

# Minicodi

# 04



**MS**

199



**MF**

200



**MB**

200



**MV**

201



**MK**

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# MINICODI



<b>TYPICAL APPLICATIONS</b>	Electronic control for appliances
<b>WIRING DIAGRAMAS</b>	<ul style="list-style-type: none"> <li>2-bit digital output (incremental function)</li> <li>Up to 21 positions</li> </ul>
<b>CYCLE NR</b>	10.000
<b>AMBIENT TEMPERATURE</b>	85 °C

Encoders display different dimensions and mounting systems on the control panel. Dimensions vary a lot depending on the different applications. MINICODI series as potentiometer can be coupled with selector switches.

Rating

20 mA / 5 VDC

T 85 °C

### ADDITIONAL FEATURES

- Golden contacts
- 360° with or without end stop
- Different mounting solutions available:  
snap-in or M4 screws or serf tapping screws
- Push to select version available
- Coupling with function selector switches
- Miniature encoder
- 2-bit digital output (incremental function)
- Typical use for analogical / resistive applications
- Permitted angular tolerance: +/- 2°
- End stops: ≥ 100 Ncm
- Operating torque: custom
- Edge connectors

## MINICODI - INCREMENTAL ENCODER

The mechanical encoder with digital output are available in absolute or incremental code. The shaft rotation, in the incremental output, generates pulses that, sent to the microprocessor, determine a “relative” position. The counts of pulses continue with the rotation of the shaft, which allows the position to change infinitely, or as the microprocessor allow. Direction may be determined by analyzing difference between the two channels.

Example of incremental encoder configuration with gray code

Detent	Ang.	Output		
		C	1	2
1	0°	■	■	
2	30°	■	■	■
3	60°	■		■
4	90°	■		
5	120°	■	■	
6	150°	■	■	■
7	180°	■		■
8	210°	■		
9	240°	■	■	
10	270°	■	■	■
11	300°	■		■
12	330°	■		

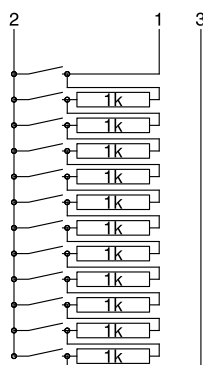
Example of incremental encoder obtained with momentary positions

Pos.	Ang.	Output	
		1	2
1 momentary	+30°	■	
0 stable	0		
2 momentary	-30°		■

## MINICODI - POTENTIOMETER

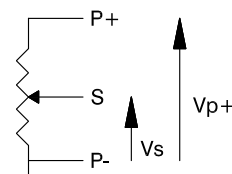
The potentiometer is a mechanical encoder with resistive analogical output. The potentiometer version can be implemented either using a continuous "carbon" layer or a resistor array. The potentiometer has a rotation that can be infinite or steps (positions). Push to select function available.

### Potentiometer resistor array



Pos.	Ang.	2	
		1	3
1	0°	10K	11K
2	30°	1	10K
3	60°	2K	9K
4	90°	3K	8K
5	120°	4K	7K
6	150°	5K	6K
7	180°	6K	5K
8	210°	7K	4K
9	240°	8K	3K
10	270°	9K	2K
11	300°	10K	1K
12	330°	11K	10

### Potentiometer carbon film



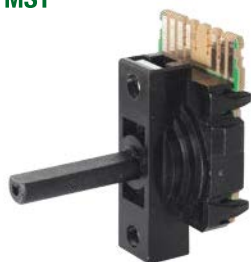
Value between P- and S		
Detent	Ang.	Output voltage %
1	0°	0%
2	35°	11%
3	70°	22%
4	105°	33%
5	140°	44%
6	175°	56%
7	210°	67%
8	245°	78%
9	280°	89%
10	315°	100%

