



e-SVX

THE MANUAL IS AVAILABLE AT: https://qr.xylemsales.com/ocmx80



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For safety and correct product usage, read the manual before this product is used.

#### 1 Introduction

#### NOTICE:



Read the installation, operation and maintenance instructions located on the Xylem website before use. Improper use of the product can cause personal injury and damage to property and may void the warranty. See the e-SV, hydrovar X Smart Pump, and hydrovar X instruction manuals for complete product warranty and installation instructions



#### WARNING:

Always lock out power to the driver before you perform any installation of maintenance tasks. Failure to disconnect and lock out driver power will result in serious injury.



#### WARNING:

This product can expose you to chemicals including Lead, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to: www.P65Warnings.ca.gov.



#### **WARNING:**

Personal protective equipment should be worn when handling this equipment. Only use properly sized certified lifting equipment & lifting devices, including slings, suitably rated for the weights to be lifted. Slings, when used, must be of identical materials to avoid differences in stretch rates. Do not use lifting devices that are frayed, kinked, unmarked, or worn.



# 2 Lifting and handling requirements

## **WARNING:**

- Assembled units and their components are heavy.
   Failure to properly lift and support this equipment can result in serious physical injury and/or equipment damage. Lift equipment only at the specifically identified lifting points. Lifting devices such as eyebolts, slings, and spreaders must be rated, selected, and used for the entire load being lifted.
- Crush hazard. The unit and the components can be heavy. Use proper lifting methods and wear steel-toed shoes at all times.

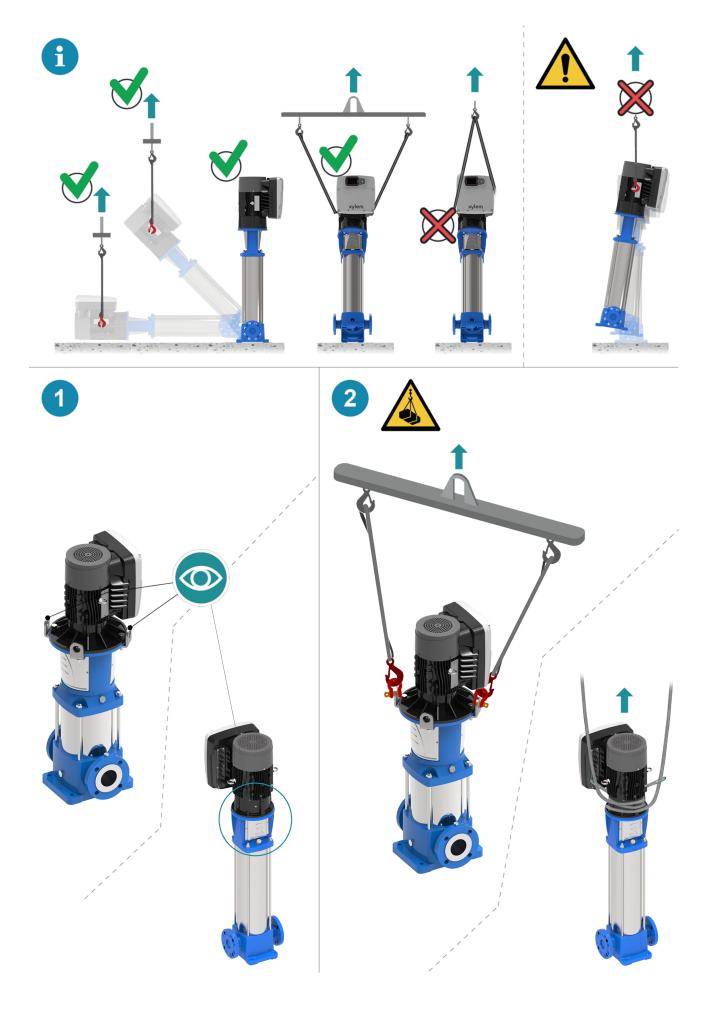
#### NOTICE:



- Lifting rings on the motor are used to lift the hydrovar X motor or the e-SVX pump from a horizontal to vertical position.
- When attaching S-hooks, ropes, or other suitably rated tethers to the motor eye rings, a spreader bar is required to prevent damage to the hydrovar X drive. An 18 inch or 450 mm distance between lifting hooks on the spreader bar is sufficient to handle any size hydrovar X motor.
- If the entire pump and motor assembly must be lifted from the ground vertically, sling the lifting rope around the front of the motor and motor bracket.

