

Pertronic Fire Alarm Sensitivity Levels with System Sensor Detectors

The following table provides a summary of detector sensitivity levels for analogue addressable detectors used in Pertronic Fire Detection systems.

Detector Type	F100 Sensitivity Level	ALARM Obscuration* (%/m) or Temperature	F120, F220 Sensitivity Level	ALARM Obscuration* (%/m) or Temperature		
Photoelectric (Optical)			1	4.3 %/m		
	1	6.2 %/m	0	6.2 %/m		
	2	7.2 %/m	- 1	7.2 %/m		
	3	8.9 %/m	- 2	8.9 %/m		
Thermal Fixed (5251BPI)	1	63 °C	1	58 °C		
	2	70 °C	0	63 °C		
	3	78 °C	- 1	80 °C		
	4†	85 °C	- 2	87 °C		
Thermal ROR (5251RBPI)	1	63 °C	1	58 °C		
	2	70 °C	0	63 °C		
	3	78 °C	- 1	80 °C		
	4†	85 °C	- 2	87 °C		
Beam (6500S/6200)	1	Set in detector		Set in detector		
		Level 1	25 %/m	- 1	Level 1	25 %/m
		Level 2	30 %/m		Level 2	30 %/m
		Level 3	40 %/m		Level 3	40 %/m
		Level 4	50 %/m		Level 4	50 %/m
		Acclimate 1	30-50 %/m		Acclimate 1	30-50 %/m
		Acclimate 2	40-50 %/m		Acclimate 2	40-50 %/m
Acclimate (2251TMBPI)	1	3.3 %/m	1		3.3 %/m	
	2	3.3 – 6.6 %/m	0	3.3 – 6.6 %/m		
	3	6.6 %/m	- 1	6.6 %/m		
	4	6.6 – 11.5 %/m	- 2	6.6 – 11.5 %/m		
	5	11.5 %/m	- 3	11.5 %/m		
	6	63 °C	- 4	63 °C		
PTIR (2251TLE)	1	3.3 %/m	1	3.3 %/m		
	2	6.6 %/m	0	6.6 %/m		
	3	9.8 %/m (delay ≤ 45 sec)	- 1	9.8 %/m (delay ≤ 45 sec)		
	4	9.8 %/m (delay 45 – 90 sec)	- 2	9.8 %/m (delay 45 – 90 sec)		
	5	9.8 %/m (delay > 90 sec)	- 3	9.8 %/m (delay > 90 sec)		
	6	Rate of Rise, with static threshold at 60 °C	- 4	Rate of Rise, with static threshold at 60 °C		
COPTIR (2251CTLE)	1	3.3 %/m or > 45 ppm CO	1	3.3 %/m or > 45 ppm CO		
	2	6.6 %/m	0	6.6 %/m		
	3	9.8 %/m	- 1	9.8 %/m		
	4	9.8 %/m (delay ≤ 10 min)	- 2	9.8 %/m (delay ≤ 10 min)		
	5	13.1 %/m (delay ≤ 10 min)	- 3	13.1 %/m (delay ≤ 10 min)		
	6	Rate of Rise, with static threshold at 60 °C	- 4	Rate of Rise, with static threshold at 60 °C		
Laser Pinnacle (7251)	1	0.07 %/m	3	0.07 %/m		
	2	0.10 %/m	2	0.10 %/m		
	3	0.16 %/m	1	0.16 %/m		
	4	0.33 %/m	0	0.33 %/m		
	5	0.66 %/m	- 1	0.66 %/m		
	6	1.60 %/m	- 2	1.60 %/m		
	7	3.30 %/m	- 3	3.30 %/m		
	8	4.90 %/m	- 4	4.90 %/m		
	9	6.60 %/m	- 5	6.60 %/m		

This information is provided for quick reference. Please refer to the product datasheets and installation notes for complete information on the detectors.

* The higher the number, the less smoke is needed to trigger an alarm.

† Do not use heat detector sensitivity 4 with F100A panel software versions < 4.56.

