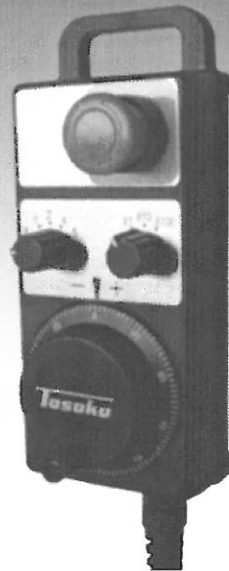


# Handy Manual Pulse Generator

Tosoku


# HM Series



## Outline

HM series have a variety of switches which can be customized according to your requests. The model is compact and lightweight, which is perfect for accurate and smooth manual operation.

## Features

- Various switches available : Emergency switch (2 positions), side mounted (right/ left) enabling switches, 2 rotary switches (as axis and multiplication selector etc. )
- Compact, thin-line and lightweight.
- Strong plate magnets available on back side. (optional )
- RoHS compliant (box/ cord)
- Various types of curl cords provided along with connectors of all sorts at your request.

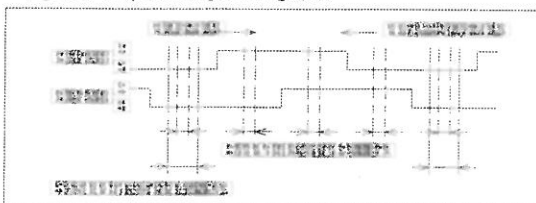
## Specifications

1. Body	
Dimension	145×73×35(mm)
LED light	DC24V Green
Enabling Switch	Available on both sides
Logo	Logo available on the wheel cover

### 2. Mechanical specifications

2.1 Rotary Encoder Unit	
Output Voltage	DC5V±10%/DC12V±10%
Wheel	100 clicks / rotation 100 pulse or 25 pulses per rotation
Rotational Durability	Over 1,000,000 times
<u>Output Waveform</u>	

- 1) Turning the shaft clockwise would generate the signal A when the signal B outputs a low voltage (0);
- 2) Rotating the shaft counter-clockwise would generate the signal A when the signal B outputs a high voltage(1);



\* See RE45B page for details

### 2.2 Selector Switches

MR8A (Rotary switch) 25V15mA (AC/DC)  
MR8C (Code switch) 15V10mA (AC/DC)  
\* See MR8A/ MR8C pages for details

### 3. Curl/ Straight Cords

Curl Cord	19/ 25-conductor shielded cable 19-conductor: select from 2m, 3m, 4m, 5m 25-conductor: select from 3m, 5m (We will select either 19 or 25-conductor in accordance with required functions) For further details, please see the catalogues for curl cords
Straight Cord	Also available

