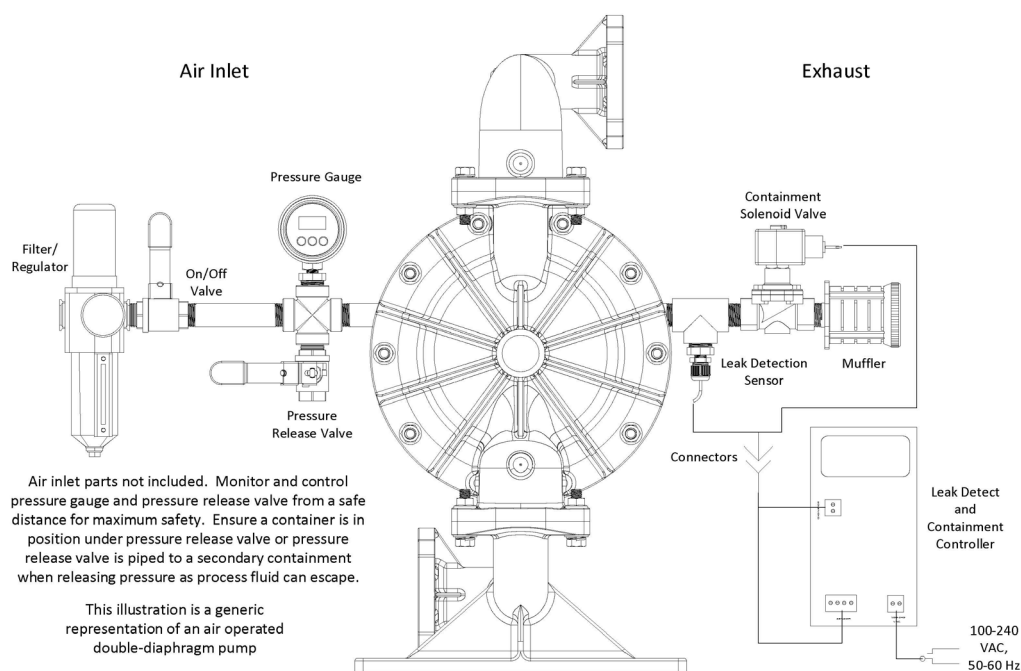


ALL-SAFE™ LEAK DETECTION & CONTAINMENT SYSTEM

LEAK DETECTION & CONTAINMENT SYSTEM



OPERATION

The leak detection and containment muffler is an important component of a two-part safety system for detecting and containing leaks due to diaphragm ruptures (failure) in an Air Operated Double Diaphragm Pump (AODDP).

When used in combination with the All-Safe™ Leak Detection Controller, the muffler can detect and contain leaks in AODDPs.

Upon detection of a conductive fluid in the air exhaust system, the muffler signals the controller. In turn, the controller sends a signal to the muffler to close an internal valve, containing the leak and preventing the pump from operating.

The muffler contains a conductivity sensor and a 12VDC valve. Upon detection of conductive fluid, the valve closes.

INSTRUCTIONS

Ensure that the pump application is installed in accordance with all instructions, cautions and warnings from the pump's operations manual.

A tee and ball valve must be installed between the air shut-off mechanism and the pump's air inlet.

Do not use pipe dope on any air or liquid connections to the pump or associated air system. The maximum operating pressure of the All-Safe™ System is 120 psi (8.3 Bar). Apply PTFE tape to the threads on the leak detection system and attach the muffler system to the pump exhaust. Connect cable between the muffler system and the controller. Connect the controller to a power source. Under normal operation, a green light inside the controller will confirm normal operation. During a diaphragm rupture, the controller's audible and visual (red light) alarm will indicate a fault condition and the controller will close the muffler's containment valve.

Upon notification of a fault condition the operator should close the pump's main air-valve. Before servicing the pump, all air pressure should be slowly removed from the pump via the installed tee and ball valve and any process fluid should be safely removed from the air lines.

