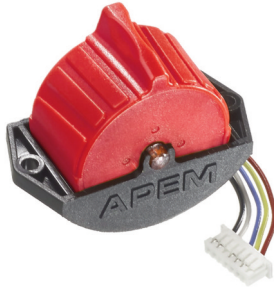


NEW!

HR series

Proportional output thumbwheels - friction hold

Distinctive features and specifications



- ☐ Friction hold - 2 versions:
11 detents along the travel or 1 detent at center
- ☐ Sealed to IP68
- ☐ Backlighting option
- ☐ EMI/RFI shielding
- ☐ Patented solution

ENVIRONMENTAL SPECIFICATIONS

- Electronics sealed to IP68 according to IEC 60529
- Shock resistance : 50 g during 11ms (version with 11 detents)
- Salt spray : IEC 512-6, test 11f
- Operating temperature : -30°C to +70°C
- Storage temperature : -40°C to +85°C
- EMI/RFI shielding : IEC 61000-4-3 and ISO 11452-2 (100V/m)
- ESD discharges : 16KV according to EN 61000-4-2

GENERAL SPECIFICATIONS

- APEM SAS patented design
- Mechanical operating angle :
+/- 35°
- Detent operating force :
1,75N ± 0,5 (version w. 11 detents)
2,5N ± 0,5 (version with 1 detent)
- Mechanical life : 100.000 cycles

ELECTRICAL SPECIFICATIONS

- Hall effect sensor
- Supply voltage : 5VDC +/- 0,5V
- Reverse polarity : -10V max.
- Overvoltage : +20V max.
- Center voltage (no load) : 2,5V +/- 0,2V
- Consumption : 11mA max. (single output)
22mA max. (dual output)
- LED supply : 6VDC 10mA

MATERIALS

- Wheel : polyamide with colouring
- Support : polyamide, black
- Electronics sealing : epoxy
- Connector : polyester (Molex 0510210700)
- Multiwire lead AWG28

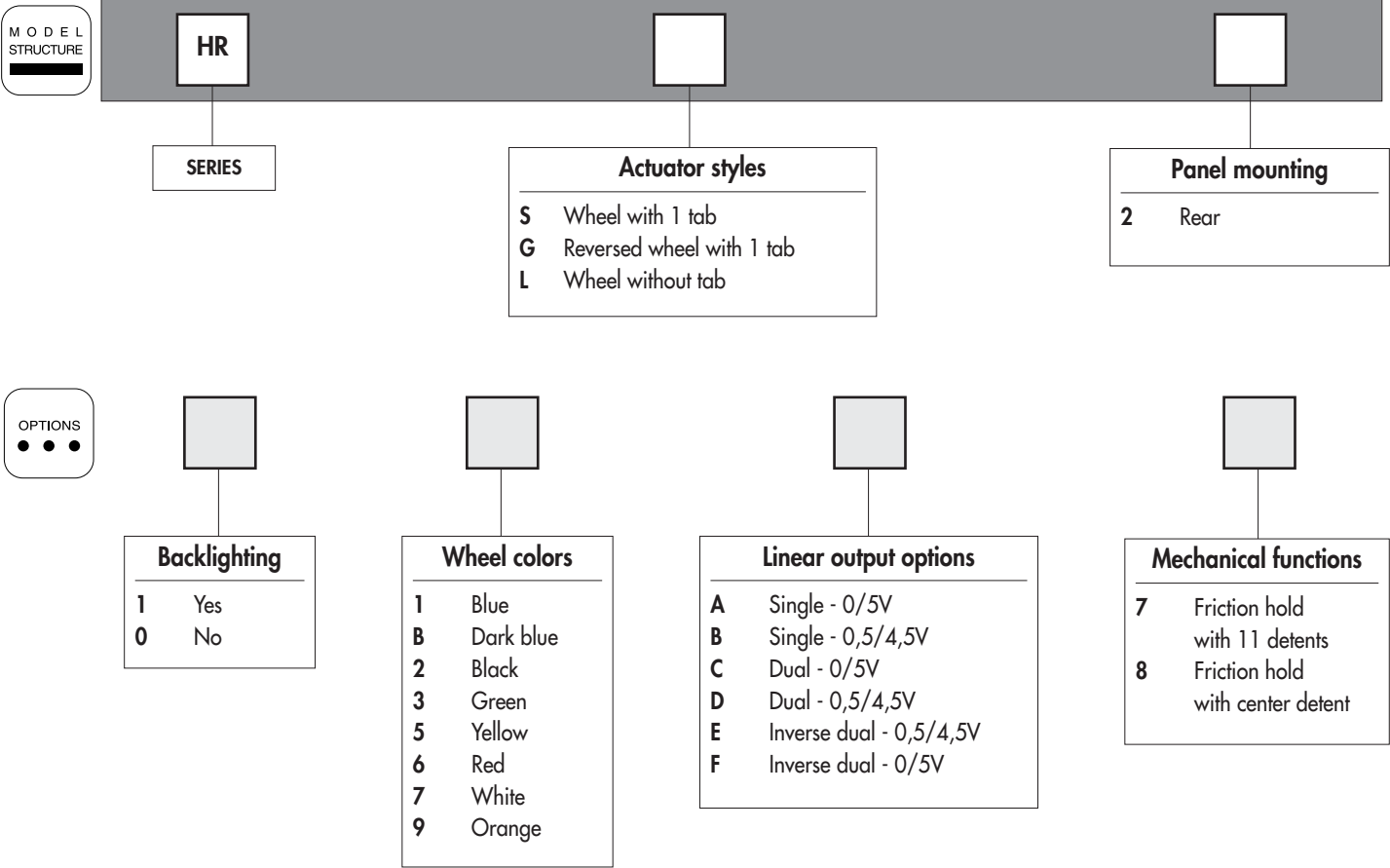
Tolerance : The general tolerance for dimensions in this brochure is $\pm 0,3$ (.012).
The company reserves the right to change specifications without notice.