### 4. Connector Unit

Connector	Dripproofed connector to be attached on the end of the cord optionally provided
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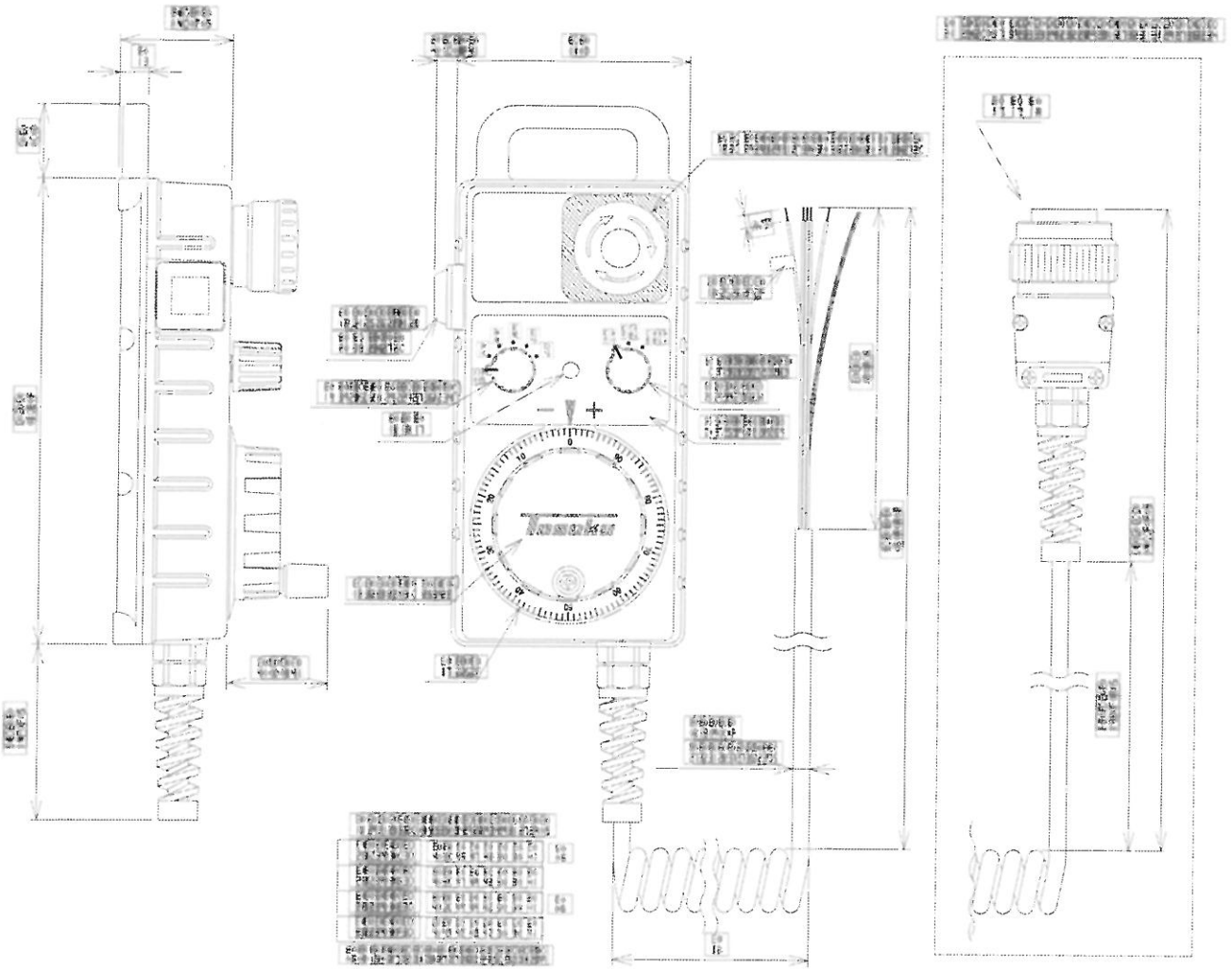
## Warranty

- 1 year from the date of shipment.

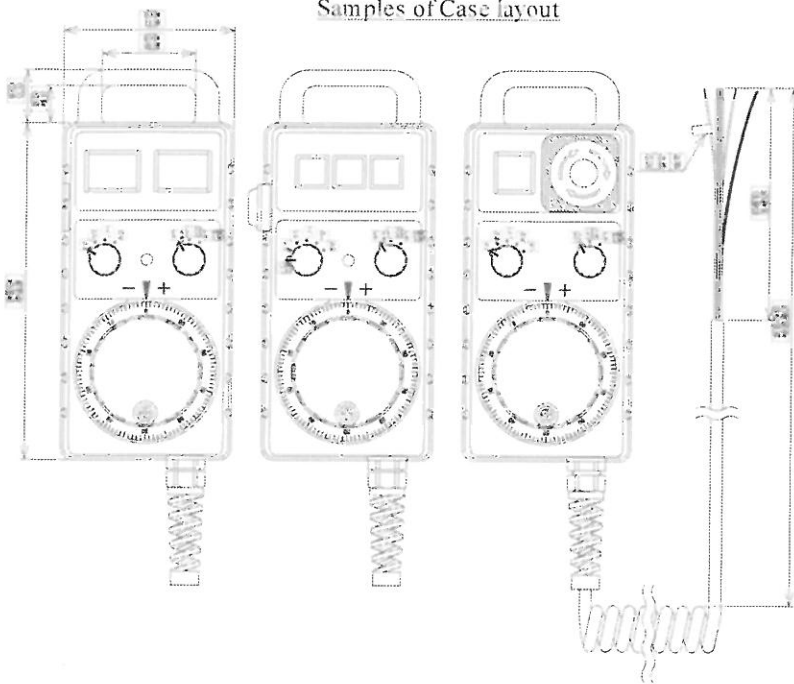
# Dimensions (mm)

