

CW series

Proportional miniature thumb controls •
non-contacting Hall effect technology



DISTINCTIVE FEATURES

- Single axis
- Analog or PWM outputs
- Spring return to center
- Snap-in mounting
- Designed for joysticks, armrests and panel mounting



ENVIRONMENTAL SPECIFICATIONS

- Operating Temperature: -40 °C to +85 °C (-40 °F to +185 °F)
- Storage Temperature: -40 °C to +85 °C (-40 °F to +185 °F)
- Sealing: No sealing
- EMC Immunity Level: EN61000-4-3
- EMC Emissions Level: EN61000-6-3: 2001
- ESD: EN61000-4-2



ELECTRICAL SPECIFICATIONS

- Technology: Hall effect sensor
- Supply Voltage Range: 5.00 VDC $\pm$ 0.01 VDC
- Ratiometric output options: See options
- Reverse Polarity max: -10 VDC
- Transient overvoltage max: 16V
- Overvoltage max: 16 V
- Output Impedance: 2 Ω
- Return to Center Voltage Tolerance: $\pm$ 200 mV initial



MECHANICAL SPECIFICATIONS

- Operating Force: 0.7 N (0.15 lbf)
- Maximum Vertical Load: 111 N (25 lbf)
- Maximum Horizontal Load: 67 N (15 lbf)
- Mechanical Angle of Movement: $\pm$ 45°
- Expected Life: 3 million lifecycles
- Mass/weight: 4.2 g $\pm$ 1.0 g (0.15 oz $\pm$ 0.03 oz)
- Lever Action (centering): Spring

U.S. Patent #D767,685 S
U.S. Patent #D740,886 S

The company reserves the right to change specifications without notice.



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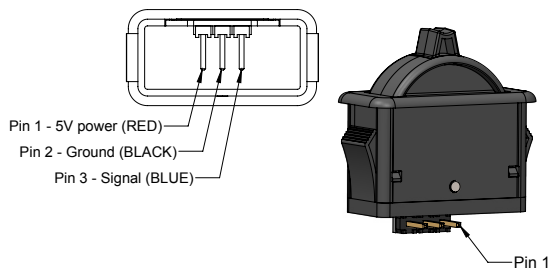


MATERIALS

- Body: Delrin
- Actuator: Glass filled nylon



CONNECTIONS



OPTIONAL MATING HARNESS¹
Part number: 505-507

Wire type: 22 AWG 25 cm PTFE

Connector: Molex 0050579503

WIRING SPECIFICATION

Red: Power (5 V)

Black: Ground

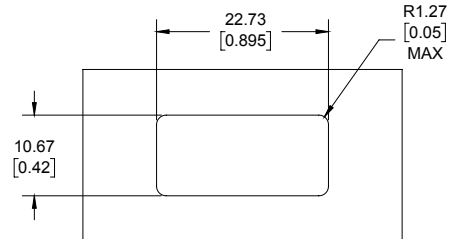
Blue: Signal

¹ - The CW Series is fitted with a three terminal SAMTEC (TLW-103-05-T-S) 2.54 mm header. An optional 22 AWG Mating Harness (PN 505-507) may be specified from the "Terminal" category of the Option Selection Guide.

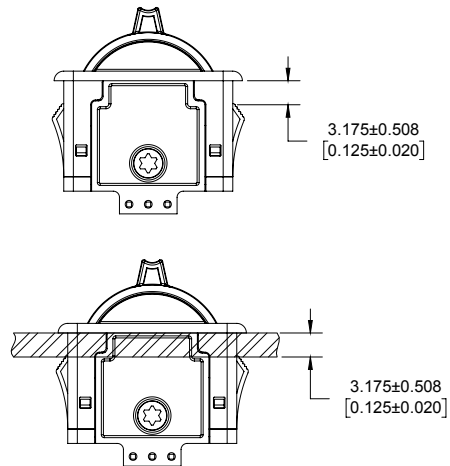


MOUNTING

PANEL CUTOUT



PANEL THICKNESS



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BUILD YOUR PART NUMBER

CW

SERIES

WHEEL SHAPE

- | | |
|----|-------------------------|
| A0 | Ribbed wheel (no tab) |
| B1 | Smooth wheel (with tab) |

