

VSH200 Component Submittal Sheets

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Caution Labels

Two caution labels are available for indicating the presence of a Viking VSH200 suppression system. Each caution label is made of aluminum. Label must be located in areas visible to the personnel located within or near the protected areas.

Technical Data

Material.....Aluminum
 Thickness....0.02 in.
 Weight.....0.26 lb.
 Dimensions 10 in. x 10 in.

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
17493	CAUTION! Do <u>NOT</u> re-enter until area is thoroughly ventilated
17493-S	Spanish Version
17494	CAUTION! This area is protected by a MX 200 Fire Suppression system
17494-S	Spanish Version



Agent Tanks (Pressurized at 360 psi (25 bar))

The agent tank assemblies are manufactured in accordance with DOT/TC and includes the finished tank, shipping cap, valve assembly, and siphon tube and Pressure Gauge/Low Pressure Switch. A nameplate is adhered to the finished tank displaying the agent weight and gross weight of the complete charged assembly. Tanks are super-pressurized with dry nitrogen at 360 psi (25 bar) at 70 °F (21 °C).

When ordering charged tank assemblies, the quantity of agent must be ordered with tank part number hyphen agent quantity in lbs. i.e. 889098 – 057, quantity is in 1 lb. increments.

Nominal Volume	Shipping Part No.	“A”	“B”	Dia.	Min. Fill (lb)	Max. Fill (lb)	Empty Weight (lb)
55 lb	914146	40.8 in.	23.2 in.	10 in.	25 lb	55 lb	88 lb
130 lb	889098	65.4 in.	47.8 in.	10 in.	57 lb	130 lb	108 lb
270 lb	889100	61.4 in.	40.9 in.	16 in.	116 lb	266 lb	190 lb
370 lb	889103	74.5 in.	54.0 in.	16 in.	162 lb	369 lb	229 lb
450 lb	910508	86.0 in.	65.5 in.	16 in.	199 lb	452 lb	313 lb
With Liquid Level Indicator							
270 lb	914148	61.4 in.	40.9 in.	16 in.	116 lb	266 lb	210 lb
370 lb	914149	74.5 in.	54.0 in.	16 in.	162 lb	369 lb	251 lb
450 lb	914150	86.0 in.	65.5 in.	16 in.	199 lb	452 lb	286 lb

Technical Data

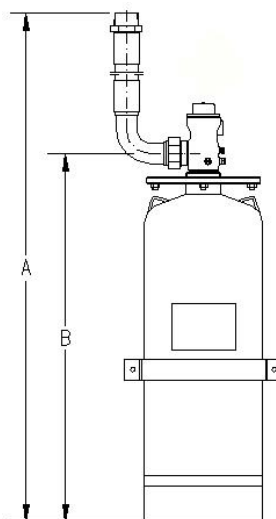
Tank Material.....Steel
 Tank Finish.....Red
 Nameplate.....PVC foil self adhesive
 Valve.....Brass

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

See chart above



Agent Tanks (Pressurized at 725 psi (50 bar))

The agent tank assemblies are manufactured in accordance with DOT and include the finished tank, shipping cap, valve assembly, and siphon tube. A nameplate is adhered to the finished tank displaying the agent weight and gross weight of the complete charged assembly. Tanks are superpressurized with dry nitrogen at 725 psi (50 bar) at 70 °F (21 °C).

When ordering charged tank assemblies, the quantity of agent must be ordered with tank part number hyphen agent quantity in lbs. i.e. 888571 – 088, quantity is in 1 lb. increments.

Nominal Volume	Shipping Part No.	"A"	"B"	Dia.	Min. Fill (lb)	Max. Fill (lb)	Empty Weight (lb)
200 lb	926250 888571*	58.5 in.	34.9 in.	16.0 in.	88 lb	185 lb	218 lb
350 lb	926254 888574*	80.2 in.	53.8 in.	16.0 in.	154 lb	324 lb	289 lb
450 lb	926256 888576*	88.0 in.	67.5 in.	16.0 in.	198 lb	416 lb	395 lb

*Limited availability.

