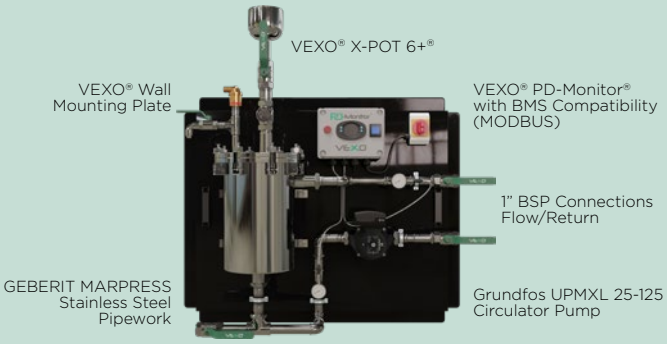
VEXO X-POT 6+ Data Sheet

Code	VEXO® Ref	Description
V-XPOTXPOT6+	X-POT 6+® Unit	VEXO® X-POT 6+® Side Stream Filtration & Dosing Unit with integrated pump, fault alarm & Enhanced BMS Compatibility.

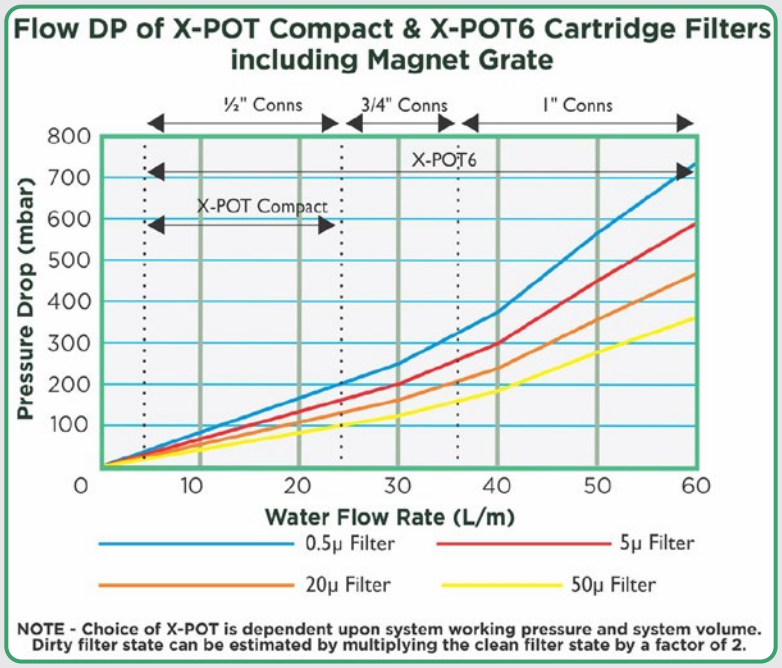
Feature	Description
Maximum System Working Pressure	10 Bar
Suitable For System Volumes Up to	86,400 Litres
Flow Rate Through the Vessel	1L/sec (60L/min)
Temperature Range	0°C to 95°C
Filtration Rate	Down to 5 Micron
Weight	**Dry:** 46KG - **Operational:** 58KG
Isolation Valve Connections	1" BSP Female
Dosing Capacity	10L
Filter Body Mounting	Wall or Floor Standing (Metal Framing Channel)
Vessel Body	304 Stainless Steel – complies with PED 2014/68/EU SEP
Baffle Plate	316 Stainless Steel
Magnet Grate	316 Stainless Steel
Magnets x 6No	Neodymium Rare Earth
Cartridge Filter x 1No	Polypropylene Spun Bonded Fibre
Isolation Valves	Nickel Plated Brass
NRV & Fittings	304 Stainless Steel
AAV	Brass
Pipework	Geberit MAPRESS Stainless Steel
Controller	VEXO® PD-Monitor®
Pump	Grundfos UPMXL 25-125
Pump Speed Setting	CP2
Pump Electrical Requirement	180W | 1.42A | 230V | 1 Phase | 50/60Hz
Controller Electrical Requirement	230V 5A Fused
BMS Signal	MODBUS RS485 (MODBUS Address List Below) & 5amp Common Alarm Relay used to contact BMS System (Normally Open)

