

## Ordering Information

### Rosemount 3051S Series *Coplanar*

| <b>Model</b>       | <b>Transmitter Type</b>  |  |                                    |                        |
|--------------------|--|--|------------------------------------|------------------------|
| 3051S              | Scalable pressure transmitter  |  |                                    |                        |
| <b>Code</b>        | <b>Performance Class</b>   |  |                                    |                        |
| 1 <sup>(1)</sup>   | Ultra: 0.025% span accuracy, 200:1 rangedown, 10-year stability, limited 12-year warranty            |  |                                    |                        |
| 3 <sup>(2)</sup>   | Ultra for Flow: 0.04% reading accuracy, 200:1 rangedown, 10-year stability, limited 12-year warranty |  |                                    |                        |
| 2                  | Classic: 0.055% span accuracy, 100:1 rangedown, 5-year stability                                     |  |                                    |                        |
| <b>Code</b>        | <b>Connection Type</b>   |  |                                    |                        |
| C                  | <i>Coplanar</i>  |  |                                    |                        |
| <b>Code</b>        | <b>Measurement Type<sup>(3)</sup></b>  |  |                                    |                        |
| D                  | Differential   |  |                                    |                        |
| G                  | Gage   |  |                                    |                        |
| A                  | Absolute   |  |                                    |                        |
| <b>Code</b>        | <b>Pressure Range</b>  |  |                                    |                        |
|                    | <b>Differential</b>  | <b>Gage</b>  | <b>Absolute</b>                    |                        |
| 0A <sup>(4)</sup>  | -3 to 3 inH <sub>2</sub> O (-7,47 to 7,47 mbar)  | N/A  | 0 to 5 psia (0 to 0,34 bar)        |                        |
| 1A                 | -25 to 25 inH <sub>2</sub> O (-62,2 to 62,2 mbar)  | -25 to 25 inH <sub>2</sub> O (-62,2 to 62,2 mbar)  | 0 to 30 psia (0 to 2,06 bar)       |                        |
| 2A                 | -250 to 250 inH <sub>2</sub> O (-623 to 623 mbar)  | -250 to 250 inH <sub>2</sub> O (-623 to 623 mbar)  | 0 to 150 psia (0 to 10,34 bar)     |                        |
| 3A                 | -1000 to 1000 inH <sub>2</sub> O (-2,5 to 2,5 bar)   | -393 to 1000 inH <sub>2</sub> O (-0,98 to 2,5 bar) | 0 to 800 psia (0 to 55,2 bar)      |                        |
| 4A                 | -300 to 300 psi (-20,7 to 20,7 bar)  | -14.2 to 300 psig (-0,98 to 21 bar)                | 0 to 4000 psia (0 to 275,8 bar)    |                        |
| 5A                 | -2000 to 2000 psi (-137,9 to 137,9 bar)  | -14.2 to 2000 psig (-0,98 to 137,9 bar)            | N/A                                |                        |
| <b>Code</b>        | <b>Isolating Diaphragm</b>   |  |                                    |                        |
| 2 <sup>(5)</sup>   | 316L SST   |  |                                    |                        |
| 3 <sup>(5)</sup>   | <i>Hastelloy C-276</i>   |  |                                    |                        |
| 4                  | <i>Monel 400</i>   |  |                                    |                        |
| 5 <sup>(6)</sup>   | Tantalum   |  |                                    |                        |
| 6                  | Gold-plated <i>Monel 400</i><br><i>Note: Includes graphite-filled TFE o-ring.</i>                    |  |                                    |                        |
| 7                  | Gold-plated 316L SST   |  |                                    |                        |
| <b>Code</b>        | <b>Process Connection<sup>(7)</sup></b>  | <b>Size</b>  | <b>Material Type<sup>(8)</sup></b> |                        |
|                    |  |  | <b>Flange Material</b>             | <b>Drain Vent</b>      |
| 000                | None   |  |                                    | <b>Bolting</b>         |
| A11                | Assemble to Rosemount 305 integral manifold  |  |                                    |                        |
| B11 <sup>(9)</sup> | Assemble to one Rosemount 1199 diaphragm seal  |  |                                    |                        |
| B12 <sup>(9)</sup> | Assemble to two Rosemount 1199 diaphragm seals   |  |                                    |                        |
| C11                | Assemble to Rosemount 405 primary element  |  |                                    |                        |
| D11                | Assemble to Rosemount 1195 integral orifice and Rosemount 305 integral manifold                      |  |                                    |                        |
| EA2                | Assemble to Rosemount <i>Annubar</i> Primary Element with <i>Coplanar</i> flange                     |  | 316 SST                            | 316 SST                |
| EA3                | Assemble to Rosemount <i>Annubar</i> Primary Element with <i>Coplanar</i> flange                     |  | <i>Hastelloy C-276</i>             | <i>Hastelloy C-276</i> |
| EA5                | Assemble to Rosemount <i>Annubar</i> Primary Element with <i>Coplanar</i> flange                     |  | 316 SST                            | <i>Hastelloy C-276</i> |
| E11                | <i>Coplanar</i> flange   | 1/4-18 NPT   | CS                                 | 316 SST                |
| E12                | <i>Coplanar</i> flange   | 1/4-18 NPT   | 316 SST                            | 316 SST                |
| E13 <sup>(5)</sup> | <i>Coplanar</i> flange   | 1/4-18 NPT   | <i>Hastelloy C-276</i>             | <i>Hastelloy C-276</i> |
| E14                | <i>Coplanar</i> flange   | 1/4-18 NPT   | <i>Monel 400</i>                   | <i>Monel 400</i>       |
| E15 <sup>(5)</sup> | <i>Coplanar</i> flange   | 1/4-18 NPT   | 316 SST                            | <i>Hastelloy C-276</i> |
| E16 <sup>(5)</sup> | <i>Coplanar</i> flange   | 1/4-18 NPT   | CS                                 | <i>Hastelloy</i>       |
| E21                | <i>Coplanar</i> flange   | RC 1/4   | CS                                 | 316 SST                |
| E22                | <i>Coplanar</i> flange   | RC 1/4   | 316 SST                            | 316 SST                |
| E23 <sup>(5)</sup> | <i>Coplanar</i> flange   | RC 1/4   | <i>Hastelloy C-276</i>             | <i>Hastelloy C-276</i> |
| E24                | <i>Coplanar</i> flange   | RC 1/4   | <i>Monel 400</i>                   | <i>Monel 400</i>       |
| E25 <sup>(5)</sup> | <i>Coplanar</i> flange   | RC 1/4   | 316 SST                            | <i>Hastelloy C-276</i> |
| E26 <sup>(5)</sup> | <i>Coplanar</i> flange   | RC 1/4   | CS                                 | <i>Hastelloy C-276</i> |
| F12                | Traditional flange   | 1/4-18 NPT   | 316 SST                            | 316 SST                |
| F13 <sup>(5)</sup> | Traditional flange   | 1/4-18 NPT   | <i>Hastelloy C-276</i>             | <i>Hastelloy C-276</i> |
| F14                | Traditional flange   | 1/4-18 NPT   | <i>Monel 400</i>                   | <i>Monel 400</i>       |

