6x6x11B
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#
6x6x11B Series e-80SC
In-Line Mounted Centrifugal Pumps

SPECIFICATIONS

FLOW          HEAD          HP          RPM
VOLTS         INPUT         PHASE

MAXIMUM WORKING PRESSURE
- 125# ANSI flange drilling
- 250# ANSI flange drilling (requires 250# Seal)

MATERIALS OF CONSTRUCTION
- Stainless Steel Fitted

TYPE OF SEAL
- Standard Inside Unitized
- Outside

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

Series e-80SC

Bell & Gossett

6x6x11B
1750 RPM

Date: 7/31/2015

NPSHr (Ft) (M)
0 10 20 30 40 50 60 70 80 90 100 110 120

GPM (m³/h)
0 100 200 300 400

CAPACITY

TOTAL HEAD
150 125 100 75 50 25 0

9" 10.5" 11"
92% 82% 80%
86% 80% 76%
63% 71% 76%

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

250# Inside Unitized (EPR/Carbon-Ceramic)
250# Inside Unitized (EPR/Carbon-Ceramic)
250# Inside Unitized (EPR/Carbon-Ceramic)
**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>J</th>
<th>N</th>
<th>P</th>
<th>R</th>
<th>V (min)</th>
<th>Suct/Disch Gauge Taps (NPT)</th>
<th>Drain Tap (NPT)</th>
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</thead>
<tbody>
<tr>
<td>284TC</td>
<td>16.13</td>
<td>32.31</td>
<td>8.02</td>
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<td>22.06</td>
<td>13.63</td>
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<td>0.88</td>
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<td>(560)</td>
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<td>(1131)</td>
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<tr>
<td>324TSC</td>
<td>16.13</td>
<td>32.31</td>
<td>8.02</td>
<td>10.98</td>
<td>24.63</td>
<td>13.63</td>
<td>8.84</td>
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<td>12</td>
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<td>(821)</td>
<td>(204)</td>
<td>(279)</td>
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<td>(346)</td>
<td>(225)</td>
<td>(1196)</td>
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</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.
### 6x6x11B Series e-80SC
Centrifugal Pump Submittal - Flange Support Mounting

#### 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>284TC</td>
<td>16.13</td>
<td>34.78 (883)</td>
<td>38.28 (972)</td>
<td>22.50 (572)</td>
<td>26.00 (660)</td>
<td>1.00 (25)</td>
<td>22.06 (560)</td>
<td>13.63 (346)</td>
<td>8.84 (225)</td>
<td>44.53 (1131)</td>
<td>9.50 (241)</td>
<td>8 (22)</td>
<td>10.63 (270)</td>
<td>12 (22)</td>
<td>0.88 (359)</td>
<td>14.13 (152)</td>
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<tr>
<td>286TC</td>
<td>16.13</td>
<td>34.78 (883)</td>
<td>38.28 (972)</td>
<td>22.50 (572)</td>
<td>26.00 (660)</td>
<td>1.00 (25)</td>
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<td>8.84 (225)</td>
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<td>9.50 (241)</td>
<td>8 (22)</td>
<td>10.63 (270)</td>
<td>12 (22)</td>
<td>0.88 (359)</td>
<td>14.13 (152)</td>
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<tr>
<td>324TSC</td>
<td>16.13</td>
<td>34.78 (883)</td>
<td>38.28 (972)</td>
<td>22.50 (572)</td>
<td>26.00 (660)</td>
<td>1.00 (25)</td>
<td>24.63 (625)</td>
<td>13.63 (346)</td>
<td>8.84 (225)</td>
<td>47.09 (1196)</td>
<td>9.50 (241)</td>
<td>8 (22)</td>
<td>10.63 (270)</td>
<td>12 (22)</td>
<td>0.88 (395)</td>
<td>15.56 (152)</td>
</tr>
</tbody>
</table>

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

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Xylem Inc.
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www.bellgossett.com
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**6x6x11B Series e-80SC**
In-Line Mounted Centrifugal Pumps With Integrated Technologic Control

