

Model Specification: FB2100 Flow Computers

| Model & Seg | Description | Approval | Selection |
|---|---|------------|-----------|
| Flow Computer | | | |
| 00 | FB2100 Flow Computer | | FB2100 |
| Hazardous Area Approvals | | | |
| 10 | Class 1 Div2 cUL _{US} | | A4 |
| | IEC Ex N | | A5 |
| | ATEX Ex N | | A6 |
| Metrology Approvals | | | |
| 20 | Not required | | B0 |
| Housing Options | | | |
| 30 | Powder-coated aluminum enclosure (for use with options J0 and J1) | A4, A5, A6 | C5 |
| | Powder-coated aluminum enclosure (for use with option J3) | Pending | C6 |
| | Fiberglass enclosure (for use with options J0 and J1) | A4, A5, A6 | C7 |
| | Fiberglass enclosure (for use with option J3) | Pending | C8 |
| Power Options | | | |
| 40 | DC supply (no internal battery) | A4, A5, A6 | D2 |
| | Solar-ready: supplied with internal Power-Sonic® 12V 10.5 Ah battery, fuses, and 10 feet of cable (solar panel by others) Note: Available only with Hazardous Approval option A4. | A4 | D4 |
| | Solar-ready: supplied with internal Power-Sonic® 12V 10.5 Ah battery, fuses, internal SunSaver™ 6 solar regulator, and 10 feet of cable (solar panel by others) Note: Available only with Hazardous Approval option A4. | Pending | D8 |
| Local Operator Interface Display | | | |
| 50 | Not required | A4, A5, A6 | E0 |
| | Display included | A4, A5, A6 | E1 |
| Measurement Type/Pressure Sensor | | | |
| 60 | Not Required; external transmitters being used | A4, A5, A6 | F0 |
| | Integral Multivariable; DP & Static P | A4, A5, A6 | F1 |
| | Integral Static Pressure Only; Inline (no DP) | A4, A5, A6 | F2 |
| Multivariable Sensor (includes Differential P, Static P, and Material/Flange Selections) | | | |
| Differential Pressure Range & Accuracy | | | |
| 71 | 25 Inches H ₂ O (62.3 mbar) DP, 0.1% Accuracy Notes: <ul style="list-style-type: none"> ▪ 25" DP option is only available with static pressure options G4 or A4 and the maximum pressure is limited to 2000 psi. ▪ Available only with stainless steel sensor and coplanar flange. | A4, A5, A6 | B221 |
| | 250 Inches H ₂ O (623 mbar) DP, 0.1% Accuracy Note: 0.1% Accuracy is not available on traditional flange. | A4, A5, A6 | B222 |
| | 250 Inches H ₂ O (623 mbar) DP, 0.075% Accuracy | A4, A5, A6 | B122 |
| | 1000 Inches H ₂ O (2.5 bar) DP, 0.1% Accuracy Notes: <ul style="list-style-type: none"> ▪ 1000" DP range with 0.1% accuracy available only with stainless steel sensor and coplanar flange. ▪ 1000" DP range is not available with 300 psi static pressure. | A4, A5, A6 | B223 |
| | 1000 Inches H ₂ O (2.5 bar) DP, 0.075% Accuracy Note: 1000" DP range is not available with 300 psi static pressure. | A4, A5, A6 | B123 |
| | No Differential Pressure required, static pressure only accuracy 0.1% Note: Available only with inline sensor option (2K11). | A4, A5, A6 | B2 |
| | No Differential Pressure required, static pressure only accuracy 0.075% Note: Available only with inline sensor option (2K11). | A4, A5, A6 | B1 |

