

RETURN TO END MINI THUMBWHEEL

HTWME
MINIATURE
THUMBWHEEL

PROPORTIONAL OUTPUT HALL EFFECT MINI THUMBWHEEL



Knurled Wheel



Paddle Wheel

The HTWME offers the same performance as the standard HTWE single axis, proportional output thumbwheel, but has a much shorter behind panel depth. With a panel depth of 0.96" max., the HTWME is ideal for panel or armrest mountings, or can be incorporated into one of OTTO's joysticks. The HTWME provides snap-in style mounting, and also utilizes non-contact Hall effect technology, which accounts for a one million cycle life. It also has excellent EMI/RFI shielding per MIL-STD-461D/SAE J1113-22 and RFI to withstand 100 V/M, 14Hz to 1GHz. Configuration options include a choice of six linear voltage outputs.

Features:

- Return to end single axis actuator
- Shorter behind panel depth: 0.96"
- Knurled & Paddle style actuators
- Wire or pinned termination options
- Variety of button & bezel colors
- 6 output options
- Easy snap-in mounting
- 1 million cycle rotational life
- Electronics sealed to IP68S
- Excellent EMI/RFI immunity
- RoHS/WEEE/Reach compliant

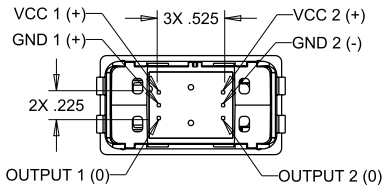
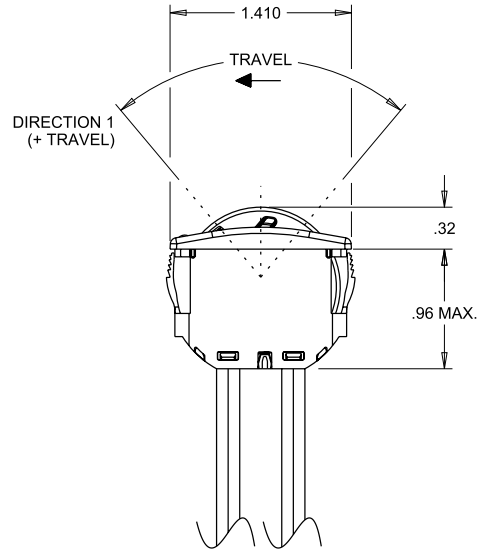
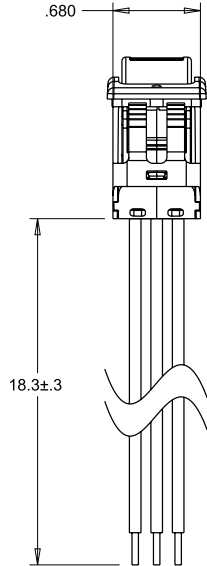
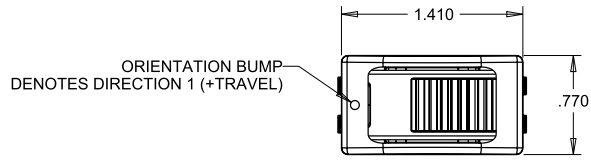
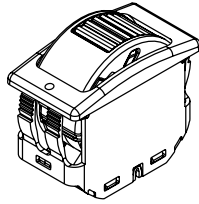
| Standard Characteristics/Ratings: | | | | |
|--|---|------------|------------|------------|
| MECHANICAL: | | | | |
| Mechanical Life: 1,000,000 full forward to full back | | | | |
| Max Allowable Radial Load: 30.0 lbs. | | | | |
| ELECTRICAL RATINGS: Rated at 5V @ 25°C Load = 1mA (4.7KΩ) | | | | |
| Electrical | Units | Min | Typ | Max |
| Supply Voltage | VDC | 4.5 | 5.0 | 5.5 |
| Output at Rest | VDC @ 5V Vcc | -25 | N/A | +25 |
| Output at Full Travel | VDC @ 5V Vcc | -25 | N/A | +25 |
| Supply Current Per Sensor | mA | N/A | N/A | 10 |
| ELECTRONICS: | | | | |
| Seal Integrity: | Electronics IP68S | | | |
| ENVIRONMENTAL: | | | | |
| Operating Temp Range: | -40°C to +85°C | | | |
| Humidity: | 96% RH, 70°C, 96 hours | | | |
| Vibration: | Per MIL-810F minimum integrity | | | |
| Sand/Dust: | Per SAE J1455 | | | |
| EMI: | Withstand per MIL-STD-461D/SAE J1113-22 | | | |
| RFI: | Withstand 100V/M 14Hz to 1GHz | | | |
| MATERIALS: | | | | |
| Button: | Thermoplastic | | | |
| Bezel: | Thermoplastic | | | |
| Snap Arms: | Thermoplastic | | | |
| Wires: | 18 AWG | | | |

