HR series

Proportional Hall effect thumbwheels

Distinctive features and specifications



MECHANICAL	ENVIRONMENTAL
 Operating Force at center: 2N±0.5N (without center detent) 4N±0.5N (with center detent) Return spring to center Mechanical operating angle: ±35° (versions S/G/L) ±20° (version K) Mechanical Life: 5 million cycles (without detent) APEM SAS patented design 	 Operating Temperature: -30°C to +70°C (-22°F to +158°F) Storage Temperature: -40°C to +85°C (-40°F to +185°F) Sealing to IP68 Shock resistance: 50g during 11ms Vibration resistance: 10-500Hz Salt spray: IEC 512-6, test 11f EMI/RF shielding: 100V/m, complies with IEC 61000- 4-3 and ISO 11452-2 ESD: Complies with 16KV EN 61000-4-2
ELECTRICAL	MATERIALS
 Sensor type: Hall effect Supply voltage: 5VDC ± 0.5V Reverse polarity: -10V max Overvoltage: +20V max Return to center voltage (no load): ±0.2V Consumption: 11 mA max (single output), 22mA max (dual output) 	 Wheel: polyamide with coloring Support: polyamide, black Electronics sealing: epoxy Connector: polyester (Molex 0510210700) Multiwire lead: AWG28

• LED supply: 6VDC 10mA



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Mounting accessories.

Standard hardware includes: 2 self-tapping screws DELTA $\ensuremath{\mathsf{PT}}\xspace {\mathbbmath \mathbb{R}}$ 22x08 for plastic

Notice: Not all part number combinations may be available. Please refer to the following pages for further information.



Packaging: Product is available as 20 pieces per package.



Tolerance: General tolerance for dimensions is ± 0.3 (.012). Dimensions: First dimensions listed are in mm while inches are shown in brackets.

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Actuator options and dimensions



NOTE: Dimensions are in mm/(inch)

Note: The company reserves the right to change specifications without notice.

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Linear output options



NOTE:

Output voltage cannot be superior to the power supply voltage. For 0 to 5V versions, the power supply should not be lower than 5V.

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Connections

Single output without backlighting

Pin	Function	Color
1		
2	Power supply: +VDC 5V	Red
3		
4		
5		
6	Output	
7	Ground 0V	Black

Dual output without backlighting

	•	0 0
Pin	Function	Color
1		
2	Power supply: +VDC 5V	Red
3		
4		
5	Output 2	Green
6	Output 1	White
7	Ground 0V	Black



Wiring harness with multiwire lead AWG28 - Length 140mm (5.51in)

Single output with backlighting

Pin	Function	Color
1		
2	Power supply: +VDC 5V	Red
3		
4		
5		
6	Output	
7	Ground 0V	Black

Dual output with backlighting

		•
Pin	Function	Color
1		
2	Power supply: +VDC 5V	Red
3	LED +	Yellow
4	LED -	Blue
5	Output 2	Green
6	Output 1	White
7	Ground 0V	Black



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