Technical Data

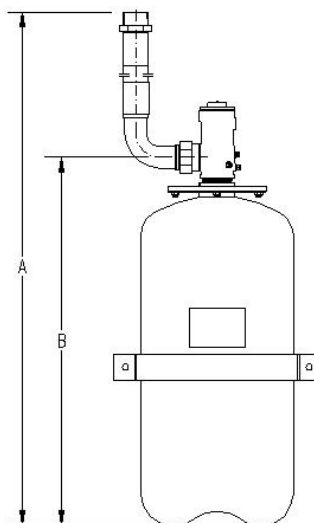
Tank Material.....Steel
 Tank Finish.....Red
 Nameplate.....PVC foil self adhesive
 Valve.....Brass

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

See chart above



Mounting Bracket

The mounting bracket is required to properly and safely secure the agent tank assemblies to a rigid vertical mounting surface.

Brackets are available for 360 psi (25 bar) and 725 psi (50 bar) agent tanks. Each size tank requires only one bracket.

Size Tank Used On	Shipping Assembly Part No.	Radius (R)	"B"	Weight
55 lb.....360 psi 130 lb.....360 psi	19368W/B* or 923157	5.3 in. or 5.1 in.	4.72 in.	3.2 lb
270 lb.....360 psi 370 lb.....360 psi 200 lb.....725 psi 350 lb.....725 psi 450 lb.....725 psi	887639	8.1 in.	7.87 in.	4.6 lb

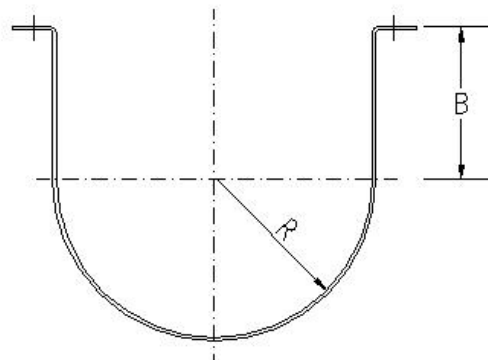
Technical Data

Material.....Steel
Finish.....Matt-finish or powder-coated, graphite black



Listings/Approvals

UL Listed.....EX-5248
ULC Listed.....EX-5248
FM Approved....File No. 3035914



Shipping Assembly

See chart above

*Limited availability

Nozzles

The Viking VSH200 Fire Suppression System offers several sizes of both 180° and 360° agent discharge nozzles. All nozzles are manufactured in brass and are available with NPT threads. A wide range of drilled orifice sizes are available to meet any discharge rate requirement. Nozzle bores are drilled per VSH DesignManager calculations.

180° Nozzle

Size	Part No.		Orifice Diameter Min.....Max. <small>(0.004 in. increments unless noted in parentheses)</small>	"A"	"B"
	Brass	Stainless Steel			
½ in. NPT	889036	889049	0.118 in.....0.236 in. (0.234 & 0.236)	1.1 in.	2.2 in.
1 in. NPT	889040	889053	0.118 in.....0.433 in. (0.430 & 0.433)	1.6 in.	2.6 in.
1 ½ in. NPT	889044	889057	0.118 in.....0.709 in. (0.706 & 0.709)	2.2 in.	3.4 in.

360° Nozzle

Size	Part No.		Orifice Diameter Min.....Max. <small>(0.004 in. increments unless noted in parentheses)</small>	"A"	"B"
	Brass	Stainless Steel			
½ in. NPT	889037	889050	0.118 in.....0.197 in. (0.194 & 0.197)	1.1 in.	2.2 in.
1 in. NPT	889041	889054	0.118 in.....0.394 in.	1.6 in.	2.6 in.
1 ½ in. NPT	889045	889058	0.118 in.....0.630 in.	2.2 in.	3.4 in.

Technical Data

Material.....Brass
Finish.....Brass

Listings/Approvals

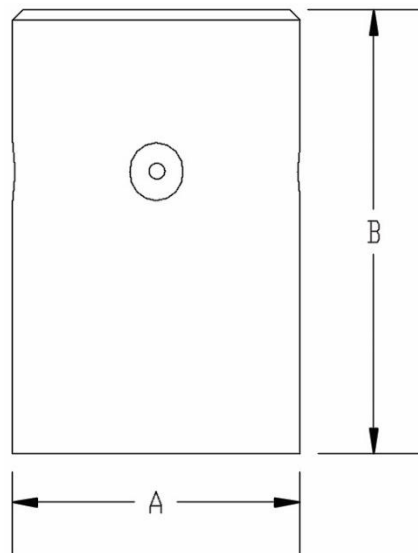
UL Listed.....EX-5248
ULC Listed.....EX-5248
FM Approved....File No. 3035914

Shipping Assembly

See chart above

Ordering Information

Order nozzle part no. – orifice code (i.e. 889045-0118)



Tank Valves 2 1/2 in.-12UN (Replacement)

Tank valves are available for field replacement. All replacement valve have been 100% factory tested, fully assembled with all required internal components. Contact pressure gauge is not included with replacement valve.

