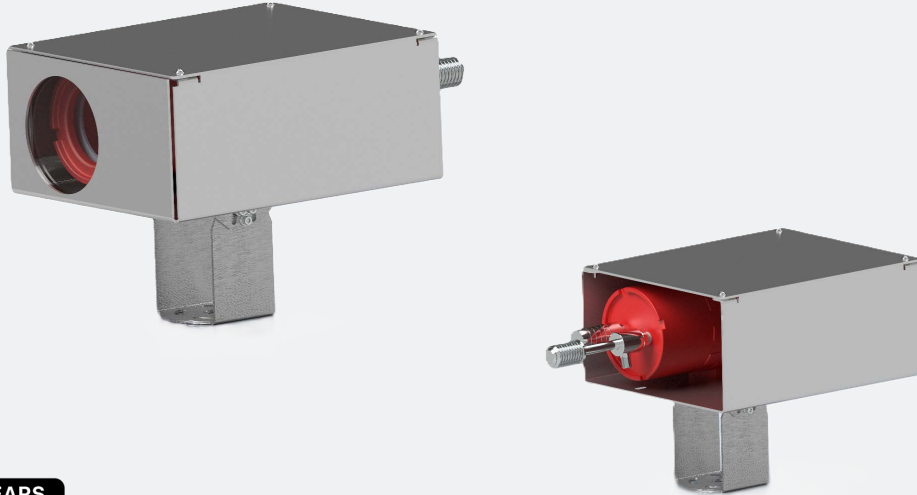


# Spectrum SA-ACF1XX-XXXXX-BD

FLARE MONITORING CAMERAS (with Vortex cooling tubes)

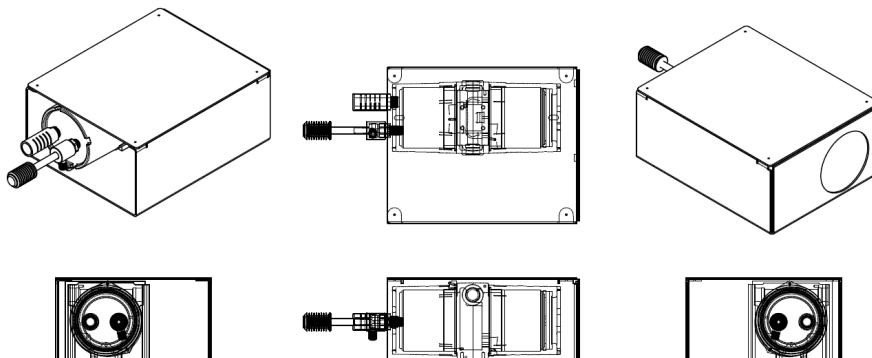


## Models Currently Available - non-certified, for use in non-hazardous areas

**F101-P1377-BD-iCS-FM** - All the features of the F101-P1377-BD-iCS camera, but for use in non-hazardous areas for Flare Monitoring utilizing the latest in Vortex Cooling Tube technology.

**F101-Q1656-BD-FM** - All the features of the F101-Q1656-BD camera, but for use in non-hazardous areas for Flare Monitoring utilizing the latest in Vortex Cooling Tube technology.

**F101-Q1715-BD-FM** - All the features of the F101-Q1715-BD camera, but for use in non-hazardous areas for Flare Monitoring utilizing the latest in Vortex Cooling Tube technology.





SPECIALIZING IN EXPLOSION PROOF TECHNOLOGY  
 8935 ALMEDA GENOA RD. HOUSTON, TEXAS 77075 USA  
**MADE IN USA**  
**MODEL: FMS-XNZ-L6320A**  
**INPUT: IEEE802.3af, Class3, 7.5 W**  
**SERIAL: 1001-05-16-2024**




# Maintaining Optimum Performance

Filtration to maintain clean air is necessary at a rate of 25 microns or less for water and oil mist removal filters is oil mist is in the air lines.

Nex Flow filters use five micron filtration elements for water removal and optional 0.3 micron filters for oil mist removal if necessary. They are properly sized for the various vortex tube capacities. We strongly recommend to maintain a minimum back pressure on the cold end air exhaust. While much less susceptible to back pressure than standard vortex tube designs, back pressure will reduce effectiveness by lessening the temperature drop. Up to 2 PSIG will not affect performance.

5 PSIG back pressure will effect performance by approximately 2°F. Vortex tubes without ducts can be quite noisy.

If cold air is ducted, muffling is normally not necessary. However, mufflers are available for both the cold end if required. The Frigid-X XTRA vortex tube does not require hot end muffling due to their high efficiency as the hot air is expelled on the hot side entrains surrounding air converting energy normally lost into increased for flow cooling the finned heat sink. As a result the hot side only becomes "warm" in addition to being quieter.

In expelling the air at the hot end, there is an adjustable hot end plug that is adjustable using a screwdriver. The optimum range is a 1/8<sup>th</sup> to 1/4" turn for optimum efficiency in cooling. The setting should be 1/8" if compressed air supply is under 86°F (30°C) and closer to 1/4" if 86°F (30°C) or more.

If cooling effect is not the most important, and lower temperature is desired, then can open beyond the 1/4 turn to 1/2 turn maximum. Cooling effect will be less despite lower temperatures because cooling effect is based on both temperature drop and volume. But if cold temperature alone is of importance, then opening beyond the 1/4 turn can be done.