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|                    |                                  |                      | Flange Material | Drain Vent      | Bolting          |
|--------------------|----------------------------------|----------------------|-----------------|-----------------|------------------|
| F15 <sup>(5)</sup> | Traditional flange               | 1/4-18 NPT           | 316 SST         | Hastelloy C-276 |                  |
| F22                | Traditional flange               | RC 1/4               | 316 SST         | 316 SST         |                  |
| F23 <sup>(5)</sup> | Traditional flange               | RC 1/4               | Hastelloy C-276 | Hastelloy C-276 |                  |
| F24                | Traditional flange               | RC 1/4               | Monel 400       | Monel 400       |                  |
| F25 <sup>(5)</sup> | Traditional flange               | RC 1/4               | 316 SST         | Hastelloy C-276 |                  |
| F32                | Bottom vent traditional flange   | 1/4-18 NPT           | 316 SST         | 316 SST         |                  |
| F52                | DIN-compliant traditional flange | 1/4-18 NPT           | 316 SST         | 316 SST         | 7/16-in. bolting |
| F62                | DIN-compliant traditional flange | 1/4-18 NPT           | 316 SST         | 316 SST         | M10 bolting      |
| F72                | DIN-compliant traditional flange | 1/4-18 NPT           | 316 SST         | 316 SST         | M12 bolting      |
| G11                | Vertical mount level flange      | 2-in. ANSI class 150 | 316 SST         |                 |                  |
| G12                | Vertical mount level flange      | 2-in. ANSI class 300 | 316 SST         |                 |                  |
| G14 <sup>(5)</sup> | Vertical mount level flange      | 2-in. ANSI class 150 | Hastelloy C-276 |                 |                  |
| G15 <sup>(5)</sup> | Vertical mount level flange      | 2-in. ANSI class 300 | Hastelloy C-276 |                 |                  |
| G21                | Vertical mount level flange      | 3-in. ANSI class 150 | 316 SST         |                 |                  |
| G22                | Vertical mount level flange      | 3-in. ANSI class 300 | 316 SST         |                 |                  |
| G24 <sup>(5)</sup> | Vertical mount level flange      | 3-in. ANSI class 150 | Hastelloy C-276 |                 |                  |
| G25 <sup>(5)</sup> | Vertical mount level flange      | 3-in. ANSI class 300 | Hastelloy C-276 |                 |                  |
| G31                | Vertical mount level flange      | DIN- DN 50 PN 40     | 316 SST         |                 |                  |
| G41                | Vertical mount level flange      | DIN- DN 80 PN 40     | 316 SST         |                 |                  |

| Code              | Output <sup>(10)</sup>  |
|-------------------|---|
| A                 | 4-20 mA with digital signal based on HART protocol                  |
| B <sup>(11)</sup> | 4-20 mA Safety Certified with digital signal based on HART protocol |
| F <sup>(12)</sup> | FOUNDATION fieldbus protocol  |

| Code               | Housing Style   | Material <sup>(8)</sup> | Conduit Entry Size |
|--------------------|---|-------------------------|--------------------|
| 00                 | None ( <i>SuperModule</i> Platform only, no housing included)     |                         |                    |
| 01 <sup>(13)</sup> | Assemble to Rosemount 753R Web-Based Monitoring Indicator         |                         |                    |
| 1A                 | <i>PlantWeb</i> housing   | Aluminum                | 1/2-14 NPT         |
| 1B                 | <i>PlantWeb</i> housing   | Aluminum                | M20 x 1.5 (CM20)   |
| 1C                 | <i>PlantWeb</i> housing   | Aluminum                | G1/2               |
| 1J                 | <i>PlantWeb</i> housing   | 316L SST                | 1/2-14 NPT         |
| 1K                 | <i>PlantWeb</i> housing   | 316L SST                | M20 x 1.5 (CM20)   |
| 1L                 | <i>PlantWeb</i> housing   | 316L SST                | G1/2               |
| 2A                 | Junction Box housing  | Aluminum                | 1/2-14 NPT         |
| 2B                 | Junction Box housing  | Aluminum                | M20 x 1.5 (CM20)   |
| 2C                 | Junction Box housing  | Aluminum                | G1/2               |
| 2J                 | Junction Box housing  | 316L SST                | 1/2-14 NPT         |
| 2E                 | Junction Box Housing with output for remote display and interface | Aluminum                | 1/2-14 NPT         |
| 2F                 | Junction Box Housing with output for remote display and interface | Aluminum                | M20 x 1.5 (CM20)   |
| 2G                 | Junction Box Housing with output for remote display and interface | Aluminum                | G1/2               |
| 2M                 | Junction Box Housing with output for remote display and interface | 316L SST                | 1/2-14 NPT         |
| 7J <sup>(14)</sup> | Quick Connect (A size Mini, 4-pin male termination)               | 316L SST                |                    |

| Code | Options |
|------|---------|
|------|---------|

| <b>PlantWeb Control Functionality</b> |   |
|---------------------------------------|---|
| A01 <sup>(15)</sup>                   | FOUNDATION fieldbus Advanced Control Function Block Suite |

| <b>PlantWeb Diagnostic Functionality</b> |                                       |
|--|---------------------------------------|
| D01 <sup>(15)</sup>                      | FOUNDATION fieldbus Diagnostics Suite |
| DA1 <sup>(16)</sup>                      | HART Diagnostics Suite                |

| <b>PlantWeb Enhanced Measurement Functionality</b> |                                   |
|--|-----------------------------------|
| H01 <sup>(15)(17)</sup>                            | Fully Compensated Mass Flow Block |

| <b>Mounting Brackets<sup>(18)</sup></b> |   |
|---|---|
| B4                                      | <i>Coplanar</i> flange bracket, all SST, 2-in. pipe and panel |
| B1                                      | Traditional flange bracket, CS, 2-in. pipe                    |
| B2                                      | Traditional flange bracket, CS, panel                         |
| B3                                      | Traditional flange flat bracket, CS, 2-in. pipe               |
| B7                                      | Traditional flange bracket, B1 with SST bolts                 |
| B8                                      | Traditional flange bracket, B2 with SST bolts                 |
| B9                                      | Traditional flange bracket, B3 with SST bolts                 |
| BA                                      | Traditional flange bracket, B1, all SST                       |
| BC                                      | Traditional flange bracket, B3, all SST                       |

## Product Data Sheet

00813-0100-4801, Rev GA

Catalog 2006-2007

# Rosemount 3051S Series

### Special Configuration (Software)

|                       |   |
|-----------------------|---|
| C1 <sup>(19)</sup>    | Custom software configuration<br><i>Note: A Configuration Data Sheet must be completed, see page Pressure-43.</i>   |
| C3                    | Gage pressure calibration on Rosemount 3051S_CA4 only   |
| C4 <sup>(19)</sup>    | NAMUR alarm and saturation levels, high alarm   |
| C5 <sup>(19)</sup>    | NAMUR alarm and saturation levels, low alarm  |
| C6 <sup>(1)(19)</sup> | Custom alarm and saturation signal levels, high alarm<br><i>Note: Requires option code C1, custom software configuration. A Configuration Data Sheet must be completed, see page Pressure-43.</i> |
| C7 <sup>(1)(19)</sup> | Custom alarm and saturation signal levels, low alarm<br><i>Note: Requires option code C1, custom software configuration. A Configuration Data Sheet must be completed, see page Pressure-43.</i>  |
| C8 <sup>(19)</sup>    | Low alarm (standard Rosemount alarm and saturation levels)  |

### Special Configuration (Hardware)

|                    |  |
|--------------------|--|
| D1 <sup>(19)</sup> | Hardware adjustments (zero, span, alarm, security)<br><i>Note: Not available with housing style codes 00, 01, 2E, 2F, 2G, 2M, or 7J.</i> |
| D2 <sup>(18)</sup> | Process adapters 1/2-14 NPT  |
| D4                 | External ground screw assembly   |
| D5 <sup>(18)</sup> | Delete transmitter drain/vent valves (install plugs)   |
| D7 <sup>(18)</sup> | Coplanar flange without drain/vent ports   |
| D8 <sup>(18)</sup> | Ceramic drain/vent valves  |
| D9 <sup>(18)</sup> | RC 1/2 process adapters  |

### Product Certifications<sup>(20)</sup>

|                        |   |
|------------------------|---|
| E1                     | ATEX Flameproof   |
| I1                     | ATEX Intrinsically Safe   |
| IA                     | ATEX FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only  |
| N1                     | ATEX Type n   |
| K1                     | ATEX Flameproof, Intrinsically Safe, Type n, Dust (combination of E1, I1, N1, and ND)   |
| ND                     | ATEX Dust   |
| E4                     | JIS Flameproof  |
| E5                     | FM Explosion-proof  |
| I5                     | FM Intrinsically Safe, Non-incendive  |
| IE                     | FM FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only  |
| K5                     | FM Explosion-proof, Intrinsically Safe, Non-incendive (combination of E5 and I5)  |
| E6                     | CSA Explosion-proof, Division 2   |
| I6                     | CSA Intrinsically Safe  |
| IF                     | CSA FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only   |
| K6                     | CSA Explosion-proof, Intrinsically Safe, Division 2 (combination of E6 and I6)  |
| D3 <sup>(11)(21)</sup> | Measurement Canada Accuracy Approval  |
| E7                     | SAA Flameproof, Dust Ignition-proof   |
| I7                     | IECEx Intrinsically Safe  |
| IG                     | IECEx FISCO Intrinsically Safe  |
| N7                     | IECEx Type n  |
| K7                     | SAA Flameproof, Dust Ignition-proof, IECEx Intrinsically Safe, and Type n (combination of E7, I7, and N7)   |
| KA                     | ATEX and CSA Flameproof, Intrinsically Safe (combination of E1, I1, E6, and I6)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>                    |
| KB                     | FM and CSA Explosion-proof, Intrinsically Safe, Division 2 (combination of E5, E6, I5, and I6)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>     |
| KC                     | FM and ATEX Explosion-proof, Intrinsically Safe, Non-incendive (combination of E5, E1, I5, and I1)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i> |
| KD                     | FM, CSA, and ATEX Explosion-proof, Intrinsically Safe (combination of E5, I5, E6, I6, E1, and I1)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>  |
| DW <sup>(22)</sup>     | NSF Drinking Water Approval   |