Valves can be electrically, pneumatically, and manually actuated using the proper actuators.

Replacement valves are available for 360 psi (25 bar) and 725 psi (50 bar) systems.

Technical Data

Valve body.....Brass
 Bursting disc....Nickel
 Spring.....Steel
 O-rings/Seal.....NBR
 Weight.....9.7 lb.
 Outlet.....2 1/2-12 UN

Listings/Approvals

Use with part 17563 or 912076

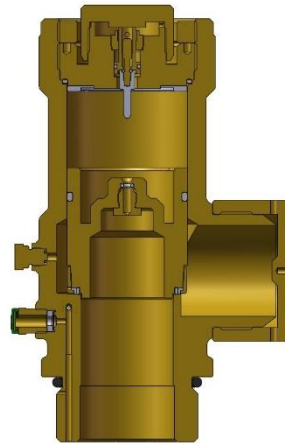
UL Listed.....EX-5248

ULC Listed.....EX-5248

FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
887966	360 psi (25 bar) valve
887664	725 psi (50 bar) valve



Tank Valves 1 7/8 in.-12UN (Replacement)

Tank valves are available for field replacement. All replacement valve have been 100% factory tested, fully assembled with all required internal components. Contact pressure gauge is not included with replacement valve.

Valves can be electrically, pneumatically, and manually actuated using the proper actuators.

Replacement valves are available for 360 psi (25 bar) and 725 psi (50 bar) systems.

Technical Data

Valve body.....Brass
 Bursting disc....Nickel
 Spring.....Steel
 O-rings/Seal.....NBR
 Weight.....19.6 lb.
 Outlet.....1 7/8-12 UN

Listings/Approvals

Use with part 17562 or 912075

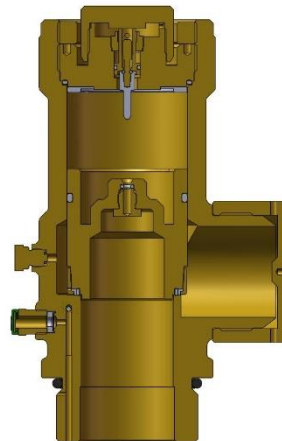
UL Listed.....EX-5248

ULC Listed.....EX-5248

FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
887964	360 psi (25 bar) valve



Pneumatic Release

The pneumatic release can be use to actuate the agent tank valves. The release operates from pilot line pressure received from the control tank. When pressurized, the release pin is forced into the down position which then causes the agent tank valve to open. The release is spring loaded, therefore will reset itself when the pilot line pressure is relieved.

Technical Data

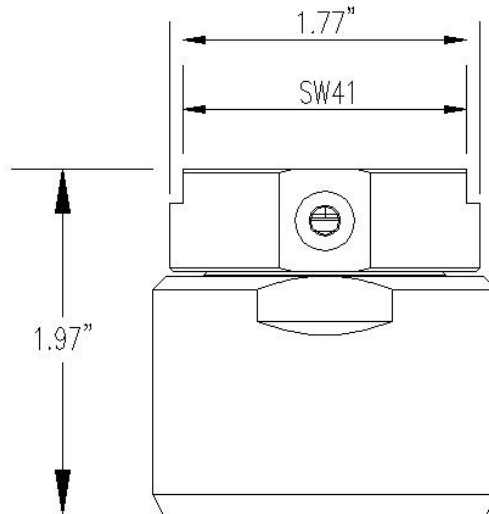
Body.....Brass
 Spring.....Stainless Steel

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
887669	Pneumatic release



Manual Release

The manual release assembly contains a hand lever which can be used to manually actuate the tank valve. When the ring pin is pulled from the lever, the lever can be pushed down, moving the internal pin down, which will cause the tank valve to actuate. The release is not spring loaded, therefore it must be reset manually after actuation. Manual reset requires pushing the pin up, back into the body of the release.