ACTUATOR COLOR

- | | |
|----|-------|
| BK | Black |
| GY | Grey |

MOUNTING

- | | |
|---|---------|
| 1 | Snap-in |
|---|---------|

CENTERING OPTION

- | | |
|---|-----------------|
| A | Standard spring |
|---|-----------------|

OUTPUT OPTIONS

- | | |
|----|------------------|
| 00 | 0 V to 5 V |
| 01 | 0.25 V to 4.75 V |
| 02 | 0.5 V to 4.5 V |
| 03 | 1 V to 4 V |
| 99 | PWM ¹ |

TERMINATION

- | | |
|---|--|
| A | 2.54 mm (.100") Pitch Male Header |
| B | 2.54 mm (.100") Pitch Male Header with 10" 22 AWG Mating Harness (505-507) |

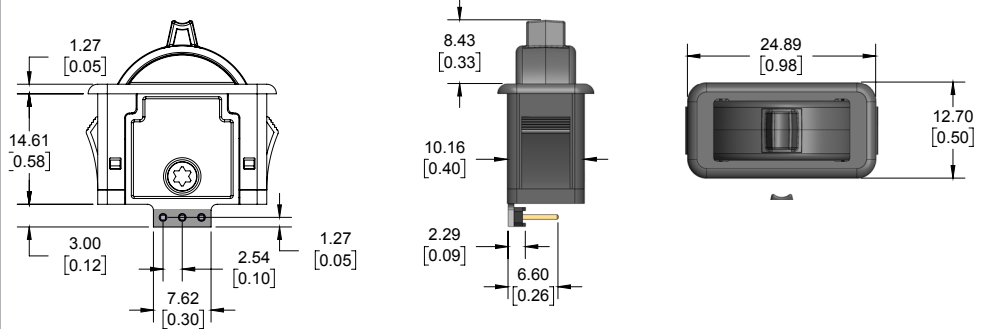
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¹ - Contact factory for PWM configuration.

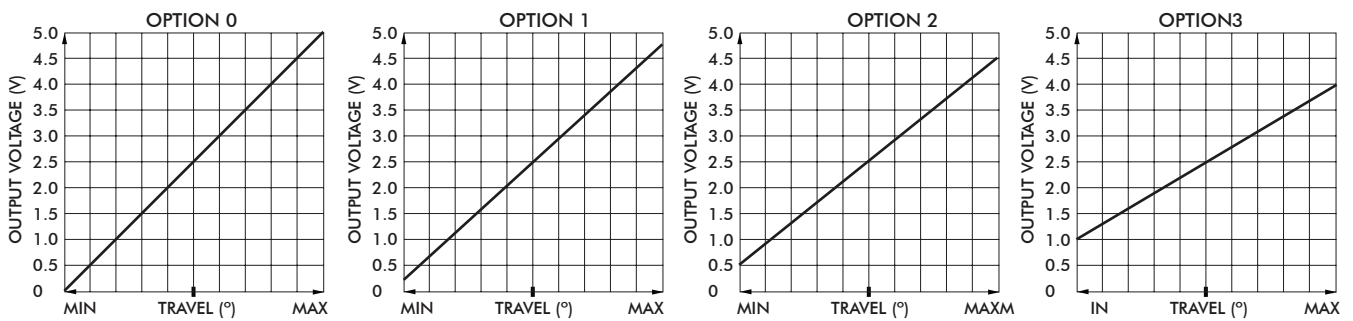
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DIMENSIONS



VOLTAGE OUTPUT OPTIONS



Mouser Electronics

Authorized Distributor

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