#### Soontech Annals

# EC02: Small Decimal Encoder

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#### **Features**

- Small and simple stacked design with demibolts.
- Encodes up to 1000 item types.
- $\bullet$  Uses up to four carts for 1 code/56 gt throughput

### **Applications**

• Encoding items



Figure 1: Small Decimal Item Encoder

### **General Description**

The EC02 small item to decimal encoder uses demibolts and a simple layered design. It can handle up to 1000 item types.

# **Device Specifications**

#### Table 1: Inputs

Name	Range	Description
Item input	Item	Item for encoding.

#### Table 2: Outputs

Name	Range	Description		
Item output	Item	Outputs the inputted item.		
Item Code 1	6-15	First digit of code.		
Item Code 2	6-15	Second digit of code.		
Item Code 3	6-15	Third digit of code.		

#### Table 3: Device Specifications

Parameter	Min.	Typ.	Max.	Unit	Conditions
Throughput	56	-	-	gt	Normal Usage
Active Lag	+0.5	+1	+2	ms	At fullspeed. Ryzen 5 3600, 2GB RAM. MC 1.18.1 with Lithium.
MC Version	1.16	1.17.1	-	MCV	Latest version at time of writing: 1.19.3
Dimensions		28 x 13 x 17		Blocks	

## **Testing Data**

Table 4: Executed Tests

Test	Result
Item encoding test	Device was able to encode with item input
Throughput test	Device was able to encode at 8gt throughput with randomized input.

# **Download Information**

Table 5: Download Information

Identifier	MC	File	Description
EC01	1.17.1	$EC02\_small\_decimal\_encoder.lite matic$	Schematic of encoder.