pressure.
- (2) 3051CD0 is available only with Output Code A, Process Flange Code 0 (Alternate Flange H2, H7, HJ, or HK), Isolating Diaphragm Code 2, O-ring Code A, and Bolting Option L4.
- (3) Not available with hazardous locations certification Options Codes I1, N1, E4, K6 and K8.
- (4) 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.
- (5) Not available with Low Power code M.
- (6) Not available with Fieldbus (output code F) or Profibus (output code W).
- (7) Local zero and span adjustments are standard unless Option Code J1 or J3 is specified
- (8) NAMUR-Compliant operation is pre-set at the factory and cannot be changed to standard operation in the field.
- (9) The V5 option is not needed with the T1 option; external ground screw assembly is included with the T1 option.

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TABLE 12. 3051T Gage and Absolute Pressure Transmitter

Model	Transmitter Type	
3051T	Pressure Transmitter	
Code	Pressure Type	
G	Gage	
A	Absolute	
Code	Pressure Ranges (Range/Min. Span)	
	3051TG <sup>(1)</sup>	3051TA
1	-14.7 to 30 psi/0.3 psi (-1,01 to 2,1 bar/20,7 mbar)	0 to 30 psia/0.3 psia (0 to 2,1 bar/20,7 mbar)
2	-14.7 to 150 psi/1.5 psi (-1,01 to 10,3 bar/103,4 mbar)	0 to 150 psia/1.5 psia (0 to 10,3 bar/103,4 mbar)
3	-14.7 to 800 psi/8 psi (-1,01 to 55,2 bar/0,55 bar)	0 to 800 psia/8 psia (0 to 55,2 bar/0,55 bar)
4	-14.7 to 4000 psi/40 psi (-1,01 to 275,8 bar/2,8 bar)	0 to 4000 psia/40 psia (0 to 275,8 bar/2,8 bar)
5	-14.7 to 10000 psi/2000 psi (-1,01 to 689,5 bar/138 bar)	0 to 10000 psia/2000 psia (0 to 689,5 bar/138 bar)
Code	Output	
A	4–20 mA with Digital Signal Based on HART Protocol	
M	Low-Power 1–5 V dc with Digital Signal Based on HART Protocol (See Option Code C2 for 0.8–3.2 V dc Output) (Not available with hazardous certification Option Codes I1, N1, E4, K6 or K8)	
F	FOUNDATION fieldbus Protocol	
W	Profibus — PA	
Code	Process Connection Style	
2B	1/2–14 NPT Female	
2C	G1/2 A DIN 16288 Male (Available in SST for Range 1–4 only)	
2F	Coned and Threaded, Compatible with Autoclave Type F-250-C (Only available in SST for Range 5)	
Code	Isolating Diaphragm	Process Connection Wetted Parts Material
2 <sup>(2)</sup>	316L SST	316L SST
3 <sup>(2)</sup>	Hastelloy C276	Hastelloy C276
Code	Fill Fluid	
1	Silicone	
2	Inert (Fluorinert <sup>®</sup> FC-43)	
Code	Housing Material	Conduit Entry Size
A	Polyurethane-covered Aluminum	1/2–14 NPT
B	Polyurethane-covered Aluminum	M20 × 1.5 (CM20)
C	Polyurethane-covered Aluminum	PG 13.5
D	Polyurethane-covered Aluminum	G1/2
J	SST	1/2–14 NPT
K	SST	M20 × 1.5 (CM20)
L	SST	PG 13.5
M	SST	G1/2
Code	PlantWeb Functionality	
A01	Advanced Control Function Block Suite	
D01	FOUNDATION fieldbus Diagnostics Suite	
Code	Integral Mount Manifold (Optional)	
S5	Assemble to Rosemount 306 Integral Manifold (specified separately, see the Rosemount 305 and 306 Integral Manifolds PDS (document number 00813-0100-4733)) (Requires 1/2-in. process connection code 2B)	
Code	Remote Diaphragm Seals Assemblies (Optional)	
S1	One remote diaphragm seal (Direct Mount or Capillary Connection Type) (Requires Process Connection Style code 2B)	
Code	Mounting Brackets (Optional)	
B4	Bracket for 2-in. Pipe or Panel Mounting, All SST	

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TABLE 12. 3051T Gage and Absolute Pressure Transmitter