HR series

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Proportional output thumbwheels - friction hold

Overview



ABOUT THIS SERIES

On the following pages, you will find successively :

- model structure of switches
- options in the same order as in above chart

Dimensions : first dimensions are in mm while inches are shown as bracketed numbers.



NOTICE : please note that not all combinations of above numbers are available. Refer to the following pages for further information.



Mounting accessories : standard hardware supplied : 2 self-tapping screws DELTA PT® 22x08 for plastic.



Packaging unit : 20 pieces

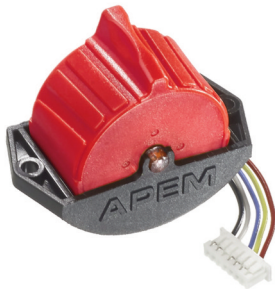
NEW!

HR series

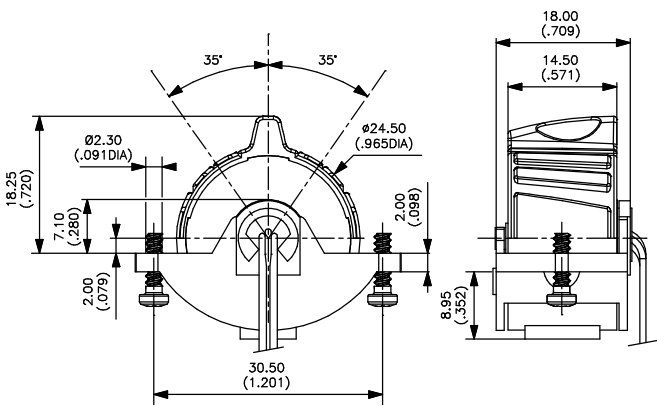
Proportional output thumbwheels - friction hold

