

Product Data Sheet

00813-0100-4001, Rev GA

Catalog 2006 - 2007

Rosemount 3051

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 ₂ O/2.5 inH ₂ O (-0,6 to 0,6 bar/6,2 mbar)		
3	-1000 to 1000 inH ₂ O/10 inH ₂ 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

Mounting Flange			
Code	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

Code	Process Fill-High Pressure Side	Temperature Limits
A	<i>Syltherm XLT</i>	-100 to 300 °F (-73 to 135 °C)
C	<i>D. C. Silicone 704</i>	60 to 400 °F (15 to 205 °C)
D	<i>D. C. Silicone 200</i>	-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	<i>Neobee M-20</i>	0 to 400 °F (-17 to 205 °C)
P	Propylene Glycol and Water	0 to 200 °F (-17 to 93 °C)

Low Pressure Side				
Code	Configuration	Flange Adapter	Diaphragm Material	Sensor Fill Fluid
11	Gage	SST	316L SST	Silicone
21	Differential	SST	316L SST	Silicone
22	Differential	SST	<i>Hastelloy C276</i>	Silicone
2A	Differential	SST	316L SST	Inert (Halocarbon)
2B	Differential	SST	<i>Hastelloy C276</i>	Inert (Halocarbon)
31	Remote Seal	SST	316L SST	Silicone (<i>Requires Option Code S1</i>)

Code	O-ring Material
A	Glass-filled PTFE

Product Data Sheet

00813-0100-4001, Rev GA
 Catalog 2006 - 2007

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 ⁽¹⁾	ATEX Intrinsic Safety and Dust Certification	
N1 ⁽¹⁾	ATEX Type N and Dust Certification	
E8	ATEX Flame-proof and Dust Certification	
E4 ⁽¹⁾	JIS Flame-proof Certification	
C6	CSA Explosion-proof and Intrinsic Safety Approval	
K6 ⁽¹⁾	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 ⁽¹⁾	ATEX Flame-proof and Intrinsic Safety Approvals (combination of I1 and E8)	
KD ⁽¹⁾	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 ⁽²⁾⁽³⁾	Local Zero Adjustment Only					
J3 ⁽²⁾⁽³⁾	No Local Zero or Span Adjustment					
T1	Transient Protection Terminal Block					
C1 ⁽²⁾	Custom Software Configuration (<i>Completed CDS 00806-0100-4001 required with order</i>)					
C2 ⁽²⁾	0.8–3.2 V dc Output with Digital Signal Based on HART Protocol (<i>Available with Output code M only</i>)					
C4 ⁽²⁾⁽⁴⁾	Analog Output Levels Compliant with NAMUR Recommendation NE 43					
CN ⁽²⁾⁽⁴⁾	Analog Output Levels Compliant with NAMUR Recommendation NE 43: Alarm Configuration–Low					
D8	Ceramic Ball Drain/Vents					
V5 ⁽⁵⁾	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 ⁽⁶⁾	Hastelloy C276	1	1/4	•	•	•
F4 ⁽⁶⁾	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

00813-0100-4001, Rev GA
Catalog 2006 - 2007

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 ₂ O/2.5 inH ₂ O (–0,62 to 0,62 bar/6,2 mbar)	–250 to 250 inH ₂ O/2.5 inH ₂ O (–0,62 to 0,62 bar/6,2 mbar)		
3	–1000 to 1000 inH ₂ O/10 inH ₂ O (–2,5 to 2,5 bar/25 mbar)	–407 to 1000 inH ₂ O/10 in H ₂ O (–1,01 to 2,5 bar/25 mbar)		
4	–300 to 300 inH ₂ 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	
	Process Flange Material Drain/Vent			
2	SST SST	•	•	
7 ⁽¹⁾	SST Hastelloy C276	•	•	
Code	Process Isolating Diaphragm	HD	HG	
2	316L SST	•	•	
3 ⁽¹⁾	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			
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 ⁽²⁾	ATEX Intrinsic Safety and Dust Certification	•	•
N1 ⁽²⁾	ATEX Type N and Dust Certification	•	•
E8	ATEX Flame-proof and Dust Certification	•	•
E4 ⁽²⁾	JIS Flame-proof Certification	•	•
C6	CSA Explosion-proof and Intrinsic Safety Approval	•	•
K6 ⁽²⁾	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 ⁽²⁾	ATEX Flame-proof and Intrinsic Safety Approvals (combination of I1 and E8)	•	•
KD ⁽²⁾	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 ⁽³⁾	Local Zero Adjustment Only (<i>Local zero and span adjustments are standard unless Option Code J1 or J3 is specified.</i>)	•	•
J3 ⁽³⁾	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 ⁽³⁾	Custom Software Configuration (Completed CDS 00806-0100-4001 required with order)	•	•
C2 ⁽³⁾	0.8–3.2 V dc Output with Digital Signal Based on HART Protocol (<i>Output Code M only</i>)	•	•
C4 ⁽³⁾⁽⁴⁾	Analog Output Levels Compliant with NAMUR Recommendation NE 43	•	•
CN ⁽³⁾⁽⁴⁾	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 ⁽⁵⁾	External Ground Screw Assembly	•	•
Typical Model Number: 3051HG 2 A 2 2 A H 2 1 A B5			