Code	Hazardous Locations Certifications (Optional)
E5	FM Explosion-proof Approval
I5	FM Non-incendive and Intrinsic Safety Approval
K5	FM Explosion-proof and Intrinsic Safety Approval
C5	Measurement Canada accuracy approval ( <i>Limited availability depending on transmitter type and range. Contact an Emerson Process Management representative</i> )
C6	CSA Explosion-proof and Intrinsic Safety Approval
K6 <sup>(3)</sup>	CSA and ATEX Explosion-proof and Intrinsic Safety Approval (combination of C6 and K8)
KB	FM and CSA Explosion-proof and Intrinsic Safety Approvals (combination of K5 and C6)
K7	SAA Flame-proof and Intrinsic Safety Approvals (combination of I7, N7, and E7)
K8 <sup>(3)</sup>	ATEX Flame-proof and Intrinsic Safety Approvals (combination of I1 and E8)
KD <sup>(3)</sup>	CSA, FM, and ATEX Explosion-proof and Intrinsic Safety Approval (combination of K5, C6, I1, and E8)
I7	SAA Intrinsic Safety Certification
E4 <sup>(3)</sup>	JIS Flame-proof Certification
E7	SAA Flame-proof Certification
N7	SAA Type N Certification
I1 <sup>(3)</sup>	ATEX Intrinsic Safety and Dust Certification
N1 <sup>(3)</sup>	ATEX Type N and Dust Certification
E8	ATEX Flame-proof and Dust Certification
DW	NSF drinking water approval
IA	ATEX Intrinsic Safety for FISCO; for <i>FOUNDATION</i> fieldbus protocol only
Code	Other Options
Q4	Calibration Data Sheet
Q8	Material Traceability Certification per EN 10204 3.1.B <i>NOTE: This option applies to the process connection only.</i>
Q16	Surface finish certification for sanitary remote seals
QP	Calibration certification and tamper evident seal
QS	Certificate of FMEDA Data
J1 <sup>(4)(5)</sup>	Local Zero Adjustment Only
J3 <sup>(4)(5)</sup>	No Local Zero or Span Adjustment
M5	LCD display for Aluminum Housing (Housing Codes A, B, C, and D only)
M6	LCD display for SST Housing (Housing Codes J, K, L and M only)
T1	Transient Protection Terminal Block
C1 <sup>(4)</sup>	Custom Software Configuration (Completed CDS 00806-0100-4001 required with order)
C2 <sup>(4)</sup>	0.8–3.2 V dc Output with Digital Signal Based on <i>HART</i> Protocol (Output Code M only)
C4 <sup>(4)(6)</sup>	Analog Output Levels Compliant with NAMUR Recommendation NE 43, 27-June-1996.
CN <sup>(4)(6)</sup>	Analog Output Levels Compliant with NAMUR Recommendation NE 43: Low Alarm Configuration
P1	Hydrostatic Testing with Certificate
P2	Cleaning for Special Service
P3	Cleaning for <1 PPM Chlorine/Fluorine
P8	0.04% accuracy to 5:1 turndown (Range 1-4)
V5 <sup>(7)</sup>	External Ground Screw Assembly
<b>Typical Model Number: 3051T G 5 F 2A 2 1 A B4</b>	

(1) 3051TG lower range limit varies with atmospheric pressure.

(2) 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.

(3) Not available with low-power Option Code M.

(4) Not available with fieldbus (output code F) or Profibus protocols (output code W).

(5) Local zero and span adjustments are standard unless Option Code J1 or J3 is specified.

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

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

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TABLE 13. 3051L Flange-Mounted Liquid Level Transmitter

