

# cosmo-one

MS-3147





# cosmo-one assures product safety

Employing a cutting-edge algorithm, **cosmo-one** enhances effective sensitivity.

Select from a range of detection modes depending on your need.  
Easily and automatically set high sensitivity or high stability, as required.

## Detects various impurities with high sensitivity

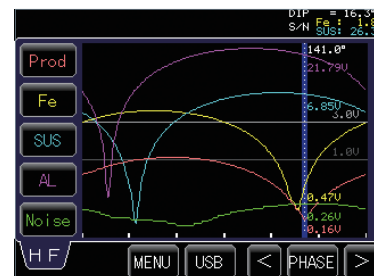
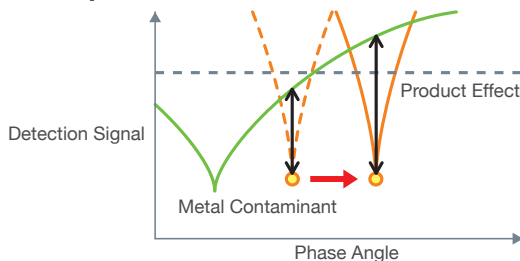
### Auto settings for high and stable sensitivity

Sensitivity is enhanced by the cutting-edge algorithm and ten different detection modes which automatically reduce product effect.

### Rigidly detects non-ferrous metal impurities

Non-ferrous as well as ferrous metal impurities are detected with high sensitivity.

### Concept of ADV Mode



Phase characteristic screen

## Fool-proof operation

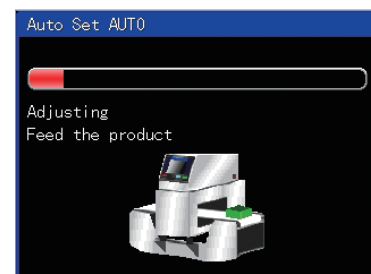
### Convenient Automatic Settings

By passing the same product through **cosmo-one** several times, the most suitable detection mode will be automatically selected based on the characteristics of the product.

### Eye-Friendly Color Touch Panel

Large 5.7-inch high-definition color touch panel LCD display. Eye-friendly display enables comfortable and user-friendly operation. In addition, an LED backlight assures long lifetime and reduced power consumption.

- ▶ **Guidance function, easy to understand for beginners.**
- ▶ **Multiple languages supported.**  
Display can be configured in four languages.



**Setting:**  
Pass the product through the machine a few times



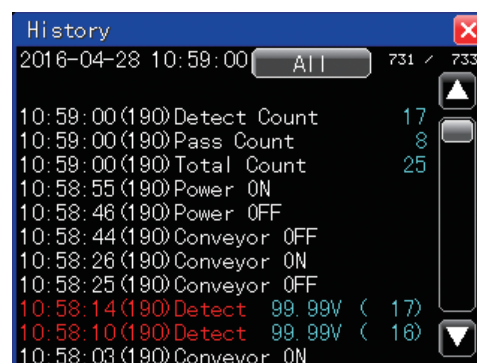
## Fully-equipped management function

### Historical Trail Function

**cosmo-one** stores a transaction log of up to 20,000 items. Output is available upon each event occurrence, so that necessary information can be retrieved in a moment.

#### Contents in historical trail

- ① Metal impurities: detection voltage, number of piece
- ② Error occurrence, error recovery (error description)
- ③ Product changeover: item # before and after change
- ④ Power ON, power OFF
- ⑤ Start conveyor, stop conveyor
- ⑥ Various settings changes: setting before and after change



History	
2016-04-28 10:59:00	ALL 731 / 733
10:59:00 (190)	Detect Count 17
10:59:00 (190)	Pass Count 8
10:59:00 (190)	Total Count 25
10:58:55 (190)	Power ON
10:58:46 (190)	Power OFF
10:58:44 (190)	Conveyor OFF
10:58:26 (190)	Conveyor ON
10:58:25 (190)	Conveyor OFF
10:58:14 (190)	Detect 99.99V ( 17)
10:58:10 (190)	Detect 99.99V ( 16)
10:58:03 (190)	Conveyor ON

Also stores detected voltage data for test piece

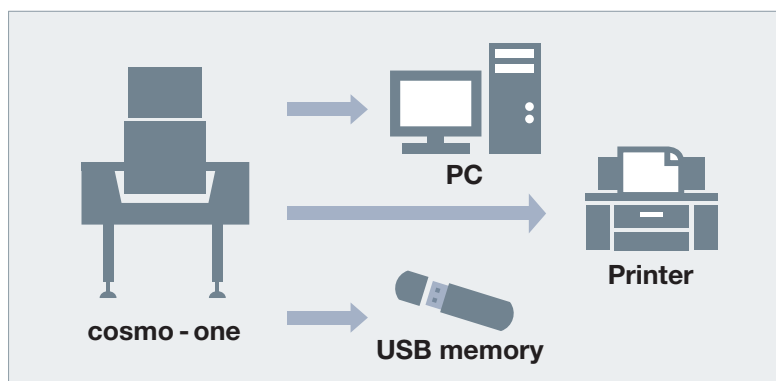
### Data outputs

**cosmo-one** conserves paper usage, since it is able to select output contents. A USB memory slot is implemented as a standard feature, so that **cosmo-one** can save and load entire settings, making software updates quick and easy.