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| | No Differential Pressure required, no static pressure Note: Available only with F0. | A4, A5, A6 | NN |
| Static Pressure Range (for use with multivariable sensor B22n or B12n above) | | | |
| 72 | MV 300 psi gauge (20.7 barg) Note: 1000" DP range is not available with 300 psi static pressure. | A4, A5, A6 | G6 |
| | MV 300 psi absolute (20.7 bara) Note: 1000" DP range is not available with 300 psi static pressure. | A4, A5, A6 | A6 |
| | MV 1500 psi gauge (103.4 barg) | A4, A5, A6 | G7 |
| | MV 1500 psi absolute (103.4 bara) | A4, A5, A6 | A7 |
| | MV 3600 psi gauge (250 barg) Note: When used with 25" DP option, maximum working pressure is 2000 psi/137.9 bar | A4, A5, A6 | G4 |
| | MV 3600 psi absolute (250 bara) Note: When used with 25" DP option, maximum working pressure is 2000 psi/137.9 bar | A4, A5, A6 | A4 |
| | Static Pressure Range (for use with Static P sensor only, B1 or B2 above) | | |
| | SP 150 psi gauge (10.34 barg) | A4, A5, A6 | G2 |
| | SP 150 psi absolute (10.34 bara) | A4, A5, A6 | A2 |
| | SP 800 psi gauge (55.15 barg) | A4, A5, A6 | G3 |
| | SP 800 psi absolute (55.15 bara) | A4, A5, A6 | A3 |
| | SP 4000 psi gauge (275.79 barg) | A4, A5, A6 | G4 |
| | SP 4000 psi absolute (275.79 bara) | A4, A5, A6 | A4 |
| | No differential pressure or static pressure sensor required Note: Available only with F0. | A4, A5, A6 | NN |
| Sensor Material and Flange Type | | | |
| 73 | Stainless steel sensor and coplanar flange | A4, A5, A6 | 2E12 |
| | Hastelloy [®] diaphragm and Hastelloy coplanar flange Note: Not available with a 1000" 0.1% accuracy sensor or a 25" sensor | A4, A5, A6 | 3E13 |
| | Stainless steel sensor and traditional flange Note: 0.1% Accuracy is not available on traditional flange. | A4, A5, A6 | 2F12 |
| | Stainless steel inline connection 1/2" 14 NPT female-for use with option B1 or B2 above | A4, A5, A6 | 2K11 |
| | No differential pressure or static pressure sensor required Note: Available only with F0. | A4, A5, A6 | NN |
| Sensor Material Certificates | | | |
| 74 | Not required | A4, A5, A6 | Q0 |
| | 3.1 B Traceability certs to EN 10205 | A4, A5, A6 | Q8 |
| | NACE MRO 175/ISO 15156; requires Hastelloy option 3E13 | A4, A5, A6 | Q15 |
| | NACE MRO 103; requires Hastelloy option 3E13 | A4, A5, A6 | Q25 |
| Base Inputs & Outputs | | | |
| 80 | PRT/RTD input (2-, 3-, or 4-wire) and Single Digital Output | A4, A5, A6 | G1 |
| | PRT/RTD input (2-, 3-, or 4-wire) of 2 AI/AO & 2 DI/DO/PI | A4, A5, A6 | G2 |
| Additional I/O | | | |
| 90 | Not required | A4, A5, A6 | H0 |
| Mobile SCADA™ (Wi-Fi®) | | | |
| 100 | Not required | A4, A5, A6 | J0 |
| | Mobile SCADA via Wi-Fi with internal antenna (mounted inside enclosure) | A4, A5, A6 | J1 |
| | Mobile SCADA via Wi-Fi with local antenna mounted on top of enclosure (C1 D2, IEC Ex N, & ATEX Ex N) | Pending | J2 |
| Radio Ready | | | |
| 110 | Not required | A4, A5, A6 | K0 |
| | Radio Mounting Bracket (no cables) | A4, A5, A6 | K9 |