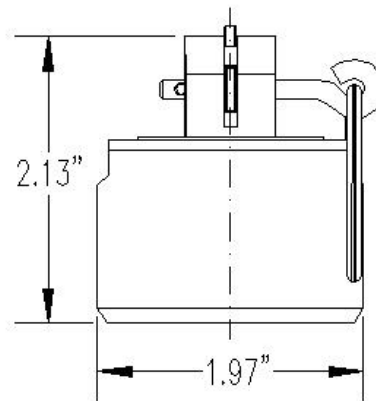
Technical Data

Body.....Brass
 Handle.....Stainless Steel
 Spring.....Stainless Steel

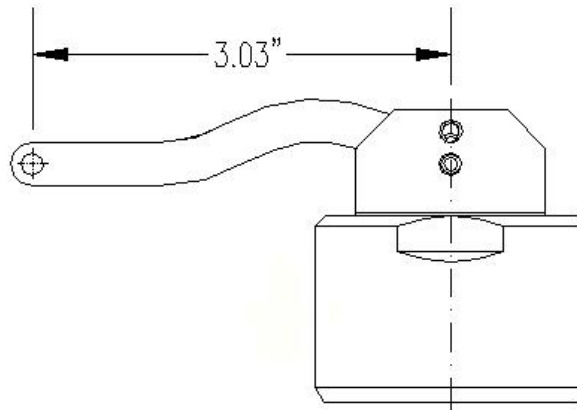
Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly



<u>Part No.</u>	<u>Description</u>
887668	Manual release



Manual/Pneumatic Release

The manual/pneumatic release can be used to actuate the agent tank valves. The pneumatic portion of the release operates from pilot line pressure received from the control tank. When pressurized, the release pin is forced into the down position which then causes the agent tank valve to open. The manual portion of the release contains a hand lever which can be used to manually actuate the tank valve. When the ring pin is pulled from the lever, the lever can be pushed down, moving the internal pin down, which will cause the tank valve to actuate. The release is not spring loaded, therefore it must be reset manually after actuation. Manual reset requires pushing the pin up, into the body of the release.

Technical Data

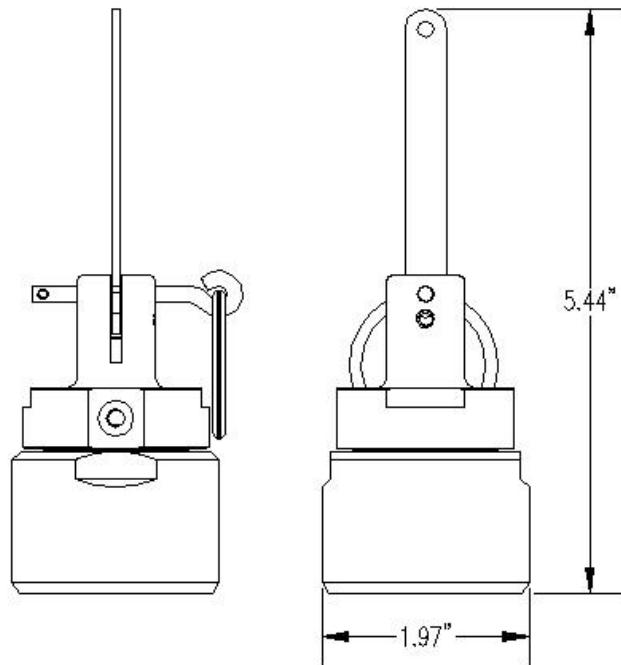
Body.....Brass
 Spring.....Stainless Steel

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
887670	Manual/pneumatic release



Electric Release

The 24V electric release can be used to electrically actuate the agent tank valve. An electric signal is required from the detection panel. This signal operates an internal solenoid which actuates the release mechanism. The release mechanism then opens tank valve. Only one electric release is required on multiple tank system. The remaining tank valves are opened by agent pressure through the pilot line.