Actuator styles

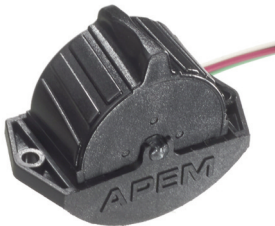
Wheel with 1 tab - version S



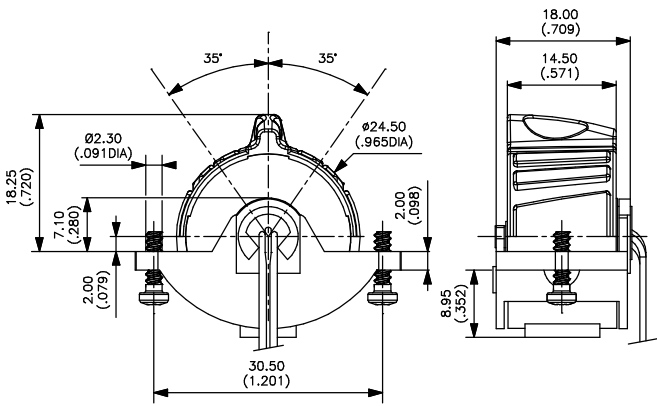
HRS2



Reversed wheel with 1 tab - version G



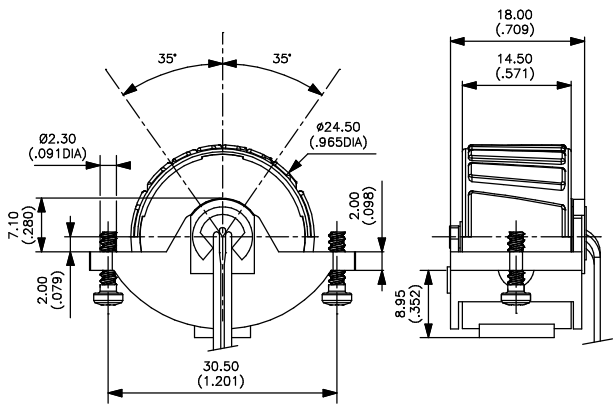
HRG2



Wheel without tab - version L



HRL2



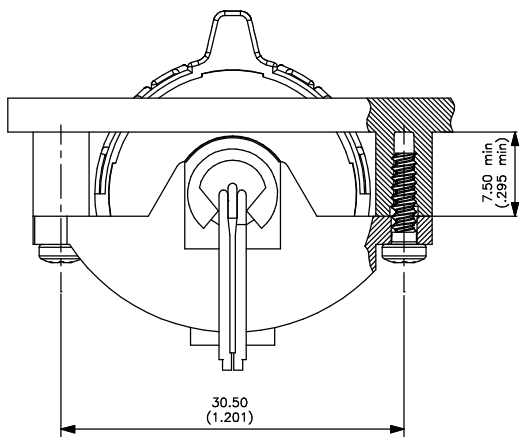
HR series

Proportional output thumbwheels - friction hold

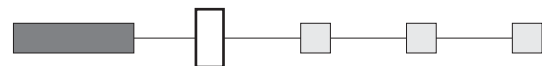
Options

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EXAMPLE OF MOUNTING



BACKLIGHTING



1 Yes
0 No

WHEEL COLORS



1 : Blue - B : Dark blue - 2 : Black - 3 : Green - 4 : Grey - 5 : Yellow - 6 : Red - 7 : White - 9 : Orange

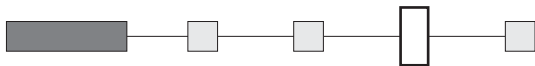
NEW!

HR series

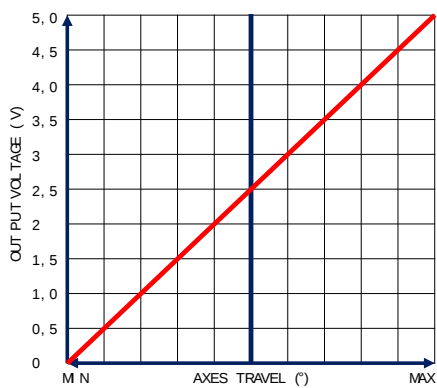
Proportional output thumbwheels - friction hold