endstop

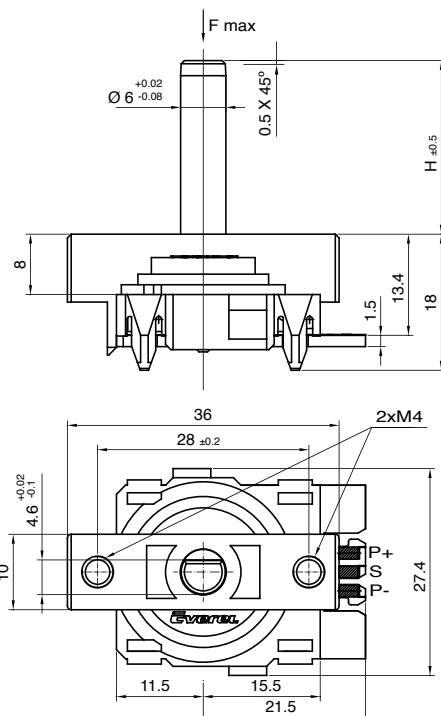
# MS

MINICODI	FIXING TYPE	H SHAFT (mm)	NUMBER OF POSITIONS
MS1	Screw m4	<ul style="list-style-type: none"> <li>11</li> <li>13</li> <li>16</li> <li>18</li> <li>20,4</li> <li>23</li> </ul>	<ul style="list-style-type: none"> <li>Free rotation 360°</li> <li>Free rotation with mechanical stop</li> <li>Positions number: min. 2 - max 21 with or without mechanical stop</li> <li>Double momentary</li> </ul>
MS2	Self tapping screw		

### MS1



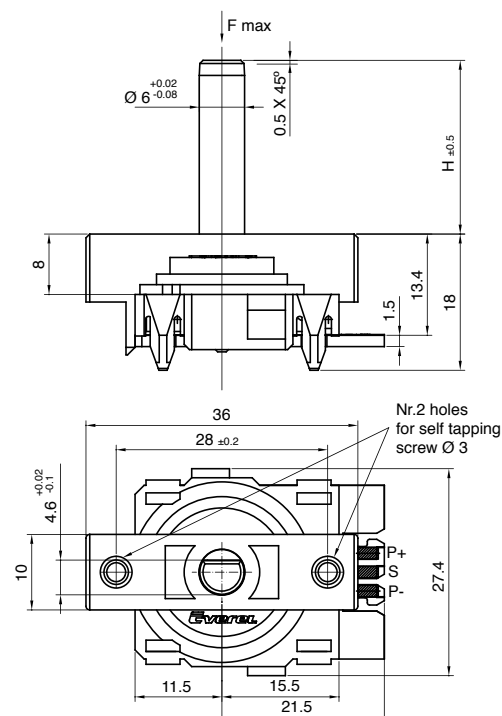
### MS1



MS1 encoder, body standard version with M4 screw fixing type.

### MS2

### MS2



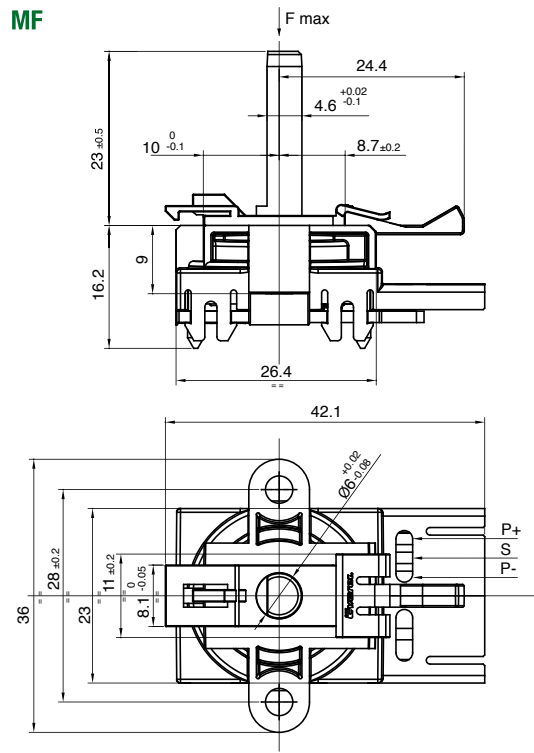
MS2 encoder, body standard version with self tapping screw fixing type.

# MF



MINICODI	FIXING TYPE	H SHAFT (mm)	NUMBER OF POSITIONS
MF	<ul style="list-style-type: none"> <li>Self tapping screw</li> <li>Snap in</li> </ul>	<ul style="list-style-type: none"> <li>23</li> </ul>	<ul style="list-style-type: none"> <li>3 P</li> <li>6 P</li> <li>8 P</li> <li>10 P</li> <li>12 P</li> </ul>

## MF



MF encoder, version with snap in fixing type or self tapping fixing type.

