

xylem

Series e-80X/e-80SCX Smart Pumps

Integrated pump, motor and variable speed drive solutions, **powered by hydrovar® X**



Series e-80SCX pumps now
feature sensorless technology

Ultra-premium package bringing market-leading performance right out of the box!

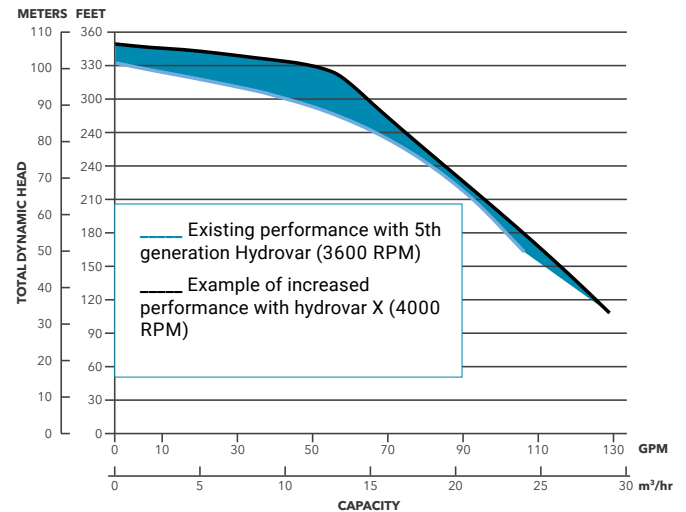
Powered by Xylem's hydrovar® X Smart Motor, e-80X (close-coupled) and e-80SCX (split-coupled) Smart Pumps offer customizable pumping solutions designed to deliver ultra-premium efficiency, connectivity, and simplicity right out of the box!

Series e-80X and e-80SCX Smart Pumps integrate decades of expertise and know-how in pumping solutions to bring the right combination of motors, variable speed drives and hydraulic pumps in one comprehensive, highly efficient package. These pumps reduce electricity consumption, improve overall system performance, and lower life cycle costs. The extensive energy-saving profile enables users to maintain significantly higher levels of efficiency over a much wider range of operating conditions. Designed for horizontal and vertical in-line mounting, it's ideal for hydronic heating and cooling systems, light industrial processes and general service applications.

So, when it's time to think efficiency, performance and reliable market-leading technology ... start with e-80X and e-80SCX. Smart Pumps from Bell & Gossett — a complete system, delivering the solutions you need for today.

Performance

(representative example of increased performance with hydrovar X)



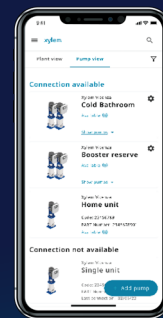
Unleash the power of hydrovar X!

Don't hold back your imagination!

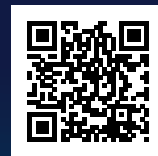
With the graphical color display, you can quickly set up and navigate the menu of your unit: check all the parameters and choose the perfect unit configuration to fit your installation. No time to do it? Genie will start up and run the unit for you!



Check your systems from wherever.



Download the mobile app:



hydrovar X and Avensor, better together!

hydrovar X can communicate with Avensor, Xylem's IoT platform, for a complete overview of all connected assets, anytime, anywhere. Avensor collects historical data to analyze trends and generate alerts, preventing failures and equipment downtime.

Features and benefits:

Series e-80X and e-80SCX Smart Pumps incorporate stainless steel impellers to improve sustainable hydraulic performance, resist chemicals and reduce corrosion. They're balanced to ANSI Grade G6.3, to provide years of quiet performance and trouble-free service. Each pump includes a standard seal with a maximum working pressure of 175 psi for use on open or closed clear water systems. The back pull-out design of the e-80X and the split coupled design of the e-80SCX allow both smart pumps to be serviced without disturbing the piping, which means repairs can be made quickly and easily, and downtime is kept to a minimum.



Simple: Built-in application software makes the drive one of the easiest to commission, program and operate, enabling virtually any configuration of pumps.

Sustainable: No rare earth materials are used to minimize product availability challenges and address environmental concerns while offering smart technology and superior performance.