### Alternate Materials of Construction

|                    |   |
|--------------------|---|
| L1                 | Inert sensor fill fluid (differential and gage only)<br><i>Note: Silicone fill fluid is standard.</i> |
| L2                 | Graphite-filled Teflon <sup>®</sup> (PTFE) o-ring   |
| L4 <sup>(18)</sup> | Austenitic 316 SST bolts  |
| L5 <sup>(18)</sup> | ASTM A 193, Grade B7M bolts   |
| L6 <sup>(18)</sup> | Monel bolts   |
| L7 <sup>(18)</sup> | ASTM A 453, Class A, Grade 660 bolts  |

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|   |  |
|---|--|
| L8 <sup>(18)</sup>  | ASTM A 193, Class 2, Grade B8M bolts   |
| <b>Digital Display<sup>(23)</sup></b>                         |  |
| M5  | PlantWeb LCD Display   |
| M7 <sup>(1)(24)</sup>   | Remote mount LCD display and interface, no cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output<br><i>Note: Use Belden 3084A cable or equivalent. Contact an Emerson Process Management representative for additional information.</i> |
| M8 <sup>(1)(24)</sup>   | Remote mount LCD display and interface, 50 ft. (15 m) cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output   |
| M9 <sup>(1)(24)</sup>   | Remote mount LCD display and interface, 100 ft. (31 m) cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output  |
| <b>Special Procedures</b>                                     |  |
| P1  | Hydrostatic testing with certificate   |
| P2 <sup>(18)</sup>  | Cleaning for special services  |
| P3 <sup>(18)</sup>  | Cleaning for less than 1PPM chlorine/fluorine  |
| P9  | 4500 psig (310 bar) static pressure limit (Rosemount 3051S_CD only)  |
| P0 <sup>(25)</sup>  | 6092 psig (420 bar) static pressure limit (Rosemount 3051S2CD only)  |
| <b>Special Certifications</b>                                 |  |
| Q4  | Calibration certificate  |
| QP  | Calibration certificate and tamper evident seal  |
| Q8  | Material traceability certification per EN 10204 3.1.B   |
| QS <sup>(26)</sup>  | Certificate of FMEDA Data  |
| Q16   | Surface finish certification for sanitary remote seals   |
| <b>Terminal Blocks</b>  |  |
| T1 <sup>(27)</sup>  | Transient terminal block   |
| T2 <sup>(28)</sup>  | Terminal block with WAGO <sup>®</sup> spring clamp terminals   |
| T3 <sup>(28)</sup>  | Transient terminal block with WAGO spring clamp terminals  |
| <b>Conduit Electrical Connector</b>                           |  |
| GE <sup>(29)</sup>  | M12, 4-pin, Male Connector ( <i>euromast<sup>®</sup></i> )   |
| GM <sup>(29)</sup>  | A size Mini, 4-pin, Male Connector ( <i>minifast<sup>®</sup></i> )   |
| <b>Typical Model Number: 3051S1CD 2A 2 E12 A 1A DA1 B4 M5</b> |  |

- (1) Not available with output code B.
- (2) Not available with output code B or Housing code 01. This option is only available with range codes 2A and 3A, 316L SST isolating diaphragm and silicone fill fluid.
- (3) Performance Class code 3 is available with Measurement Type code D only.
- (4) 3051S\_CD0 is only available with traditional flange, 316 SST diaphragm material, silicone fill fluid, and Bolting option L4.
- (5) Materials of Construction comply with metallurgical requirements highlighted within NACE MR0175/ISO 15156 for sour oil field production environments. Environmental limits apply to certain materials. Consult latest standard for details. Selected materials also conform to NACE MR0103 for sour refining environments.
- (6) Tantalum diaphragm material is only available for ranges 2A - 5A, differential and gage.
- (7) Process connection option codes B12, C11, D11, EA2, EA3 and EA5 are only available on differential Measurement Type, code D.
- (8) Material specified is cast as follows: CF-8M is the cast version of 316 SST, CF-3M is the cast version of 316L SST, CW-12MW is the cast version of Hastelloy C-276, M-30C is the cast version of Monel 400. For housing, material is aluminum with polyurethane paint.
- (9) Consult an Emerson Process Management representative for performance specifications.
- (10) For spare SuperModule Platforms, select output code A.
- (11) Requires PlantWeb housing and Hardware Adjustments option code D1. For the 3051S SIS Safety Transmitter, rangedown is limited to 10:1 on all models with the exception of range 0. The 3051S2CD0 is limited to 2:1 rangedown, the 3051S2CA0 is limited to 5:1 rangedown.
- (12) Requires PlantWeb housing.
- (13) Available with output code A only. Not available with approvals. See Rosemount 753R Product Data Sheet, 00813-0100-4379, to specify Web-Based Monitoring Indicator. Does not integrate into plant host systems.
- (14) Available with output code A only. Available approvals are FM Intrinsically Safe, Non-incendive (option code I5) or ATEX Intrinsically Safe (option code I1). Contact an Emerson Process Management representative for additional information.
- (15) Requires PlantWeb housing and output code F.
- (16) Requires PlantWeb housing and output code A. Includes Hardware Adjustments as standard. Contact an Emerson Process Management representative regarding availability.
- (17) Requires Rosemount 3095 Engineering Assistant to configure.
- (18) Not available with process connection option code A11.
- (19) Not available with output code F or Housing code 01.

- (20) Valid when SuperModule Platform and housing have equivalent approvals.*
- (21) Limited availability depending on transmitter type and range. Contact an Emerson Process Management representative for additional information.*
- (22) Requires 316L SST wetted materials, glass-filled TFE O-ring (standard), and Process Connection code E12 or F12.*
- (23) Not available with Housing code 01 or 7J.*
- (24) Not available with output code F, Housing code 01, or option code DA1.*
- (25) Requires 316L SST or Hastelloy C-276 diaphragm material, assemble to Rosemount 305 integral manifold or DIN-compliant traditional flange process connection, and bolting option L8. Limited to Pressure Range (Differential), ranges 2A – 5A.*
- (26) Not available with Housing code 01.*
- (27) Not available with Housing code 00, 01, or 7J.*
- (28) Available with output code A and PlantWeb housing only.*
- (29) Not available with Housing code 00, 01, or 7J. Available with Intrinsically Safe approvals only. For FM Intrinsically Safe, Non-incendive approval (option code I5) or FM FISCO Intrinsically Safe approval (option code IE), install in accordance with Rosemount drawing 03151-1009 to maintain NEMA 4X rating.*