HM Unit with curl cord

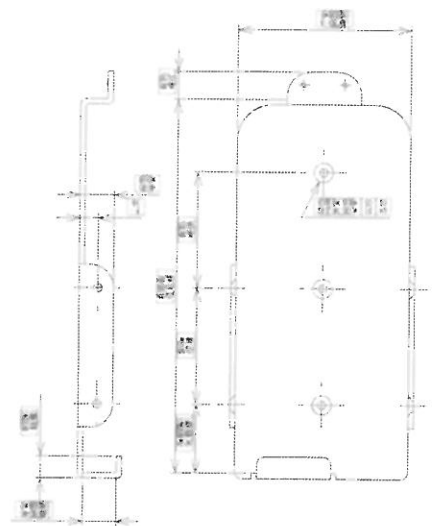
※ This drawing is an example, it may differ according to number of swithes etc.



Samples of Case layout



Original Holder



# H M series Order Sheet (Print out this page for sending orders.)

We'll hand in to you a drawing in accordance with your order. The drawing shall be approved before starting in on production.

1) Select one from each spec table and fill blank spaces with "O".

Pulses/Rev.	
<input checked="" type="checkbox"/>	100PPR
* <input type="checkbox"/>	25PPR

\*25PPR and yet 100 Clicks/Revolution

Power Supply	Output
<input type="checkbox"/>	5V 5V (330Ω Pull Up)
<input type="checkbox"/>	5V Open Collector
<input type="checkbox"/>	5V (for Line Driver)
<input type="checkbox"/>	12V 5V (2.2kΩ Pull Up)
<input type="checkbox"/>	12V 12V (2.2kΩ Pull Up)
<input type="checkbox"/>	12V Open Collector
* <input checked="" type="checkbox"/>	12V- for Photocoupler
	24V (Open Collector)

\* Transistor will be "OFF" at every clicked positions.

(For other open collector output models, transistors will be "ON" at every clicked positions.)

Logo on the dial	
<input type="checkbox"/>	None
<input checked="" type="checkbox"/>	with "TOSOKU" logo
<input type="checkbox"/>	with an original logo( )

2-Position Enabling Switch	
<input type="checkbox"/>	None
<input checked="" type="checkbox"/>	One on the left
<input type="checkbox"/>	On both sides

Emergency Switch (contacts)	
<input type="checkbox"/>	None
<input checked="" type="checkbox"/>	Mounted ( NC )

\* 1 for (NO), 4 for (NC) maximum (1A/4B). Maximum of 4 contacts in total (1A3B or 4B).

Magnet on the backside	
<input type="checkbox"/>	None
<input checked="" type="checkbox"/>	Mounted

Axis Selector/Multiplication Selector Switches	
<input type="checkbox"/>	MR8C type (Gray code switch)
<input checked="" type="checkbox"/>	MR8A type (Selection switch)

Indications for Axis Selector (left)

e.g.	OFF, X, Y, Z, 4, 5
<input checked="" type="checkbox"/>	X, Y, Z, 4, 5

Indications for Multiplication Selector (right)

e.g.	x1, x10, x100
<input checked="" type="checkbox"/>	x1, x10, x100

Curl Cord Length	
<input type="checkbox"/>	2m Curl Cord (for only 19-conductor cord)
<input type="checkbox"/>	3m Curl Cord
<input type="checkbox"/>	4m Curl Cord (for only 19-conductor cord)
<input checked="" type="checkbox"/>	5m Curl Cord

\* We will select either 19-conductor cord or 25-conductor cord to cover your requested specs

Waterproofed Connector (for curl cord)	
<input checked="" type="checkbox"/>	None
<input type="checkbox"/>	Male connector (EBSP2119MG-D, DDK)
<input type="checkbox"/>	Female connector (EBSP2119FGS-D, DDK)

\* Fill in both spaces to order both connectors.

2) Other options

Other options to request	
(e.g.)	Switches with LED illumination x 2
	2 contact selector switch x1
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- Rotary Encoders
- Pulse Generators
- Rotary Switches
- Code Switches
- Lever Switches
- Trackballs