

---

---

# SPECIFICATION - STANDARD SERIES DETECTORS

---

---

## BASIC TECHNOLOGY

High frequency low power electromagnetic coil system.

## Frequency of Operation

Crystal controlled in the range 10 kHz to 500kHz staggered frequency versions available.

## Input Power

Voltage 85 to 265 V AC, Current 1.5 amps max. Frequency 47 to 440 Hz.

For cases where conformance to various safety specifications (UL, CSA, etc.) are required, input voltage range will be 85 to 250 V AC.

For connection to TN (EN60950:1992) power distribution systems only. For connections to other power distribution systems please contact your supplier.

## Temperature Range

Operating -10 °C to +45 °C (14 °F to 110 °F)

Storage -10 °C to +50 °C (14 °F to 120 °F)

## Humidity Range

Maximum relative humidity 93% for temperatures up to 45°C.

## Warm Up Time

Zero seconds at an ambient temperature of 20 °C

## Balancing

Automatic - fast switch on (5 seconds typical)

## Internal Battery Backup

Cell life - 5 years

Discharge time - 6 months from power off at temp. of 20°C

## Product speed

Selectable high and low from the control panel, low - x 1, high - x 3

Low - 0.05 to 2.5 metres / min. / mm. of aperture height  
(4 to 200 feet / min. / inch of aperture height)

High - 0.05 to 7.5 metres / min. / mm of aperture height  
(12 to 600 feet / min. / inch of aperture height)

Higher and lower speeds available on request

## Relay Output

Two sets of volt free change over contacts

Rating 5 amps at 250 V AC/30 V DC non- inductive

## Alarm Timers

See timer section in manual.

## Counters

If the maximum counter value is reached, the next increment will change the digits to \*.

Both counters are independently resetable from the control panel.

## Reject Counter.

Counts reject relay operations, not the number of detections or the number of rejects.

Maximum counter value - 9999

## Pack Counter

Requires an on line Pack Sensor if a gated timer is not used.

Maximum counter value - 16777214

Maximum count rate - 3000 packs/minute at a pack space ratio of 1:1.

## Spherical Sensitivity

Dependent on aperture size, and frequency of operation, all sensitivity information is expressed in diameters of spherical samples.

Non spherical objects such as wires will exhibit an orientation effect, ie. they can be more easily detected in certain axis. If the diameter of the wire is less than the spherical sensitivity setting the sample may not be detected in all orientations.

## Sensitivity Ratios

Dependent on frequency of coil system e.g. at 300 kHz

Non Ferrous x 1.1 Fe to 1.3 Fe diameter  
(depending on the metal)

Stainless Steel type A x 1.2 Fe dia.  
Stainless Steel type B x 1.3 Fe dia.  
Stainless Steel type C x 1.5 Fe dia.

## Sensitivity Gradient

Less than two diameters.

This is the difference in sensitivity measured at the centre of the aperture and the sensitivity at any other point in the aperture not closer than 10 mm to the surface.

## Environmental Protection

Painted version IP66, NEMA 4

Stainless steel version IP66, NEMA 4X

For more hostile environments a protective cover is available for the control panel.

To achieve the specified protection the module and power unit cover must be torqued down to 5 N.m (45 in.lbs), or 4.5 N.m (40 in.lbs) for the module if the environmental protection cover is used.

## Sound Output

Less than 62 dBA at a distance of 1m (without printer).

## RS232 Communication

Two communication ports COM1 and COM2 both accessible from the P/S Connection PCB within the Power Unit Enclosure.

Both communication ports are typically  $\pm 9$  V levels and use the following data format:-

Baud rate:	9600
Data bits:	7
Start bits:	1
Stop bits:	1
Parity bits:	1 Odd

### COM1

4 or 2 wire control.

### COM2

2 wire control.