



NPB Dynamic End Counter

A compact, high-speed optical sensor for precise counting of all types of ends. Handles up to 12,000 ends/min with exceptional accuracy, even during flow interruptions or reversals. Compatible with any end handling system and ideal for quality control stations.





NPB Dynamic End Counter

This unique end counter with optical sensors is capable of precision counting of all types of ends – beverage, food, aerosol, EOE etc. It automatically adapts to any material/color changes in the end flow and can be used with any end handling equipment.



Exceptional accuracy

The NPB dynamic end counter keeps track of up to 12 000 ends per minute and the accuracy is extremely high, with max 4/1 000 000 ends. The device counts the exact number of ends even if the flow of ends stops, reverses, or shakes in front of the sensor. It is easy to install and can be used with end handling equipment from any manufacturer.



Technical specification

Article Number:

Dynamic End Counter V2..... 12153010

Technical data:

Dimensions, l x w x h 120 x 34 x 60 mm (4.7 x 1.3 x 2.4 inch)

Material..... Anodized Aluminum

Weight..... 400 gr (14.1 oz)

Power supply..... 10-30 VDC, 0.2 A

Protection class..... IP 54

Capacity, max counting speed.... 12 000 EPM (200 Hz)

Product Options:

Plastic slider block and brackets

Cabling, 5, 10, 20, 50m

Connection boxes with various functions:

- End Counter
- Count Validator
- Preset Counter



End Counter

The NPB end counter display accumulates the count signals from the NPB dynamic end counter and presents the count on a display. The end counter display is easy to reset from the touch screen.

It is mounted in a robust aluminum casing with a practical handle, making it easy to carry between stations. Sockets for power supply and DEC sensor cable. Delivered with a power adapter, 230 VAC or 110 VAC



Usage

A perfect tool at quality stations to verify bag counts of can ends. Slide the NPB dynamic end counter sensor over the naked stick of ends and the NPB end counter displays the actual count.

Technical specification

Article Number:

End Counter DEC..... 46102900

Technical data:

Dimensions, D x W x H..... 75 x 185 x 190 mm (3 x 7 ¼ x 5 ½ inch)

Material..... Anodized Aluminum

Weight..... 1,7 kg (3.8 lb)

Power supply..... 24 VDC, 0,5 A / 230 VAC 40 mA

Protection class..... IP 54



Count Validator

The NPB count validator collects count from an external NPB dynamic end sensor placed on the conveying and compares that with the count of the machine being validated.

It is a complement to manual check of bag counts and has the benefit that no bags need to be taken out from the machine. This concept removes the risk getting mixed products when reintroducing checked bags.

It is mounted in a robust aluminum casing with a practical handle, making it easy to carry between stations. Sockets for power supply and DEC sensor cable. Delivered with a power adapter, 230 VAC or 110 VAC.



Usage

From the machine and lane being tested, the NPB count validator needs a trigger signal (potential free contact) for each split or stick of ends being packed. Connected via an M8 sensor cable to the NPB count validator.

Manually adjust preset in the NPB count validator to the actual value used in the machine.

The NPB count validator continuously compares the counts, internal from the machine and external from the NPB dynamic end counter - and the result shall be equal.

Let the system now run for some time, the longer the more accurate result.

Technical specification

Article Number:

End Counter DEC..... 46102800

Technical data:

Dimensions, D x W x H..... 75 x 185 x 190 mm (3 x 7 ¼ x 5 ½ inch)

Material..... Anodized Aluminum

Weight..... 1,7 kg (3.8 lb)

Power supply..... 24 VDC, 0,5 A / 230 VAC 40 mA

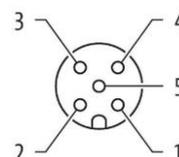
Protection class..... IP 54



Accessories

Cabling

Art.nr:	Name:
PH-1464518	Cabling, 12 pol DIN (straight) –5 pol M12 (0,3m), single or A/B count
PH-1464551	Cabling, 12 pol DIN (angled) –5 pol M12 (0,3m), single or A/B count
PH-1464552	Cabling, 12 pol DIN (straight) –5 pol M12 (0,3m), 1/10 count
PH-1464553	Cabling, 12 pol DIN (angled) –5 pol M12 (0,3m), 1/10 count
PH-1464554	CH - A -NPB-CABLE-6-SE