Technical Data

Nominal Voltage.....24VDC
 Nominal Current.....0.5 A
 IP Code.....P65
 Max. Permitted Test Current...20 mA
 Electrical Inlet.....1/2 in. NPT
 Weight.....5.5 lb

Listings/Approvals

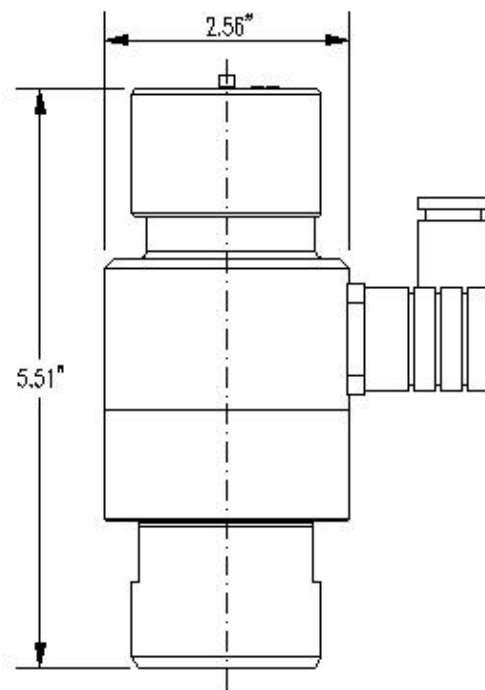
UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

Part No.	Description
889323	Release without diode
17096	(See notes) Electric release screw reset tool

Notes:

- **17096 becomes 887465 effective 2020**
- **Polarity must be observed when wiring the release to control panel. The release will not operate if installed with reverse polarity.**
- **To reset the electric release, the reset tool Must be threaded into the base of the release until it stops. Remove the reset tool and visually inspect the pin inside the release. If the red marking on the pin is not visual, the release has been correctly reset.**



Check Valve

The agent piping network for multiple tank (manifold) systems requires a check valve at each tank outlet. The check valve is required to prevent the loss of agent during a system discharge if, for some reason, a tank has been removed or disconnected from the piping network. The valve is installed between the agent tank valve and the piping manifold.

Technical Data

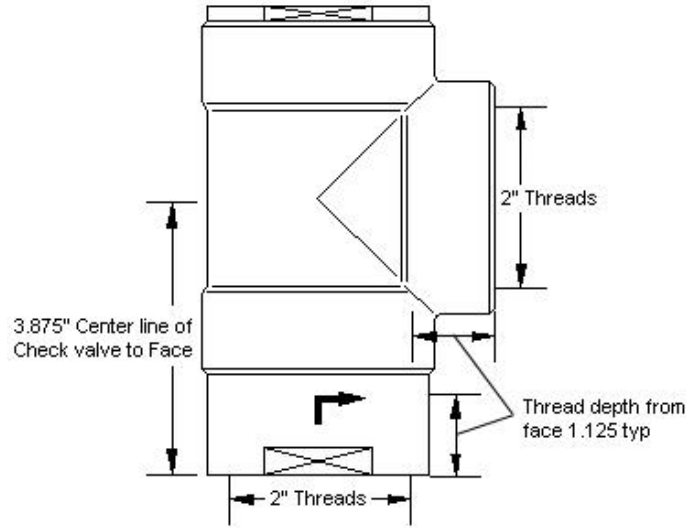
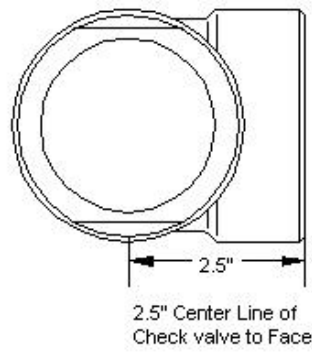
Body.....galvanized steel
 Internal components....stainless steel
 Spring.....stainless steel
 Seal.....NBR

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

Part No.	Description
912071	2" Check Valve



Pilot Hose

The pilot hose is required for pneumatic actuation of multiply tanks. The pressure from the control tank, upon actuation, is routed through the pilot hose to actuate the remaining tanks in the system. The hose requires the use of an adaptor for attaching to agent tank valves.