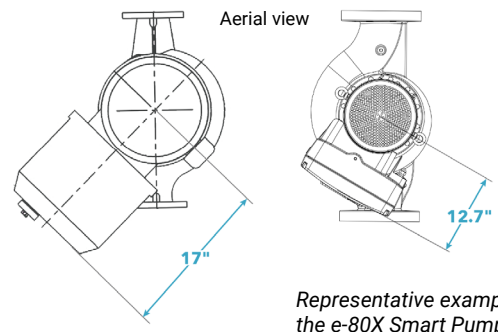
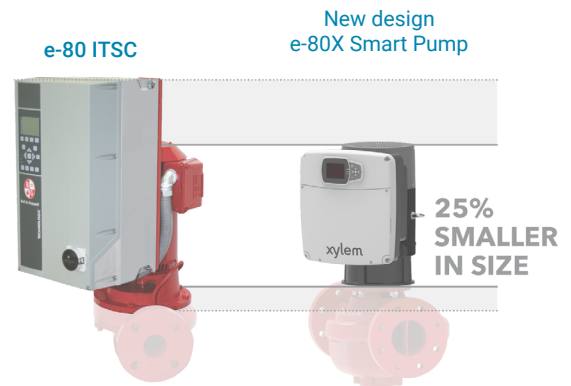
Intelligent performance: Advanced system controls (up to 8 pumps) are customizable for a wide range of applications. Pre-loaded hydraulic maps allow the drive to operate efficiently without pressure sensors. The IE5 "ultra-premium" hydrovar X Smart Motor provides one of the broadest efficiency ranges in the industry.

Built-in protections: Integrated functions provide protection for the pump and motor while optimizing performance.

Easy service: VFD and/or motor can be easily replaced individually, minimizing downtime and expensive repair.

Ease of installation & maintenance: Integrated pump and hydrovar X motor design eliminates the need for additional wiring, labor and associated costs.

Compact motor design: hydrovar X Smart Motors offer higher performance with a reduced footprint when compared to legacy generation Hydrovar or e-80 ITSC solutions. Increased performance reduces electricity consumption and lowers life cycle costs.



The e-80X Smart Pump is 25% smaller than the legacy e-80 ITSC (3x3x11B, 254JM motor frame).



Separate quick connect components allow users to replace the drive or the motor independently. The integrated electrical socket requires no additional wiring, allowing a true plug-and-play solution versus buying a new motor and drive combination.

Product specifications

hydrovar X Smart Motor dimensions

Motor power HP (kW)	NEMA frame	H in (mm)	W in (mm)	D in (mm)
2 - 7.5 (1.5-5.5)	143-145JM	13.53 (344)	10.08 (256)	11.18 (284)
4 - 15 (3-11)	213-215JM	16.14 (410)	11.89 (302)	13.82 (351)
7.5 - 30 (5.5-22)	254-256JM	19.29 (490)	14.25 (362)	17.4 (442)
2 - 7.5 (1.5-5.5)	143-145TC	11.38 (289)	10.08 (256)	11.18 (284)
4 - 15 (3-11)	213-215TC	13 (329)	11.89 (302)	13.82 (351)
7.5 - 30 (5.5-22)	254-256TC	15.75 (400)	14.25 (362)	17.4 (442)



hydrovar X Smart Motor specifications

Display	Graphic color
Controls	Actuator, constant pressure, proportional pressure, proportional quadratic pressure, constant flow, constant temperature, constant level, sensorless pressure control [^]
Multi-pump	Up to 8 pumps
Enclosure	IP55/NEMA 4
Working temperature	-4°/+122°F (-20°/+50°C)
Communication protocols	MODBUS [®] RTU, BACnet MS/TP
Features	IE5 synchronous motor
Mobile app	Bluetooth [®]

[^]Sensorless is currently only available on e-80SCX pumps. Coming soon to e-80X pumps.



e-80X/e-80SCX seal options

	BUNA-EPR/C /Ceramic [*]	EPR/C/WC ^{**}	EPR/SiC/SiC ^{***}
Bellows	BUNA or EPR	EPR	EPR
Faces	Carbon/ceramic	Carbon/tungsten carbide	Silicon carbide/ silicon carbide
Metals	Stainless steel or brass	Stainless steel	Stainless steel or brass
Springs	Stainless steel	Stainless steel	Stainless steel