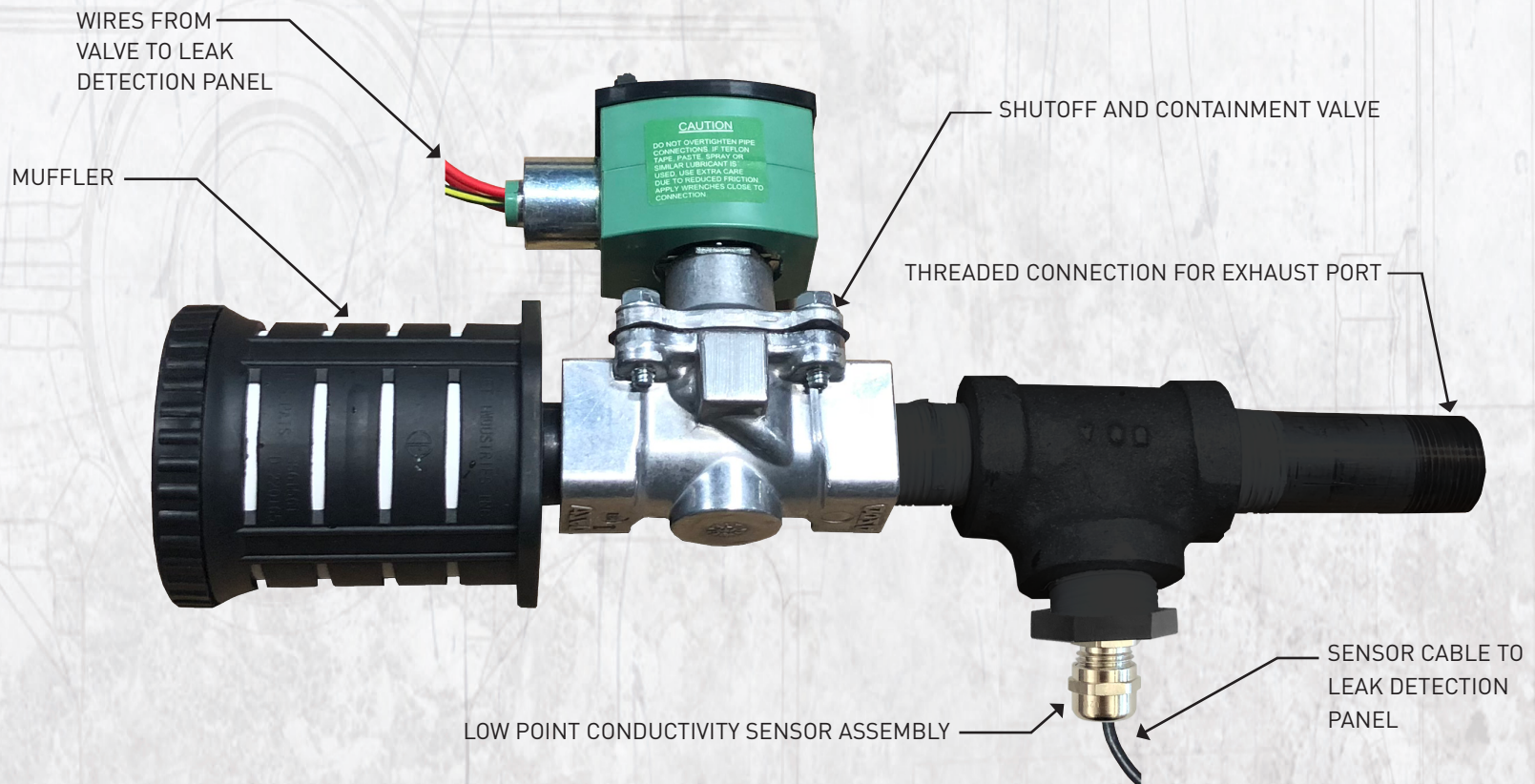
The pump should be serviced in accordance with the pump's operation manual.

The controller is reset via the small black reset button contained beneath. To reset controller and system, remove four (4) screws from corners of controller and remove cover.

LEAK DETECTION & CONTAINMENT MUFFLER

The All-Safe™ Leak Detection and Containment Muffler can be installed on any All-Flo Pump from sizes 1/2 inch through 3 inch. The muffler is available in three sizes to accommodate all exhaust port sizes. The muffler must be used in conjunction with the All-Safe™ Controller in order to detect and contain leak.

