3x3x11B
Series e-80SC
In-Line Mounted Centrifugal Pumps

SPECIFICATIONS
FLOW ____________ HEAD ____________
HP ____________ RPM ____________
VOLTS ____________ INPUT ____________
CYCLE ____________ PHASE ____________
ENCLOSURE ____________ APPROX. WEIGHT ____________
SPECIALS ____________

MATERIALS OF CONSTRUCTION
☐ Stainless Steel Fitted

MAXIMUM WORKING PRESSURE
☐ 175 psi (12 bar) with 125# ANSI flange drilling
☐ 250 psi (17 bar) with 250# ANSI flange drilling (requires 250# Seal)

MOUNTING
☐ In-Line Piping  ☐ Flange Supports

PUMP VARIABLE SPEED CONTROL
☐ Integrated Technologic® Sensorless Control (ITSC)
☐ Integrated Technologic® (IT)
☐ External input by others
☐ Pressure Sensor(s)
☐ Differential Pressure Sensor(s)
☐ Flow Sensor(s)
☐ By Others

TYPE OF SEAL
☐ Standard Inside Unitized (EPR/Carbon-Ceramic)
☐ Inside Unitized (EPR/Carbon-Tungsten Carbide)-250#
☐ Inside Unitized (FKM/Carbon-Ceramic)
☐ Inside Unitized (EPR/SilCar/SilCar/SS)
☐ Other seal, see description
☐ Outside (EPR/Carbon-Ceramic)-250#
☐ Outside (FKM/Carbon-Ceramic)-250#
3x3x11B
Series e-80SC
In-Line Mounted Centrifugal Pumps

SPECIFICATIONS

<table>
<thead>
<tr>
<th>FLOW</th>
<th>HEAD</th>
<th>MAXIMUM WORKING PRESSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>175 psi (12 bar) with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>125# ANSI flange drilling</td>
</tr>
<tr>
<td></td>
<td></td>
<td>250 psi (17 bar) with</td>
</tr>
<tr>
<td></td>
<td></td>
<td>250# ANSI flange drilling (requires 250# Seal)</td>
</tr>
</tbody>
</table>

MATERIALS OF CONSTRUCTION

- Stainless Steel Fitted

MATERIALS OF CONSTRUCTION

- Standard Inside Unitized (EPR/Carbon-Ceramic)
- Standard Inside Unitized (EPR/Carbon-Tungsten Carbide)-250#
- Inside Unitized (FKM/Carbon-Ceramic)
- Inside Unitized (EPR/SilCar/SilCar/SS)
- Other seal, see description
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- Outside (FKM/Carbon-Ceramic)-250#

PUMP VARIABLE SPEED CONTROL

- Integrated Technologic® Sensorless Control (ITSC)
- Integrated Technologic® (IT)
- External input by others
- Pressure Sensor(s)
- Differential Pressure Sensor(s)
- Flow Sensor(s)
- By Others

TYPE OF SEAL

- In-Line Piping
- Flange Supports
### DIMENSIONS - Inches (mm)

<table>
<thead>
<tr>
<th>MOTOR FRAME</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E (max)</th>
<th>F</th>
<th>G</th>
<th>H (max)</th>
<th>125# ANSI</th>
<th>250# ANSI</th>
<th>R</th>
<th>V (min)</th>
<th>Suct/Disch Gauge Taps (NPT)</th>
<th>Drain Tap (NPT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>213TC</td>
<td>12.00</td>
<td>24.00</td>
<td>6.99</td>
<td>7.13</td>
<td>14.88 (378)</td>
<td>11.25 (286)</td>
<td>6.75 (171)</td>
<td>32.88 (835)</td>
<td>6.00 (152)</td>
<td>4 (19)</td>
<td>0.75 (16)</td>
<td>6.63 (22)</td>
<td>8 (27)</td>
<td>0.25 (140)</td>
</tr>
<tr>
<td>215TC</td>
<td>12.00</td>
<td>24.00</td>
<td>6.99</td>
<td>7.13</td>
<td>14.88 (378)</td>
<td>11.25 (286)</td>
<td>6.75 (171)</td>
<td>32.88 (835)</td>
<td>6.00 (152)</td>
<td>4 (19)</td>
<td>0.75 (16)</td>
<td>6.63 (22)</td>
<td>8 (27)</td>
<td>0.25 (140)</td>
</tr>
<tr>
<td>254TC</td>
<td>12.00</td>
<td>24.00</td>
<td>6.99</td>
<td>7.13</td>
<td>19.44 (494)</td>
<td>11.25 (286)</td>
<td>6.75 (171)</td>
<td>37.44 (951)</td>
<td>6.00 (152)</td>
<td>4 (19)</td>
<td>0.75 (16)</td>
<td>6.63 (22)</td>
<td>8 (27)</td>
<td>12.31 (313)</td>
</tr>
</tbody>
</table>

Dimensions are subject to change. Not to be used for construction purposes unless certified.