Model	Transmitter Type		
3051L	Flange-Mounted Liquid Level Transmitter		
Code	Pressure Ranges (Range/Min. Span)		
2	-250 to 250 inH <sub>2</sub> O/2.5 inH <sub>2</sub> O (-0,6 to 0,6 bar/6,2 mbar)		
3	-1000 to 1000 inH <sub>2</sub> O/10 inH <sub>2</sub> O (-2,5 to 2,5 bar/25 mbar)		
4	-300 to 300 psi/3 psi (-20,7 to 20,7 bar/0,2 bar)		
Code	Output		
A	4-20 mA with Digital Signal Based on <i>HART</i> Protocol		
M	Low-Power 1-5 V dc with Digital Signal Based on <i>HART</i> Protocol (See Option Code C2 for 0.8-3.2 V dc Output) (Not available with hazardous certification Option Codes I1, N1, E4, K6, and K8)		
F	<i>FOUNDATION</i> fieldbus Protocol		
W	Profibus - PA		
High Pressure Side			
Code	Diaphragm Size	Material	Extension Length
G0	2 in./DN 50	316L SST	Flush Mount Only
H0	2 in./DN 50	<i>Hastelloy</i> C276	Flush Mount Only
J0	2 in./DN 50	Tantalum	Flush Mount Only
A0	3 in./DN 80	316L SST	Flush Mount
A2	3 in./DN 80	316L SST	2 in./50 mm
A4	3 in./DN 80	316L SST	4 in./100 mm
A6	3 in./DN 80	316L SST	6 in./150 mm
B0	4 in./DN 100	316L SST	Flush Mount
B2	4 in./DN 100	316L SST	2 in./50 mm
B4	4 in./DN 100	316L SST	4 in./100 mm
B6	4 in./DN 100	316L SST	6 in./150 mm
C0	3 in./DN 80	<i>Hastelloy</i> C276	Flush Mount
C2	3 in./DN 80	<i>Hastelloy</i> C276	2 in./50 mm
C4	3 in./DN 80	<i>Hastelloy</i> C276	4 in./100 mm
C6	3 in./DN 80	<i>Hastelloy</i> C276	6 in./150 mm
D0	4 in./DN 100	<i>Hastelloy</i> C276	Flush Mount
D2	4 in./DN 100	<i>Hastelloy</i> C276	2 in./50 mm
D4	4 in./DN 100	<i>Hastelloy</i> C276	4 in./100 mm
D6	4 in./DN 100	<i>Hastelloy</i> C276	6 in./150 mm
E0	3 in./DN 80	Tantalum	Flush Mount Only
F0	4 in./DN 100	Tantalum	Flush Mount Only

TABLE 13. 3051L Flange-Mounted Liquid Level Transmitter

<b>Code</b>				<b>Mounting Flange</b>			
		Size	ASME B 16.5 (ANSI) or DIN Flange Rating		Material		
M		2 in.	Class 150		CS		
A		3 in.	Class 150		CS		
B		4 in.	Class 150		CS		
N		2 in.	Class 300		CS		
C		3 in.	Class 300		CS		
D		4 in.	Class 300		CS		
P		2 in.	Class 600		CS		
E		3 in.	Class 600		CS		
X		2 in.	Class 150		SST		
F		3 in.	Class 150		SST		
G		4 in.	Class 150		SST		
Y		2 in.	Class 300		SST		
H		3 in.	Class 300		SST		
J		4 in.	Class 300		SST		
Z		2 in.	Class 600		SST		
L		3 in.	Class 600		SST		
Q		DN 50	PN 10-40		CS		
R		DN 80	PN 40		CS		
S		DN 100	PN 40		CS		
V		DN 100	PN 10/16		CS		
K		DN 50	PN 10-40		SST		
T		DN 80	PN 40		SST		
U		DN 100	PN 40		SST		
W		DN 100	PN 10/16		SST		
<b>Code</b>		<b>Process Fill-High Pressure Side</b>		<b>Temperature Limits</b>			
A		Syltherm XLT		-100 to 300 °F (-73 to 135 °C)			
C		D. C. Silicone 704		60 to 400 °F (15 to 205 °C)			
D		D. C. Silicone 200		-40 to 400 °F (-40 to 205 °C)			
H		Inert (Halocarbon)		-50 to 350 °F (-45 to 177 °C)			
G		Glycerine and Water		0 to 200 °F (-17 to 93 °C)			
N		Neobee M-20		0 to 400 °F (-17 to 205 °C)			
P		Propylene Glycol and Water		0 to 200 °F (-17 to 93 °C)			
<b>Low Pressure Side</b>							
<b>Code</b>		<b>Configuration</b>	<b>Flange Adapter</b>	<b>Diaphragm Material</b>	<b>Sensor Fill Fluid</b>		
11		Gage	SST	316L SST	Silicone		
21		Differential	SST	316L SST	Silicone		
22		Differential	SST	Hastelloy C276	Silicone		
2A		Differential	SST	316L SST	Inert (Halocarbon)		
2B		Differential	SST	Hastelloy C276	Inert (Halocarbon)		
31		Remote Seal	SST	316L SST	Silicone (Requires Option Code S1)		
<b>Code</b>		<b>O-ring Material</b>					
A		Glass-filled PTFE					