HTWME RETURN TO END THUMBWHEEL MINIATURE CASE

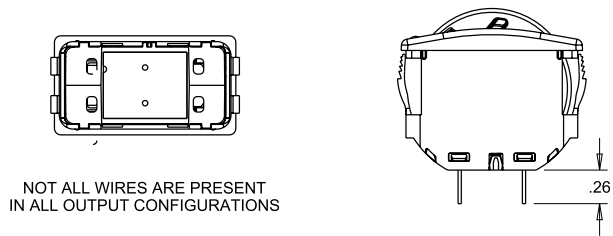
| HTWME | X | X* | X | X | X | X | X |
|--------|-----------------|--------------|-----------------|------------------|--|-------------|--------------|
| Travel | Output 1 | Output 2 | Operating Force | Button Style | Termination | Bezel Color | Button Color |
| 1. 80° | A. 0.5 - 4.5VDC | NONE | 1. 10 oz typ | 1. Knurled Wheel | A. 18 AWG Wire, 18.3" Long, Stripped and Tinned Ends | 1. Red | 1. Red |
| | B. 0.5 - 4.5VDC | 0.5 - 4.5VDC | | 2. Paddle Wheel | B. 0.025" SQ. Pins | 2. Black | 2. Black |
| | C. 0.5 - 4.5VDC | 4.5 - 0.5VDC | | | | 3. Orange | 3. Orange |
| | D. 1.0 - 4.0VDC | NONE | | | | 4. Yellow | 4. Yellow |
| | E. 1.0 - 4.0VDC | 1.0 - 4.0VDC | | | | 5. Green | 5. Green |
| | F. 1.0 - 4.0VDC | 4.0 - 1.0VDC | | | | 6. Blue | 6. Blue |
| | | | | | | 7. Violet | 7. Violet |
| | | | | | | 8. Gray | 8. Gray |
| | | | | | | 9. White | 9. White |

* Output options B and E provide redundant output 2 which duplicates output 1. Output options C and F provide redundant output 2 which is inverse output 1.

SHORTER BEHIND PANEL DEPTH



**PINNED
TERMINATION**
NOT ALL PINS ARE PRESENT
IN ALL OUTPUT CONFIGURATIONS

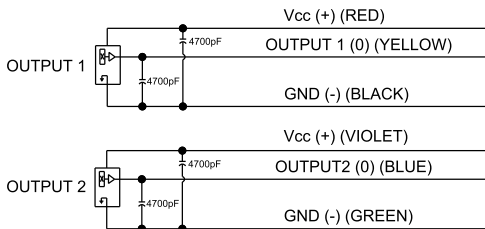


MOUNTING:

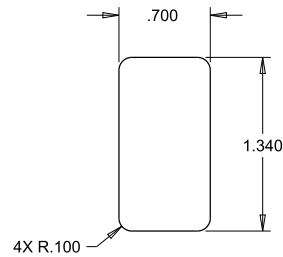
RECOMMENDED PANEL THICKNESS: 0.150 OPTIMUM THICKNESS
(0.040 MIN. - 0.200 MAX.)

RECOMMENDED PANEL OPENING: 0.700 X 1.340 OPTIMUM
(0.695/0.705 X 1.335/1.345)

RECOMMENDED PANEL RADII: 0.100 OPTIMUM
(0.090 - 0.110 MAX.)



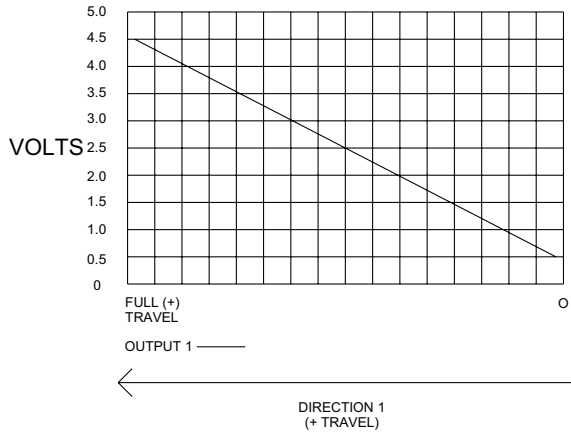
OUTPUT 2 IS NOT PRESENT IN ALL CONFIGURATIONS