VEXO® X-POT 6+® Side Stream Filtration & Dosing Unit

VEXO® X-POT 6+® Frame & Components

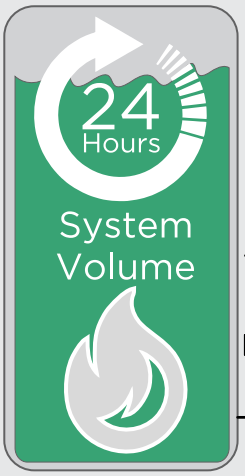


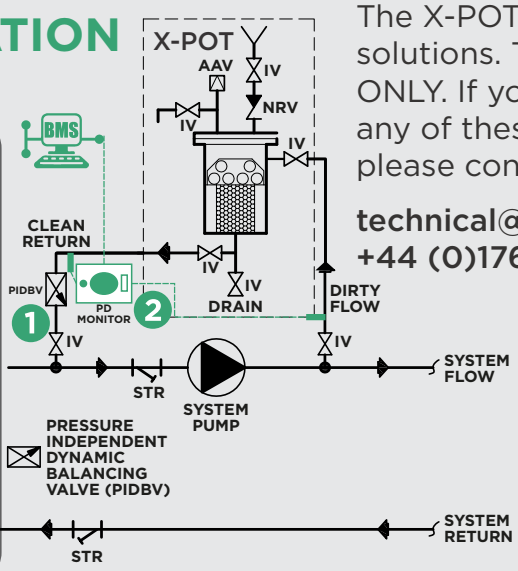
Feature	Benefits
Compliance	Engineered for BSRIA BG29 and BG50 Guidance for Chemical Dosing, Magnetic Filtration, Fine Filtration, Passive De-aeration and Side Stream Filtration.
Magnetic filter	Removes magnetic system debris, increases the lifespan of the boiler, chiller and cooling system components, reduces carbon emissions, increases fuel efficiency & increases the lifespan of the Cartridge Filter.
Polypropylene Cartridge Filter	Removes non-magnetic system debris, available in 50, 20, 5 & 0.5 micron filtration rates, ensures coalescence micro-bubble formation on the surface of the filter & surpasses BSRIA Guidance for filtration rates.
Automatic Air Separator	Ensures the system micro-bubbles and air are emitted from the system and helps to reduce corrosion rates and decreases stress on system components.
10L Dosing Pot Capacity	Enables installers and maintenance personnel to quickly dose the system with water treatment additives.
Connections 1" BSP	Suitable for all types of closed loop LTHW Heating and Cooling Water Systems up to 86,400 litres in volume.
6No 8,500 Gauss Neodymium Magnets	Each magnet is fully encased in 304SS shell, easily removable from the 316SS Magnet Grate for cleaning & fully submerged in the system flow for increased filtration.
Wall Mounting Plate	Complete with backing plate for simple installation to wall or frame.
Servicing	The cleaning of the filters can simply be achieved without the need to shut the main system down and the dosing of water treatment chemicals is achieved simply and safely, again without the need to shut the system down.
Enhanced Performance	The ingenious design ensures that the filter will continue to perform should regular maintenance not be carried out.
Stainless Steel Components	All major components are manufactured from 304SS or 316SS for improved lifecycle and reliability.
Full Bore Ball Valve isolation Valves	The Nickel Plated Brass isolation valves do not restrict system flow and increases ease of installation.
Bespoke Insulation Jacket	The bespoke insulation jacket ensures heat losses are minimised.
Grundfos UPMXL Circulator Pump	The Grundfos UPMXL Pump is a High Efficiency Single Phase Circulator Pump. The Grundfos UPMXL offers long lasting durability to continuously maintain flow through the XPOT Side Stream Filtration Unit for both heating and cooling systems.
VEXO® PD-Monitor®	The programmable VEXO® PD-Monitor® offers clear display with an easy use 4 button monitoring system with 6 parameters and 5 system messages, as well as an alarm strobe / sounder and BMS functionality including MODBUS output and a 'General Fault' Alarm. (For MODBUS Outputs please find the complete list below)
Warranty	2 Years excluding filters & AAV.



VEXO X-POT Simple Schematics

INSTALLATION EXAMPLE





The X-POT provides a dumber of installation solutions. These examples are INDICATIVE ONLY. If your system cannot accommodate any of these scenarios due to complexity, please contact the **VEXO Technical Team:**

technical@VEXOint.com
+44 (0)1767 500 150

1 **PIDBV**

2 PACKAGED DIFFERENTIAL PRESSURE MONITOR

THE X-POT® SHOULD BE FIT ON THE SECONDARY HEATING CIRCUIT TO ENSURE BULK WATER SYSTEM PROTECTION

Which connections and X-POT?

The size of the connections to the X-POT is determined by the total system volume being circulated through the X-POT in a 24 Hour period.