Note: For TEFC add 1-1/2" to dimensions E & H.
### Dimensions - Inches (mm)

<table>
<thead>
<tr>
<th>Motor Frame</th>
<th>A</th>
<th>HF Bolting</th>
<th>HB</th>
<th>2HE Bolting</th>
<th>HA</th>
<th>HH Dia</th>
<th>E (max)</th>
<th>F</th>
<th>G</th>
<th>H (max)</th>
<th>125# ANSI</th>
<th>250# ANSI</th>
<th>R</th>
<th>V (min)</th>
<th>Suct/Disch Gauge Taps (NPT)</th>
<th>Drain Tap (NPT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>213TC</td>
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<td>25.94</td>
<td>29.44</td>
<td>21.50</td>
<td>25.00</td>
<td>0.88</td>
<td>14.88</td>
<td>11.25</td>
<td>6.75</td>
<td>32.88</td>
<td>6.00</td>
<td>4</td>
<td>0.75</td>
<td>6.63</td>
<td>8</td>
<td>25.00</td>
</tr>
<tr>
<td>254TC</td>
<td>12.00</td>
<td>25.94</td>
<td>29.44</td>
<td>21.50</td>
<td>25.00</td>
<td>0.88</td>
<td>14.88</td>
<td>11.25</td>
<td>6.75</td>
<td>37.44</td>
<td>6.00</td>
<td>4</td>
<td>0.75</td>
<td>6.63</td>
<td>8</td>
<td>25.00</td>
</tr>
</tbody>
</table>

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NOTE: For TEFC add 1-1/2” to dimensions E & H.

---

**Xylem Inc.**
B200 N. Austin Avenue, Morton Grove, IL 60053
Phone: (847)966-3700   Fax: (847)965-8379
www.bellgossett.com
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# 3x3x11B Series e-80SC
In-Line Mounted Centrifugal Pumps
With Integrated Technologic Control

## Technologic Standard Features

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control Method with Integrated Technologic® Sensorless Control (ITSC)</strong></td>
<td>Factory configured for sensorless operation.</td>
</tr>
<tr>
<td><strong>Control Method with Integrated Technologic® (IT)</strong></td>
<td>Field configurable for sensor by others, building management system input, or optional sensor(s) provided.</td>
</tr>
<tr>
<td><strong>Enclosure</strong></td>
<td>NEMA 12 (same as IP55 &amp; UL type 12)</td>
</tr>
<tr>
<td><strong>Power Disconnect Switch</strong></td>
<td>Included standard. Fused Disconnect Switch optional with three phase input voltage.</td>
</tr>
<tr>
<td><strong>Harmonic Suppression</strong></td>
<td>Integrated non-saturating dual DC link reactors provide better harmonic performance than a 5% AC line reactor.</td>
</tr>
<tr>
<td><strong>Cooling</strong></td>
<td>Fan-cooled through temperature controlled and easy replacement.</td>
</tr>
<tr>
<td><strong>Ambient Temperature Rating</strong></td>
<td>14°F to 113°F (-10°C to 45°C)</td>
</tr>
<tr>
<td><strong>Communication Protocols</strong></td>
<td>BACnet, Modbus RTU, N2 Metasys, FLN Apogee</td>
</tr>
<tr>
<td><strong>Analog Inputs</strong></td>
<td>2 configurable for either voltage (0 to 10VDC) or current (0/4 to 20mA)</td>
</tr>
<tr>
<td><strong>Analog Outputs</strong></td>
<td>1 (0/4 to 20mA) up to 500 ohm load accurate to 1% of full scale</td>
</tr>
<tr>
<td><strong>Digital Inputs</strong></td>
<td>4 (0 to 24VDC), NPN or PNP, 0 to 24VDC, on 5 msec scan interval. Up to 2 can be configured as pulse inputs.</td>
</tr>
<tr>
<td><strong>Digital Outputs</strong></td>
<td>2 (0 to 24VDC), 40mA max current, configurable as pulse outputs.</td>
</tr>
<tr>
<td><strong>Relay Outputs</strong></td>
<td>2 programmable, 240VAC or 400VAC up to 2 A</td>
</tr>
<tr>
<td><strong>Minimum Control Head</strong></td>
<td>__________ ft (default set to 40% of design head if not unknown)</td>
</tr>
</tbody>
</table>