# Rosemount 3051S Series

## Rosemount 3051S Series In-Line

| Model                                    | Transmitter Type  |                           |                    |
|--|---|---------------------------|--------------------|
| 3051S                                    | Scalable pressure transmitter   |                           |                    |
| Code                                     | Performance Class   |                           |                    |
| 1 <sup>(1)</sup>                         | Ultra: 0.025% span accuracy, 200:1 rangedown, 10-year stability, limited 12-year warranty |                           |                    |
| 2  | Classic: 0.055% span accuracy, 100:1 rangedown, 5-year stability                          |                           |                    |
| Code                                     | Device Type   |                           |                    |
| T  | In-Line   |                           |                    |
| Code                                     | Measurement Type  |                           |                    |
| G  | Gage  |                           |                    |
| A  | Absolute  |                           |                    |
| Code                                     | Pressure Range  |                           |                    |
|  | TG  | TA                        |                    |
| 1A                                       | -14.7 to 30 psi (-1,0 to 2,1 bar)   | 0 to 30 psia (2,1 bar)    |                    |
| 2A                                       | -14.7 to 150 psi (-1,0 to 10,3 bar)   | 0 to 150 psia (10,3 bar)  |                    |
| 3A                                       | -14.7 to 800 psi (-1,0 to 55 bar)   | 0 to 800 psia (55 bar)    |                    |
| 4A                                       | -14.7 to 4000 psi (-1,0 to 276 bar)   | 0 to 4000 psia (276 bar)  |                    |
| 5A                                       | -14.7 to 10000 psi (-1,0 to 689 bar)  | 0 to 10000 psia (689 bar) |                    |
| Code                                     | Isolating Diaphragm / Process Connection Material   |                           |                    |
| 2 <sup>(2)</sup>                         | 316L SST  |                           |                    |
| 3 <sup>(2)</sup>                         | Hastelloy C-276   |                           |                    |
| Code                                     | Process Connection Style  |                           |                    |
| A11                                      | Assemble to Rosemount 306 integral manifold   |                           |                    |
| B11 <sup>(3)</sup>                       | Assemble to one Rosemount 1199 diaphragm seal   |                           |                    |
| E11                                      | 1/2-14 NPT female   |                           |                    |
| F11                                      | Non-threaded instrument-flange (I-flange) (Range 1-4 only)                                |                           |                    |
| G11                                      | G1/2 A DIN 16288 male (Range 1-4 only)  |                           |                    |
| H11                                      | Coned and threaded, compatible with autoclave type F-250-C (Range 5A only)                |                           |                    |
| Code                                     | Output <sup>(4)</sup>   |                           |                    |
| A  | 4-20 mA with digital signal based on HART protocol  |                           |                    |
| B <sup>(5)</sup>                         | 4-20 mA Safety Certified with digital signal based on HART protocol                       |                           |                    |
| F <sup>(6)</sup>                         | FOUNDATION fieldbus protocol  |                           |                    |
| Code                                     | Housing Style   | Materials <sup>(7)</sup>  | Conduit Entry Size |
| 00                                       | None ( <i>SuperModule</i> Platform only, no housing included)                             |                           |                    |
| 01 <sup>(8)</sup>                        | Assemble to Rosemount 753R Web-Based Monitoring Indicator                                 |                           |                    |
| 1A                                       | <i>PlantWeb</i> housing   | Aluminum                  | 1/2-14 NPT         |
| 1B                                       | <i>PlantWeb</i> housing   | Aluminum                  | M20 x 1.5 (CM20)   |
| 1C                                       | <i>PlantWeb</i> housing   | Aluminum                  | G1/2               |
| 1J                                       | <i>PlantWeb</i> housing   | 316L SST                  | 1/2-14 NPT         |
| 1K                                       | <i>PlantWeb</i> housing   | 316L SST                  | M20 x 1.5 (CM20)   |
| 1L                                       | <i>PlantWeb</i> housing   | 316L SST                  | G 1/2              |
| 2A                                       | Junction Box housing  | Aluminum                  | 1/2-14 NPT         |
| 2B                                       | Junction Box housing  | Aluminum                  | M20 x 1.5 (CM20)   |
| 2C                                       | Junction Box housing  | Aluminum                  | G 1/ 2             |
| 2J                                       | Junction Box housing  | 316L SST                  | 1/2-14 NPT         |
| 2E                                       | Junction Box housing with output for remote interface                                     | Aluminum                  | 1/2-14 NPT         |
| 2F                                       | Junction Box housing with output for remote interface                                     | Aluminum                  | M20 x 1.5 (CM20)   |
| 2G                                       | Junction Box housing with output for remote interface                                     | Aluminum                  | G1/2               |
| 2M                                       | Junction Box housing with output for remote interface                                     | 316L SST                  | 1/2-14 NPT         |
| 7J <sup>(9)</sup>                        | Quick Connect (A size Mini, 4-pin male termination)                                       | 316L SST                  |                    |
| Code                                     | Options   |                           |                    |
| <i>PlantWeb</i> Control Functionality    |   |                           |                    |
| A01 <sup>(10)</sup>                      | FOUNDATION fieldbus Advanced Control Function Block Suite                                 |                           |                    |
| <i>PlantWeb</i> Diagnostic Functionality |   |                           |                    |
| D01 <sup>(10)</sup>                      | FOUNDATION fieldbus Diagnostics Suite   |                           |                    |

# Product Data Sheet

00813-0100-4801, Rev GA  
Catalog 2006-2007

# Rosemount 3051S Series

DA1<sup>(11)</sup> HART Diagnostics Suite

### PlantWeb Enhanced Measurement Functionality

H01<sup>(10)(12)</sup> Fully Compensated Mass Flow Block

### Mounting Bracket

B4 Bracket, all SST, 2-in. pipe and panel

### Special Configuration (Software)<sup>(13)</sup>

C1 Custom software configuration

*Note: A Configuration Data Sheet must be completed, see page Pressure-43.*

C4 NAMUR alarm and saturation values, high alarm

C5 NAMUR alarm and saturation values, low alarm

C6<sup>(1)</sup> Custom alarm and saturation signal levels, high alarm

*Note: Requires option code C1, custom software configuration. A Configuration Data Sheet must be completed, see page Pressure-43.*

C7<sup>(1)</sup> Custom alarm and saturation signal levels, low alarm

*Note: Requires option code C1, custom software configuration. A Configuration Data Sheet must be completed, see page Pressure-43.*

C8 Low alarm (Standard Rosemount alarm and saturation signal levels)

### Special Configuration (Hardware)

D1<sup>(13)</sup> Hardware adjustments (zero, span, alarm, security)

*Note: Not available with Housing Style codes 00, 01, 2E, 2F, 2G, 2M, or 7J.*

D4 External ground screw assembly

### Product Certifications<sup>(14)</sup>

E1 ATEX Flameproof

I1 ATEX Intrinsically Safe

IA ATEX FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only

N1 ATEX Type n

K1 ATEX Flameproof, Intrinsically Safe, Type n, Dust (combination of E1, I1, N1, and ND)

ND ATEX Dust

E4 JIS Flameproof

E5 FM Explosion-proof

I5 FM Intrinsically Safe, Non-incendive

IE FM FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only

K5 FM Explosion-proof, Intrinsically Safe, Non-incendive (combination of E5 and I5)

E6 CSA Explosion-proof, Division 2

I6 CSA Intrinsically Safe

IF CSA FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only

K6 CSA Explosion-proof, Intrinsically Safe, Division 2 (combination of E6 and I6)

D3<sup>(5)(15)</sup> Measurement Canada Accuracy Approval

E7 SAA Flameproof, Dust Ignition-proof

I7 IECEx Intrinsically Safe

IG IECEx FISCO Intrinsically Safe

N7 IECEx Type n

K7 SAA Flameproof, Dust Ignition-proof, IECEx Intrinsically Safe, and Type n (combination of E7, I7, and N7)

KA ATEX and CSA Flameproof, Intrinsically Safe (combination of E1, I1, E6, and I6)

*Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.*

KB FM and CSA Explosion-proof, Intrinsically Safe, Division 2 (combination of E5, E6, I5, and I6)

*Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.*

KC FM and ATEX Explosion-proof, Intrinsically Safe, Non-incendive (combination of E5, E1, I5, and I1)

*Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.*

KD FM, CSA, and ATEX Explosion-proof, Intrinsically Safe (combination of E5, I5, E6, I6, E1, and I1)

*Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.*

DW<sup>(16)</sup> NSF Drinking Water Approval

### Alternate Materials of Construction

L1 Inert sensor fill fluid

*Note: Silicone fill fluid is standard.*

### Digital Display<sup>(17)</sup>

M5 PlantWeb LCD Display

M7<sup>(1)(18)</sup> Remote mount LCD display and interface, no cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output

*Note: Use Belden 3084A cable or equivalent. Contact an Emerson Process Management representative for additional information.*

M8<sup>(1)(18)</sup> Remote mount LCD display and interface, 50 ft. (15 m) cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output

M9<sup>(1)(18)</sup> Remote mount LCD display and interface, 100 ft. (31 m) cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output