# Product Data Sheet

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# Rosemount 3051

TABLE 13. 3051L Flange-Mounted Liquid Level Transmitter

Code	Housing Material	Conduit Entry Size
A	Polyurethane-covered Aluminum	½–14 NPT
B	Polyurethane-covered Aluminum	M20 × 1.5 (CM20)
C	Polyurethane-covered Aluminum	PG 13.5
D	Polyurethane-covered Aluminum	G½
J	SST	½–14 NPT
K	SST	M20 × 1.5 (CM20)
L	SST	PG 13.5
M	SST	G½
Code	PlantWeb Functionality	
A01	Advanced Control Function Block Suite	
D01	FOUNDATION fieldbus Diagnostics Suite	
Code	Diaphragm Seal Assemblies (Optional)	
S1	One Diaphragm Seal ( <i>requires low pressure side Option Code 31 capillary connection type</i> )	
Code	Hazardous Locations Certification Options	
E5	FM Explosion-proof Approval	
I5	FM Non-incendive and Intrinsic Safety Approval	
K5	FM Explosion-proof and Intrinsic Safety Approval	
I1 <sup>(1)</sup>	ATEX Intrinsic Safety and Dust Certification	
N1 <sup>(1)</sup>	ATEX Type N and Dust Certification	
E8	ATEX Flame-proof and Dust Certification	
E4 <sup>(1)</sup>	JIS Flame-proof Certification	
C6	CSA Explosion-proof and Intrinsic Safety Approval	
K6 <sup>(1)</sup>	CSA and ATEX Explosion-proof and Intrinsic Safety Approval (combination of C6 and K8)	
KB	FM and CSA Explosion-proof and Intrinsic Safety Approvals (combination of K5 and C6)	
K7	SAA Flame-proof and Intrinsic Safety Approvals (combination of I7, N7, and E7)	
K8 <sup>(1)</sup>	ATEX Flame-proof and Intrinsic Safety Approvals (combination of I1 and E8)	
KD <sup>(1)</sup>	CSA, FM, and ATEX Explosion-proof and Intrinsic Safety Approval (combination of K5, C6, I1, and E8)	
I7	SAA Intrinsic Safety Certification	
E7	SAA Flame-proof Certification	
N7	SAA Type N Certification	
IA	ATEX Intrinsic Safety for FISCO; for FOUNDATION fieldbus protocol only	
Code	Bolt for Flange and Adapters (Optional)	
L5	ASTM A 193, Grade B7M Bolts	
Code	Meter Options	
M5	LCD display for Aluminum Housing ( <i>Available with Housing codes A, B, C, and D only</i> )	
M6	LCD display for SST Housing ( <i>Available with Housing codes J, K, L, and M only</i> )	

# Rosemount 3051

TABLE 13. 3051L Flange-Mounted Liquid Level Transmitter

Code		Other Options					
Q4		Calibration Data Sheet					
Q8		Material Traceability Certification per EN 10204 3.1.B ( <i>Available with the diaphragm, upper housing, Coplanar flange, adapter, sensor module housing, lower housing/flushing connection, and extension</i> )					
QP		Calibration certification and tamper evident seal					
J1 <sup>(2)(3)</sup>		Local Zero Adjustment Only					
J3 <sup>(2)(3)</sup>		No Local Zero or Span Adjustment					
T1		Transient Protection Terminal Block					
C1 <sup>(2)</sup>		Custom Software Configuration ( <i>Completed CDS 00806-0100-4001 required with order</i> )					
C2 <sup>(2)</sup>		0.8–3.2 V dc Output with Digital Signal Based on HART Protocol ( <i>Available with Output code M only</i> )					
C4 <sup>(2)(4)</sup>		Analog Output Levels Compliant with NAMUR Recommendation NE 43					
CN <sup>(2)(4)</sup>		Analog Output Levels Compliant with NAMUR Recommendation NE 43: Alarm Configuration–Low					
D8		Ceramic Ball Drain/Vents					
V5 <sup>(5)</sup>		External Ground Screw Assembly					
Code		Lower Housing Flushing Connections					
		Ring Material	Number	Size	2 in.	3 in.	4 in.
F1		SST	1	1/4	•	•	•
F2		SST	2	1/4	•	•	•
F3 <sup>(6)</sup>		Hastelloy C276	1	1/4	•	•	•
F4 <sup>(6)</sup>		Hastelloy C276	2	1/4	•	•	•
F7		SST	1	1/2	•	•	•
F8		SST	2	1/2	•	•	•
F9		Hastelloy C276	1	1/2	•	•	•
F0		Hastelloy C276	2	1/2	•	•	•

**Typical Model Number:**

- (1) Not available with low-power Option Code M
- (2) Not available with fieldbus (output code F) or profibus protocols (output code W).
- (3) Local zero and span adjustments are standard unless Option Code J1 or J3 is specified.
- (4) NAMUR-Compliant operation is pre-set at the factory and cannot be changed to standard operation in the field.
- (5) The V5 option is not needed with the T1 option; external ground screw assembly is included with the T1 option.
- (6) Not available with Option Codes A0, B0, and G0.

