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Overview:

Fire Alarm Aspirating Sensing Technology (FAAST™) products provide smoke detection capability for a wide range of fire detection applications. The FAAST™ range includes two product groups:

- » **FAAST XS, XM, & XT** Dual-Vision detectors, with advanced detection technology, dust separators and 30 micron dust filters.
Primary applications: High sensitivity detection with superior dust immunity.
- » **FAAST LT** detectors, with optical laser smoke detection and 300 micron wire mesh screens.
Primary applications: Standard sensitivity detection.

The table on page 2 compares the main features of FAAST™ detectors.

FAAST Dual Vision:



Product Code	Description
7100X	FAAST XS Stand Alone Aspirating Smoke Detector
8100	FAAST XM Stand Alone Aspirating Smoke Detector
9400X	FAAST XT Stand Alone 4 Pipe Aspirating Smoke Detector
7200BPI	FAAST XS AA Loop Based Aspirating Smoke Detector
8251BPI	FAAST XM AA Loop Based Aspirating Smoke Detector
9251BPI	FAAST XT AA Loop Based 4 Pipe Aspirating Smoke Detector

FAAST LT:



Product Code	Description
FL0111E	FAAST LT Stand Alone Single Channel Detector
FL0112E	FAAST LT Stand Alone Single Channel Dual Detector
FL0122E	FAAST LT Stand Alone Dual Channel Dual Detector
FL2011E	FAAST LT AA Loop Based Single Channel Detector
FL2012E	FAAST LT AA Loop Based Single Channel Dual Detector
FL2022E	FAAST LT AA Loop Based Dual Channel Dual Detector

FAAST Selection Table

This table compares the main features of FAAST™ aspirating smoke detectors. It is designed to help identify one or more products that may satisfy the specific requirements for a particular project. The performance of any aspirating detection system depends on the sampling pipe system's characteristics. This can only be assessed by modelling the pipe network using PipeIQ™. **All FAAST system designs must be verified with PipeIQ™.**