# Rosemount 3051S Series

## Special Procedures

|                    |  |
|--------------------|--|
| P1                 | Hydrostatic testing with certificate           |
| P2 <sup>(19)</sup> | Cleaning for special services                  |
| P3 <sup>(19)</sup> | Cleaning for less than 1 PPM chlorine/fluorine |

## Special Certifications

|                    |  |
|--------------------|--|
| Q4                 | Calibration certificate                                |
| QP                 | Calibration certificate and tamper evident seal        |
| Q8                 | Material traceability certification per EN 10204 3.1.B |
| QS <sup>(20)</sup> | Certificate of FMEDA Data                              |
| Q16                | Surface finish certification for sanitary remote seals |

## Terminal Blocks

|                    |  |
|--------------------|--|
| T1 <sup>(21)</sup> | Transient terminal block                                     |
| T2 <sup>(22)</sup> | Terminal block with WAGO <sup>®</sup> spring clamp terminals |
| T3 <sup>(22)</sup> | Transient terminal block with WAGO spring clamp terminals    |

## Conduit Electrical Connector

|                    |   |
|--------------------|---|
| GE <sup>(23)</sup> | M12, 4-pin, Male Connector ( <i>eurofast</i> <sup>®</sup> )         |
| GM <sup>(23)</sup> | A size Mini, 4-pin, Male Connector ( <i>minifast</i> <sup>®</sup> ) |

**Typical Model Number: 3051S1TG 2A 2 E11 A 1A DA1 B4 M5**

- (1) Not available with output code B.
- (2) Materials of Construction comply with metallurgical requirements highlighted within 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) Contact a Rosemount representative for performance specifications.
- (4) For spare SuperModule Platforms, select output code A.
- (5) Requires PlantWeb housing and Hardware Adjustments option code D1. For the 3051S SIS Safety Transmitter, rangedown is limited to 10:1.
- (6) Requires PlantWeb housing.
- (7) Material specified is cast as follows: CF-3M is the cast version of 316L SST. For housing, material is aluminum with polyurethane paint.
- (8) Available with output code A only. Not available with approvals. See Rosemount 753R Product Data Sheet, 00813-0100-4379, to specify Web-Based Monitoring Indicator. Does not integrate into plant host systems.
- (9) Available with output code A only. Available approvals are FM Intrinsically Safe, Non-incendive (option code I5) or ATEX Intrinsically Safe (option code I1). Contact an Emerson Process Management representative for additional information.
- (10) Requires PlantWeb housing and output code F.
- (11) Requires PlantWeb housing and output code A. Includes Hardware Adjustments as standard. Contact an Emerson Process Management representative regarding availability.
- (12) Requires Rosemount 3095 Engineering Assistant to configure.
- (13) Not available with output code F or Housing code 01.
- (14) Valid when SuperModule Platform and housing have equivalent approvals.
- (15) Limited availability depending on transmitter type and range. Contact an Emerson Process Management representative for additional information.
- (16) Requires 316L SST wetted materials and Process Connection code E11 or G11.
- (17) Not available with Housing code 01 and 7J.
- (18) Not available with output code F, Housing code 01, or option code DA1.
- (19) Not available with process connection option code A11.
- (20) Not available with Housing code 01.
- (21) Not available with Housing code 00, 01, or 7J.
- (22) Available with output code A and PlantWeb housing only.
- (23) Not available with Housing code 00, 01, or 7J. Available with Intrinsically Safe approvals only. For FM Intrinsically Safe, Non-incendive approval (option code I5) or FM FISCO Intrinsically Safe approval (option code IE), install in accordance with Rosemount drawing 03151-1009 to maintain NEMA 4X rating.



**Rosemount 3051S Series Liquid Level**

Select either FF diaphragm seal type (see “Flush Flanged Seal” on page 36) or for EF diaphragm seal type (see “Extended Flanged Seal” on page 37) and then finish this selection by choosing transmitter options.

| Model             | Transmitter Type  |  |                               |
|-------------------|---|--|-------------------------------|
| 3051S             | Scalable pressure transmitter   |  |                               |
| Code              | Performance Class   |  |                               |
| 1 <sup>(1)</sup>  | Ultra: 0.065% span accuracy, 100:1 rangedown, limited 12-year warranty                                  |  |                               |
| 2                 | Classic: 0.065% span accuracy, 100:1 rangedown  |  |                               |
| Code              | Connection Type   |  |                               |
| L                 | Level   |  |                               |
| Code              | Measurement Type  |  |                               |
| D                 | Differential  |  |                               |
| G                 | Gage  |  |                               |
| A                 | Absolute  |  |                               |
| Code              | Pressure Range  |  |                               |
|                   | Differential (LD)   | Gage (LG)  | Absolute (LA)                 |
| 1A                | -25 to 25 inH <sub>2</sub> O (-62,2 to 62,2 mbar)   | -25 to 25 inH <sub>2</sub> O (-62,2 to 62,2 mbar)  | 0 to 30 psia (2,1 bar)        |
| 2A                | -250 to 250 inH <sub>2</sub> O (-623 to 623 mbar)   | -250 to 250 inH <sub>2</sub> O (-623 to 623 mbar)  | 0 to 150 psia (10 bar)        |
| 3A                | -1000 to 1000 inH <sub>2</sub> O (-2,5 to 2,5 bar)  | -393 to 1000 inH <sub>2</sub> O (-0,98 to 2,5 bar) | 0 to 800 psia (55 bar)        |
| 4A                | -300 to 300 psi (-20,7 to 20,7 bar)   | -14.2 to 300 psig (-0,98 to 21 bar)                | 0 to 4000 psia (276 bar)      |
| 5A                | -2000 to 2000 psi (-137,9 to 137,9 bar)   | -14.2 to 2000 psig (-0,98 to 137,9 bar)            | N/A                           |
| Code              | Output <sup>(2)</sup>   |  |                               |
| A                 | 4-20 mA with digital signal based on HART protocol  |  |                               |
| B <sup>(3)</sup>  | 4-20 mA Safety Certified with digital signal based on HART protocol                                     |  |                               |
| F <sup>(4)</sup>  | FOUNDATION fieldbus protocol  |  |                               |
| Code              | Housing Style   | Material <sup>(5)</sup>                            | Conduit Entry                 |
| 00                | None ( <i>SuperModule</i> Platform only, no housing included)   |  |                               |
| 01 <sup>(6)</sup> | Assemble to Rosemount 753R Web-Based Monitoring Indicator   |  |                               |
| 1A                | <i>PlantWeb</i> housing   | Aluminum   | 1/2-14 NPT                    |
| 1B                | <i>PlantWeb</i> housing   | Aluminum   | M20 x 1.5 (CM20)              |
| 1C                | <i>PlantWeb</i> housing   | Aluminum   | G <sup>1</sup> / <sub>2</sub> |
| 1J                | <i>PlantWeb</i> housing   | 316L SST   | 1/2-14 NPT                    |
| 1K                | <i>PlantWeb</i> housing   | 316L SST   | M20 x 1.5 (CM20)              |
| 1L                | <i>PlantWeb</i> housing   | 316L SST   | G <sup>1</sup> / <sub>2</sub> |
| 2A                | Junction Box housing  | Aluminum   | 1/2-14 NPT                    |
| 2B                | Junction Box housing  | Aluminum   | M20 x 1.5 (CM20)              |
| 2C                | Junction Box housing  | Aluminum   | G <sup>1</sup> / <sub>2</sub> |
| 2J                | Junction Box housing  | 316L SST   | 1/2-14 NPT                    |
| 2E                | Junction Box with output for remote interface   | Aluminum   | 1/2-14 NPT                    |
| 2F                | Junction Box with output for remote interface   | Aluminum   | M20 x 1.5 (CM20)              |
| 2G                | Junction Box with output for remote interface   | Aluminum   | G <sup>1</sup> / <sub>2</sub> |
| 2M                | Junction Box with output for remote interface   | 316L SST   | 1/2-14 NPT                    |
| 7J <sup>(7)</sup> | Quick Connect (A size Mini, 4-pin male termination)   | 316L SST   |                               |
| Code              | Seal System Type  |  |                               |
| 1                 | Direct-mount diaphragm seal system  |  |                               |
| Code              | High Pressure Side Extension (between transmitter flange and seal)                                      |  |                               |
| 0                 | Direct-mount (No extension)   |  |                               |
| Code              | Low Pressure Side Connection (sensor module)  |  |                               |
| 1                 | One capillary connection remote diaphragm seal (see Rosemount 1199 ordering table for seal information) |  |                               |
| 2                 | 316L SST isolator / 316 SST transmitter flange  |  |                               |
| 3                 | <i>Hastelloy C-276</i> isolator / 316 SST transmitter flange  |  |                               |
| Code              | Capillary Length  |  |                               |
| 0                 | N/A   |  |                               |
| Code              | Diaphragm Seal Fill Fluid   |  |                               |
| A                 | <i>Syltherm XLT</i>   |  |                               |
| C                 | D. C. Silicone 704  |  |                               |
| D                 | D. C. Silicone 200  |  |                               |
| H                 | Inert (Halocarbon)  |  |                               |
| G                 | Glycerine and Water   |  |                               |
| N                 | <i>Neobee M-20</i>  |  |                               |
| P                 | Propylene Glycol and Water  |  |                               |

Next, select either Flush Flanged (FF) diaphragm seal (see page 36) or Extended Flanged (EF) diaphragm seal (see page Pressure-37).