# Product Data Sheet

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# Rosemount 3051

TABLE 14. 3051H Pressure Transmitter for High-Temperature Processes — = Not Applicable • = Applicable

Model	Transmitter Type (Select One)	HD	HG	
3051HD	Differential Pressure Transmitter for High-Temperature Processes	•	—	
3051HG	Gage Pressure Transmitter for High-Temperature Processes	—	•	
Code	3051HD	3051HG		
2	–250 to 250 inH <sub>2</sub> O/2.5 inH <sub>2</sub> O (–0,62 to 0,62 bar/6,2 mbar)	–250 to 250 inH <sub>2</sub> O/2.5 inH <sub>2</sub> O (–0,62 to 0,62 bar/6,2 mbar)		
3	–1000 to 1000 inH <sub>2</sub> O/10 inH <sub>2</sub> O (–2,5 to 2,5 bar/25 mbar)	–407 to 1000 inH <sub>2</sub> O/10 in H <sub>2</sub> O (–1,01 to 2,5 bar/25 mbar)		
4	–300 to 300 inH <sub>2</sub> O/3 psi (–747 to 747 mbar/0,2 bar)	–14.7 to 300 psi/3 psi (–1,01 to 20,7 bar/0,2 bar)		
5	–2000 to 2000 psi/20 psi (–138 to 138 bar/1,4 bar)	–14.7 to 2000 psig/20 psi (–1,01 to 138 bar/1,4 bar)		
NOTE: 3051HG lower range limit varies with atmospheric pressure.				
Code	Output	HD	HG	
A	4–20 mA with Digital Signal Based on HART Protocol	•	•	
M	Low-Power 1–5 V dc with Digital Signal Based on HART Protocol (See Option Code C2 for 0.8–3.2 V dc Output) (Not available with hazardous certification Option Codes I1, N1, E4, K6, and K8)	•	•	
F	FOUNDATION fieldbus Protocol	•	•	
W	Profibus – PA	•	•	
Code	Process Connection	HD	HG	
	<b>Process Flange Material</b> <b>Drain/Vent</b>			
2	SST      SST	•	•	
7 <sup>(1)</sup>	SST      Hastelloy C276	•	•	
Code	Process Isolating Diaphragm	HD	HG	
2	316L SST	•	•	
3 <sup>(1)</sup>	Hastelloy C276	•	•	
5	Tantalum	•	•	
Code	O-ring Material	HD	HG	
A	Glass-Filled PTFE	•	•	
Code	Process Fill Fluid	HD	HG	
D	D.C. 200 Silicone	•	•	
H	Inert	•	•	
N	Neobee M-20	•	•	
Code	Sensor Module Isolator Material	HD	HG	
2	SST	•	•	
Code	Sensor Module Fill Fluid	HD	HG	
1	Silicone	•	•	
2	Inert (Halocarbon)	•	•	
Code	Housing Material	Conduit Entry Size	HD	HG
A	Polyurethane-covered Aluminum	½–14 NPT	•	•
B	Polyurethane-covered Aluminum	M20 × 1.5 (CM20)	•	•
C	Polyurethane-covered Aluminum	PG 13.5	•	•
D	Polyurethane-covered Aluminum	G½	•	•
J	SST	½–14 NPT	•	•
K	SST	M20 × 1.5 (CM20)	•	•
L	SST	PG 13.5	•	•
M	SST	G½	•	•
Code	PlantWeb Functionality	HD	HG	
A01	Advanced Control Function Block Suite			
D01	FOUNDATION fieldbus Diagnostics Suite			
Code	Integral Mount Primary Elements (Optional)	HD	HG	
S4	Factory Assembly to Rosemount Primary Element (Rosemount Annubar or Rosemount 1195 Integral Orifice) (With the primary element installed, the maximum operating pressure will equal the lesser of either the transmitter or the primary element. Option is available for factory assembly to range 1–4 transmitters only)	•	—	

# Rosemount 3051

TABLE 14. 3051H Pressure Transmitter for High-Temperature Processes — = Not Applicable • = Applicable