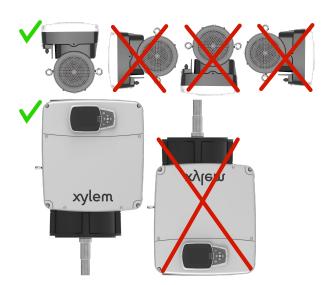




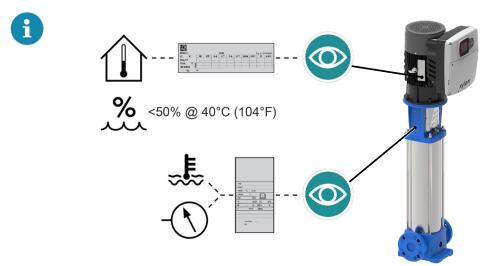




# 3 Unit installation

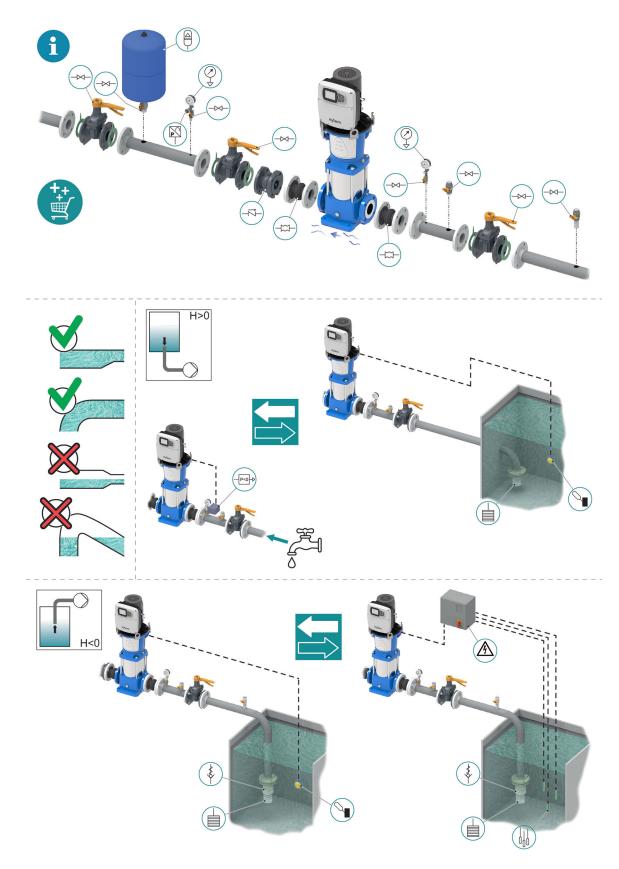


- The hydrovar X unit may be installed and handled in the acceptable orientations depicted to the left.
  Install the unit according to the liquid flow of the system.
  The arrows on the pump body indicate the flow and the rotation direction.
  The standard rotation direction is clockwise (looking at the fan cover).
  Always install a backflow-prevention device on the suction side.
  Always install the pressure sensor on the delivery side, after the check valve.









## Check rotation

- Unlock power to the driver.
   Make sure that everyone is clear, and then jog the driver long enough to determine that the direction of rotation corresponds to the arrow on the pump. Pump rotation is clockwise when viewed from the back of the motor. An arrow is provided to show rotational direction.
   Lock out power to the driver.