# Rosemount 3051S Series

## Seal Options (page Pressure-36—37)

### Flush Flanged Seal

| Code               | Process Connection Style   |                             |
|--------------------|--|-----------------------------|
| FF                 | Flush Flanged, Ra 125-250 gasket surface                         |                             |
| Code               | Diaphragm Seal Size (High Side)                                  |                             |
| G                  | 2-in./DN 50  |                             |
| 7                  | 3-in.  |                             |
| J                  | DN 80  |                             |
| 9                  | 4-in./DN 100   |                             |
| Code               | Flange Rating (High Side)  |                             |
| 1                  | Class 150  |                             |
| 2                  | Class 300  |                             |
| 4                  | Class 600  |                             |
| G                  | PN 40  |                             |
| E                  | PN 10/16; available with 4 in. DN 100 only                       |                             |
| Code               | Isolator Material  | Flange Material (High Side) |
| CA                 | 316L SST   | CS                          |
| DA                 | 316L SST   | 316 SST                     |
| CB                 | Hastelloy  | CS                          |
| DB                 | Hastelloy  | 316 SST                     |
| CC                 | Tantalum - seam welded <sup>(8)</sup> (3)                        | CS                          |
| DC                 | Tantalum - seam welded <sup>(8)</sup>                            | 316 SST                     |
| Code               | Lower Housing Material (High Side) <sup>(9)</sup>                |                             |
| 0                  | None   |                             |
| A                  | 316 SST  |                             |
| B                  | Hastelloy  |                             |
| Code               | Flushing Connection Quantity and Size (Lower Housing, High Side) |                             |
| 0                  | None   |                             |
| 1                  | 1 (1/4-in.)  |                             |
| 3                  | 2 (1/4-in.)  |                             |
| 7                  | 1 (1/2-in.)  |                             |
| 9                  | 2 (1/2-in.)  |                             |
| Code               | Seal Options: Gaskets  |                             |
| SJ                 | Teflon <sup>®</sup> (PTFE) gasket for lower housing              |                             |
| SK                 | Gylon gasket for lower housing                                   |                             |
| SN                 | Grafoil <sup>™</sup> gasket for lower housing                    |                             |
| Code               | Other Options  |                             |
| ST <sup>(10)</sup> | Materials per NACE MR0175  |                             |

Continue with transmitter options on page Pressure-37

- (1) Not available with output code B.
- (2) For spare SuperModule Platforms, select output code A.
- (3) Requires PlantWeb housing and Hardware Adjustments option code D1. For the 3051S SIS Safety Transmitter, rangedown is limited to 10:1.
- (4) Requires PlantWeb housing.
- (5) Material specified is cast as follows: CF-3M is the cast version of 316L SST. For housing, material is aluminum with polyurethane paint.
- (6) Available with output code A only. Not available with approvals. See Rosemount 753R Product Data Sheet, 00813-0100-4379, to specify Web-Based Monitoring Indicator. Does not integrate into plant host systems.
- (7) Available with output code A only. Available approvals are FM Intrinsically Safe, Non-incendive (option code I5) or ATEX Intrinsically Safe (option code I1). Contact an Emerson Process Management representative for additional information.
- (8) Not recommended for use with spiral wound metallic gaskets (see 1199 product data sheet, document 00813-0100-4016 for additional options).
- (9) Standard gasket for lower housing consists of non-asbestos fiber.
- (10) Materials of Construction comply with metallurgical requirements highlighted within 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.

**Extended Flanged Seal**

| Code | Process Connection Style                    |                             |
|------|---|-----------------------------|
| EF   | Extended flanged, Ra 125-250 gasket surface |                             |
| Code | Diaphragm Seal Size (High Side)             |                             |
| 7    | 3-in./DN 80, 2.58-in. diaphragm             |                             |
| 9    | 4-in./DN 100, 3.5-in. diaphragm             |                             |
| Code | Flange Rating (High Side)                   |                             |
| 1    | Class 150                                   |                             |
| 2    | Class 300                                   |                             |
| 4    | Class 600                                   |                             |
| G    | PN 40                                       |                             |
| E    | PN 10/16; available with 4 in. DN 100 only  |                             |
| Code | Isolator Material and Extension Material    | Flange Material (High Side) |
| CA   | 316L SST                                    | CS                          |
| DA   | 316L SST                                    | 316 SST                     |
| CB   | Hastelloy                                   | CS                          |
| DB   | Hastelloy                                   | 316 SST                     |
| Code | Extension Length (High Side, 1st Position)  |                             |
| 2    | 2-in./50 mm                                 |                             |
| 4    | 4-in./100 mm                                |                             |
| 6    | 6-in./150 mm                                |                             |
| Code | Extension Length (High Side, 2nd Position)  |                             |
| 0    | 0-in./0 mm                                  |                             |

Continue with transmitter options below

**Transmitter Options continued from page Pressure-35**

(— = Not Applicable • = Applicable)

| Code   | Options   | LD | LG | LA |
|--|---|----|----|----|
| <b>PlantWeb Control Functionality</b>              |   |    |    |    |
| A01 <sup>(1)</sup>                                 | FOUNDATION fieldbus Advanced Control Function Block Suite   |    |    |    |
| <b>PlantWeb Diagnostic Functionality</b>           |   |    |    |    |
| D01 <sup>(1)</sup>                                 | FOUNDATION fieldbus Diagnostics Suite   |    |    |    |
| DA1 <sup>(2)</sup>                                 | HART Diagnostics Suite  |    |    |    |
| <b>PlantWeb Enhanced Measurement Functionality</b> |   |    |    |    |
| H01 <sup>(1)(3)</sup>                              | Fully Compensated Mass Flow Block   |    |    |    |
| <b>Special Configuration (Software)</b>            |   |    |    |    |
| C1 <sup>(4)</sup>                                  | Custom software configuration<br><i>Note: A Configuration Data Sheet must be completed, see page Pressure-43.</i>   |    |    |    |
| C3   | Gage pressure calibration on Rosemount 3051S_LA only  |    |    |    |
| C4 <sup>(4)</sup>                                  | NAMUR alarm and saturation levels, high alarm   |    |    |    |
| C5 <sup>(4)</sup>                                  | NAMUR alarm and saturation levels, low alarm  |    |    |    |
| C6 <sup>(4)(5)</sup>                               | Custom alarm and saturation signal levels, high alarm<br><i>Note: Requires option code C1, custom software configuration. A Configuration Data Sheet must be completed, see page Pressure-43.</i> |    |    |    |
| C7 <sup>(4)(5)</sup>                               | Custom alarm and saturation signal levels, low alarm<br><i>Note: Requires option code C1, custom software configuration. A Configuration Data Sheet must be completed, see page Pressure-43.</i>  |    |    |    |
| C8 <sup>(4)</sup>                                  | Low alarm (standard Rosemount alarm and saturation levels)  |    |    |    |
| <b>Special Configuration (hardware)</b>            |   |    |    |    |
| D1   | Hardware adjustments (zero, span, alarm, security)<br><i>Note: Not available with fieldbus protocol or Housing Style codes 00, 01, 2E, 2F, 2G, 2M, or 7J.</i>                                     | •  | •  | •  |
| D2   | 1/2-14 NPT process connections process adapters   | •  | —  | —  |
| D4   | External ground screw assembly  | •  | •  | •  |
| D5   | Delete transmitter drain/vent valves (install plugs)  | •  | —  | —  |
| D8   | Ceramic drain/vent valves   | •  | —  | —  |
| D9   | RC 1/2 process connections (process adapters)   | •  | —  | —  |
| <b>Product Certifications<sup>(6)</sup></b>        |   |    |    |    |
| E1   | ATEX Flameproof   |    |    |    |
| I1   | ATEX Intrinsically Safe   |    |    |    |
| IA   | ATEX FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only  |    |    |    |