Part No.	Description	Material of Construction
73000-00	Leak Detection and Containment Muffler for use with 1/2" - 1" Pump	Aluminum, Anodized Aluminum, Polypropylene Nickel Plated Brass
73001-00	Leak Detection and Containment Muffler for use with 1 1/2" - 2" Pump	Aluminum, Anodized Aluminum, Polypropylene, Nickel Plated Brass
73002-00	Leak Detection and Containment Muffler for use with 3" Pump	Aluminum, Anodized Aluminum, Polypropylene, Nickel Plated Brass

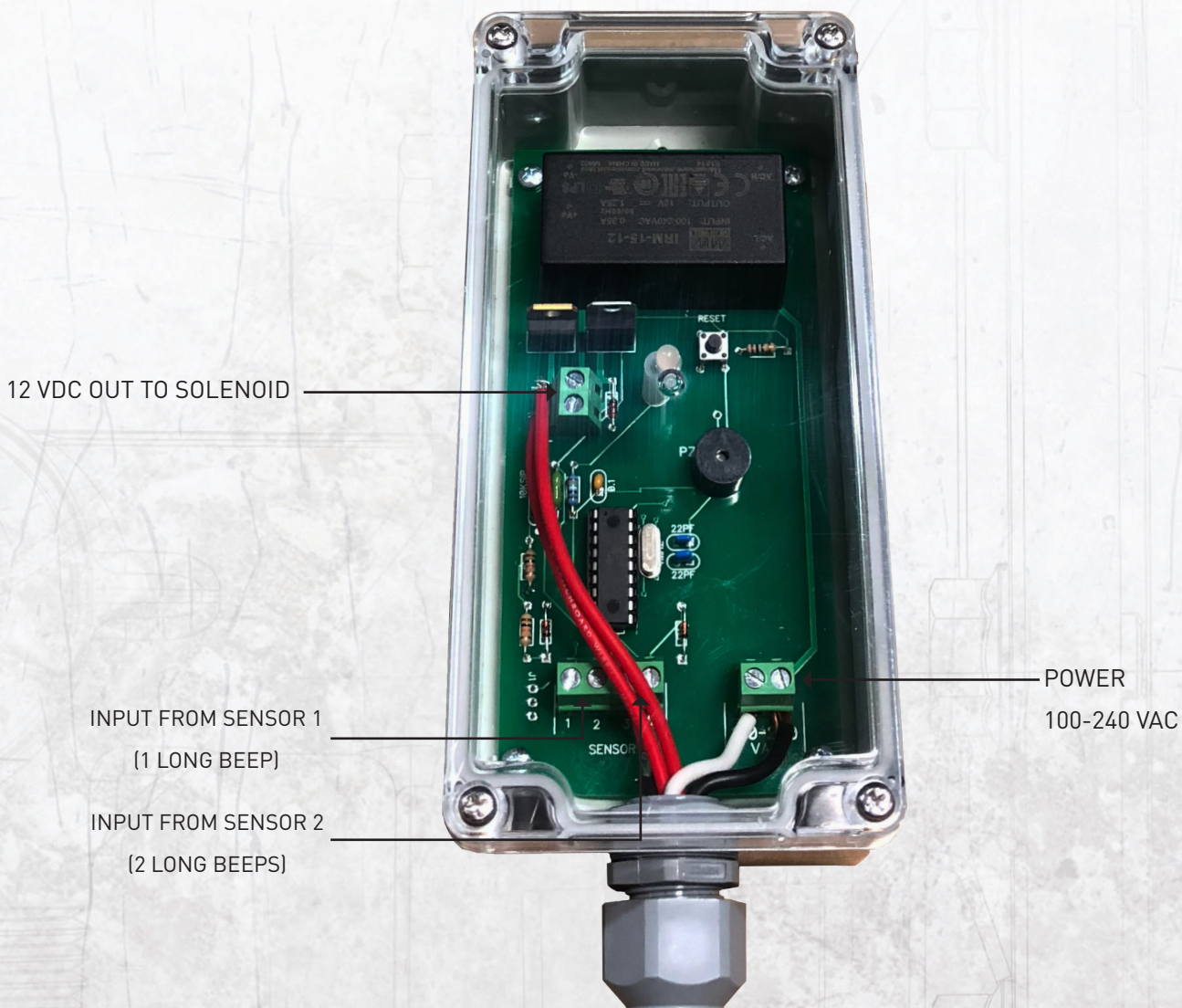


LEAK DETECTION CONTROLLER

The All-Safe™ Leak Detection Controller operates in conjunction with All-Flo's leak detection muffler. The 100-240VAC powered controlled 'listens' for leak detection from the muffler via a two-wire conductivity probe. Upon detection of conductivity, the controller 'repeats' confirmation up to five times in one second, thus reducing nuisance alarms. Upon