Code	Mounting Bracket Options	HD	HG
B5	Universal Mounting Bracket for 2-in. Pipe or Panel Mount, CS Bolts	•	•
B6	Universal Mounting Bracket for 2-in. Pipe or Panel Mount, SST Bolts	•	•
Code	Hazardous Locations Certification Options	HD	HG
E5	FM Explosion-proof Approval	•	•
I5	FM Non-incendive and Intrinsic Safety Approval	•	•
K5	FM Explosion-proof and Intrinsic Safety Approval	•	•
I1 <sup>(2)</sup>	ATEX Intrinsic Safety and Dust Certification	•	•
N1 <sup>(2)</sup>	ATEX Type N and Dust Certification	•	•
E8	ATEX Flame-proof and Dust Certification	•	•
E4 <sup>(2)</sup>	JIS Flame-proof Certification	•	•
C6	CSA Explosion-proof and Intrinsic Safety Approval	•	•
K6 <sup>(2)</sup>	CSA and ATEX Explosion-proof and Intrinsic Safety Approval (combination of C6 and K8)	•	•
KB	FM and CSA Explosion-proof and Intrinsic Safety Approvals (combination of K5 and C6)	•	•
K7	SAA Flame-proof and Intrinsic Safety Approvals (combination of I7, N7, and E7)	•	•
KB <sup>(2)</sup>	ATEX Flame-proof and Intrinsic Safety Approvals (combination of I1 and E8)	•	•
KD <sup>(2)</sup>	CSA, FM, and ATEX Explosion-proof and Intrinsic Safety Approval (combination of K5, C6, I1, and E8)	•	•
I7	SAA Intrinsic Safety Certification	•	•
E7	SAA Flame-proof Certification	•	•
N7	SAA Type N Certification	•	•
IA	ATEX Intrinsic Safety for FISCO; for FOUNDATION fieldbus protocol only	•	•
IE	FM FISCO Intrinsic Safety; for FOUNDATION fieldbus protocol only	•	•
Code	Bolt for Flange and Adapter Options	HD	HG
L4	Austenitic 316 SST Bolts	•	•
Code	Meter Options	HD	HG
M5	LCD display for Aluminum Housing ( <i>Available with Housing codes A, B, C, and D only</i> )	•	•
M6	LCD display for SST Housing ( <i>Available with Housing codes J, K, L, and M only</i> )	•	•
Code	Other Options	HD	HG
Q4	Calibration Data Sheet	•	•
Q8	Material traceability certification per EN 10204 3.1.B	•	•
QP	Calibration certification and tamper evident seal	•	•
J1 <sup>(3)</sup>	Local Zero Adjustment Only ( <i>Local zero and span adjustments are standard unless Option Code J1 or J3 is specified.</i> )	•	•
J3 <sup>(3)</sup>	No Local Zero or Span Adjustment ( <i>Local zero and span adjustments are standard unless Option Code J1 or J3 is specified</i> )	•	•
T1	Transient Protection Terminal Block	•	•
C1 <sup>(3)</sup>	Custom Software Configuration (Completed CDS 00806-0100-4001 required with order)	•	•
C2 <sup>(3)</sup>	0.8–3.2 V dc Output with Digital Signal Based on HART Protocol ( <i>Output Code M only</i> )	•	•
C4 <sup>(3)(4)</sup>	Analog Output Levels Compliant with NAMUR Recommendation NE 43	•	•
CN <sup>(3)(4)</sup>	Analog Output Levels Compliant with NAMUR Recommendation NE 43: Alarm Configuration—Low	•	•
P1	Hydrostatic Testing with Certificate	•	•
P2	Cleaning for Special Service	•	•
P3	Cleaning for <1 PPM Chlorine/Fluorine	•	•
DF	1/2–14 NPT flange adapters—SST	•	•
D8	Ceramic Ball Drain/Vents	•	•
V5 <sup>(5)</sup>	External Ground Screw Assembly	•	•
<b>Typical Model Number: 3051HG 2 A 2 2 A H 2 1 A B5</b>			

- (1) 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.
- (2) Not available with low-power Option Code M.
- (3) Not available with fieldbus (output code F) or profibus protocols (output code W).
- (4) NAMUR-Compliant operation is pre-set at the factory and cannot be changed to standard operation in the field.
- (5) The V5 option is not needed with the T1 option; external ground screw assembly is included with the T1 option.

**OPTIONS**

**Standard Configuration**

Unless otherwise specified, transmitter is shipped as follows:

**ENGINEERING UNITS**

<b>Differential/Gage:</b>	inH <sub>2</sub> O (Range 0, 1, 2, and 3) psi (Range 4 and 5)
<b>Absolute/3051T:</b>	psi (all ranges)
<b>4 mA (1 V dc)<sup>(1)</sup>:</b>	0 (engineering units above)
<b>20 mA (5 V dc):</b>	Upper range limit
<b>Output:</b>	Linear
<b>Flange type:</b>	Specified model code option
<b>Flange material:</b>	Specified model code option
<b>O-ring material:</b>	Specified model code option
<b>Drain/vent:</b>	Specified model code option
<b>Integral meter:</b>	Installed or none
<b>Alarm<sup>(1)</sup>:</b>	Upscale
<b>Software tag:</b>	(Blank)

(1) Not applicable to fieldbus.