* e-80SCX utilizes an EPR elastomer. e-80X utilizes a BUNA elastomer

** Not available for e-80SCX

*** e-80SCX pumps are provided with inside seal arrangements only

* e-80SCX utilizes an EPR elastomer. e-80X utilizes a BUNA elastomer

** Not available for e-80SCX

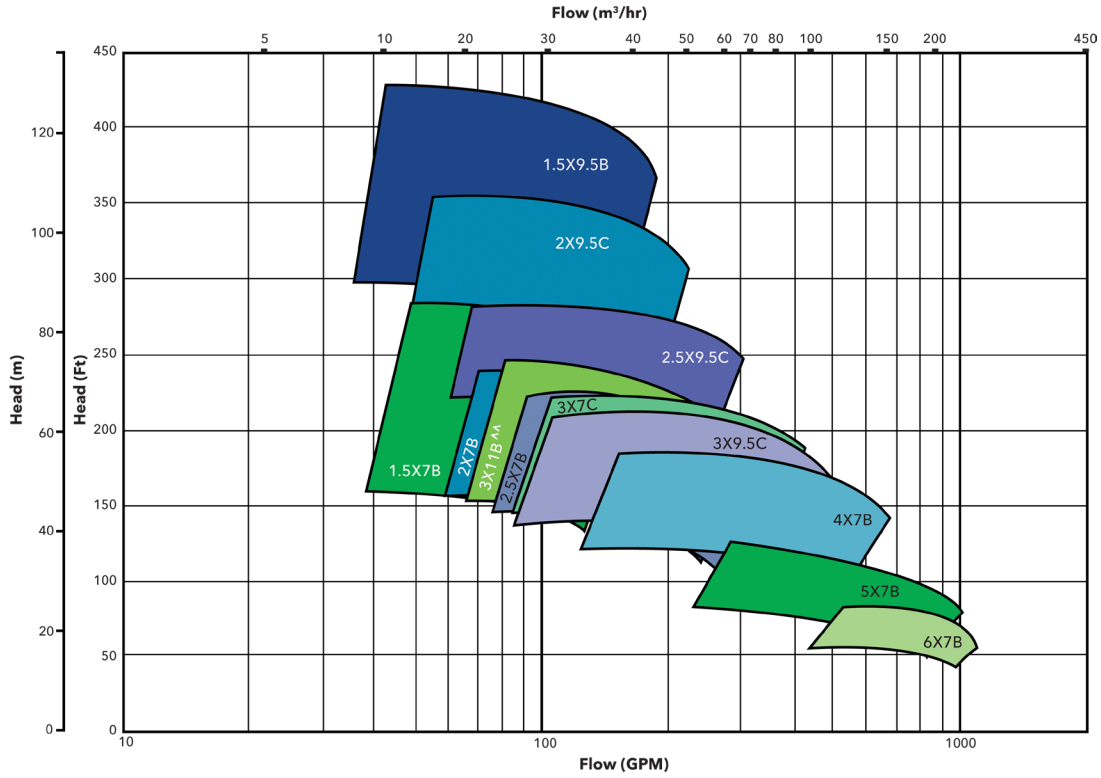
*** e-80SCX pumps are provided with inside seal arrangements only

Materials of construction

Description	e-80X	e-80SCX
Shaft	Carbon steel	#416 stainless steel
Volute	Cast iron ASTM A48 Class B	Cast iron ASTM A48 class B
Impeller	ASTM A743 Grade CF8 (304SS)	ASTM A743 Grade CF8 (304SS)
Shaft sleeve	#304 stainless steel	Not applicable
Impeller key	#304 stainless steel	#304 stainless steel
Impeller washer	HRPO carbon steel	HRPO carbon steel
Impeller lock washer	#304 stainless steel	#304 stainless steel
Impeller capscrew	#304 stainless steel	#304 stainless steel
Volute gasket	Cellulose fiber	Cellulose fiber
Seal assemblies	Inside flushed	Inside flushed