Technical Data

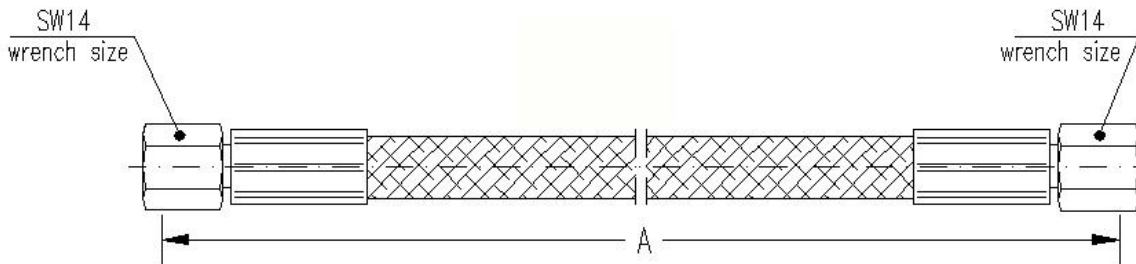
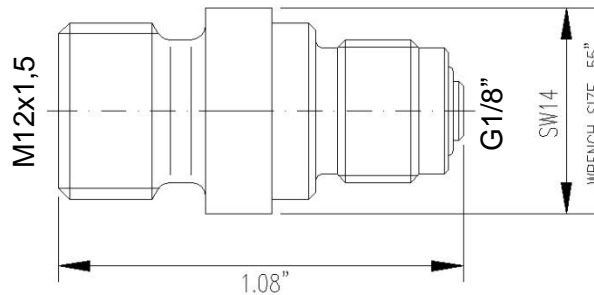
ID.....0.157 in.
 Material....Rubber
 Fittings.....Stainless Steel
 Min. bend radius....3.5 in.

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

Part No.	Description
887834	Hose (23.6 in. long) (A)
887835	Hose (39.4 in. long) (A)
887836	Hose (59.1 in. long) (A)
887644	Pilot Hose Adaptor M12x1.5 – G1/8



Discharge Hose

The agent discharge hose is required to connect the tank valve to the piping network, manifold or check valve. The hose allows for a secure connection between the agent tank(s) and the piping network. Two lengths of hoses are available.

Style	Part No.	Length (A)	Length (B)	SW1	SW2	Weight-lb
90° Bend	912075	17.7 in.	4.75 in.	2.4 in.	2.0 in.	3.1 lb
90° Bend	912076	20.5 in.	6 in.	2.8 in.	2.6 in.	6.0 lb

Technical Data

Material.....Rubber
 Fittings.....Stainless Steel

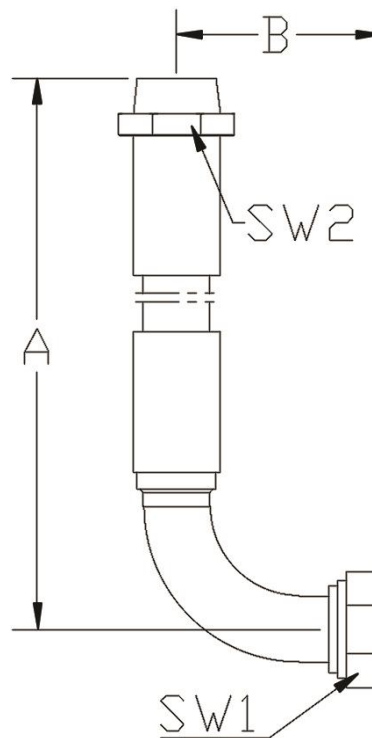
Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

See above

912075 1 ½" NPT Discharge Hose
 912076 2" NPT Discharge Hose



Contact Pressure Gauge/Low Pressure Switch – VSH200

The contact pressure gauge/low pressure switch is installed in the agent tank valve. The gauge is available in either normally open (NO) or normally closed (NC) contacts. The contacts are activated by the decrease in tank pressure during a system discharge or loss of tank pressure due to a leak. Switches are available for either 360 psi (25 bar) or 725 psi (50) tanks.

Technical Data

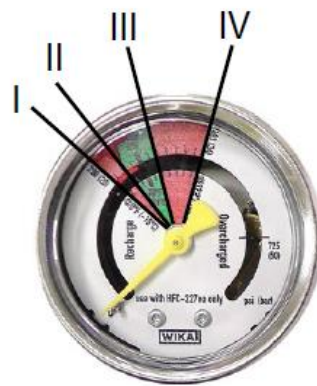
Material.....Aluminum
 Switching Voltage....4.5 – 24 VDC/VAC
 Switching Current....5 – 100mA
 Contact Load.....Max. 3W, dry contact
 Switch Point 360 psi Gauge....324 psi
 Switch Point 725 psi Gauge....653 psi

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
889311	360 psi (25 bar) Gauge (NC at switching point; NO under pressure)
889313	725 psi (50 bar) Gauge (NC at switching point; NO under pressure)



360 psi (25 bar)



725 psi (50 bar)

Pilot Hose/Valve Adaptor

The adaptor is required to connect pilot hose to tank valves, pneumatic/manual releases, and pneumatic releases.

