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

- Supply Voltage Range: 5.00 VDC ± 0.250 VDC
- Reverse Polarity max: -10 VDC
- Overvoltage max: 16 V
- Output Impedance: 2 Ω
- Return to Center Voltage Tolerance: ± 200 mV initial
- Minimum load (under Electrical Specs) 1K Ohm

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: ± 45°
- Expected Life: 3 million lifecycles
- Mass/weight: 4.2 g ± 1.0 g (0.15 oz ± 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.

CW series

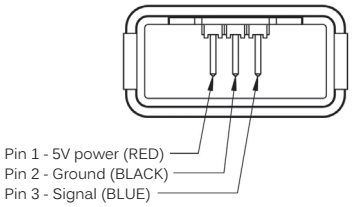
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MATERIALS

- Body: Delrin
- Actuator: Glass filled nylon

CONNECTIONS

TERMINATION OPTIONS: A AND B



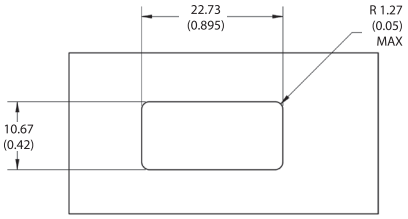
OPTIONAL MATING HARNESS[1] Part number: 505-507
Wire type: 22 AWG 25 cm PTFE
Connector: Molex 0050579503

WIRING SPECIFICATION
Red: Power (5 V)
Black: Ground
Blue: Signal

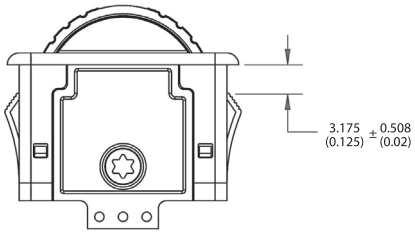
[1] - The CW Series is fitted with a three terminal SAMTEC (TLW-103-05-T-S) 2.54 mm header. An optional 22 AWG Mating Harness (PN 505-507) may be specified from the "Terminal" category of the Option Selection Guide.

MOUNTING

PANEL CUT-OUT



RECOMMENDED PANEL THICKNESS



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BUILD YOUR PART NUMBER

CW	_	_	_	_
SERIES	WHEEL SHAPE	TAB SHAPE	ACTUATOR COLOR	MOUNTING

WHEEL SHAPE

A	Ribbed wheel (no tab)
B	Smooth wheel

TAB SHAPE

0	No Tab
1	Tab 1

ACTUATOR COLOR

BK	Black
GY	Grey

MOUNTING

1	Snap-in

_	_	_	0
CENTERING OPTION	OUTPUT OPTIONS	TERMINATION	

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
04	0 V to 5 V – Sensor 1 [1] 5 V to 0 V - Sensor 2
05	0.25 V to 4.75 V – Sensor 1 [1] 4.75 V to 0.25 V - Sensor 2
06	0.5 V to 4.5 V – Sensor 1 [1] 4.5 V to 0.5 V - Sensor 2
07	1 V to 4 V – Sensor 1 [1] 4 V to 1 V - Sensor 2
98	PWM: 250 hz, duty cycle: 10 – 90%
99	PWM: 250 hz, duty cycle: 0 - 100%

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)
C	Solder pads
E	JST EH series Friction lock Male Header, 2.54 mm (4 position)

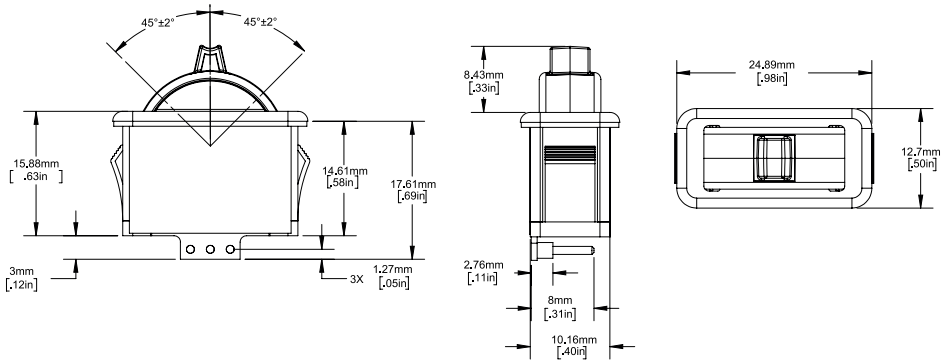
1 - Requires termination option E

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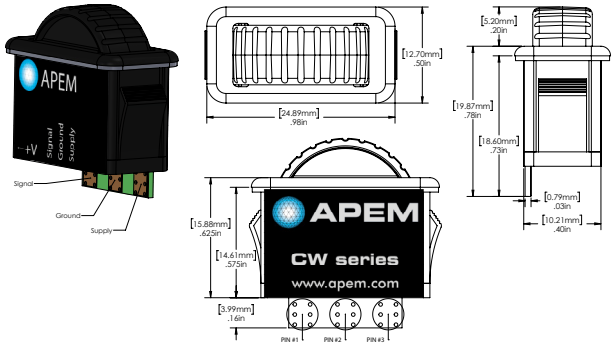
TERMINATION OPTION A





