

Sievers® InnovOx Online Utilities Requirements

Gas Requirements					
Components Requiring Gas Supply	Gas Type & Quality	Pressure	Flow/Consumption	Analyzer Connection Type & Dimension	Tubing Supplied By
IP56	Oil and Water Free Pressurized Air (Instrument Air ANSI/ISA - 7.0.01)	4.1 - 6.8 Bar (60 - 100 PSIG)	10.0 - 15.6 LPM (0.35 - 0.55 SCFM)	Connection: Push-to-Connect Tubing: 6.35 mm OD (1/4") Polyethylene	Customer Supplied
Regenerative Air Supply <i>(Optional Accessory)</i>	Oil and Water Free Pressurized Air (Instrument Air ANSI/ISA - 7.0.01)	5.5 - 6.8 Bar (80 - 100 PSIG)	3.3 - 5.7 LPM (0.12 - 0.20 SCFM)		Customer Supplied
Analyzer	CO ₂ Free Instrument Air or Bottled Nitrogen (CO ₂ Content must be < 1 ppb)	1.3 - 6.8 Bar (20 - 100 PSIG)	0.2 LPM (0.007 SCFM)		Customer Supplied
<i>All Above Options Used (Typical Installation)</i>	<i>Oil and Water Free Pressurized Air</i>	<i>5.5 - 6.8 Bar (80 - 100 PSIG)</i>	<i>13.8 - 21.3 LPM (0.49 - 0.75 SCFM)</i>	Connection: Push-to-Connect Tubing: 6.35 mm OD (1/4") Polyethylene	<i>Customer Supplied</i>

Sampler Requirements					
Sampler Type	Flow	Max Back-Pressure*	Maximum TSS and Particle Type	Analyzer Connection Type & Dimension	Fittings and Tubing Supplied By
Clean Water Sampler	50 - 400 mL/min	< 0.06 Bar (< 1 PSIG)	0.1% (1,000 ppm) Colloidal Solids Only (≤ 200 μm)	Connection: Quick-Connect Or Barb Tubing: 6 mm ID (1/4") Flexible PVC	SUEZ Supplies Fittings [†] & 7.5 m (25') Tubing - 2 or 5 Stream
Waste Water Sampler (Velocity)	11 - 19 LPM (3 - 5 GPM)	< 0.06 Bar (< 1 PSIG)	0.1% (1,000 ppm) Particulate Solids (> 200 μm)	Connection: 3/4" NPT to 1" Barb Tubing: 25 mm ID (1") Flexible PVC	SUEZ Supplies Fittings [†] & 7.5 m (25') Tubing - 2 Stream 15 m (50') Tubing - 5 Stream
Waste Water Sampler (Overflow)	50 - 400 mL/min	< 0.06 Bar (< 1 PSIG)	0.1% (1,000 ppm) Colloidal Solids Only (≤ 200 μm)	Connection: 3/4" NPT to 1/2" Barb Tubing: 13 mm ID (1/2") Flexible PVC	SUEZ Supplies Fittings [†] & 7.5 m (25') Tubing - 2 Stream 15 m (50') Tubing - 5 Stream
Sample Peristaltic Pump	400 mL/min	Max Lift: 3 m (10')	0.1% (1,000 ppm) Colloidal Solids Only (≤ 200 μm)	Connection: Barbed Luer-Lok Tubing: 6 mm ID (1/4") Flexible PVC	SUEZ Supplies Fittings [†] & 7.5 m (25') Tubing - 2 or 5 Stream
<i>*All samplers must have access to a gravity drain to ensure no back pressure is put on the sampler/Analyzer. Not following this requirement may cause catastrophic damage to the analyzer and void any warranty.</i>					
<i>† SUEZ will supply the connections at/to the Analyzer. The customer is responsible for providing the correct fittings from their system to the tubing that feeds the Analyzer.</i>					

Waste Requirements			
Waste Type	Waste Line Requirements	Analyzer Connection Type & Dimension	Fittings and Tubing Supplied By
Liquid Waste	All Analyzer Liquid Waste and Sampler Waste Must Have A Gravity Drain Ensuring No Backpressure On The System.	Connection: 3/4" Barb Tubing: 19 mm ID (3/4") Flexible PVC	SUEZ Supplies Fittings [†] & 7.5 M (25') Tubing - 2 or 5 Stream
Gas Waste	Gas Waste Line Must Be Vented Vertically. If The Analyzer Is Installed In A Building Or Shelter, The Gas Waste Must Be Vented Outside.		
<i>† SUEZ will supply the connections at the Analyzer. No other fittings are needed for the waste lines.</i>			

Analyzer Installation Requirements		
Property	Specifications	Notes
Analyzer Dimensions (HxWxD)	92.7 cm x 64.6 cm x 38.7 cm (36.5" x 25.4" x 15.3")	Customer Should Insure Adequate Space For Analyzer Installation: 1.8 m x 1.2 m x 0.9 m (6' x 4' x 3')
Analyzer Weight	36.3 kg (80 lbs)	Customer Should Insure Proper Support For Mounting The Analyzer
Electrical Connection	100 to 240 VAC, 1 Phase, 5.5-2.5A, 50/60hz	Wires Supplied By Customer Installation shall ONLY be performed by a qualified electrician. Ensure electrical connection and wire size are adequate and in conformance all local codes and ordinances.
Alarm Relays	Max Load: 30 VDC @ 1A Max Load: 125 VAC @ 0.5A - Double Insulated Wire	Wires Supplied By Customer 22-18 AWG Strip lengths: 9.5 mm (3/8")
Binary Input	12 - 24 V (Remote Start/Stop)	
Binary Output	Relay Rated Maximum: 125 VAC Or 110 VDC @ 1A	
Analog Output	4-20 mA, Maximum Load: 600 ohms	
Ambient Temperature	10 - 40 °C (50 - 104 °F)	If Ambient Temperature Exceeds The Required Specification, An Additional Shelter Is Required
Sample Temperature	5 - 60 °C (41 - 140 °F)	Sampler Temperature Maximum Can Be Increased To 85 °C (185 °F) With Use Of The High-Temperature Sampler Options
Maximum Relative Humidity	Up to 95%, Non-Condensing	If Ambient Humidity Exceeds The Required Specification, An Additional Shelter Is Required
Maximum Altitude	3,000 m (9,800')	-

Analyzer Reagent Requirements				
Reagent	Specification	Concentration	Estimated Monthly Reagent Consumption	Reagents Supplied By
Dilution Water	Milli-Q, Deionized, Distilled	-	15 L	Customer Supplied
Acid	Phosphoric Acid or Hydrochloric Acid	6N H ₃ PO ₄ or 3M HCl	3 L	Customer Supplied
Oxidizer	Sodium Persulfate Solution	30% w/v	9 L	Customer Supplied

Suggested Compressor and Pumps*				
Component	Manufacturer	Model	Where to Buy	Notes
Compressor	Atlas Copco	LFx 0.7 or LFX MED 0.7 with (20 or 50 L) Air Receiver	Visit https://www.atlascopco.com/en-uk/cc/in-your-country to find your local supplier	Oil Free Compressors Of Similar Specification May Be Used
Sample Pump	Please contact your local pump supplier for help with selecting an appropriate pump for you application. Visit http://www.pump-manufacturers.com/submit-enquiry.html to find your local supplier.			

*Recommendations for customer with limited access to house air and/or sample flow. Other compressors & pumps may be used with similar specifications to those stated above.