- (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

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

(1) Not applicable to fieldbus.

Custom Configuration HART protocol only⁽¹⁾

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⁽¹⁾

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

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

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⁽¹⁾

J3 No Local Zero or Span Adjustment⁽¹⁾

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)

LCD display CONFIGURATION (Software Adjustable – M5 or M6 option must be specified in model number)

Meter Display Type⁽⁴⁾:

Eng. Units only	Alternate Eng. Units &% of Range
% of Range only	Alternate Eng. Units & Custom Display ⁽⁵⁾
Custom Display only	<input type="checkbox"/> Alternate % of Range & Custom Display ⁽⁵⁾

Custom Display Configuration: (must be filled out if Custom Display is selected as meter type)

Decimal Point Position (fixed)— indicate decimal point location: X_□ X_□ X_□* X X

Enter Lower Range Value (Decimal point must be in the same position as specified above.)
(circle sign) + - +000.00

Enter Upper Range Value (Decimal point must be in the same position as specified above.)
(circle sign) + - +100.00

Custom Units—spaces consume A-Z, 0-9, /, *, %, blank
 %RNGE

Custom Display Transfer Function (Independent of Analog Output)
 Linear Square Root

HARDWARE SELECTABLE INFORMATION

Alarm Option: High Low

Transmitter Security: Off On

Note: Specify C4 Option in model structure when ordering NAMUR-compliant alarm and saturation limits.⁽⁵⁾

SIGNAL SELECTION: (Software Selectable)

4–20 mA with simultaneous digital signal based on HART protocol

Burst mode of HART digital process variable ⁽⁴⁾

Burst mode output options:

- Primary variable in engineering units
- Primary variable in percent of range
- All dynamic variables in engineering units and the primary variable mA value

Multidrop Communication⁽⁴⁾⁽⁶⁾ Choose transmitter address⁽⁷⁾ (1-15): _____

(4) C1 option required for configuration of this parameter.
 (5) Not available with low power output.
 (6) This option fixes the transmitter analog output at 4mA.
 (7) Default address is 1 if multidrop communication is selected.

3051C Differential/Gage Pressure Transmitter Range Limits										
Units	Range 1 Span		Range 2 Span		Range 3 Span		Range 4 Span		Range 5 Span	
	min	max	min	max	min	max	min	max	min	max
inH ₂ O	0.5	25	2.5	250	10	1000	83.040	8304	553.60	55360
inHg	0.03678	1.8389	0.18389	18.389	0.73559	73.559	6.1081	610.81	40.720	4072.04
ftH ₂ O	0.04167	2.08333	0.20833	20.8333	0.83333	83.3333	6.9198	691.997	46.13	4613.31
mmH ₂ O	12.7	635.5	63.553	6355	254	25421	2110.95	211095	14073	1407301
mmHg	0.93416	46.7082	4.67082	467.082	18.6833	1868.33	155.145	15514.5	1034.3	103430
psi	0.01806	0.903	0.0902	9.03183	0.36127	36.127	3	300	20	2000
bar	0.00125	0.06227	0.00623	0.62272	0.02491	2.491	0.20684	20.6843	1.37895	137.895
mbar	1.2454	62.2723	6.22723	622.723	24.9089	2490.89	206.843	20684.3	1378.95	137895
g/cm ²	1.26775	63.3875	6.33875	633.875	25.355	2535.45	210.547	21054.7	1406.14	140614
kg/cm ²	0.00127	0.0635	0.00635	0.635	0.0254	2.54	0.21092	21.0921	1.40614	140.614
Pa	124.545	6227.23	622.723	62160.6	2490.89	249089	20684.3	2068430	137895	13789500
kPa	0.12545	6.2272	0.62272	62.2723	2.49089	249.089	20.6843	2068.43	137.895	13789.5
torr	0.93416	46.7082	4.67082	467.082	18.6833	1868.33	155.145	15514.5	1034.3	103430
atm	0.00123	0.06146	0.00615	0.61460	0.02458	2.458	0.20414	20.4138	1.36092	136.092