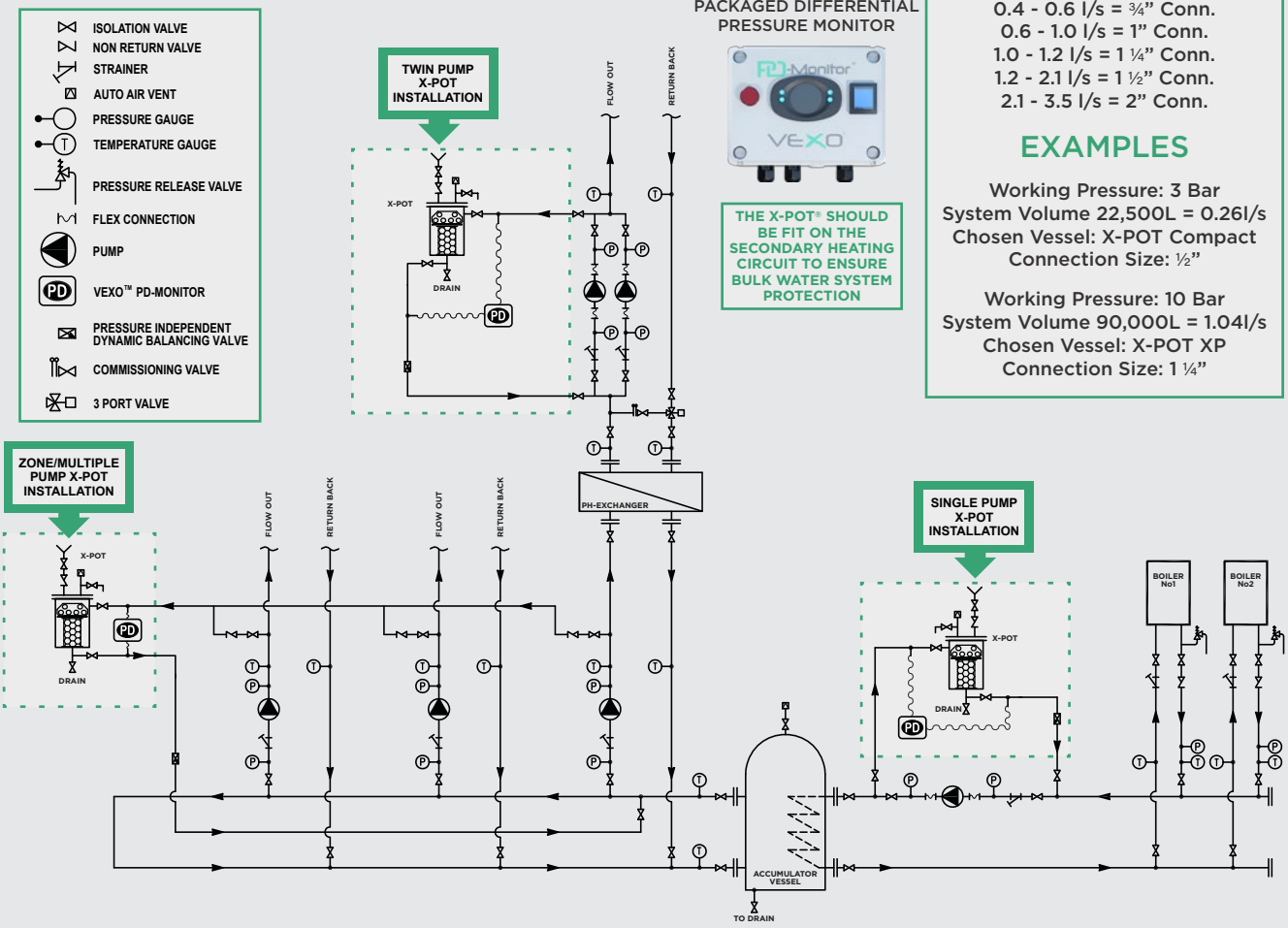
$$\frac{\text{SYSTEM VOLUME}}{86{,}400\text{sec}} = \text{l/sec}$$

0.083 - 0.4 l/s = ½" Conn.
0.4 - 0.6 l/s = ¾" Conn.
0.6 - 1.0 l/s = 1" Conn.
1.0 - 1.2 l/s = 1 ¼" Conn.
1.2 - 2.1 l/s = 1 ½" Conn.
2.1 - 3.5 l/s = 2" Conn.

