

<b>Specifications Requirement</b>	<b>NIJ Specifications (0602.03)</b>	<b>Matrix 100</b>		
Sensitivity (measured from surface of detector to surface of object)		High	Sensitivity Level Medium      Low	
Large object size class (zinc gun)				
Scan speed 0.5 to 2.0 m/s	8 cm	11.6 cm	8.6 cm	5.7 cm
Scan Speed 0.1 m/s	5 cm	11.6 cm	8.6 cm	5.7 cm
Medium object size class (steel knife)				
Scan Speed 0.5 m/s to 2.0 m/s	6 cm	11.5 cm	9.4 cm	6.3 cm
Scan Speed 0.1 m/s	5 cm	11.5 cm	9.4 cm	6.3 cm
Medium object size class (aluminum knife)				
Scan Speed 0.5 to 2.0 m/s	6 cm	7.0 cm	5.3 cm	3.5 cm
Scan Speed 0.1 m/s	5 cm	7.0 cm	5.3 cm	3.5 cm
Small object size class (steel handcuff key)				
Scan speed 0.1 to 2.0 m/s	3.5 cm	7.3 cm	5.6 cm	3.1 cm
Very small object size class (brass pen refill)				
Scan speed 0.1 to 2.0 m/s	1.5 cm	6.7 cm	5.0 cm	3.0 cm
Extremely small object size class (18-gauge stainless hypodermic needle)				
Scan distance and speed undefined		1.2 cm	0.2 cm	NA
Large metal panel interference	No alarm at 50 cm	43 cm	33 cm	21 cm

Scan area is cylindrical 28 cm long. Diameter is 2x the sensitivity distance for the object class plus 2 cm.

### **Scan Speed**

All object size classes      0.1 to 2.0 m/s      0.05 to 3.0 m/s

### **Scan Range**

Large object class  
    Scan speed of 0.5 to 2.0 m/s      +/- 8 cm      +/- 10 cm 0.05 to 3.0 m/s  
    Scan speed 0.1 m/s      +/- 5 cm

Medium object class  
    Scan speed 0.5 to 2.0 m/s      +/- 7 cm      +/- 10 cm 0.05 to 3.0 m/s  
    Scan speed of 0.1 m/s      +/- 5 cm

Small object size class  
    Scan speed .1 to 2.0 m/s      +/- 5 cm      +/- 10 cm 0.05 to 3.0 m/s

Very small object size class  
    Scan Speed 0.1 to 2.0 m/s      +/- 2 cm      +/- 10 cm .05 to 3.0 m/s

### **Operating Temperature (NIJ indoor / outdoor)**

	-37°C to + 65°C	- 40°C to +85°C
	-35°F to + 149°F	- 40°F to + 185°F
Relative humidity	95% 20°C to 60°C	95% 20°C to 60°C
Audible alarm volume	75 dB at 80 cm	85 dB at 80 cm
Battery		One 9V
Battery life	16 hours 19°C to 23°C	9V alkaline 215 hours 9V lithium 430 hours
Body interference	No alarm when touching hand	Yes
Weight	Less than 500 g	316 g (11 oz) w/ battery
Electromagnetic Emission	CISPR 22 Class B	Yes
Operating frequency		125 KHz
Peak magnitude of generated magnetic field at surface of detector		0.2 gauss