Technical Data

Material.....Brass

Listings/Approvals

UL Listed.....EX-5248

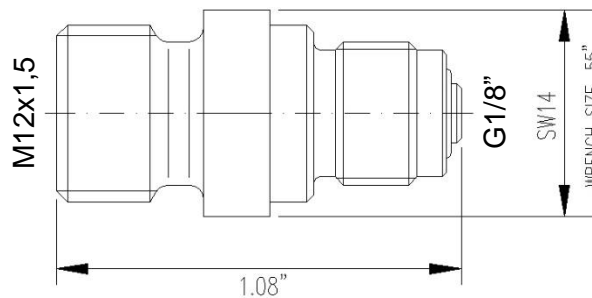
ULC Listed.....EX-5248

FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
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887644	Pilot Hose Adaptor M12x1.5 – G1/8
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Safety Malfunction Device

The safety malfunction device is designed to release small amounts of leakage pressure in pneumatic pilot lines. The device closes automatically on higher pressure. The device must be installed in the vertical position. Available as an assembly.

Technical Data

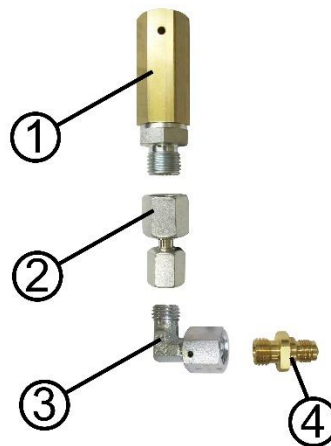
Material.....Brass
 Gasket.....NBR
 Weight.....0.33 lb.

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
16010	Pressure Malfunction Safety Assembly



Pressure relief (individual parts)
 Item 1 Safety device malfunction pressure, order no. 885869
 Item 2 Union order no. 910650
 Item 3 Union order no. 889145
 Item 4 Adapter order no. 887644
 (for release device pneumatic or pneumatic/man)

Swivel Adaptor (Tank to Pipe)

The swivel adaptor is used to connect the agent tank valve outlet with the NPT piping network. Two sizes are available, 1 1/2 in. and 2 in. outlet size.

Technical Data

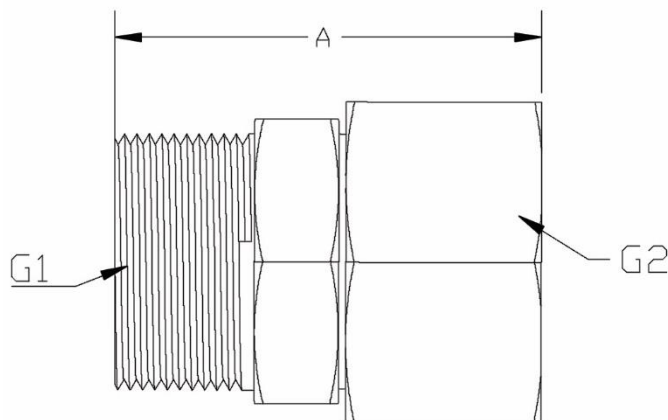
Material.....Galvanized Steel
 Weight.....1 1/2 in. size 2.2 lb
 2 in. size 2.9 lb

Listings/Approvals

UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
17562	1 7/8"-12 UN. Valve Connection (G2) to 1 1/2" NPT Pipe Connection (G1) A=3"
17563	2"-12 UN. Valve Connection (G2) to 2" NPT Pipe Connection (G1) A=3 1/2"



Pneumatic Limit/Pressure Switch

The pneumatic operated limit/pressure switch can be mounted in the agent distribution piping. Upon system discharge, the agent pressure in the piping network will actuate the switch, causing the internal electrical contacts to either open or close. This action can be used to signal alarms, turn on warning lights, cause door closures to operate, etc.