When using a HART communicator, ±5% adjustment is allowed on the sensor limit to allow for unit conversions.

3051L/3051H Pressure Transmitter Range Limits									
Units	Range 2 Span		Range 3 Span		Range 4 Span		Range 5 Span		
	min	max	min	max	min	max	min	max	
inH ₂ O	2.5	250	10	1000	83.040	8304	553.60	55360	
inHg	0.18389	18.389	0.73559	73.559	6.1081	610.81	40.720	4072.04	
ftH ₂ O	0.20833	20.8333	0.83333	83.3333	6.9198	691.997	46.13	4613.31	
mmH ₂ O	63.553	6355	254	25421	2110.95	211095	14073	1407301	
mmHg	4.67082	467.082	18.6833	1868.33	155.145	15514.5	1034.3	103430	
psi	0.0902	9.03183	0.36127	36.127	3	300	20	2000	
bar	0.00623	0.62272	0.02491	2.491	0.20684	20.6843	1.37895	137.895	
mbar	6.22723	622.723	24.9089	2490.89	206.843	20684.3	1378.95	137895	
g/cm ²	6.33875	633.875	25.355	2535.45	210.547	21054.7	1406.14	140614	
kg/cm ²	0.00635	0.635	0.0254	2.54	0.21092	21.0921	1.40614	140.614	
Pa	622.723	62160.6	2490.89	249089	20684.3	2068430	137895	13789500	
kPa	0.62272	62.2723	2.49089	249.089	20.6843	2068.43	137.895	13789.5	
torr	4.67082	467.082	18.6833	1868.33	155.145	15514.5	1034.3	103430	
atm	0.00615	0.61460	0.02458	2.458	0.20414	20.4138	1.36092	136.092	

When using a HART communicator, ±5% adjustment is allowed on the sensor limit to allow for unit conversions.

3051T Gage and Absolute Pressure Transmitter Range Limits										
Units	Range 1 Span		Range 2 Span		Range 3 Span		Range 4 Span		Range 5 Span	
	min	max	min	max	min	max	min	max	min	max
inH ₂ O	8.30397	831.889	41.5198	4159.45	221.439	22143.9	1107.2	110720	55360	276799
inHg	0.61081	61.0807	3.05403	305.403	16.2882	1628.82	81.441	8144.098	4072.04	20360.2
ftH ₂ O	0.69199	69.3241	3.45998	345.998	18.4533	1845.33	92.2663	9226.63	4613.31	23066.6
mmH ₂ O	211.10	21130	1054.60	105460.3	5634.66	563466	28146.1	2814613	1407301	7036507
mmHg	15.5145	1551.45	77.5723	7757.23	413.72	41372	2068.6	206860.0	103430	517151
psi	0.3	30	1.5	150	8	800	40	4000	2000	10000
bar	0.02068	3.06843	0.10342	10.3421	0.55158	55.1581	2.75791	275.7905	137.895	689.476
mbar	20.6843	2068.43	103.421	10342.11	551.581	55158.1	2757.91	275790.5	137895	689476
g/cm ²	21.0921	2109.21	105.461	10546.1	561.459	56145.9	2807.31	280730.6	140614	703067
kg/cm ²	0.02109	2.10921	0.10546	10.5461	0.56246	56.2456	2.81228	281.228	140.614	701.82
Pa	2068.43	206843	10342.1	1034212	55158.1	5515811	275791	27579054	13789500	68947600
kPa	2.06843	206.843	10.3421	1034.21	55.1581	5515.81	275.791	27579.05	13789.5	68947.6
torr	15.5145	1551.45	77.5726	7757.26	413.721	413721	2068.6	206859.7	103430	517151
atm	0.02041	2.04138	0.10207	10.2069	0.54437	54.4368	2.72184	272.1841	136.092	680.46

When using a HART communicator, ±5% adjustment is allowed on the sensor limit to allow for unit conversions.