**Custom Configuration HART protocol only<sup>(1)</sup>**

If Option Code C1 is ordered, the customer may specify the following data in addition to the standard configuration parameters.

- Output Information
- Transmitter Information
- LCD display Configuration
- Hardware Selectable Information
- Signal Selection

Refer to the "HART Protocol C1 Option Configuration Data Sheet" on page 39.

**Tagging (3 options available)**

- Standard SST hardware tag is wired to the transmitter. Tag character height is 0.125 in. (3,18 mm), 56 characters maximum.
- Tag may be permanently stamped on transmitter nameplate upon request, 56 characters maximum.
- Tag may be stored in transmitter memory (30 characters maximum). Software tag is left blank unless specified.

**Commissioning tag (fieldbus only)**

A temporary commissioning tag is attached to all transmitters. The tag indicates the device ID and allows an area for writing the location.

**Optional Rosemount 305 or 306 Integral Manifolds**

Factory assembled to 3051C and 3051T transmitters. Refer to the following Product Data Sheet (document number 00813-0100-4733) for additional information.

Optional Three-Valve Manifolds (Packaged Separately)

- Part No.1151-0150-0001: 3-Valve Manifold, Carbon Steel
- Part No. 1151-0150-0002: 3-Valve Manifold, 316 SST

(1) Not applicable to fieldbus.

**Optional Diaphragm and Sanitary Seals**

Refer to Product Data Sheet 00813-0100-4016 or 00813-0201-4016. for additional information.

**Output Information<sup>(1)</sup>**

Output range points must be the same unit of measure. Available units of measure include:

inH <sub>2</sub> O	inH <sub>2</sub> O@4 °C <sup>(1)</sup>	psi	Pa
inHg	ftH <sub>2</sub> O	bar	kPa
mmH <sub>2</sub> O	mmH <sub>2</sub> O@4 °C <sup>(1)</sup>	mbar	torr
mmHg	g/cm <sup>2</sup>	kg/cm <sup>2</sup>	atm

(1) Not available on low power or previous versions.

**LCD display**

M5 Digital Meter, 5-Digit, 2-Line LCD

- Direct reading of digital data for higher accuracy
- Displays user-defined flow, level, volume, or pressure units
- Displays diagnostic messages for local troubleshooting
- 90-degree rotation capability for easy viewing

M6 Digital Meter with 316 Stainless Steel Cover

- For use with stainless steel housing option (housing codes J, K, and L)

**Local Span and Zero Adjustment<sup>(2)</sup>**

Transmitters ship with local span and zero adjustments standard unless otherwise specified.

- Non-interactive external zero and span adjustments ease calibration
- Magnetic switches replace standard potentiometer adjustments to optimize performance

J1 Local Zero Adjustment Only<sup>(1)</sup>

J3 No Local Zero or Span Adjustment<sup>(1)</sup>

**Transient Protection**

T1 Integral Transient Protection Terminal Block

- Integral transient protection terminal block
- Meets IEEE Standard 587, Category B  
1 kV crest (10 × 1 000 microseconds)  
3 kV crest (8 × 20 microseconds)  
6 kV crest (1.2 × 50 microseconds)
- Meets IEEE Standard 472,  
Surge Withstand Capability  
SWC 2,5 kV crest, 1 MHz wave form
- Applicable standards: IEC 801-4, 801-5

**Bolts for Flanges and Adapters**

- Options permit bolts for flanges and adapters to be obtained in various materials
- Standard material is plated carbon steel per ASTM A449, Type 1

L4 Austenitic 316 Stainless Steel Bolts

L5 ASTM A 193, Grade B7M Bolts

L6 Monel Bolts

(2) Not applicable to fieldbus.

## Rosemount 3051C Coplanar Flange and 3051T Bracket Option

- B4** Bracket for 2-in. Pipe or Panel Mounting
- For use with the standard *Coplanar* flange configuration
  - Bracket for mounting of transmitter on 2-in. pipe or panel
  - Stainless steel construction with stainless steel bolts

## Rosemount 3051H Bracket Options

- B5** Bracket for 2-in. Pipe or Panel Mounting
- For use with the 3051H Pressure Transmitter for high process temperatures
  - Carbon steel construction with carbon steel bolts
- B6** B5 Bracket with SST Bolts
- Same bracket as the B5 option with Series 300 stainless steel bolts.