confirmation of conductivity, the controller sends a 12VDC signal to the muffler internal valve to contain the leak and prevent the pump from operating.

Product Specifications	
Input Voltage:	120-240VAC (50/50Hz)
Output Voltage:	12VDC
Number of Sensor Inputs:	2
Physical Dimensions:	7.3" (185mm) H 3.2" (81 mm) W 2.4" (61mm) D

Part No.	Description
72200-00	Leak Detection Controller, 100-240 VAC



LEAK DETECTION MUFFLER

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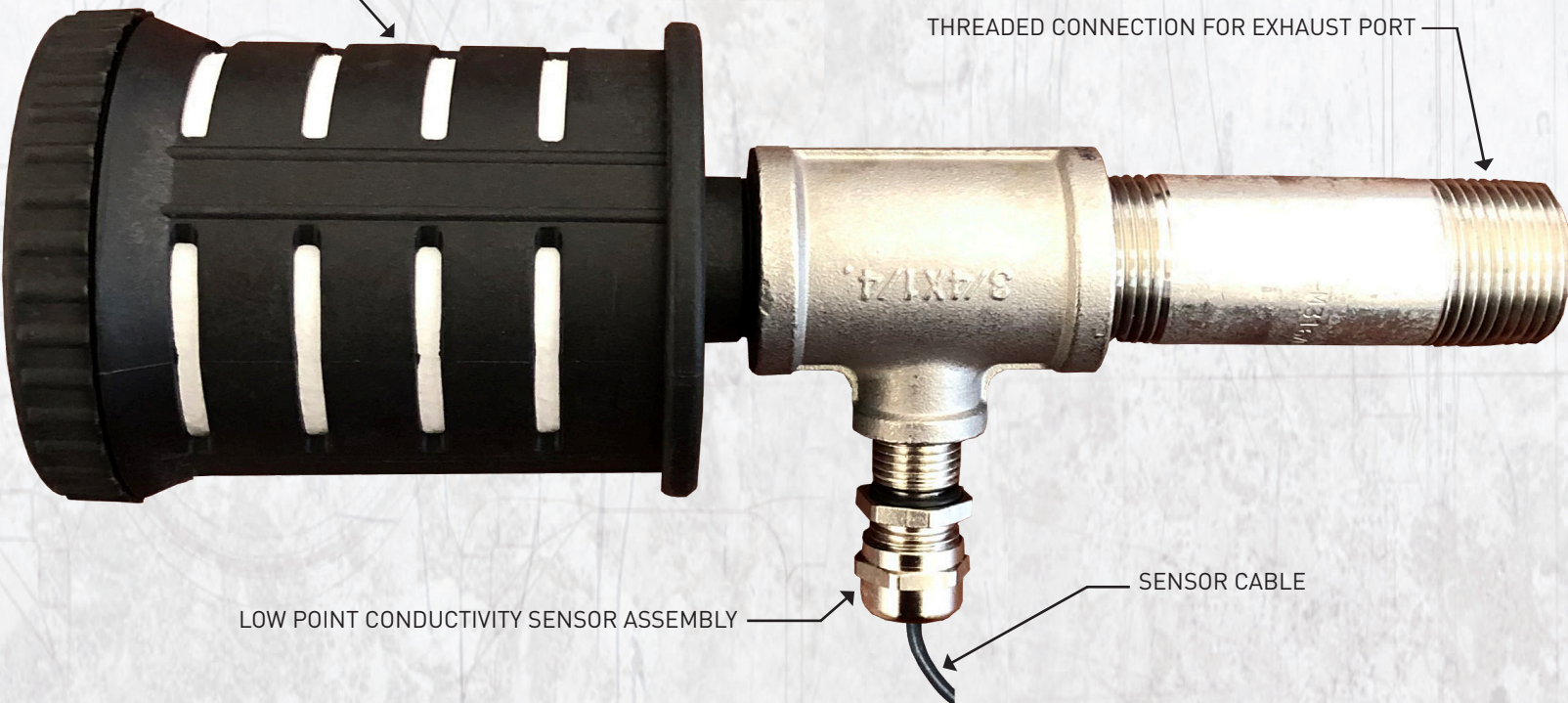
Part No.	Description	Material of Construction
73003-00	Leak Detection Muffler for use with 1/2" - 1" Pump	Stainless Steel, Polypropylene, Nickel Plate Brass
73004-00	Leak Detection Muffler for use with 1 1/2" - 2" Pump	Stainless Steel, Polypropylene, Nickel Plate Brass
73005-00	Leak Detection Muffler for use with 3" Pump	Stainless Steel, Polypropylene, Nickel Plate Brass