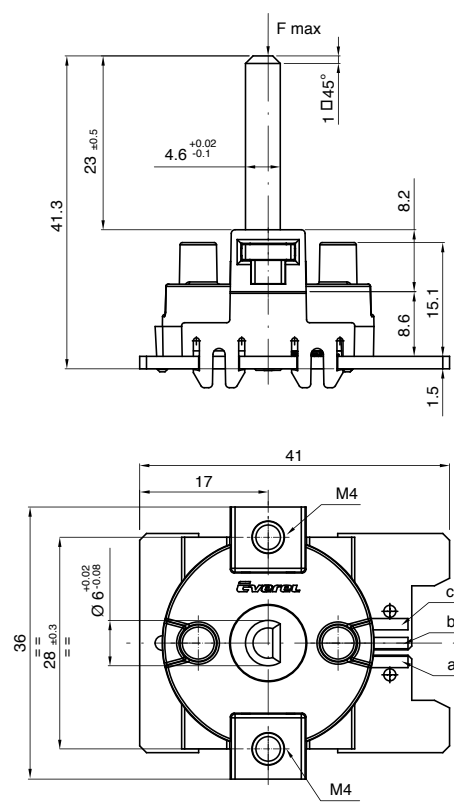
# MB

MINICODI	FIXING TYPE	H SHAFT (mm)	NUMBER OF POSITIONS
MB1	Screw m4	<ul style="list-style-type: none"> <li>13,7 cross</li> <li>23</li> </ul>	<ul style="list-style-type: none"> <li>Free rotation with 1 position at 0°</li> <li>Free rotation with 20 positions</li> </ul>
MB2	Snap in		

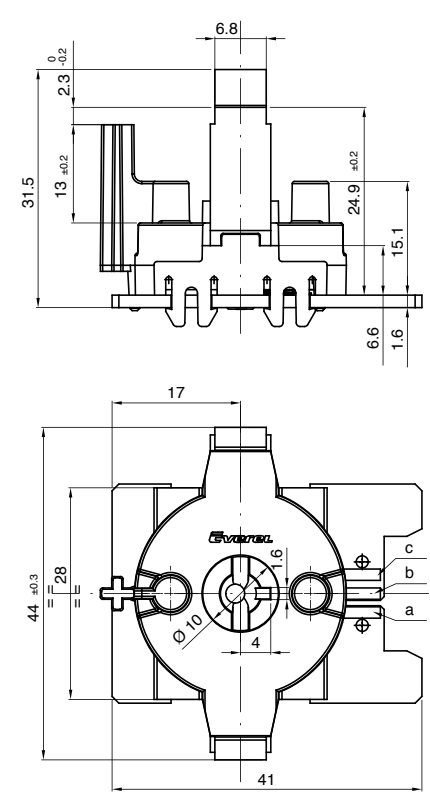
## MB1



## MB1



## MB2



## MB2



MB1 encoder, version with M4 screw fixing type.

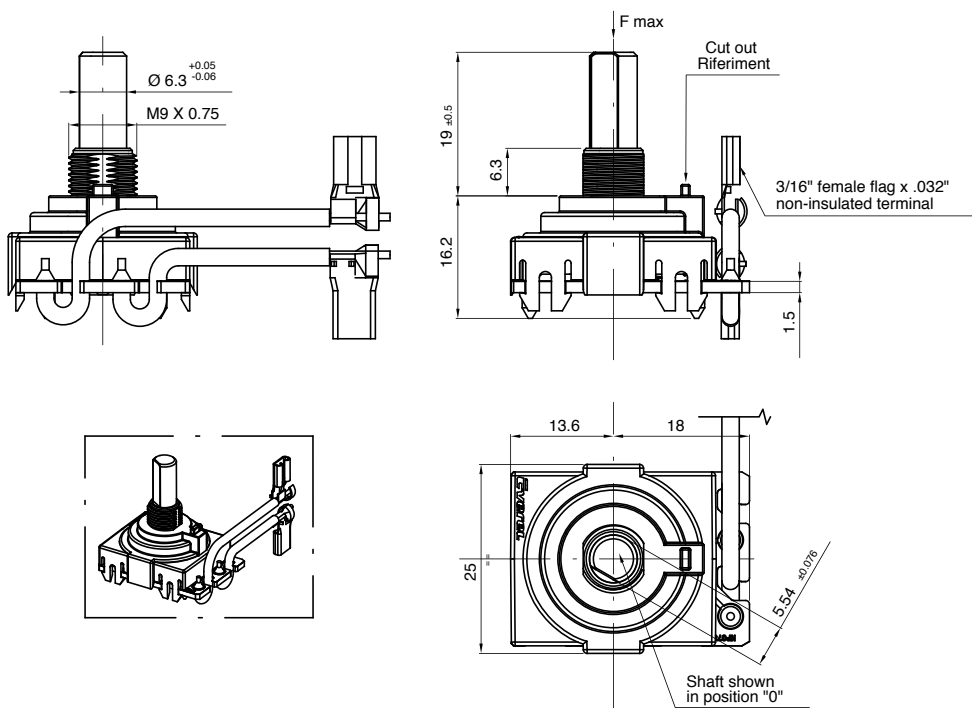
MB2 encoder, version with snap in fixing type.

