

3-POSITION ANALOG OUTPUT ROCKER WITH BACKLIGHTING



The HFNR is compact, robust and reliable, ideal for grip or panel mount applications. This 3-position switch provides operator comfort by reducing the movement required to change direction or switch gears. Backlighting provides enhanced visibility; making them easy to see in poor lighting or nighttime operation. The electronics are sealed to IP68S and the switch has excellent EMI/RFI immunity; it withstands RFI of 100V/M, 14Hz to 1GHz EMI withstanding per MIL-STD-461D/SAE J1113-22, and a mechanical life of three million cycles.

Features:

- **3 million cycle life, full forward to full backward**
- **Hall effect contactless sensing technology**
- **Choice of bezel and button colors**
- **2V to 24V LED backlighting options**
- **Electronics sealed to IP68S**
- **Outstanding EMI/RFI immunity**
- **Snap-in panel mounting—accepts multiple panel thicknesses**
- **RoHS/WEEE/Reach compliant**

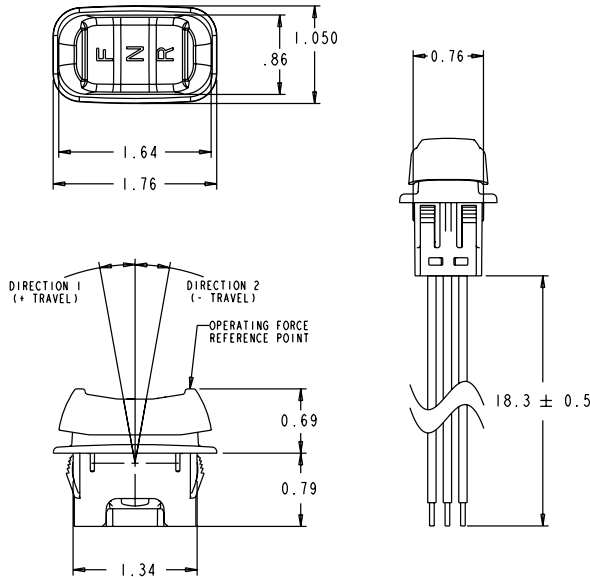
Standard Characteristics/Ratings:

MECHANICAL:				
Mechanical Life: 3,000,000 full forward to full back				
Angle of Throw Between Adjacent Positions: 10 degrees typical				
Max Allowable Radial Load: 30.0 lbs.				
ELECTRICAL RATINGS:				
Electrical	Units	Min	Typ	Max
Supply Voltage	VDC	4.5	5	5.5
Output Voltage, Tolerance at Center	VDC @ 5V Vcc	-0.35	N/A	+0.35
Output Voltage, Tolerance at Full Travel	VDC @ 5V Vcc	-0.35	N/A	+0.35
Supply Current Per Sensor	mA	N/A	N/A	10
ELECTRONICS:				
Seal Integrity:	Electronics sealed to 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			
Mounting Hardware:	None provided			

HALL EFFECT FORWARD/NEUTRAL/REVERSE ROCKER

HFNR
HALL EFFECT
ROCKER

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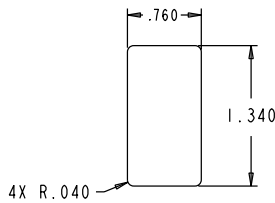


MOUNTING:

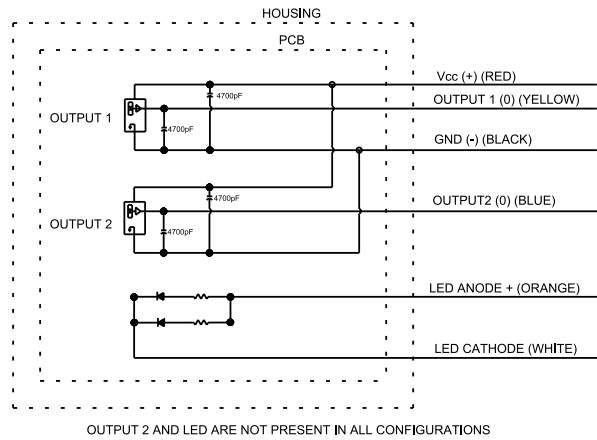
RECOMMENDED PANEL THICKNESS: 0.112 OPTIMUM THICKNESS
(0.040 MIN. - 0.205 MAX.)

RECOMMENDED PANEL OPENING: 0.760 X 1.340 OPTIMUM
(0.760/0.770 X 1.335/1.345)

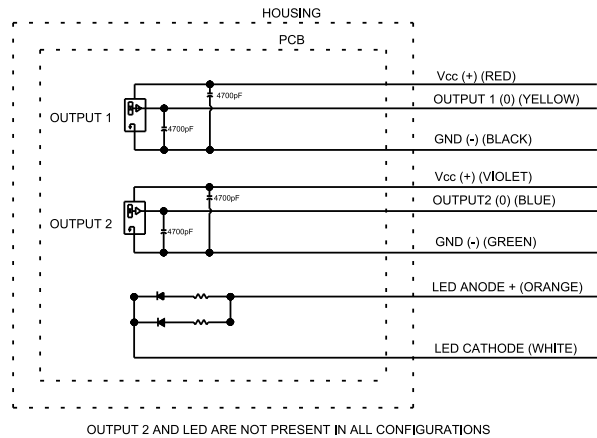
RECOMMENDED PANEL RADIUS: 0.040 OPTIMUM
(0.070 MAX.)



WIRING OPTION 1 COMMON POWER AND GROUND



WIRING OPTION 2 SEPARATE POWER AND GROUND



HFNR PART NUMBER CODE

Light Source ①	Output 1 ②	Output 2	Wiring Option	Operating Force Direction 1 & 2 to Center/ Center to Direction 1 & 2	Button Style	Termination	Bezel Color ③	Button Color ③	FNR Legend
A. NONE	A. 4.5/2.5/0.5VDC	NONE ④	1. Common Power and Ground ④	1. 2.6/3.6 lbs.	1. Rocker	A. 20 AWG Wires 18.3" Long, Stripped and Tinned Ends	1. Red 2. Black 3. Orange 4. Yellow 5. Green 6. Blue 7. Violet 8. Gray 9. White	1. Red 2. Black ① 3. Orange 4. Yellow 5. Green 6. Blue 7. Violet 8. Gray 9. White	A. NONE B. FNR/White ①
B. 2V Green LED	B. 4.5/2.5/0.5VDC	4.5/2.5/0.5VDC							
C. 2V Amber LED	C. 4.5/2.5/0.5VDC	0.5/2.5/4.5VDC							
D. 5V Green LED	D. 4.0/2.5/1.0VDC	NONE ④	2. Separate Power and Ground						
E. 5V Amber LED	E. 4.0/2.5/1.0VDC	4.0/2.5/1.0VDC							
F. 12V Green LED	F. 4.0/2.5/1.0VDC	1.0/2.5/4.0VDC							
G. 12V Amber LED	G. 1.0/2.5/4.0VDC	4.0/2.5/1.0VDC							
H. 24V Green LED	H. 1.0/1.0/4.0VDC	4.0/1.0/1.0VDC							
J. 24V Amber LED									

① Only button color black is available on backlit version; only legend color translucent white is available on backlit version.

② Outputs are when switch is in detented position.

③ Minimum lot charges may apply for certain color options.

④ For single output switches, wiring option 1 should be selected.