3051C Absolute Pressure Transmitter Range Limits									
Units	Range 1 Span		Range 2 Span		Range 3 Span		Range 4 Span		
	min	max	min	max	min	max	min	max	
inH ₂ O	8.30397	831.889	41.5198	4151.98	221.439	22143.9	1107.2	110720	
inHg	0.61081	61.0807	3.05403	305.403	16.2882	1628.82	81.441	8144.098	
ftH ₂ O	0.69199	69.3241	3.45998	345.998	18.4533	1845.33	92.2663	9226.63	
mmH ₂ O	211.10	21130	6.35308	635.308	5634.66	563466	28146.1	2814613	
mmHg	15.5145	1551.45	1055.47	105547	413.72	41372	2068.6	206860.0	
psi	0.3	30	1.5	150	8	800	40	4000	
bar	0.02068	2.06843	0.10342	10.342	0.55158	55.1581	2.75791	275.7905	
mbar	20.6843	2068.43	103.421	10342.1	551.581	55158.1	2757.91	275790.5	
g/cm ²	21.0921	2109.21	105.27	105.27	561.459	56145.9	2807.31	280730.6	
kg/cm ²	0.02109	2.10921	0.10546	10.546	0.56246	56.2456	2.81228	281.228	
Pa	2068.43	206843	10342.1	1034210	55158.1	5515811	275791	27579054	
kPa	2.06843	206.843	10.3421	1034.21	55.1581	5515.81	275.791	27579.05	
torr	15.5145	1551.45	77.5726	7757.26	413.721	413721	2068.6	206859.7	
atm	0.02041	2.04138	0.10207	10.207	0.54437	54.4368	2.72184	272.1841	

When using a HART communicator, ±5% adjustment is allowed on the sensor limit to allow for unit conversions.

Rosemount 3051

Product Data Sheet
00813-0100-4001, Rev GA
Catalog 2006 - 2007

*Rosemount, Annubar, ProPlate, and the Rosemount logotype are registered trademarks of Rosemount Inc.
PlantWeb is a registered trademark of one of the Emerson Process Management group of companies.
Complete Point Solutions, Coplanar and Multivariable are trademarks of Rosemount Inc.
HART is a registered trademark of the HART Communications Foundation.
Hastelloy is a registered trademarks of Haynes international, Inc..
Monel is a registered trademark of the Special Metals Corporation group of Companies.
Syltherm 800, Dow Corning, and D.C. are registered trademarks of Dow Corning Co.
Teflon is a registered trademark of E.I. du Pont de Nemours & Co.
Neobee M-20 is a registered trademark of Stephan Chemical Co.
The 3-A symbol is a registered trademark of the 3-A Sanitary Standards Symbol Council.
FOUNDATION fieldbus is a registered trademark of the Fieldbus Foundation.
Fluorinert is a registered trademark of 3M Company.*

All other marks are the property of their respective owners.

Rosemount Model 3051 Smart Pressure Transmitters may be protected by one or more of the following U.S. Patent Nos. 4,370,890; 4,466,290; 4,612,812; 4,791,352; 4,798,089; 4,818,994; 4,833,922; 4,866,435; 4,926,340; 4,988,990; and 5,028,746. Mexico Patentado No. 154,961. May depend on model. Other foreign patents issued and pending.

Emerson Process Management

Rosemount Inc.
8200 Market Boulevard
Chanhassen, MN 55317 USA
T (U.S.) 1 800 999 9307
T (International) (952) 906 8888
F (952) 949 7001

www.rosemount.com

Emerson Process Management	Emerson Process Management Asia
Heath Place	Pacific Private Limited
Bognor Regis	1 Pandan Crescent
West Sussex PO22 9SH	Singapore 128461
England	T (65) 6777 8211
T 44 (0) 1243 863121	F (65) 6777 0947
T 44 (0) 1243 867554	Enquiries@AP.EmersonProcess.com

