

## Flat-belt Type NIP- D (Standard)

**Detect iron and stainless pieces**

**In both aluminum foil package and non-aluminum package**

Equipped with mis-detect a little, highly accurate, magnetic sensor.

Possible to detect it even by the high temperature and the moisture adhesion.

The product of the aluminum wrapping and salinity is OK.

The operation easiness: All the condition settings of each commodity are unnecessary.

Japanese patent No.3857271  
United States Patent US6,958,603B2  
US7,102,347B2

South Korea patent No.0543992  
Chinese patent Acquisition  
European patent Claim for examination

### Specification

Model	NIP- D	NIP- D
Length	1000 mm	1300 mm
Belt Width	250 mm	450 mm
Aperture Hight	40 ~ 100 mm	
Sensor	Magnetic field type	
Inspection Range	Width: 230mm Length:Free	Width:430mm Length:Free
Height of transportation side	800 ±50 mm	
ConvyerSpeed(Changeability)	10 ~ 50 m/min.	10 ~ 30 m/min.
Display	5.7-inch touch panel LC.	
Operation part	Start button , stop button Power on/off switch	
Monitor	10 level LED display	
Signal	Red	
Transportation load	1 Kg/plane	10 Kg/plane
Power supply	AC100V single phase 50/60HZ	
Weight	80 kg	140 kg
Casing Material	SUS304	
Option	Motor Waterproofing, Main Waterproofing (IP65),printer	

Specifications are subject of change without notice.



### Metal detection system comparison table

	TOK Detector	Conventional Metal Detector	X-ray Detector
Detection Method	Relative permeability	Electromagnetic wave or force lines	X-ray & image processing
Frequency in use	Audio range(50Hz ~ 20kHz)	Electromagnetic wave(33k-1Mhz)	Electromagnetic wave (10 <sup>16</sup> ~ 10 <sup>18</sup> Hz)
Detection Capability			
Normal Package	Yes	Yes	Yes
Al evaporated Package	Yes	Yes, if no eddy current	Yes
Al foil package	Yes	No	Yes
(a)Fe (10mm from Sensor)	Fe □1.0mm		Depend upon shape and density
(b)SUS304 (Same as above)	SUS304 □1.0mm		
Salt Concentration	No influence	Strong influence	No influence
Temperature and humidity	OK -20 ~ 80 / Steam	Very complicated	Need to be adjusted for different shape & density
Conveyer Speed	Generally no need to adjust sensitivity	Need to adjust speed to avoid eddy current	Sensitivity adjustment is Necessary
Operationability			
Sensitivity adjustment	5 level	Need to be adjustment for different shape & density.	Need to be adjustment for different shape & density.
Warm-up time	7 Seconds	30 minutes	Very long time
Safety			
Influence of Electromagnetic wave & X-ray	No influence	Possible influence of electromagnetic wave	Possible influence of X-ray
Safety cover	Not necessary	Not necessary	Necessary
Economy			
Running cost	Very low	Low	Exchanges such as periodical maintenance and X-ray tubes

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