# MV

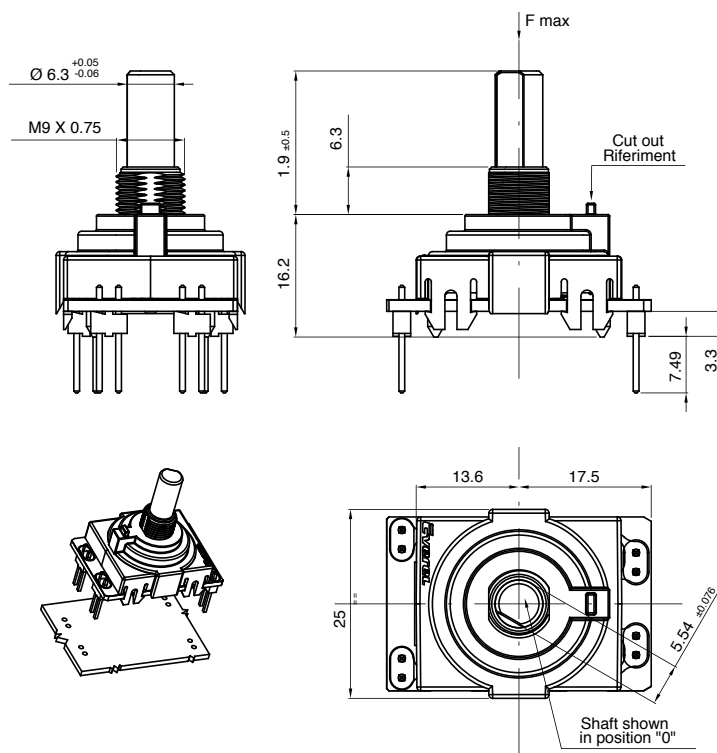
MV1



MINICODI	FIXING TYPE	H SHAFT (mm)	NUMBER OF POSITIONS
MV1	Threaded ring	■ 12,7	■ Free rotation 360° with stop
MV2	Soldering pin		



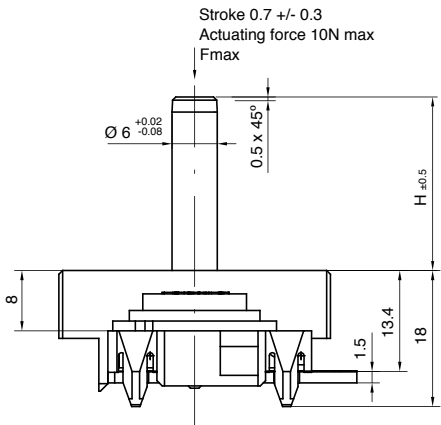
MV2





MINICODI	FIXING TYPE	H SHAFT (mm)	NUMBER OF POSITIONS
MK1	Screw m4	<div><div></div>13</div> <div><div></div>18,7</div> <div><div></div>23</div> <div><div></div>24</div>	<div><div></div>21 positions free rotation</div> <div><div></div>20 positions free rotation</div> <div><div></div>Double momentary</div>
MK2	Self tapping screw		

SHAFT



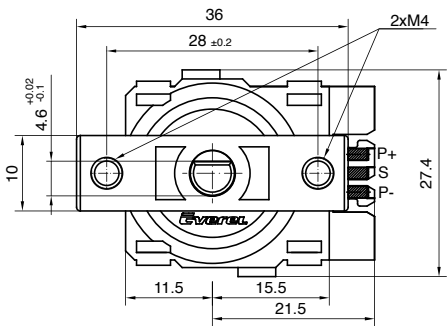
PUSH TO SELECT

The push to select accessory is used to select a scroll menu function and to confirm the selected value (i.e. temperature).

MK1

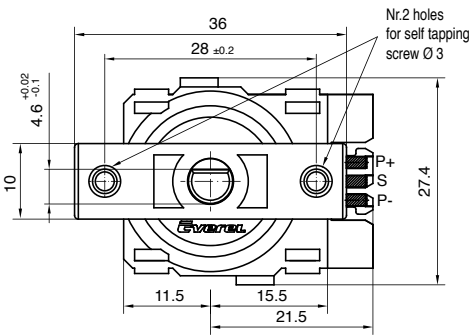


MK1



MK1 encoder, version with M4 screw fixing type.

MK2



MK2 encoder, version with self tapping screw fixing type.

MK2