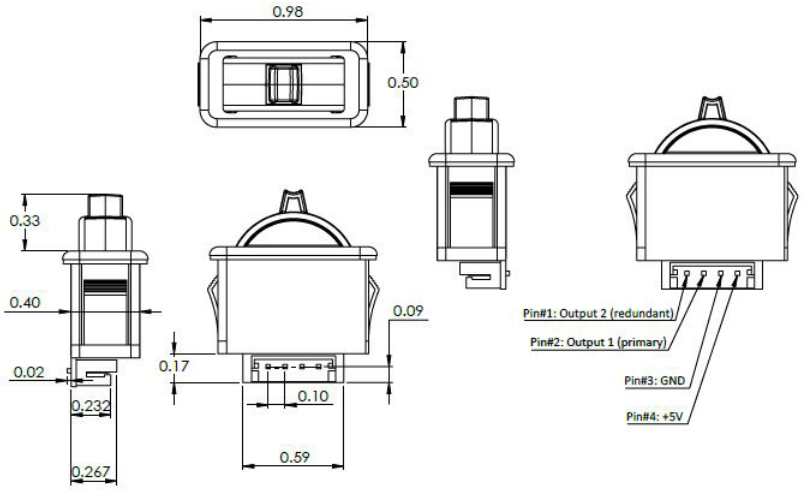
TERMINATION OPTION C





TERMINATION OPTION E

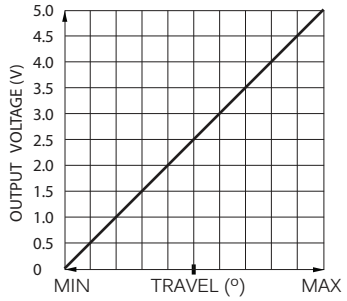




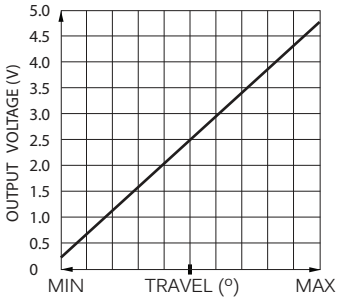
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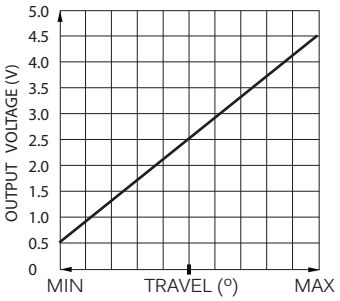
VOLTAGE OUTPUT OPTIONS



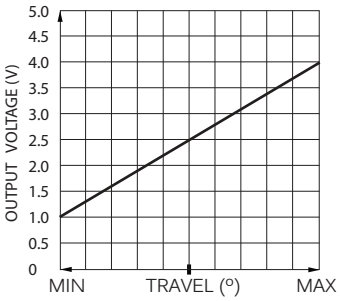
Option **00**



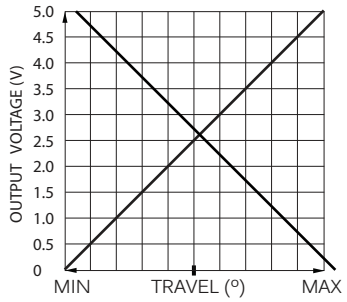
Option **01**



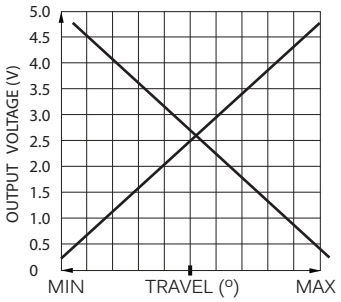
Option **02**



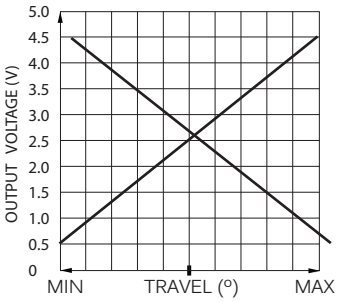
Option **03**



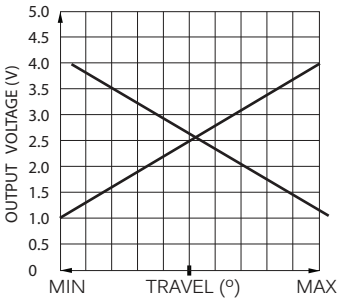
Option **04**



Option **05**



Option **06**



Option **07**