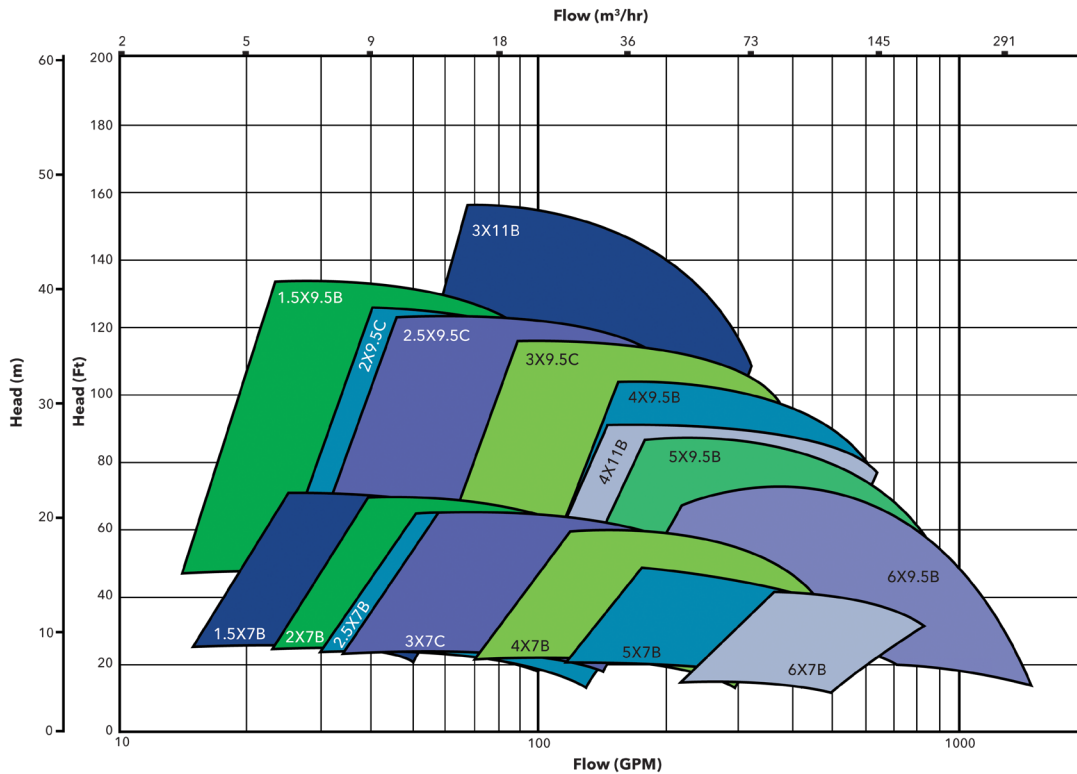
e-80X/e-80SCX Smart Pump family curves

High speed hydraulic performance



^{AA}3x11B is unavailable for e-80SCX in high speed operation.

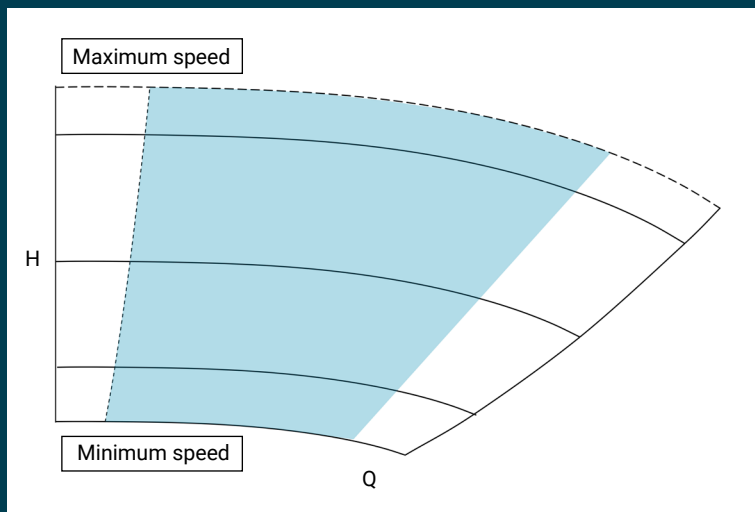
Low speed hydraulic performance



Series e-80SCX and e-80X[^] Smart Pumps with sensorless technology

Series e-80SCX and e-80X[^] Smart Pumps feature sensorless technology as a standard offering, delivering intelligent performance without the need for external sensors. This advanced capability allows the pump to recognize its operating conditions in real time by using its unique hydraulic map, which is pre-programmed into the drive. The motor-drive recognizes the flow and pressure it is producing relative to power consumption, and the integrated software interprets this data for precise automated control.

