



3M™ Scott™ Sight with Pro Package

Intent of Specifications:

This specification covers a hands-free, in-mask, mission critical technology that is always available to the firefighter. The system has been designed to provide thermal imaging for baseline intelligence today and new safety enhancements in the future. The camera system shall be composed of the mask mounted thermal imaging camera (TIC) and in-mask display (IMD). The camera system delivered shall be a standard, commercial product that meets the requirements of these specifications. Exceptions to any of the line items are not acceptable. Materials used in construction of the camera system shall be new, unused, and not less than the quality conforming to modern engineering and manufacturing practices. Materials shall be free from defects and suitable for the service intended.

Warranty and Certifications	Compliance	
	Yes	No
1. The camera system shall be warranted by the manufacturer to be free of defects for a period of two years from the date of manufacture.		
2. The camera system shall be compatible with the AV-3000 HT facepiece and NFPA 1981, 2013 Editions of the Air-Pak X3 Pro, X3, AP-75 and Propak SCBA.		

Physical and Performance Specifications	Yes	No
1. The camera system shall be capable of sensing, imaging, and displaying infrared radiation in the 8 to 14 micron spectral wavelengths.		
2. The TIC shall be hands-free and mounted to the SCBA facepiece. The display shall be mounted inside the facepiece, always visible to the wearer and not require any use of the hands to view the screen.		
3. The TIC shall be equipped with an infrared imaging sensor consisting of no less than 19,200 imaging pixels.		
4. The TIC shall be equipped with a germanium window protecting the thermal lens. The window shall incorporate anti-reflective and hard-carbon coatings to minimize damage during operation.		
5. To ensure the water resistance integrity of the TIC and IMD in various situations, the TIC and IMD shall be designed to isolate the internal electronic systems from all user-accessible areas. The TIC and IMD shall conform to the IP66 and IP67 standard.		
6. The camera system, including batteries, shall weigh no more than 8.5 ounces.		
7. The TIC shall use three AAA alkaline batteries and be capable of operating for 4 hours on full batteries (nominal).		
8. The IMD shall use two AAA alkaline batteries and be capable of operating for 4 hours on full batteries (nominal).		
9. The TIC shall be equipped with an illuminating LED indicating when the TIC is powered ON.		
10. The camera system shall be tested for resistance to heat and shall withstand a minimum of 500°F for 5 minutes.		
11. The camera system must have an automatic power-off feature that is based on movement and can be configured by the end user.		
12. The camera system shall have the option of a spot-tracking system that tracks the hottest area within the field of view and displays its relative temperature.		
13. The camera system shall have the option of a spot-tracking system that tracks the coldest area within the field of view and displays its relative temperature.		
14. The camera system shall have the option of video recording. The video recording feature shall begin recording automatically and save up to 30 hours of video.		