Options

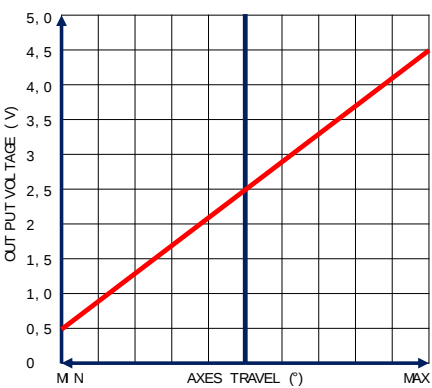
LINEAR OUTPUT OPTIONS



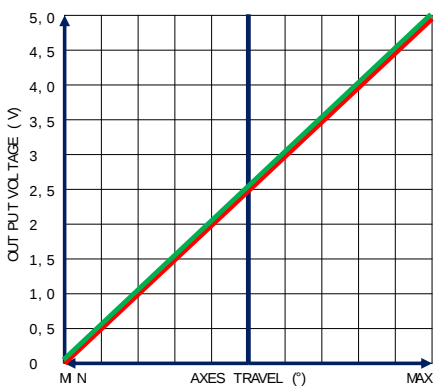
— output 1
— output 2



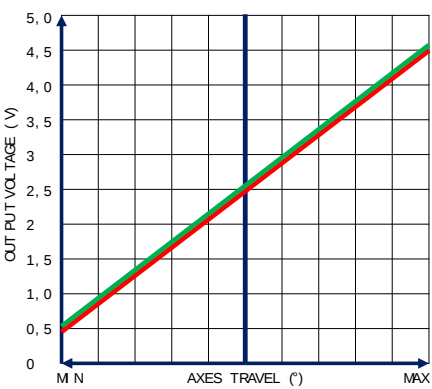
A Single - 0/5V



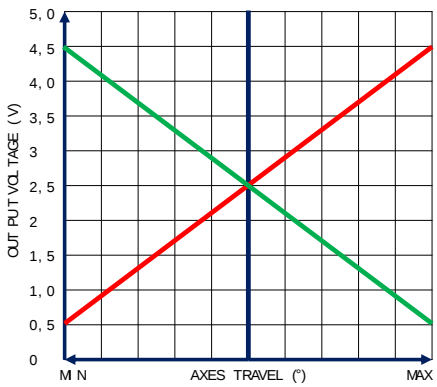
B Single - 0,5/4,5V



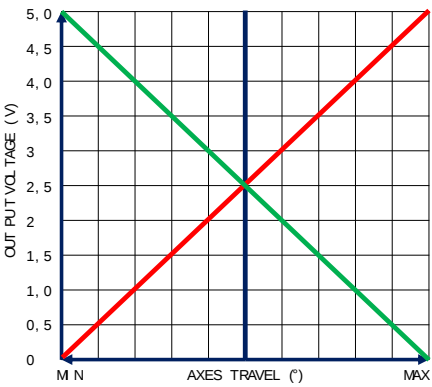
C Dual - 0/5V



D Dual - 0,5/4,5V



E Inverse dual - 0,5/4,5V



F Inverse dual - 0/5V

Note: The output voltage cannot be superior to the power supply voltage.
For 0/5V versions, the power supply should not be lower than 5V.

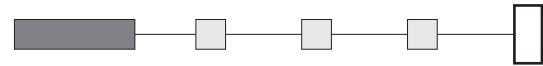
HR series

Proportional output thumbwheels - friction hold

Options - Connections

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MECHANICAL FUNCTIONS



- 7 Friction hold with 11 detents along the travel
- 8 Friction hold with center detent

CONNECTIONS

Single output without backlighting

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

Single output with backlighting

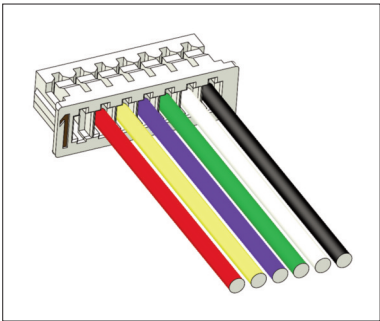
Pin	Function	Color
1		
2	Power supply: +VDC 5V	Red
3	LED +	Yellow
4	LED -	Blue
5		
6	Output	White
7	Ground 0V	Black

Dual output without backlighting

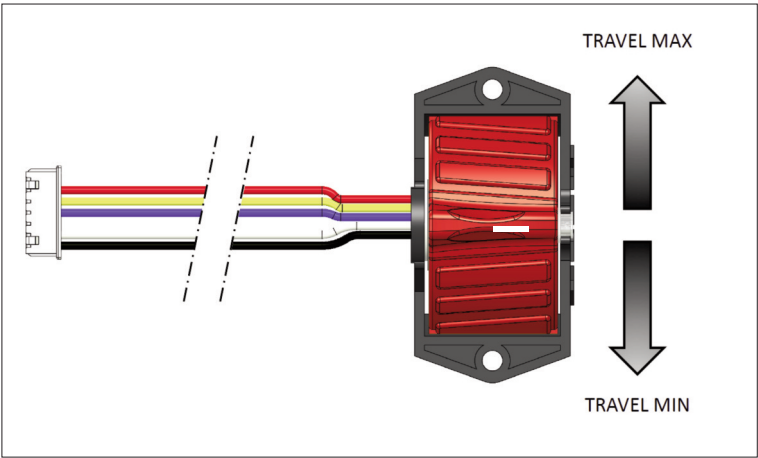
Pin	Function	Color
1		
2	Power supply: +VDC 5V	Red
3		
4		
5	Output 2	Green
6	Output 1	White
7	Ground 0V	Black

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



Wiring harness with multiwire lead
AWG28. Length 140 mm



HRFRICITION1512-A