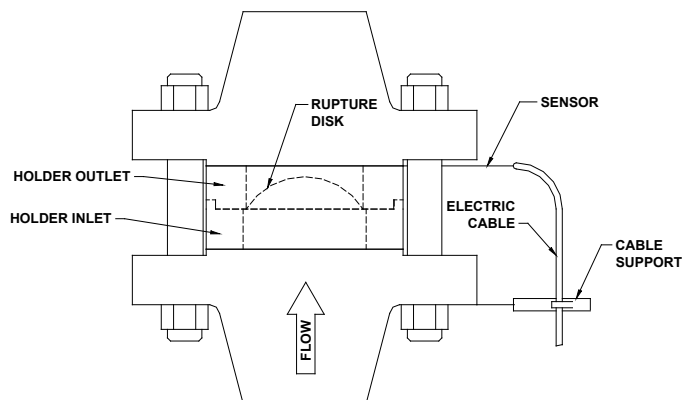




Installation Instructions for AMS Family Rupture Disk Sensors

TYPICAL INSTALLATION



Electrical Data	
I_{max}	150 mA
V_{max}	25.5V
Max Pre-burst Resistance	20 Ohms
T_{amb}	-50°F to 400°F
C_i	0.0036 μ F
L_i	12 μ H

This sensor qualifies for Class I, div I & II, Groups A, B, C and D.

*Max supplied cable length is 10 meters.

*This maximum temperature is only applicable to AMS and AMSX sensors that include no fluoropolymer components. The maximum temperature for type AMS sensors with Teflon gaskets and for type LAMSL is 400°F and the maximum temperature for type TAMST is 400°F. This information based 316 SST. For other materials, please consult factory.

This sensor may be used at any voltage provided the maximum current requirements are not exceeded.

Materials	
Gasket	Asbestos Free Synthetic (standard) or Fluoropolymer (optional)
Membrane and Circuit	316 SS Unless Otherwise Marked
Cable	24 AWG, 2 Cond., Teflon Insulated, Shielded, 3 Feet Standard

CAUTION:

SENSOR MAY FRAGMENT AFTER DISK BURSTS. DISCHARGE TO SAFE AREA. PROTECT SENSOR FROM DIRECT EXPOSURE TO THE WEATHER



INSTALLATION



1. Verify work area is safe. Do not loosen flange bolting when piping or vessel system is pressurized. Use appropriate personnel protection procedure for piping and vessel contents. Follow all work and safety procedures.
2. The OSECO burst disk sensor is constructed with high quality, synthetic gaskets for the inlet and outlet (Optional fluoropolymer gaskets can be provided at additional cost). No additional gaskets are needed or recommended.
3. Sensor thickness ranges from 1/8" through nominal size 12" to 3/16" from nominal size 14" through nominal size 24". Please consult factory for thickness of sizes not listed.
4. The OSECO burst disk sensor may be installed between pipe flanges of the applicable size and class or between the outlet of a rupture disk holder and the downstream flange. In all cases, the sensor must be installed on the vent side (downstream) of the rupture disk. Verify sensor resistance is less than 20 OHMS before installing.
5. Verify mating surfaces are clean and free of adverse scratches before installation. The sensor must not touch the crown of the rupture disk assembly in the installed position. If touching occurs, add a spacer between disk and sensor to avoid contact between these items. Install sensor as illustrated above. Install cable support to relieve tension stresses from sensor and connector.
6. Use bolt torque specified by the rupture disk manufacturer or the bolt torque specified herein.
7. After installation, connect the sensor to a compatible, quick acting, latching alarm system. The sensor is a normally closed device. The alarm system should be wired to indicate a burst disk when the sensor creates an open circuit. (Flow in the pipe, released by a rupture disk, will rupture and open the sensor circuit.)
8. After the sensor is connected to the alarm system, verify that the system is working properly by disconnecting the sensor cable, simulating an open circuit condition. Reconnect cable after test. Periodic sensor system testing is recommended. When using an OSECO alarm monitor, see OSECO's recommended "BDA



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System Verification Procedure".



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FLANGE BOLT TORQUE DATA (FT-LBS)

SIZE	ANSI 150	ANSI 300	ANSI 600	ANSI 900	ANSI 1500
1	33	40	40	55	55
1-1/2	45	98	98	131	131
2	88	68	68	94	94
2-1/2	88	95	95	124	124
3	88	141	141	164	204
4	88	153	234	290	317
6	153	153	278	309	369
8	153	243	419	--	--
10	243	339	413	--	--
12	243	508	446	--	--
14	361	444	--	--	--
16	361	497	--	--	--
18	523	561	--	--	--
20	523	629	--	--	--
24	726	971	--	--	--

Notes:

1. Use torque specified by disk manufacturer when sensor is installed between a rupture disk holder and a flange.
2. Use torque values from table above when sensor is installed between companion piping flanges with Klingsil C-4401 gasket. Contact the factory for required values with Teflon gaskets.
3. Use pressure and temperature limitations for Klingsil C-4401 gasket material made by Thermoseal Inc., Sidney OH.
4. Torques have been limited to 40,000 psi bolt stress for B7M studs.
5. Torque values are based on nuts and studs lightly lubricated and maintained in a "free-running" condition.

Required Burst Pressures			
Size (in.)	Minimum Burst Pressure (psig)	Size (in.)	Minimum Burst Pressure (psig)
1.0	5.0	10.0	1.0
1.5	5.0	12.0	1.0
2.0	5.0	14.0	1.0
3.0	3.0	16.0	0.75
4.0	2.0	18.0	0.75
6.0	4.0	20.0	0.75
8.0	1.0	24.0	0.75

Control Drawing