

# EC02: Small Decimal Encoder

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## Features

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

## Applications

- Encoding items

## General Description

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

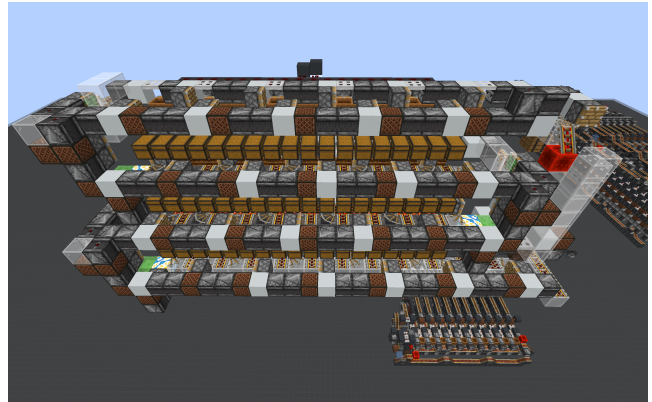


Figure 1: Small Decimal Item Encoder

## 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	<a href="#">EC02_small_decimal_encoder.litematic</a>	Schematic of encoder.