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**Contact:**
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### Series e-80SC 3x3x11B
Centrifugal Pump Submittal
with Integrated Technologic Control

#### DIMENSIONS - Inches (mm)

<table>
<thead>
<tr>
<th>MOTOR FRAME</th>
<th>VFD</th>
<th>Rv</th>
<th>Zv</th>
<th>W</th>
<th>Hv</th>
<th>Xv</th>
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</thead>
<tbody>
<tr>
<td>213TC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5</td>
<td>13.53</td>
<td>12.56</td>
<td>9.50</td>
<td>32.88</td>
<td>0.56</td>
<td></td>
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<tr>
<td>B1</td>
<td>15.84</td>
<td>14.22</td>
<td>9.50</td>
<td>34.31</td>
<td>2.22</td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>15.84</td>
<td>14.22</td>
<td>9.50</td>
<td>40.05</td>
<td>2.22</td>
<td></td>
</tr>
<tr>
<td>215TC</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>A5</td>
<td>13.53</td>
<td>12.56</td>
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<td>32.88</td>
<td>0.56</td>
<td></td>
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<tr>
<td>B1</td>
<td>15.84</td>
<td>14.22</td>
<td>9.50</td>
<td>34.30</td>
<td>2.22</td>
<td></td>
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<tr>
<td>B2</td>
<td>15.84</td>
<td>14.22</td>
<td>9.50</td>
<td>40.04</td>
<td>2.22</td>
<td></td>
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<tr>
<td>C1</td>
<td>17.81</td>
<td>17.42</td>
<td>12.10</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B2</td>
<td>16.83</td>
<td>14.92</td>
<td>9.50</td>
<td>44.01</td>
<td>2.92</td>
<td></td>
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<tr>
<td>C1</td>
<td>18.80</td>
<td>18.12</td>
<td>12.10</td>
<td>45.27</td>
<td>6.12</td>
<td></td>
</tr>
</tbody>
</table>

Kv=2 (50)
Pressure Sensor/Transmitter For Pumps with TECHNOLOGIC® Drives

FEATURES
- 4-20mA output
- 10-28 VDC supply voltage
- Operating Temperature: -40 to 85°C (-40 to 185°F)
- Storage Temperature: -40 to 100°C (-40 to 212°F)
- Enclosure IP-66 (housing only)
- High Strength Stainless Steel Construction
- No Oil, Welds or Internal O-rings
- Wide Operating Temperature
- Low Static and Thermal Errors
- Compatible with Wide Variety of Liquids and Gases
- EMI/RFI Protection
- UL/cUL 508 Approved (with housing)
- 1lb. (0.45 kg) approximate weight

B&G PART NUMBERS
S13203 Pressure range: 0-100 psi (0-689 kPa)
S13204 Pressure range: 0-300 psi (0-2068 kPa)

Consult factory for other ranges.

INSTALLATION CONSIDERATIONS
- Standard 24 AWG (0.61 mm dia.) 2 wire shielded cable located in a conduit separate from high voltage wiring
- 24 vdc power supplied from Technologic Controller

DIMENSIONAL INFORMATION
Dimensions in Inches (Millimeters)

Jacketed Cable
10 ft. (3 m) long,
0.156 (3.962) dia.

Shrink Tubing
3/8” (9.5 mm) dia.

1/4 Male NPT
0.875” (22 mm) HEX

TECHNOLOGIC ANALOG SENSOR WIRING

<table>
<thead>
<tr>
<th>Analog I/O</th>
<th>Digital I/O</th>
</tr>
</thead>
<tbody>
<tr>
<td>A IN</td>
<td>53</td>
</tr>
<tr>
<td>A IN</td>
<td>55</td>
</tr>
<tr>
<td>+24V</td>
<td>12</td>
</tr>
<tr>
<td>+24V</td>
<td>19</td>
</tr>
</tbody>
</table>

Parameters:
- Transducer Feedback
- Group 6-**
- Group 20-**
- A53 = 1 for 4-20mA

Parameter: 5-10
[8] Start:
[8] Stop:
Open

[1] Start: Closed
Stop: Open
Differential Pressure Sensor/Transmitter for Pumps with TECHNOLOGIC® Drives

FEATURES
- Relays reading to the Technologic controller up to 2000 ft. (610 m) away
- All wetted parts are 316 stainless steel
- Built-in RFI filter effective from 20 to 1000 MHZ
- Withstands static pressures up to 2300 PSI (15858 kPa)
- 3 Valve bypass manifold (optional)
- 10 lbs. (4.5 kg) approximate weight

B&G PART NUMBERS
S100089 Pressure range: 0 - 40 psi (0 - 276 kPa)
S100091 Pressure range: 0 - 70 psi (0 - 483 kPa)
S100092 Pressure range: 0 - 100 psi (0 - 689 kPa)

Consult factory for other ranges.