Sensorless technology simplifies installation and reduces costs by eliminating the need for additional sensors in proportional and quadratic pressure control modes, making it an ideal solution for smaller systems without sophisticated building management systems (BMS), such as schools, small businesses, and apartment complexes. With hydrovar X and sensorless control, users can easily optimize efficiency by simply plugging in the smart pump system! The system then automatically sets the desired duty point and will regulate itself around the set duty point. e-80SCX and e-80X[^] Smart Pumps with sensorless technology deliver streamlined setup, reduced hardware requirements, and reliable performance.



Sensorless working area: the shaded area on the performance curve indicates the sensorless operating area.

Sensorless technology at work

Series e-80SCX/e-80X[^] sensorless technology is made possible by two simple principles of variable flow systems. The first is the universal application of the affinity laws to centrifugal pumps. This enables the hydrovar X drives to model the pump performance very accurately.

Also essential to sensorless control is the ability of today's variable speed drives to accurately measure and control a motor's speed and torque. By tightly integrating both of these elements, the e-80SCX/e-80X[^] supports high-performance variable flow hydronic systems without the hassles of mounting, installing, and wiring a separate VFD on a wall or a wired transducer across the load furthest from the pump.

^Sensorless is currently only available on e-80SCX pumps. Coming soon to e-80X pumps.



The right solution for a wide range of applications



Series e-80SCX/e-80X[^] pumps ship configured for sensorless operation out of the box. Using the advanced user interface and pre-configured setups, an installer can readily change the mode of operation as needed for the site to: 1) sensorless pressure control, 2) wired differential pressure transducer or, 3) wired flow transducer.

While sensorless technology offers simplicity and efficiency for smaller applications, sensed solutions may be preferable for more complex systems:

Simple hydronic systems: In less complex hydronic systems (Figure 1) with quadratic friction losses, the e-80SCX/e-80X[^] Smart Pump emulates a differential pressure transducer across the load by monitoring the pump's speed and torque characteristics.

Complex hydronic systems: In more substantial systems (Figure 2) where the differential pressure losses across the loads are more complex, using a differential pressure transducer on the furthest load is the preferred solution. In challenging system designs, the e-80SCX/e-80X[^] is also an ideal choice because of its built-in support for wired pressure or flow transducers.