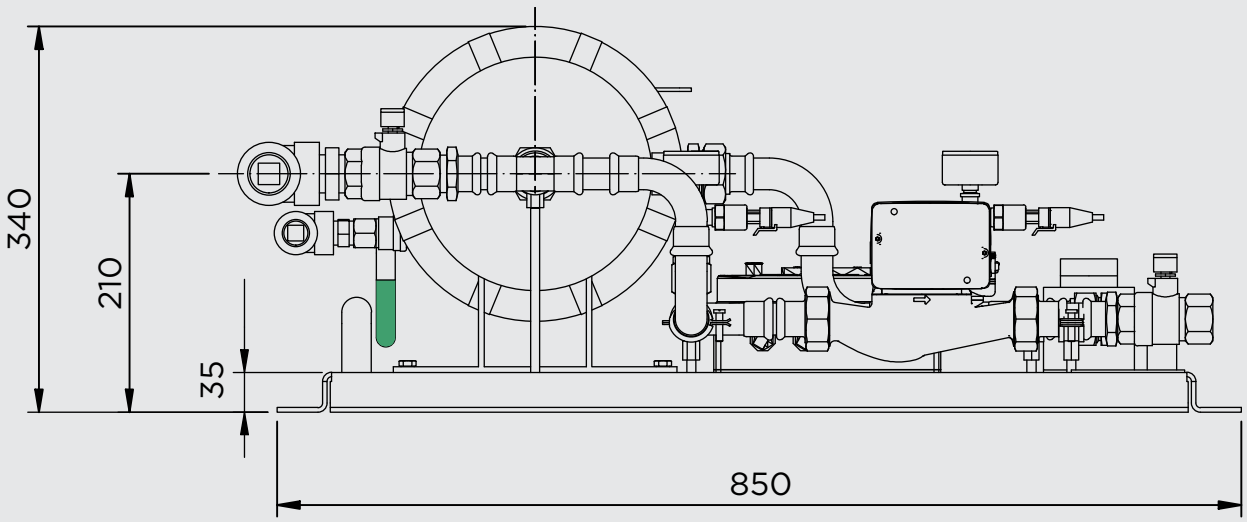
EXAMPLES

Working Pressure: 3 Bar
System Volume 22,500L = 0.26l/s
Chosen Vessel: X-POT Compact
Connection Size: ½"

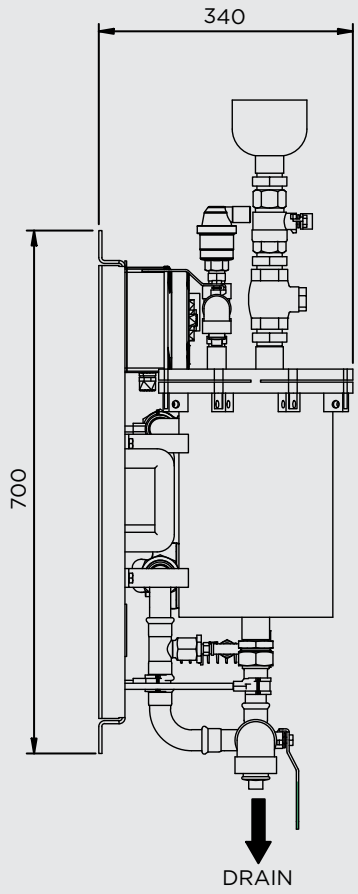
Working Pressure: 10 Bar
System Volume 90,000L = 1.04l/s
Chosen Vessel: X-POT XP
Connection Size: 1 ¼"