	FAAST XS	FAAST XM	FAAST XT	FAAST LT	FAAST LT	FAAST LT
Product Code	Intelligent: 7200BPI Conventional: 7100X	Intelligent: 8251BPI Conventional: 8100	Intelligent: 9251BPI Conventional: 9400X	Intelligent: FL2011EI Conventional: FL0111E	Intelligent: FL2012EI ⁽¹⁾ Conventional: FL0112E ⁽²⁾	Intelligent: FL2022EI Conventional: FL0122E
Channels	Single	Single	Single	Single	Single	Dual
Sensor Type	Dual Optical, Blue LED & Infra-Red Laser. Internal firmware interprets the signals from both sensors to achieve high sensitivity with excellent immunity to nuisance conditions			Optical Laser 7251 Pinnacle	Twin Optical Laser 7251 Pinnacle with configurable mode ⁽²⁾	One Optical Laser 7251 Pinnacle in each channel
Coverage	600 m ²	1,000 m ²	2,650 m ² ⁽³⁾	1,000 m ² per channel		
Pipe Inlets	One		Four	Two per channel		
Single Pipe Length ^{(4) (5)}	Up to 55 m ⁽⁵⁾	Up to 80 m ⁽⁵⁾	Up to 123 m ⁽⁵⁾	Up to 100 m ⁽⁵⁾		
Aggregate Pipe Length ⁽⁵⁾	Up to 91.5 m (Indicative) ⁽⁵⁾	Up to 137 m (Indicative) ⁽⁵⁾	Up to 320 m (Indicative) ⁽⁵⁾	Up to 160 m per channel (Pipe network designs must be verified with PipeIQ™)		
Relays	Alert; Fire 1; Fire 2	Alert; Action 1; Action 2; Fire 1; Fire 2		Conventional: Two relays per channel (Alarm, Pre-Alarm); Intelligent, One relay per channel (Alarm)		
Fault Relays	Intelligent: One Conventional: Two (Isolate, Fault)	Intelligent: One Conventional: Three (Urgent; Minor, Isolate)		One Fault relay per channel		
Fan Speed Control	3-speed configurable	Single speed	3-speed configurable	Auto or Manual, ten speed fan		
Day/Night/Weekend Mode	Yes			Yes		
Acclimate Mode	Yes			No		
Local Smoke Level Display	Available in all XS, XM, and XT FAAST detectors			Displayed on the Conventional FAAST LT detector Not displayed on an Intelligent FAAST LT detector when connected in an AA loop. However, a Pertronic intelligent fire alarm control panel can be configured to display the smoke level detected by a FAAST LT		
Flow Monitoring (High & Low) ⁽⁶⁾	± 50 % (maximum) ⁽⁶⁾	± 20 % (nominal) ⁽⁶⁾	± 50 % (maximum) ⁽⁶⁾	± 20 % (nominal) ⁽⁶⁾		
Sensitivity	0.00095 – 20.5 % obs/m			9 configurable Levels: 0.06 – 6.0 % obscuration per metre		
Intake Filtration	Particle separator & easily replaceable 30 micron filter			Easily replaceable mesh filter		
Operating Temperature	0 °C to 38 °C ⁽⁷⁾			– 10 °C to 55 °C		
Sampled Air Temperature	– 20 °C to 60 °C			– 10 °C to 55 °C		
Event Log	18,000 events			2,244 events		
IP Rating	IP30			IP65		
Hazardous Areas	No	UL-Approved for Class I, Division 2, Groups A, B, C, and D		No		
Average Operating Current ⁽⁸⁾	L 120 mA; M 151 mA; H 200 mA ⁽⁸⁾	415 mA ⁽⁸⁾	L 220mA; M 340mA; H 465mA ⁽⁸⁾	200 mA ⁽⁸⁾		
Maximum Operating Current ⁽⁸⁾	L 142 mA; M 172 mA; H 230 mA ⁽⁸⁾	465 mA ⁽⁸⁾	L 248mA; M 368mA; H 493mA ⁽⁸⁾	500 mA ⁽⁸⁾		
Communication Network	Ethernet monitoring; 6 x email address alerts; TCP ModBus; and on XS and XT only, Serial RS485 ModBus			N/A		
Dimensions (H x W x D mm)	279 x 229 x 159	337 x 330 x 127	338 x 333 x 191	403 x 356 x 135		

Notes

- FAAST FL2012EI (Intelligent): The fire alarm control panel monitors each sensor individually. The sensors may be individually configured as for any analogue addressable point detector.
- FAAST FL0112E (Conventional): The sensors may be configured in Double-Knock (AND) or Redundant (OR) modes.
- The maximum permissible zone area for a particular installation may be limited by applicable codes, standards, and/or specifications. **AS1670.1-2004 and NZS4512:2010 restrict the zone area to 2000m² or less, depending on site details.**
- "Single Pipe Length": The length of the pipe in a single branch system.
- Indicative maximum pipe lengths for standard fire detection (SFD) to UL Standards. Designs to AS1670 or NZS4512 may allow longer pipe lengths. Designs for Early Warning Fire Detection (EWFD) and Very Early Warning Fire Detection (VEWFD) may require shorter pipe lengths. **All sampling pipe system designs must be verified using PipeIQ™.**
- FAAST XS, XM and XT detectors automatically learn the baseline flow rate after installation. Flow monitoring on FAAST XS and XT detectors has a configurable delay, up to 255 seconds maximum. The nominal flow rate of FAAST LT detectors is configured using PipeIQ™.
- FAAST XS and XT detectors have been factory tested to 55 °C.
- Current specifications refer to a supply voltage of 24 Vdc and exclude current drawn by any connected sounders. Specifications for the XS, XM, and XT indicate current consumption with low (L), medium (M), and high (H) fan speeds. FAAST™ products are manufactured by System Sensor Europe (LT) and System Sensor USA (XS, XM & XT). FAAST is a trademark of System Sensor, St. Charles, IL, USA.