Figure 1
Sensorless control
ideal for simple
systems

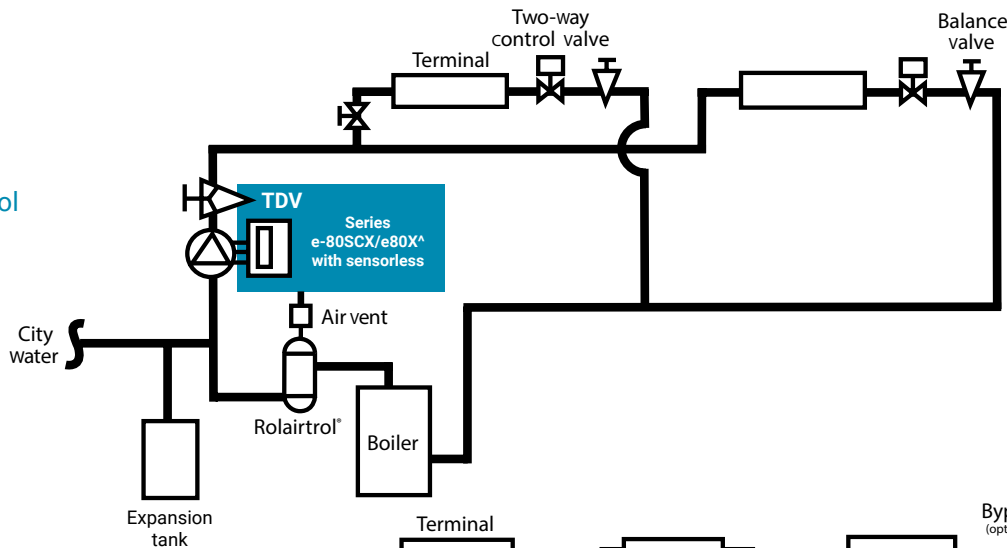
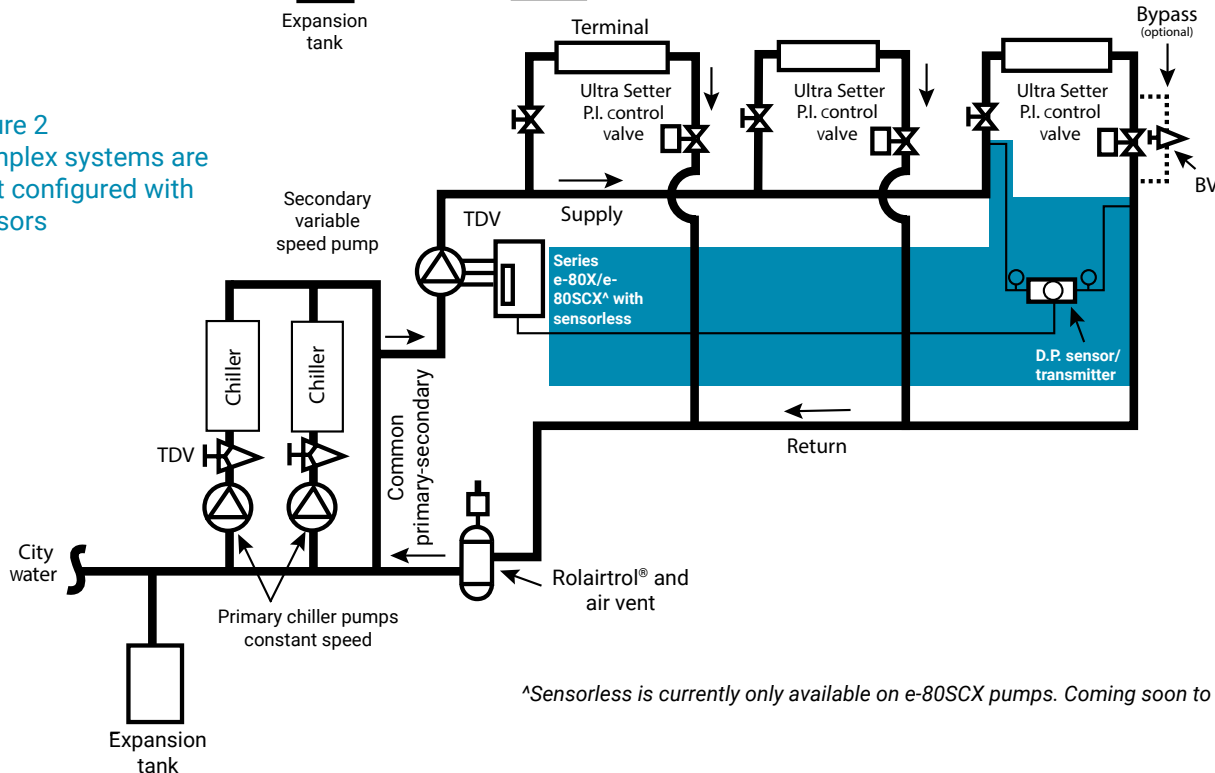


Figure 2
Complex systems are
best configured with
sensors



[^]Sensorless is currently only available on e-80SCX pumps. Coming soon to e-80X pumps.



Learn more about
e-80X/e-80SCX Smart Pumps

Xylem Product Cybersecurity:

Xylem values your system security and the availability of your critical services. For more information on Xylem cybersecurity practices or to contact the cybersecurity team please visit xylem.com/security.

Xylem Inc.

www.xylem.com/bellgossett

Subject to change without notice. All information presented herein is believed reliable and in accordance with accepted engineering practices. Xylem makes no warranties as to the completeness of this information. Users are responsible for evaluating individual product suitability for specific applications. Xylem assumes no liability whatsoever for any special, indirect or consequential damages arising from the sale, resale or misuse of its products.

© 2025 Xylem, Bell & Gossett and Hydrovar are registered trademarks of Xylem Inc. or one of its subsidiaries. MODBUS is a registered trademark of Schneider Electric USA, Inc. The Bluetooth word mark and logos are registered trademarks owned by Bluetooth SIG, Inc. and any use of such marks by Xylem Inc. or one of its subsidiaries is under license. All other trademarks or registered trademarks are the property of their respective owners.

BG-e80XSCXBRO-120080 R5 12/2025

xylem
Let's Solve Water