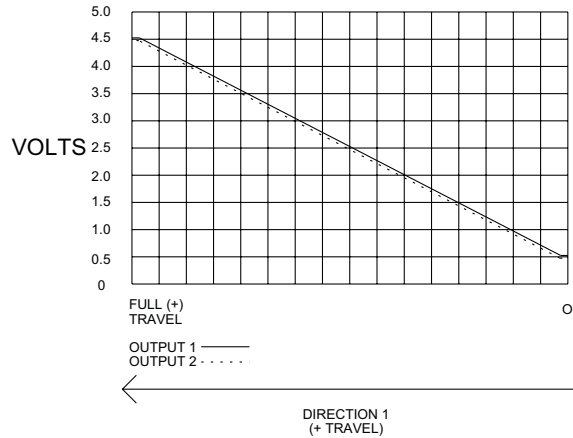
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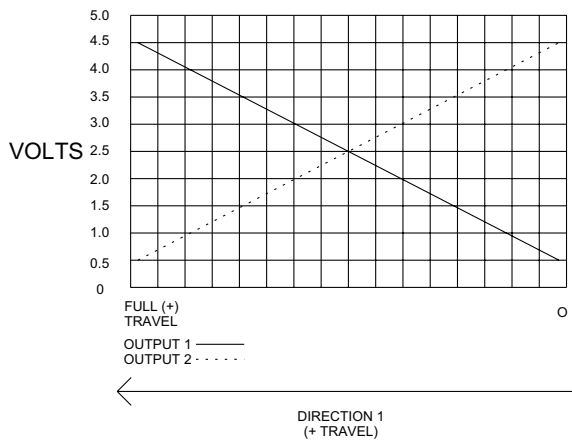
OPTION A



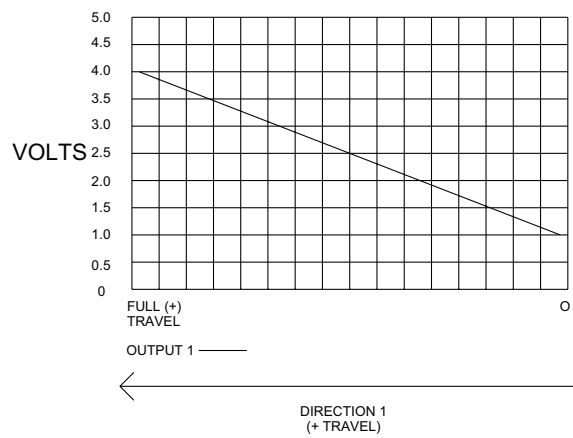
OPTION B



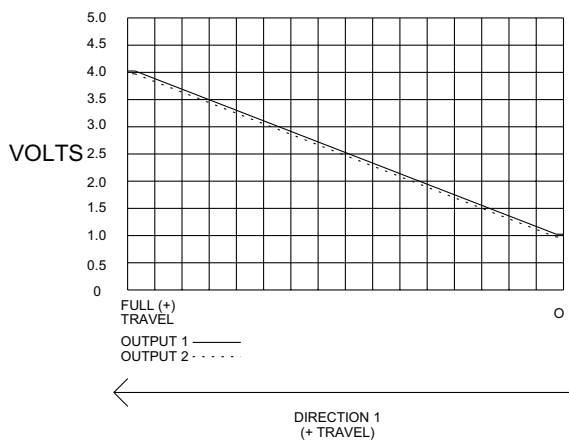
OPTION C



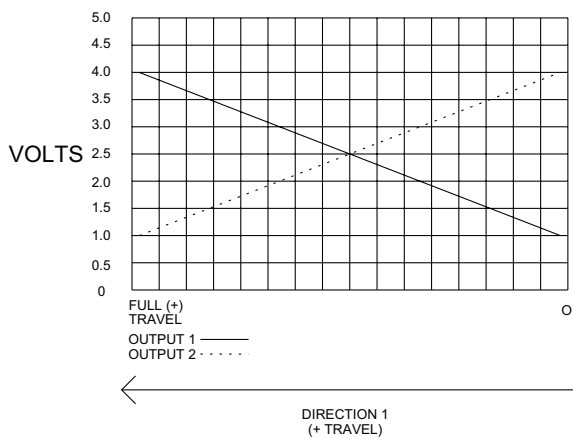
OPTION D



OPTION E



OPTION F



HALL EFFECT