### Operational Confirmation

The extensible operation check feature fulfills traceability capability. It also makes management simple since the records from the operational check execution log are recorded.

With regard to operational checks, the "Manual Setting" can be done voluntarily by the user and the "Enforced Operational Check" is done automatically by **cosmo-one** when the time is set or brand change is performed.



## Improvement on Cleaning

In the new design, **cosmo-one** reduced the amount of depressed or uneven surfaces on the main body where dust or fragments can get stuck. The conveyor belt is detachable in a single action. Cleaning the machine becomes quick and easy.



The easy detachable conveyor

## Specifications

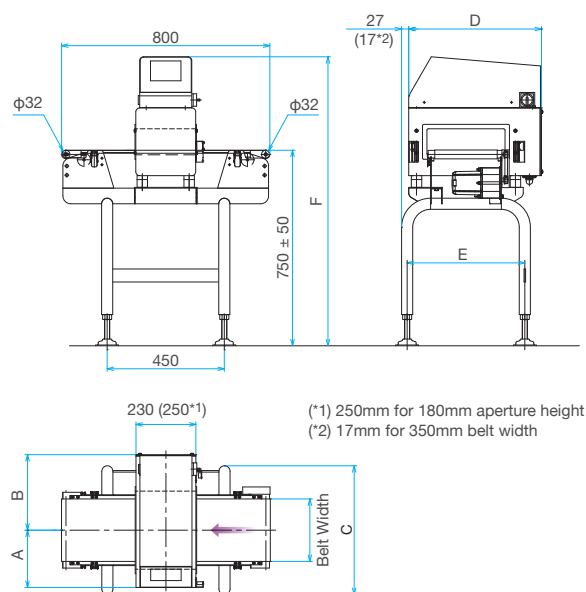
Model		MS-3147-2205-SS/WP	MS-3147-30**-SS/WP			MS-3147-45**-SS/WP		
		2205	3008	3012	3018	4508	4512	4518
Aperture of search head	Width	220mm	300 mm			450 mm		
	Height	70 mm	100 mm	140 mm	200 mm	100 mm	140 mm	200 mm
	Height from belt surface	50 mm	80 mm	120 mm	180 mm	80 mm	120 mm	180 mm
Product size	Width (max.)	160 mm	240 mm	240 mm	240 mm	350 mm	350 mm	350 mm
	Height	50 mm	80 mm	120 mm	180 mm	80 mm	120 mm	180 mm
Conveyor size		800 mm(L) x 160 mm(W)	800 mm(L) x 240 mm(W)			800 mm(L) x 350 mm(W)		
Belt speed		10-60 m/min	20 m/min (50 Hz), 24 m/min (60 Hz)					
Max. load on conveyor		3 kg	5 kg					
Expected sensitivity (*1)	Fe ball	0.2 mm	0.3 mm	0.4 mm	0.6 mm	0.4 mm	0.5 mm	0.7 mm
	SUS ball	0.6 mm	0.6 mm	0.7 mm	1.0 mm	0.7 mm	0.8 mm	1.2 mm
HMI	Size	5.7" TFT color LCD in English, Simplified Chinese, Korean or Japanese						
	Presets	200						
Data output		USB port, RS-232C						
Utilities	Power supply	100~120V or 200~240V 50/60Hz 1-Phase 2.2A 170W	100~120V or 200~240V 2 50/60Hz 1-Phase 2.0 A, 150 W					
	Compressed air	Not required (*2)						
Environment		0 °C to 40 °C / 30 % to 85 %						
Structure	Material	Stainless steel (aluminum for Type1)						
	IP rate	SS: IP30, WP: IP65	SS: IP30, WP: IP66 (IP65 when conveyor speed adjustable feature is included.)					
Size of machine	Footprint	800 mm(L) x 537 mm(W)	800 mm(L) x 537 mm(W)			800 mm(L) x 677 mm(W)		
	Belt height	750 mm +/- 50 mm (min. 550 mm / max. 1000 mm, each 50 mm)						
	Weight	90 kg	97 kg	99 kg	102 kg	107 kg	110 kg	124 kg

(\*1) Results of when test balls, Fe and SUS304 were set at the center of belt surface. Detection sensitivity depends on product shape, installation and environmental conditions.

(\*2) Compressed air is required in case of the interface with the pneumatic drive rejecting the device.

## Machinery Dimensions

(Unit:mm)



Model	Belt Width	Aperture Width	Aperture Height	Dimensions					
				A	B	C	D	E	F
MS-3147(2205)	160	220	50	180	365	495	545	452	1095
MS-3147(3008)	240	300	80	220	290	495	545	452	1110
MS-3147(3012)	240	300	120	220	290	495	545	452	1150
MS-3147(3018)	240	300	180	220	300	495	510	452	1210
MS-3147(4508)	350	450	80	295	365	625	695	582	1110
MS-3147(4512)	350	450	120	295	365	625	695	582	1150
MS-3147(4518)	350	450	180	295	365	625	695	582	1210



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