#### Piping requirements

Check that a section of straight pipe, with a length that is a minimum of five times its diameter, is installed between the suction side of the pump and the first elbow, or that a Suction Diffuser is installed.	Check that you have a foot valve of equal or greater area than the pump suction piping when you use in an open system with a suction lift.
Check that the suction and discharge pipes are supported independently by use of pipe hangers near the pump.	Check that a valve is installed in the discharge line.
Check that there is a strong, rigid support for the suction and discharge lines.	Check that the pipeline has isolation valves around the pump and has a drain valve in the suction pipe.
For pumps with flanges, check that the bolt holes in the pump flanges match the bolt holes in the pipe flanges.	Use PTFE tape sealer or a high quality thread sealant when you install the suction and discharge connections to a threaded pump housing.
Check that the suction or discharge lines are not forced into position.	On an open system, check that the end of the suction pipe is at least 3 ft. below the surface of the water in the suction well.
Check that fittings for absorbing expansion are installed in the system when considerable temperature changes are expected.	Check that new flange gaskets are installed between the flanges of the pump body suction and discharge pipes. Make sure that these gaskets are clean and grease-free.

# 4 Electrical installation



Figure 1



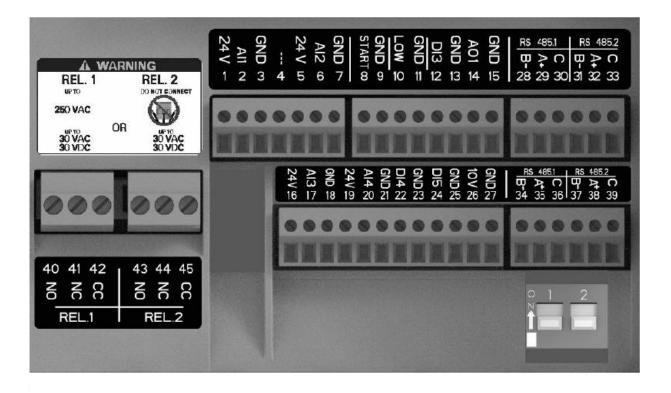


Figure 2: Auxiliary connections

#### Table 1:

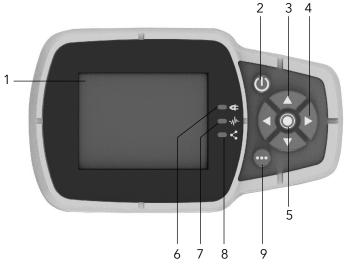
Position number	Name	Description	Default setting	
1	Analog input 1	Power supply +24 VDC, max. 60 mA (total, terminals 1 + 5)	Pressure sensor 1	
2		Configurable analog input 1		
3		Electronic GND		
4	Reserved	For internal use, do not connect	-	
5	Analog input 2	Power supply +24 VDC, max. 60 mA (to- tal, terminals 1 + 5)	Not selected	
6		Configurable analog input 2		
7		Electronic GND		
8	External Start/Stop	Digital start/stop input, internal pull-up +24 VDC, contact current 6 mA	-	
9		Electronic GND		
10	External lack of water	Low water level digital input, internal pull-up +24 VDC, contact current 6 mA		
11		Electronic GND		
12	Digital input 3	Configurable digital input 3, internal pull- up + 24 VDC, contact current 6 mA	Emergency start at maximum speed	
13		Electronic GND		
14	Analog output	Configurable output	Motor Speed	
15		Electronic GND	-	
16	Analog input 3	Power supply +24 VDC, max. 60 mA (to- tal, terminals 16 and 19)	Not selected	
17		Configurable analog input 3		
18		Electronic GND	7	
19	Analog input 4	Power supply +24 VDC, max. 60 mA (total, terminals 16 and 19)	Not selected	
20		Configurable analog input 4		
21		Electronic GND	1	