# Rosemount 3051S Series

|   |  |
|---|--|
| N1  | ATEX Type n  |
| K1  | ATEX Flameproof, Intrinsically Safe, Type n, Dust (combination of E1, I1, N1, and ND)  |
| ND  | ATEX Dust  |
| E4  | JIS Flameproof   |
| E5  | FM Explosion-proof   |
| I5  | FM Intrinsically Safe, Non-incendive   |
| IE  | FM FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only   |
| K5  | FM Explosion-proof, Intrinsically Safe, Non-incendive (combination of E5 and I5)   |
| E6  | CSA Explosion-proof, Division 2  |
| I6  | CSA Intrinsically Safe   |
| IF  | CSA FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only  |
| K6  | CSA Explosion-proof, Intrinsically Safe, Division 2 (combination of E6 and I6)   |
| D3 <sup>(7)(8)</sup>  | Measurement Canada Accuracy Approval   |
| E7  | SAA Flameproof, Dust Ignition-proof  |
| I7  | IECEX Intrinsically Safe   |
| IG  | IECEX FISCO Intrinsically Safe   |
| N7  | IECEX Type n   |
| K7  | SAA Flameproof, Dust Ignition-proof, IECEX Intrinsically Safe, and Type n (combination of E7, I7, and N7)  |
| KA  | ATEX and CSA Flameproof, Intrinsically Safe (combination of E1, I1, E6, and I6)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>   |
| KB  | FM and CSA Explosion-proof, Intrinsically Safe, Division 2 (combination of E5, E6, I5, and I6)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>  |
| KC  | FM and ATEX Explosion-proof, Intrinsically Safe, Non-incendive (combination of E5, E1, I5, and I1)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>  |
| KD  | FM, CSA, and ATEX Explosion-proof, Intrinsically Safe (combination of E5, I5, E6, I6, E1, and I1)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>   |
| <b>Alternate Materials of Construction</b>  |  |
| L1  | Inert sensor fill fluid (differential and gage only)<br><i>Note: Silicone fill fluid is standard.</i>  |
| L2  | Graphite-filled TFE o-ring   |
| L4  | Austenitic 316 SST bolts   |
| L5  | ASTM A 193, Grade B7M bolts  |
| L6  | Monel bolts  |
| L7  | ASTM A 453, Class A, Grade 660 bolts   |
| L8  | ASTM A 193, Class 2, Grade B8M bolts   |
| <b>Digital Display<sup>(9)</sup></b>  |  |
| M5  | PlantWeb LCD Display   |
| M7 <sup>(5)(10)</sup>   | Remote mount LCD display and interface, no cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output<br><i>Note: Use Belden 3084A cable or equivalent. Contact an Emerson Process Management representative for additional information.</i> |
| M8 <sup>(5)(10)</sup>   | Remote mount LCD display and interface, 50 ft. (15 m) cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output   |
| M9 <sup>(5)(10)</sup>   | Remote mount LCD display and interface, 100 ft. (31 m) cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output  |
| <b>Special Procedures</b>   |  |
| P1  | Hydrostatic testing with certificate   |
| P2  | Cleaning for special services  |
| P3  | Cleaning for less than 1PPM chlorine/fluorine  |
| <b>Special Certifications</b>   |  |
| Q4  | Calibration certificate  |
| QP  | Calibration certificate and tamper evident seal  |
| Q8  | Material traceability certification per EN 10204 3.1.B   |
| QS <sup>(11)</sup>  | Certificate of FMEDA Data  |
| <b>Terminal blocks</b>  |  |
| T1 <sup>(12)</sup>  | Transient terminal block   |
| T2 <sup>(13)</sup>  | Terminal block with WAGO® spring clamp terminals   |
| T3 <sup>(13)</sup>  | Transient terminal block with WAGO spring clamp terminals  |
| <b>Conduit Electrical Connector</b>   |  |
| GE <sup>(14)</sup>  | M12, 4-pin, Male Connector (eurofast®)   |
| GM <sup>(14)</sup>  | A size Mini, 4-pin, Male Connector (minifast®)   |
| <b>Typical Model Number for FF seal: 3051S2LD 2A A 1A 1 0 2 0 D FF 7 1 DA 0 0</b> |  |
| <b>Typical Model Number for EF seal: 3051S2LD 2A A 1A 1 0 2 0 D EF 7 1 DA 2 0</b> |  |

(1) Requires PlantWeb housing and output code F.

(2) Requires PlantWeb housing and output code A. Includes Hardware Adjustments as standard. Contact an Emerson Process Management representative regarding availability.

- (3) *Requires Rosemount 3095 Engineering Assistant to configure.*
- (4) *Not available with output code F or Housing code 01.*
- (5) *Not available with output code B.*
- (6) *Valid when SuperModule Platform and housing have equivalent approvals.*
- (7) *Requires PlantWeb Housing and Hardware Adjustments option code D1.*
- (8) *Limited availability depending on transmitter type and range. Contact a sales representative for additional information.*
- (9) *Not available with Housing Code 01 or 7J.*
- (10) *Not available with output code F, Housing code 01, or option code DA1.*
- (11) *Not available with Housing Code 01.*
- (12) *Not available with Housing code 00, 01, or 7J.*
- (13) *Available with output code A and PlantWeb housing only.*
- (14) *Not available with Housing code 00, 01, or 7J. Available with Intrinsically Safe approvals only. For FM Intrinsically Safe, Non-incendive approval (option code I5) or FM FISCO Intrinsically Safe approval (option code IE), install in accordance with Rosemount drawing 03151-1009 to maintain NEMA 4X rating.*