Technical Data

Material.....Alloy Die-cast Metal
 IP Rating.....IP65
 Nominal Isolation Voltage....500V
 Permanent Current....16A
 Nominal Operation Current....6A, 400 VAC
 Weight.....3.3 lb.

Listings/Approvals

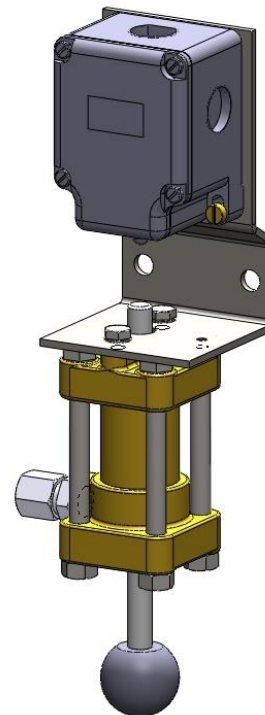
UL Listed.....EX-5248
 ULC Listed.....EX-5248
 FM Approved....File No. 3035914

Shipping Assembly

<u>Part No.</u>	<u>Description</u>
826758D	Pneumatic Discharge Pressure Switch Kit

Replacement Parts

826758	Pneumatic Discharge Pressure Switch
300057	Adapter M20 x 3/4" NPT
17553	Adapter G1/4 x M12 x 1.5
17552	Adapter 1/4" NPT x M12 x 1.5
887834	24" Hose (600 mm)
887835	39" Hose (1,000 mm)
887836	59" Hose (1,500 mm)
724420	US 432y-M20-2352 Replacement Limit Switch (2 Contact)



Solenoid Monitoring Switch (SMS)

The Solenoid Monitoring Switch (SMS) is mounted on the cylinder valve. When the system solenoid is mounted to the valve the SMS will supervise the connection. When the system solenoid is removed the contact will close. This action can be used to signal the disposition to the alarm control panel. The SMS complies with NFPA 2001.

Technical Data

Contact Rating	1 AMP @ 24 VDC
Temp. Range	-22°F to 176°F (-30°C to 80°C)
IP Rating	IP67

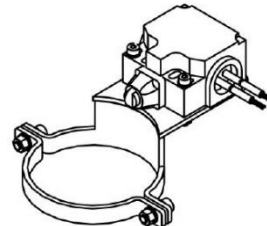
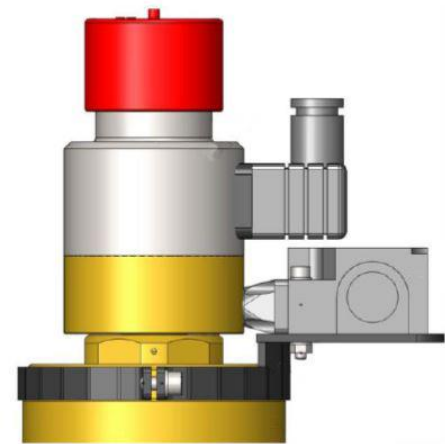
Listings/Approvals

UL Listed	EX5248
ULC Listed	EX5248
FM Approved	File No. 3035914

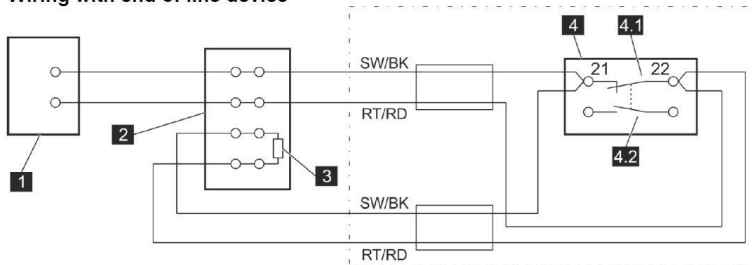
Shipping Assembly

Part No.	Description
922291D* or 932438D	Solenoid Monitor Switch 1 ½"
922290D* or 932437D	Solenoid Monitor Switch 2"

*Limited availability



Wiring with end of line device



- 1 Control panel
- 2 Junction box
- 3 End of line device
- 4 Supervisory switch
- 4.1 Make contact; if release device or valve lever are demounted an electric contact is closed
- 4.2 Break contact (not used)