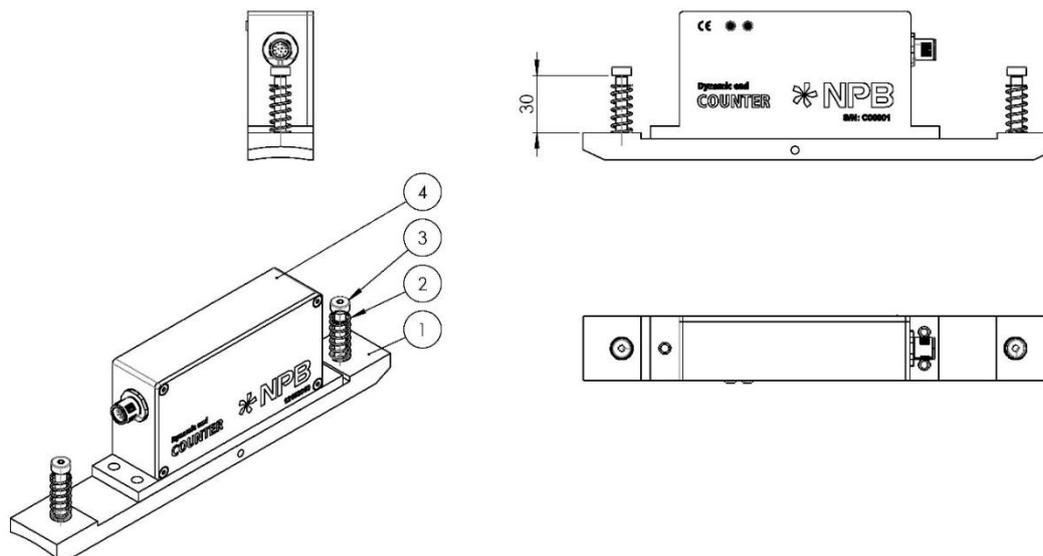


Slide Block kit

Use our slide block kit directly placed on to your conveying system. This kit will guarantee correct distance between the sensor and ends. Springs always ensure the unit slides on the ends.

Article Number: 42038810

No:	Art.No:	Name:
1	42038811	Slide Block
2	LE-2461	Spring
3	RI-6M530	Shoulder Screw
4	12153010	Dynamic End Counter (not included)

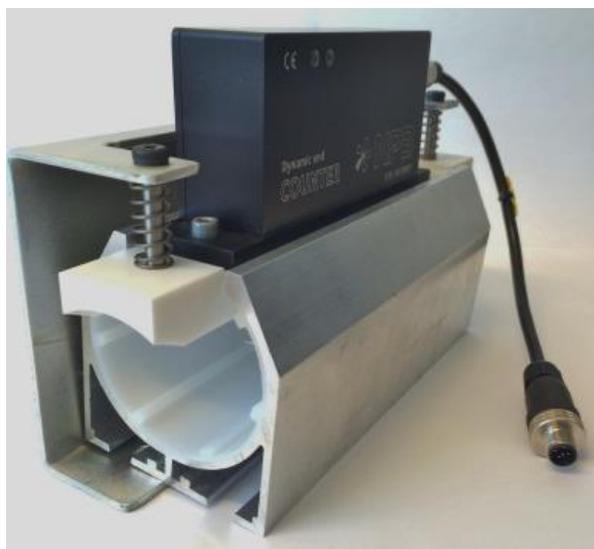




Mountings

Use our NPB dynamic end counter directly placed on to your conveying system. We have mountings for the most common aluminum extrusions for beverage ends that comes together with a slide block kit.

Art.No:	Name:
42038820	Bracket for KTC
42038830	Bracket for Modulex
42038840	Bracket for NSM
42038850	Bracket for Canline





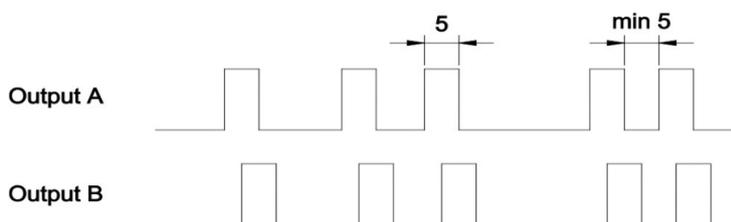
Dynamic End Counter - Technical Features

Product Features

Optical End Counting Sensor	Reset reverse counting buffer, max buffer 250 pc
A and B channel	Inverted A and B channel, 5ms long
Connector	Positive pulse every 10th end counted, 75ms long
Color insensitive	Negative pulse every 10th end counted, 75ms long

Electrical data

Power supply (VDC)	10-30
Current consumption (mA)	200
Phase difference A and B (°)	90
Counting speed (Hz)	200
Pulse Diagram (ms)	

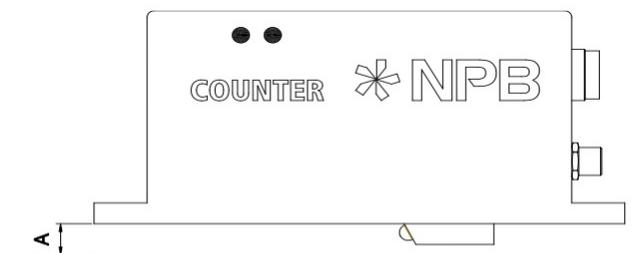


Outputs

Other function	A and/or B channel and inverted signals
Output frequency (Hz)	Max 100

Mechanical data

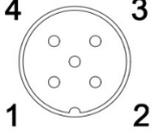
Dimensions, (L x W x H) mm	150 x 34 x 72
Material	Anodized Aluminum
Weight G (oz)	400 (14,1)
Protection Class (IP)	54
Fastening (Ø)	3 x 6 mm
Mounting	
A = 10 mm	



Direction of transport ends



Electrical Connection, standard cabling

Connection	M12 connector, 5 pole	A and B channel	1/10 pulse
Wiring		1. 8-32 VDC 2. Channel B 3. 0V 4. Channel A	1. 8-32 VDC 2. Negative 1/10 3. 0V 4. Positive 1/10

Function

Output LED status indication	Green steady	OK
	Red	Malfunction
	Yellow flashing	Counting
	Blue flashing	Reverse counting

Setup

When installing the Dynamic End Counter there is some important things to take into consideration:

- The height A must be as accurate as possible, the accuracy of the counting is depending on it, typically +/- 1 mm is ok
- Some type of shells need calibration of the counter to achieve an accurate count, see below under Calibration

Calibration

Place the counter on the shells to be counted

Disconnect the power supply

Restart the counter