## Rosemount 3051S Series

## Rosemount 300S Series Housing “Kit”

| Model  |  |                         |                  |
|--|--|-------------------------|------------------|
| 300S   | Housing “Kit” for Rosemount 3051S Scalable Pressure Transmitter  |                         |                  |
| Code   | Housing Style  | Material <sup>(1)</sup> | Conduit Entry    |
| 1A   | <i>PlantWeb</i> housing  | Aluminum                | 1/2–14 NPT       |
| 1B   | <i>PlantWeb</i> housing  | Aluminum                | M20 x 1.5 (CM20) |
| 1C   | <i>PlantWeb</i> housing  | Aluminum                | G <sup>1/2</sup> |
| 1J   | <i>PlantWeb</i> housing  | 316L SST                | 1/2–14 NPT       |
| 1K   | <i>PlantWeb</i> housing  | 316L SST                | M20 x 1.5 (CM20) |
| 1L   | <i>Plantweb</i> housing  | 316L SST                | G <sup>1/2</sup> |
| 2A   | Junction Box housing   | Aluminum                | 1/2–14 NPT       |
| 2B   | Junction Box housing   | Aluminum                | M20 x 1.5 (CM20) |
| 2C   | Junction Box housing   | Aluminum                | G <sup>1/2</sup> |
| 2J   | Junction Box housing   | 316L SST                | 1/2–14 NPT       |
| 2E   | Junction Box housing with output for remote interface  | Aluminum                | 1/2–14 NPT       |
| 2F   | Junction Box housing with output for remote interface  | Aluminum                | M20 x 1.5 (CM20) |
| 2G   | Junction Box housing with output for remote interface  | Aluminum                | G <sup>1/2</sup> |
| 2M   | Junction Box housing with output for remote interface  | 316L SST                | 1/2–14 NPT       |
| 3A   | Remote mount display and interface housing   | Aluminum                | 1/2–14 NPT       |
| 3B   | Remote mount display and interface housing   | Aluminum                | M20 x 1.5 (CM20) |
| 3C   | Remote mount display and interface housing   | Aluminum                | G <sup>1/2</sup> |
| 3J   | Remote mount display and interface housing   | 316L SST                | 1/2–14 NPT       |
| 7J <sup>(2)</sup>                                  | Quick Connect (A size Mini, 4-pin male termination)  | 316L SST                |                  |
| Code   | Output   |                         |                  |
| A  | 4-20 mA with digital signal based on HART protocol   |                         |                  |
| B <sup>(3)</sup>                                   | 4-20 mA Safety Certified with digital signal based on HART protocol  |                         |                  |
| F <sup>(4)</sup>                                   | FOUNDATION fieldbus protocol   |                         |                  |
| Code   | Options  |                         |                  |
| <b>PlantWeb Control Functionality</b>              |  |                         |                  |
| A01 <sup>(5)</sup>                                 | FOUNDATION fieldbus Advanced Control Function Block Suite  |                         |                  |
| <b>PlantWeb Diagnostic Functionality</b>           |  |                         |                  |
| D01 <sup>(5)</sup>                                 | FOUNDATION fieldbus Diagnostics Suite  |                         |                  |
| DA1 <sup>(6)</sup>                                 | HART Diagnostics Suite   |                         |                  |
| <b>PlantWeb Enhanced Measurement Functionality</b> |  |                         |                  |
| H01 <sup>(5)(7)</sup>                              | Fully Compensated Mass Flow Block  |                         |                  |
| <b>Special Configuration (Hardware)</b>            |  |                         |                  |
| D1 <sup>(8)</sup>                                  | Hardware adjustments (zero, span, alarm, security)<br><i>Note: Not available with Housing Style codes 2E, 2F, 2G, 2M, 3A, 3B, 3C, 3J, or 7J.</i> |                         |                  |
| D4   | External ground screw assembly   |                         |                  |
| <b>Product Certifications</b>                      |  |                         |                  |
| E1   | ATEX Flameproof  |                         |                  |
| I1   | ATEX Intrinsically Safe  |                         |                  |
| IA   | ATEX FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only   |                         |                  |
| N1   | ATEX Type n  |                         |                  |
| K1   | ATEX Flameproof, Intrinsically Safe, Type n, Dust (combination of E1, I1, N1, and ND)  |                         |                  |
| ND   | ATEX Dust  |                         |                  |
| E4   | JIS Flameproof   |                         |                  |
| E5   | FM Explosion-proof   |                         |                  |
| I5   | FM Intrinsically Safe, Non-incendive   |                         |                  |
| IE   | FM FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only   |                         |                  |
| K5   | FM Explosion-proof, Intrinsically Safe, Non-incendive (combination of E5 and I5)   |                         |                  |
| E6   | CSA Explosion-proof, Division 2  |                         |                  |
| I6   | CSA Intrinsically Safe   |                         |                  |
| IF   | CSA FISCO Intrinsically Safe; for FOUNDATION fieldbus protocol only  |                         |                  |
| K6   | CSA Explosion-proof, Intrinsically Safe, Division 2 (combination of E6 and I6)   |                         |                  |
| E7   | SAA Flameproof, Dust Ignition-proof  |                         |                  |
| I7   | IECEx Intrinsically Safe   |                         |                  |
| IG   | IECEx FISCO Intrinsically Safe   |                         |                  |
| N7   | IECEx Type n   |                         |                  |

|   |  |
|---|--|
| K7  | SAA Flameproof, Dust Ignition-proof, IECEx Intrinsically Safe, and Type n (combination of E7, I7, and N7)  |
| KA  | ATEX and CSA Flameproof, Intrinsically Safe (combination of E1, I1, E6, and I6)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>   |
| KB  | FM and CSA Explosion-proof, Intrinsically Safe, Division 2 (combination of E5, E6, I5, and I6)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>  |
| KC  | FM and ATEX Explosion-proof, Intrinsically Safe, Non-incendive (combination of E5, E1, I5, and I1)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>  |
| KD  | FM, CSA, and ATEX Explosion-proof, Intrinsically Safe (combination of E5, I5, E6, I6, E1, and I1)<br><i>Note: Only available on Housing Style codes 00, IA, IJ, 2A, 2J, 2E, or 2M.</i>   |
| <b>Digital Display<sup>(9)</sup></b>      |  |
| M5  | PlantWeb LCD Display   |
| M7 <sup>(10)</sup>                        | Remote mount LCD display and interface, no cable; PlantWeb housing, SST bracket, requires 4-20 mA / HART output<br><i>Note: Use Belden 3084A cable or equivalent. Contact an Emerson Process Management representative for additional information.</i> |
| M8 <sup>(10)</sup>                        | Remote mount LCD display and interface, 50 ft. (15 m) cable; SST bracket, requires 4-20 mA / HART output   |
| M9 <sup>(10)</sup>                        | Remote mount LCD display and interface, 100 ft. (31 m) cable; SST bracket, requires 4-20 mA / HART output  |
| <b>Terminal Blocks</b>                    |  |
| T1 <sup>(11)</sup>                        | Transient terminal block   |
| T2 <sup>(12)</sup>                        | Terminal block with WAGO® spring clamp terminals   |
| T3 <sup>(12)</sup>                        | Transient terminal block with WAGO spring clamp terminals  |
| <b>Conduit Electrical Connector</b>       |  |
| GE <sup>(13)</sup>                        | M12, 4-pin, Male Connector (eurofast®)   |
| GM <sup>(13)</sup>                        | A size Mini, 4-pin, Male Connector (minifast®)   |
| <b>Typical Model Number: 300S 1A A E5</b> |  |

- (1) Material specified is cast as follows: CF-3M is the cast version of 316L SST. For housing, material is aluminum with polyurethane paint.
- (2) Available with output code A only. Not available with approvals. Contact an Emerson Process Management representative for additional information.
- (3) Requires PlantWeb housing and Hardware Adjustment option code D1.
- (4) Requires PlantWeb housing.
- (5) Requires PlantWeb housing and output code F.
- (6) Requires PlantWeb housing and output code A. Includes Hardware Adjustments as standard. Contact an Emerson Process Management representative regarding availability.
- (7) Requires Rosemount 3095 Engineering Assistant to configure.
- (8) Not available with output code F.
- (9) Not available with Housing code 7J.
- (10) Not available with output code B, output code F, or option code DA1. Only available on Housing Style codes 3A, 3B, 3C, or 3J.
- (11) Not available with Housing code 3A, 3B, 3C, 3J, or 7J.
- (12) Available with output code A and PlantWeb housing only.
- (13) Not available with Housing code 00, 01, or 7J. Available with Intrinsically Safe approvals only. For FM Intrinsically Safe, Non-incendive approval (option code I5) or FM FISCO Intrinsically Safe approval (option code IE), install in accordance with Rosemount drawing 03151-1009 to maintain NEMA 4X rating.

# Rosemount 3051S Series

## ACCESSORIES

### Rosemount 3095 Engineering Assistant (EA) Software Packages

The Rosemount 3095 Engineering Assistant software supports mass flow configuration for FOUNDATION fieldbus. The package is available with or without modem and connecting cables. All configurations are packaged separately.

For best performance of the EA Software, the following computer hardware and software is recommended:

- Pentium, 800MHz personal computer or above
- 512 MB RAM
- 350 MB of available hard disk space
- Mouse or other pointing device
- Color computer display
- *Microsoft® Windows™* 2000 or XP

### 3095 Engineering Assistant Software Packages

| Code                                      | Product Description                                   |
|---|---|
| EA  | Engineering Assistant Software program                |
| Code                                      | Diskette Type   |
| 2 <sup>(1)</sup>                          | EA Software Rev. 5, CD-ROM                            |
| Code                                      | Language  |
| E   | English   |
| Code                                      | Modem and Connecting Cables                           |
| O   | None  |
| C   | FOUNDATION fieldbus PCM-CIA Interface Card and Cables |
| Code                                      | Operating Software                                    |
| N   | EA Rev. 5   |
| Code                                      | License   |
| 1   | Single PC license                                     |
| 2   | Site license  |
| <b>Typical Model Number: EA 2 E O N 1</b> |   |

(1) EA-FOUNDATION fieldbus supports Windows 2000 and XP.

### Accessories

| Item Description   | Part Number     |
|--|-----------------|
| FOUNDATION fieldbus PCM-CIA Interface Card and Cables Only | 03095-5108-0001 |