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| Integral Relay | | | |
| 120 | Not required | A4, A5, A6 | L0 |
| | Two internal relays mounted in enclosure (30 Vdc at 6.0A) | Pending | L2 |
| Sensor Calibration Certificates | | | |
| 130 | Not required | A4, A5, A6 | M0 |
| | Pressure/MVS (DP &/or Static P) Sensor & PRT/RTD input calibration certificate | A4, A5, A6 | M1 |
| | Pressure/MVS (DP &/or Static P) Sensor & PRT/RTD input Analog I/O calibration certificate | A4, A5, A6 | M2 |
| | Analog I/O & PRT/RTD input calibration certificate Note: Available only with option F0 | A4, A5, A6 | M3 |
| Security Intrusion Switch | | | |
| 140 | Not required | A4, A5, A6 | N0 |
| | Intrusion Switch on Door Entry Note: Intrusion switch functionality on door is pending | Pending | N1 |
| Local Serial Port (mounted on bottom of chassis) | | | |
| 150 | Not required | A4, A5, A6 | P0 |
| | Serial Port socket: compatible with ROC/FloBoss cable; cable (part no. W20008X0012) sold separately. | A4, A5, A6 | P1 |
| | Serial Port socket: compatible with ABB cable (cable not included) | A4, A5, A6 | P2 |
| Mounting Bracket | | | |
| 160 | Panel mount kit | | R0 |
| | 2" Pipe-mounting kit (stainless steel) for aluminum housing C5/C6 only) | A4, A5, A6 | R5 |
| | 2" Pipe-mounting kit (stainless steel) for fiberglass housing C7/C8 only) | A4, A5, A6 | R6 |
| Meter Runs (Streams) | | | |
| 170 | Single Stream | A4, A5, A6 | S1 |
| Fluid Types & Calculations | | | |
| 180 | Natural Gas | A4, A5, A6 | T1 |
| Reserved | | | |
| 190 | Not required | | U0 |
| Reserved | | | |
| 200 | Not required | | V0 |
| Reserved | | | |
| 210 | Not required | | W0 |

Sensor Summary for FB1000 and FB2000 Series Flow Computers

The following table identifies the available possible sensor combinations for the FB1000 and FB2000 Series Flow Computers.

| DP | Accuracy | SP | Coplanar Flange Stainless Steel | | Coplanar Flange Hastelloy | | Traditional Flange Stainless Steel | |
|-------|----------|----------|------------------------------------|------------------------|------------------------------|-----------|---------------------------------------|-----------|
| | | | Gauge | Absolute | Gauge | Absolute | Gauge | Absolute |
| 25" | 0.1% | 2000 psi | Available ¹ | Available ¹ | N/A | N/A | N/A | N/A |
| 250" | 0.1% | 300 psi | Available | Available | Available | Available | N/A | N/A |
| | | 1500 psi | Available | Available | Available | Available | N/A | N/A |
| | | 3626 psi | Available | Available | Available | Available | N/A | N/A |
| 250" | 0.075% | 300 psi | Available | Available | Available | Available | Available | Available |
| | | 1500 psi | Available | Available | Available | Available | Available | Available |
| | | 3626 psi | Available | Available | Available | Available | Available | Available |
| 1000" | 0.1% | 1500 psi | Available | Available | N/A | N/A | N/A | N/A |
| | | 3626 psi | Available | Available | N/A | N/A | N/A | N/A |
| 1000" | 0.075% | 1500 psi | Available | Available | Available | Available | Available | Available |
| | | 3626 psi | Available | Available | Available | Available | Available | Available |

| Range | Accuracy | Coplanar Flange Inline Stainless Steel | |
|----------|----------|---|-----------|
| | | Gauge | Absolute |
| 150 psi | 0.1% | Available | Available |
| 800 psi | 0.1% | Available | Available |
| 4000 psi | 0.1% | Available | Available |
| 150 psi | 0.075% | Available | Available |
| 800 psi | 0.075% | Available | Available |
| 4000 psi | 0.075% | Available | Available |

Notes

1. Static pressure of 25" sensor is 2000 psi maximum.

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For customer service and technical support, visit www.EmersonProcess.com/Remote/Support.

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