INSTALLATION CONSIDERATIONS
- Standard 18 AWG (1.194 mm dia.) 2 wire shielded cable located in a conduit separate from high voltage wiring
- 24 vdc power supplied from Technologic Controller for distance <2000 ft (610 m)

DIMENSIONAL INFORMATION
Dimensions in Inches (Millimeters)

1 Process connection 1/4-18NPT for absolute pressure (+) side
2 Mounting thread 7/16-20 UNF to EN 61518
3 Dummy plug
4 Electrical connection: Screwed gland 1/2-14 NPT
5 Connection side
6 Electronic side, no digital display
7 Access cover over magnetic pushbuttons
8 Sealing screw with vent shown (optional)
9 Side vent for measuring liquid
10 Side vent for measuring gas (supplement H02)
11 Mounting bracket (2 shackles, 4 nuts, 4 U-plates, 1 angle) made of steel
Flow Sensor/Transmitter For Pumps with TECHNOLOGIC® Drives

The rugged Bell & Gossett Flow Sensor/Transmitter precisely measures system flow and transmits a proportional 4 to 20 mA DC signal to the Technologic Controller for display or program calculations.

STANDARD FEATURES
• Optional software and cable available for field programming
• Suitable for mounting in vertical pipe
• Suitable for mounting in horizontal pipe within 45° of top dead center
• Non-magnetically sensed, non-fouling paddle wheel
• NEMA 4X Transmitter Enclosure
• Maximum Pressure Ratings:
  1000 psi @ 100°F, 900 psi @ 200°F,
  750 psi @ 300°F (6895 kPa @ 38°C, 6205 kPa @ 93°C,
  5171 kPa @ 149°C)
• Maximum Temperature Ratings:
  Fluid - 300°F (149°C) continuous service
  Electronics - 150°F (66°C)
• 9.9 lbs (4.5 kg) approximate weight

INSTALLATION CONSIDERATIONS
• Standard 18 AWG (1.194 mm dia.) gauge 3 wire shielded cable located in conduit separate from high voltage wiring
• 24 vdc power supplied from Technologic Controller
• Takes accurate readings and relays them to the Technologic Controller up to 2,000 ft. (610 m) away, when 10 pipe diameters upstream and 5 pipe diameters downstream of straight uninterrupted flow is present.

CALIBRATION CHART

<table>
<thead>
<tr>
<th>B&amp;G Part No.</th>
<th>Pipe Size</th>
<th>Max. Flow</th>
</tr>
</thead>
<tbody>
<tr>
<td>137411</td>
<td>3&quot; Sch 40</td>
<td>250 gpm (16 l/sec)</td>
</tr>
<tr>
<td>137412</td>
<td>4&quot; Sch 40</td>
<td>400 gpm (25 l/sec)</td>
</tr>
<tr>
<td>137413</td>
<td>6&quot; Sch 40</td>
<td>850 gpm (54 l/sec)</td>
</tr>
<tr>
<td>137414</td>
<td>8&quot; Sch 40</td>
<td>1750 gpm (110 l/sec)</td>
</tr>
<tr>
<td>137415</td>
<td>10&quot; Sch 40</td>
<td>3150 gpm (199 l/sec)</td>
</tr>
<tr>
<td>137416</td>
<td>12&quot; Sch 40</td>
<td>5000 gpm (315 l/sec)</td>
</tr>
<tr>
<td>137417</td>
<td>14&quot; Sch 40</td>
<td>6400 gpm (404 l/sec)</td>
</tr>
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<td>137418</td>
<td>16&quot; Sch 40</td>
<td>9100 gpm (574 l/sec)</td>
</tr>
<tr>
<td>137419</td>
<td>18&quot; Sch 40</td>
<td>12400 gpm (782 l/sec)</td>
</tr>
<tr>
<td>137420</td>
<td>20&quot; Sch 40</td>
<td>16500 gpm (1041 l/sec)</td>
</tr>
</tbody>
</table>

Consult factory for custom flow range calibration.