Position number	Name	Description	Default setting	
22	Digital Input 4	Configurable digital input 4, internal pull- up +24 VDC, contact current 6 mA	Not selected	
23		Electronic GND		
24	Digital Input 5	Configurable digital input 4, internal pull- up +24 VDC, contact current 6 mA	Not selected	
25		Electronic GND		
26	10 VDC power supply	Power supply +10 VDC, max. 3 mA	-	
27		Electronic GND		
28	Communication Bus 1	RS485 port 1: RS485-1B N(-)	Multipump	
29		RS485 port 1: RS485-1A P(+)		
30		RS485 port 1: RS485-COM		
31	Communication Bus 2	RS485 port 2: RS485-2B N(-)	Modbus	
32		RS485 port 2: RS485-2A P(+)		
33		RS485 port 2: RS485-COM		
34	Communication Bus 1	RS485 port 1: RS485-1B N(-)	Multipump	
35		RS485 port 1: RS485-1A P(+)		
36		RS485 port 1: RS485-COM		
37	Communication Bus 2	RS485 port 2: RS485-2B N(-)	Modbus	
38		RS485 port 2: RS485-2A P(+)		
39		RS485 port 2: RS485-COM	1	
40	Relay 1	Configurable relay 1: normally open	Error reporting	
41		Configurable relay 1: normally closed		
42		Configurable relay 1: common contact		
43	Relay 2	Configurable relay 2: normally open	n Motor start	
44		Configurable relay 2: normally closed		
45		Configurable relay 2: common contact		

# 5 Drive operation

## Table 2:



## NOTICE:

For first-time start-up and programming, the unit is equipped with a start-up genie to select the appropriate operating mode and other parameters for the intended application.

Figure 3: Interface screen

Table 3:

Position number	Name	Function
1	Display	
2	ON/OFF button	Start and stop the unit     Reset the errors by pressing for 5 seconds.

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Position number	Name	Function
3	UP and DOWN arrow keys	Move vertically between menu options     Perform a manual switch-over on a multi-pump system by pressing the DOWN arrow (extended pressure)     Rotate the display 180° by simultaneously pressing ENTER and the UP arrow (extended pressure).
4	RIGHT and LEFT arrow keys	Move horizontally to navigate home screens and menus     Lock and unlock the display by simultaneously pressing the RIGHT and LEFT arrows (extended pressure).
5	SEND button	<ul> <li>Advancing through the menu levels</li> <li>Confirm the selection of a parameter</li> <li>Confirm the value of a parameter.</li> </ul>
6	Unit LED on	Indicate that the unit is powered.
7	Unit status LED	Indicate:  • Motor no powered (off)  • Alarm active and motor stopped (yellow)  • Unit error and motor stopped (red)  • Motor started (green)  • Alarm active and motor started (yellow alternating green).
8	Connection status LED	Indicate  • BMS comunication disabled (off)  • BMS communication active (green)  • Wireless communication with mobile device established (fixed blue)  • Wireless communication with mobile device being established (flashing blue)  • Wireless communication and BMS communication active (blue alternating green).
9	Multifunction button	Access the parameter menu or additional functions according to the screen on the display.     Enable the unit to a mobile device (extended pressure)

# 6 Xylem App setup

## Introduction

Available for mobile devices with wireless technology operating system.

Use the App to:

- · Check the status of the unit
- · Configure parameters
- Interact with the unit and obtain data during installation and maintenance
- · Generate a work report
- Contact the assistance service.

#### Download the App and connect the mobile device with the unit

1. Download the Xylem X App to the mobile device from App Store<sup>1</sup>or Google Play<sup>2</sup> by scanning the QR code:



- 2. Complete the registration.
- 3. On the drive display, press the wireless communication button.
- 4. Add the unit to the user profile.
- 5. When the connection has been established, the connection light turns steady blue. It is now possible to control the unit using the mobile device.

Compatible with iOS® operating systems with version 15.0 and above.

Compatible with Android operating system with version 10.0 and above.



# Xylem product cybersecurity

Xylem values system security and resilience. Defending against cybersecurity threats is a shared responsibility. Xylem builds products that are secure by de-

sign. Our customers have a responsibility to understand the risks inherent in their processes and take steps to operate and maintain their solutions securely. For details and updates on Xylem product cybersecurity visit xylem.com/security