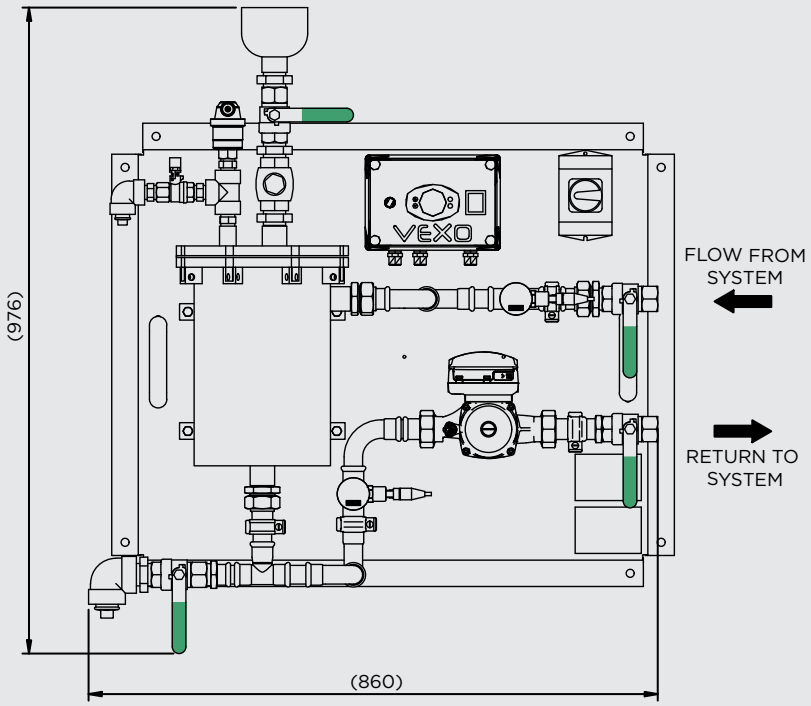
VEXO X-POT 6+ Dimensions



Plan View



Side View



Front View

MODBUS Address List

Preliminary Settings	
Baud Rate	9600
Word Length	8
Parity	NO
Stop Bits	1

Addresses

X Variable Address	Denomination	Description	Format	Type	Data Conversion	Units	Variable Range
40001	Pressure Sensor 1	Value of Sensor 1	Word	Read		Decimal of Bar/PSI	
40002	Pressure Sensor 2	Value of Sensor 2	Word	Read		Decimal of Bar/PSI	
40003	Current	Value of the actual current through pump	Word	Read		mA	
40006	Pump Relay	Status of Pump Relay	Word	Read	0=OFF | 1=ON		
40007	Filter Pump Alarm Relay	Status of Pump Alarm Relay	Word	Read	0=OFF | 1=ON		
40008	General Alarm Relay	Status of General Alarm Relay	Word	Read	0=OFF | 1=ON		
40009	Buzzer	Status of Buzzer	Word	Read	0=OFF | 1=ON		
40013	Filter Blocked Alarm	Status of Filter Blocked Alarm	Word	Read	0=Alarm Not Present 1= Alarm Present		
40014	Pump Failure Alarm	Status of Pump Failure Alarm	Word	Read	0=Alarm Not Present 1= Alarm Present		
40015	Sensor 1 Alarm	Status of Sensor 1 Alarm	Word	Read	0=Alarm Not Present 1= Alarm Present		
40016	Sensor 2 Alarm	Status of Sensor 2 Alarm	Word	Read	0=Alarm Not Present 1= Alarm Present		
40023	Par. Pressure Differential	Value of the parameter	Word	Read/ Write		Decimal of Bar/PSI	1→70
40024	Par. Alarm Relay Contact	Value of the parameter	Word	Read/ Write	0=Normally Open 1=Normally Close		0→1
40025	Par. Minimum Pressure	Value of the parameter	Word	Read/ Write		Decimal of Bar/PSI	0→Par. Maximum Pressure
40026	Par. Maximum Pressure	Value of the parameter	Word	Read/ Write		Decimal of Bar/PSI	Par. Minimum Pressure→30
40027	Par. Current Sense	Value of the parameter	Word	Read/ Write	4=Not Active 5=Active		4→5
40028	Par. Bar/PSI Unit	Value of the parameter	Word	Read/ Write	2=Bar 3=PSI		2→3
40029	Par. Buzzer Enabled	Value of the parameter	Word	Read/ Write	4=Not Active 5=Active		4→5
40030	Par. ID Number	Value of the parameter	Word	Read/ Write			0→99
40031	Par. Pump Hours	Value of the parameter	Word	Read/ Write		Hours	0→9999
40032	Par. Alarm Counter	Value of the parameter	Word	Read/ Write			0→1000

VEXO X-POT Disposal Methods

Feature	Description
Unit	Unit is classed as electrical waste due to fitted electrical components. VEXO offer a takeback scheme in line with the WEEE regulations. Please contact VEXO to arrange collection.
Insulation Jacket	Place in general waste.
Cartridge Filter	Spent Cartridge Disposal - The spent filter cartridges should be disposed of in a responsible manner. The filter itself can be disposed of by incineration or as landfill by an authorised contractor; however, it is important for the user to check how the contaminant contained in the filter should be disposed of in accordance with local Health and Safety regulations. For UK filter users Veolia offers a 'Waste to Energy' disposal service. More information can obtained at: https://www.veolia.co.uk/about-us/veolia-uk/recycling-reuse-and-treatment-facilities/