MUFFLER

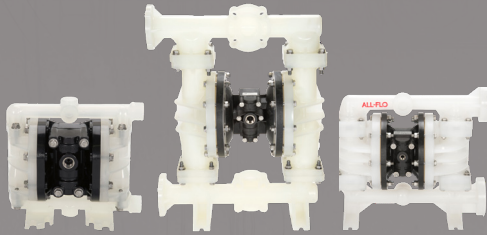
THREADED CONNECTION FOR EXHAUST PORT

LOW POINT CONDUCTIVITY SENSOR ASSEMBLY

SENSOR CABLE



Industrial Plastic



Sizes: 1/4", 3/8", 1/2", 3/4", 1", 1-1/2", 2"

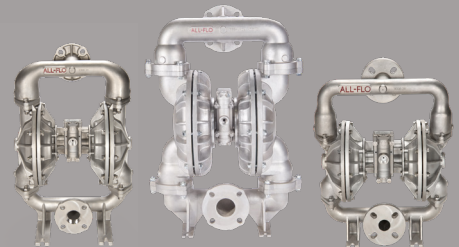
Materials: Polypropylene, PVDF, Conductive Nylon
Elastomers: Geolast®, PTFE, Santoprene®, Viton® / FKM

Industrial Metal

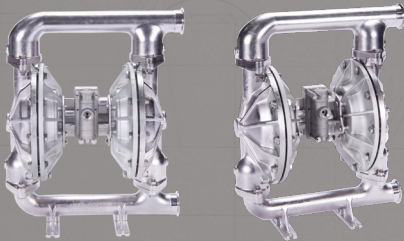
Sizes: 1/2", 1", 1-1/2", 2", 3"

Materials: Aluminum, Anodized Aluminum, Stainless Steel

Elastomers: Buna-N, EPDM, Geolast®, PTFE, Santoprene®,
Urethane, Viton® / FKM



FDA



Sizes: 1", 1-1/2", 2"

Materials: Passivated Stainless Steel
Elastomers: Hytrel®, PTFE, Santoprene®

Hygienic

Sizes: 3/8", 1/2", 1", 1-1/2", 2", 3"

Materials: Polished Stainless Steel

Elastomers: Buna-N, EPDM, Integral PTFE



PTFE



Sizes: 1/4", 3/8", 1/2", 1", 1-1/2", 2"

Materials: Conductive PTFE, PTFE

Elastomers: Integral PTFE

Pulsation Dampeners

Sizes: 3/8", 1/2", 1", 1-1/2", 2", 3"

Materials: Polyethylene, PTFE, Aluminum, Stainless Steel,
Polished Stainless Steel

Elastomers: Buna-N, EPDM, PTFE