## Traditional Flange Bracket Options

- B1** Bracket for 2-in. Pipe Mounting
- For use with the traditional flange option
  - Bracket for mounting on 2-in. pipe
  - Carbon steel construction with carbon steel bolts
  - Coated with polyurethane paint
- B2** Bracket for Panel Mounting
- For use with the traditional flange option
  - Bracket for mounting transmitter on wall or panel
  - Carbon steel construction with carbon steel bolts
  - Coated with polyurethane paint
- B3** Flat Bracket for 2-in. Pipe Mounting
- For use with the traditional flange option
  - Bracket for vertical mounting of transmitter on 2-in. pipe
  - Carbon steel construction with carbon steel bolts
  - Coated with polyurethane paint
- B7** B1 Bracket with SST Bolts
- Same bracket as the B1 option with Series 300 stainless steel bolts
- B8** B2 Bracket with SST Bolts
- Same bracket as the B2 option with Series 300 stainless steel bolts
- B9** B3 Bracket with SST Bolts
- Same bracket as the B3 option with Series 300 stainless steel bolts
- BA** Stainless Steel B1 Bracket with SST Bolts
- B1 bracket in stainless steel with Series 300 stainless steel bolts
- BC** Stainless Steel B3 Bracket with SST Bolts
- B3 bracket in stainless steel with Series 300 stainless steel bolts

## Shipping Weights

TABLE 15. Transmitter Weights without Options

Transmitter	Add Weight In lb (kg)
3051C	6.0 (2,7)
3051L	Table 16 on page 38
3051H	13.6 (6,2)
3051T	3.0 (1,4)

TABLE 16. 3051L Weights without Options

Flange	Flush lb. (kg)	2-in. Ext. lb (kg)	4-in. Ext. lb (kg)	6-in. Ext. lb (kg)
2-in., 150	12.5 (5,7)	—	—	—
3-in., 150	17.5 (7,9)	19.5 (8,8)	20.5 (9,3)	21.5 (9,7)
4-in., 150	23.5 (10,7)	26.5 (12,0)	28.5 (12,9)	30.5 (13,8)
2-in., 300	17.5 (7,9)	—	—	—
3-in., 300	22.5 (10,2)	24.5 (11,1)	25.5 (11,6)	26.5 (12,0)
4-in., 300	32.5 (14,7)	35.5 (16,1)	37.5 (17,0)	39.5 (17,9)
2-in., 600	15.3 (6,9)	—	—	—
3-in., 600	25.2 (11,4)	27.2 (12,3)	28.2 (12,8)	29.2 (13,2)
DN 50/PN 40	13.8 (6,2)	—	—	—
DN 80/PN 40	19.5 (8,8)	21.5 (9,7)	22.5 (10,2)	23.5 (10,6)
DN 100/PN 10/16	17.8 (8,1)	19.8 (9,0)	20.8 (9,5)	21.8 (9,9)
DN 100/PN 40	23.2 (10,5)	25.2 (11,5)	26.2 (11,9)	27.2 (12,3)

TABLE 17. Transmitter Options Weights

Code	Option	Add lb (kg)
J, K, L, M	Stainless Steel Housing(T)	3.9 (1,8)
J, K, L, M	Stainless Steel Housing (C, L, H, P)	3.1 (1,4)
M5	LCD display for Aluminum Housing	0.5 (0,2)
M6	LCD display for SST Housing	1.25 (0,6)
B4	SST Mounting Bracket for <i>Coplanar</i> Flange	1.0 (0,5)
B1 B2 B3	Mounting Bracket for Traditional Flange	2.3 (1,0)
B7 B8 B9	Mounting Bracket for Traditional Flange	2.3 (1,0)
BA, BC	SST Bracket for Traditional Flange	2.3 (1,0)
B5 B6	Mounting Bracket for 3051H	2.9 (1,3)
H2	Traditional Flange	2.4 (1,1)
H3	Traditional Flange	2.7 (1,2)
H4	Traditional Flange	2.6 (1,2)
H7	Traditional Flange	2.5 (1,1)
FC	Level Flange—3 in., 150	10.8 (4,9)
FD	Level Flange—3 in., 300	14.3 (6,5)
FA	Level Flange—2 in., 150	10.7 (4,8)
FB	Level Flange—2 in., 300	14.0 (6,3)
FP	DIN Level Flange, SST, DN 50, PN 40	8.3 (3,8)
FQ	DIN Level Flange, SST, DN 80, PN 40	13.7 (6,2)