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**TECHNOLOGIC STANDARD FEATURES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROL METHOD WITH INTEGRATED TECHNOLOGIC® SENSORLESS CONTROL (ITSC)</td>
<td>Factory configured for sensorless operation.</td>
</tr>
<tr>
<td>CONTROL METHOD WITH INTEGRATED TECHNOLOGIC® (IT)</td>
<td>Field configurable for sensor by others, building management system input, or optional sensor(s) provided.</td>
</tr>
<tr>
<td>ENCLOSURE</td>
<td>NEMA 12 (same as IP55 &amp; UL type 12)</td>
</tr>
<tr>
<td>POWER DISCONNECT SWITCH</td>
<td>Included standard. Fused Disconnect Switch optional with three phase input voltage.</td>
</tr>
<tr>
<td>HARMONIC SUPPRESSION</td>
<td>Integrated non-saturating dual DC link reactors provide better harmonic performance than a 5% AC line reactor.</td>
</tr>
<tr>
<td>COOLING</td>
<td>Fan-cooled through temperature controlled and easy replacement.</td>
</tr>
<tr>
<td>AMBIENT TEMPERATURE RATING</td>
<td>14°F to 113°F (-10°C to 45°C)</td>
</tr>
<tr>
<td>COMMUNICATION PROTOCOLS</td>
<td>BACnet, Modbus RTU, N2 Metasys, FLN Apogee</td>
</tr>
<tr>
<td>ANALOG INPUTS</td>
<td>2 configurable for either voltage (0 to 10VDC) or current(0/4 to 20mA)</td>
</tr>
<tr>
<td>ANALOG OUTPUTS</td>
<td>1 (0/4 to 20mA) up to 500 ohm load accurate to 1% of full scale</td>
</tr>
<tr>
<td>DIGITAL INPUTS</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>DIGITAL OUTPUTS</td>
<td>2 (0 to 24VDC), 40mA max current, configurable as pulse outputs.</td>
</tr>
<tr>
<td>RELAY OUTPUTS</td>
<td>2 programmable, 240VAC or 400VAC up to 2 A</td>
</tr>
<tr>
<td>MINIMUM CONTROL HEAD</td>
<td>_______ ft (default set to 40% of design head if not unknown)</td>
</tr>
</tbody>
</table>

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## 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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<td>284TC</td>
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<td>9.50</td>
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<td>0.67</td>
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<td>(466)</td>
<td>(307)</td>
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<td>(56)</td>
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</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

TECHNOLOGIC ANALOG SENSOR WIRING

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)

<table>
<thead>
<tr>
<th>Component</th>
<th>Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jacketed Cable</td>
<td>10 ft. (3 m) long, 0.156 (3.962) dia.</td>
</tr>
<tr>
<td>Shrink Tubing</td>
<td>3/8&quot; (9.5 mm) dia.</td>
</tr>
<tr>
<td>1/4 Male NPT</td>
<td>0.875&quot; (22 mm) HEX</td>
</tr>
</tbody>
</table>

D-171A
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” Sch 40</td>
<td>250 gpm (16 l/sec)</td>
</tr>
<tr>
<td>137412</td>
<td>4” Sch 40</td>
<td>400 gpm (25 l/sec)</td>
</tr>
<tr>
<td>137413</td>
<td>6” Sch 40</td>
<td>850 gpm (54 l/sec)</td>
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<tr>
<td>137414</td>
<td>8” Sch 40</td>
<td>1750 gpm (110 l/sec)</td>
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<tr>
<td>137415</td>
<td>10” Sch 40</td>
<td>3150 gpm (199 l/sec)</td>
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<td>137416</td>
<td>12” Sch 40</td>
<td>5000 gpm (315 l/sec)</td>
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<td>137417</td>
<td>14” Sch 40</td>
<td>6400 gpm (404 l/sec)</td>
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<td>137418</td>
<td>16” Sch 40</td>
<td>9100 gpm (574 l/sec)</td>
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<tr>
<td>137419</td>
<td>18” Sch 40</td>
<td>12400 gpm (782 l/sec)</td>
</tr>
<tr>
<td>137420</td>
<td>20” Sch 40</td>
<td>16500 gpm (1041 l/sec)</td>
</tr>
</tbody>
</table>

Consult factory for custom flow range calibration.