



# Series 80 & 80-SC

## IT Option

Integrated Technologic® with Sensor

# IT for Series 80 & 80-SC Pumps

## Integrated Technologic®



For more complex applications where the system configuration is beyond the envelope for sensorless control, the IT option makes it easy to design, install, and commission a variable flow Hydronic Pumping System. Available from Bell & Gossett® on both Series 80 closed-coupled and Series 80-SC split-coupled vertical in-line pumps, the Integrated Technologic variable frequency drive combines the energy savings of variable flow with pre-programmed defaults for a quick start-up.

- Series 80 sizes from 1½ x 7B to 8 x 8 x 11
- Series 80-SC sizes from 2½ x 9½B to 10 x 10 x 13½
- ODP or TEFC motors up to 125HP
- Compatible with 200/208/230, 460/480, and 575 VAC power
- Available with pressure, differential pressure, or flow sensors\*

### Features and benefits:

#### Energy savings with variable flow pumping

Many of today's systems operate at less than full capacity. By reducing motor speed to match flow and head to the system load, you can significantly reduce your electrical power as compared to full speed operation. When combined with a NEMA Premium efficiency motor, the IT is a best-in-class solution that fully meets the requirements of ASHRAE 90.1.

#### Field-proven Technologic pump controller

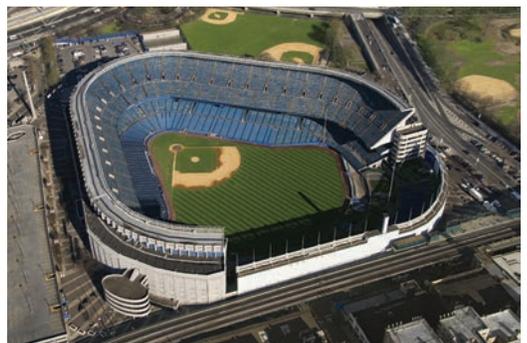
For over twenty years, Bell & Gossett has set the benchmark for variable speed pumping with the Technologic series of Intelligent Pump Controls. With this latest release, the IT is configured with a NEMA 12 enclosure rating, temperature controlled cooling fan, and an advanced power system design, to ensure your HVAC pumps operate efficiently and reliably.

- Dual DC link reactors and EMI/RFI filters
- Built-in BACnet, Modbus RTU, N2 Metasys
- 2 analog inputs, 1 analog output
- 4 digital inputs, 2 digital outputs
- 2 programmable relays
- Mains disconnect with optional fuses

#### Factory configured intelligent pump is ready to install

Given the time constraints of today's HVAC projects, why bother with the extra effort of selecting, mounting, wiring, and configuring a variable speed drive? The IT is mounted and pre-programmed in our factory by trained technicians.

\*Transducers to be mounted in the field.



# Pressure Sensor /Transmitters



## Differential Pressure Sensor

- Completely self contained two wire unit
- Takes accurate pressure readings and relays them to the Technologic controller up to 2000 ft (610 m) away
- No separate power source required for distances less than 2000 ft (610 m)
- All wetted parts are 316 stainless steel
- Built-in RFI filter effective from 20 to 1000 MHZ
- Housed in NEMA 4X enclosure
- Unit accuracy is 0.07% full span
- Withstands static pressures up to 2300 psi (15858 kPa)
- Mounting hardware

## Flow Meter

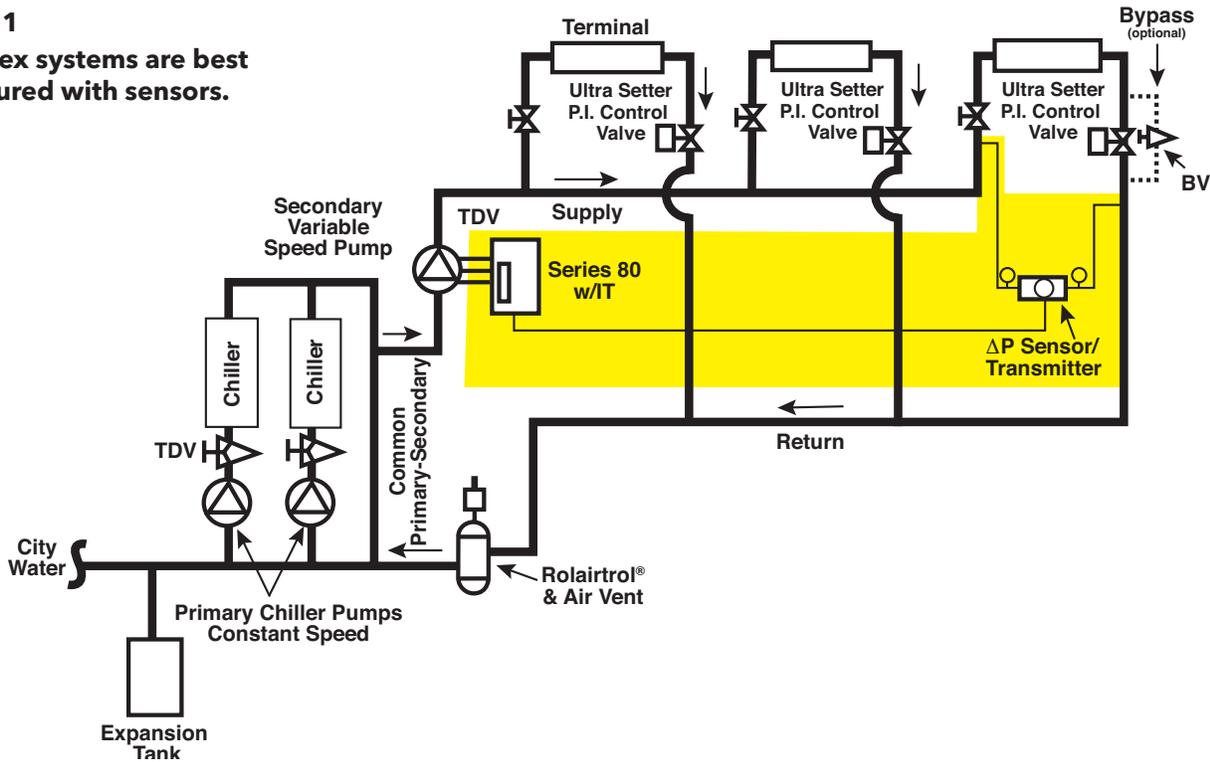
- Factory-calibrated
- Optional software and cable available for field programming
- Suitable for mounting in vertical pipe
- Suitable for mounting in horizontal pipe within 45° of top dead center
- 0.33 to 20 ft (0.1 m to 6.1 m) per second velocity range
- Output signal linear in proportion to flow
- Non-magnetically sensed, non-fouling paddle wheel
- Powered by the Technologic Controller
- Accuracy of  $\pm 1\%$  of rate
- 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



## Pressure Sensor

- 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)

**Figure 1**  
**Complex systems are best**  
**configured with sensors.**



# Xylem |'zīləm|

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating innovative solutions to meet our world's water needs. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. We move, treat, analyze, and return water to the environment, and we help people use water efficiently, in their homes, buildings, factories and farms. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise, backed by a legacy of innovation.

**For more information on how Xylem can help you, go to [www.xylem.com](http://www.xylem.com)**



Xylem Inc.  
 8200 N. Austin Avenue  
 Morton Grove, Illinois 60053  
 Phone: (847) 966-3700  
 Fax: (847) 965-8379  
[www.bellgossett.com](http://www.bellgossett.com)

Bell & Gossett is a trademark of Xylem Inc. or one of its subsidiaries.  
 © 2015 Xylem Inc. B-118 May 2015