

9 MILLION LIFE CYCLE

The HJFC Hall Effect Foot Pedal is built to perform under the worst possible conditions. The unique design places Hall effect sensors and electronics behind a solid plastic diaphragm that separates the top and bottom halves of the front pedal, sealing the electronics in an IP68S rated enclosure. The bottom half of the pedal utilizes the same proven contactless analog output Hall effect technology used in OTTO joysticks and is available in J1939 and CANopen® formats. The CAN interface provides three analog input channels, 12 digital input channels, two digital output channels and I/O extension for up to 40 digital input channels, eight analog input channels and 40 digit output channels by means of I<sup>2</sup>C interface. It will withstand operating temperature extremes of -40°C to +85°C, is sealed to IP68S immersion requirements and passes EMI/RFI immunity testing to 100V/M.

The HJFC Hall Effect Foot Pedal provides a life of nine million cycles. The pedal's pivot point itself is also sealed against large debris. Customer specified features such as pretravel (dead band) and overtravel, along with a minimum and maximum output, are programmable. The sensor programming is completed in automated fixtures during assembly ensuring tight output tolerances. The HJFC Hall Effect Foot Pedal offers more performance features and a higher cycle and seal rating than any other foot pedal on the market.

## Features:

- Outstanding EMI/RFI immunity
- Heavy gauge, corrosion-resistant metal
- Proven contactless analog output Hall effect technology
- J1939 CANopen® formats available
- Life expectancy of 9 million cycles
- Hall sensors & electronics are sealed against the elements, behind a solid plastic diaphragm that separates the top & bottom halves of the foot pedal
- Electronics are sealed to IP68S
- Pedal pivot point sealed against large debris
- Programmable pretravel (dead band) & overtravel along with minimum & maximum output
- Sensor programming is completed in automated fixtures during assembly ensuring tight output tolerances
- Reverse polarity protection available
- RoHS/WEEE/Reach compliant



Bidirectional  
Foot Pedal

Standard Characteristics/Ratings:				
<b>MECHANICAL:</b>				
<b>Mechanical Life:</b>	9,000,000 cycles			
<b>Vibration:</b>	10g 10Hz to 2KHz swept sinusoidal			
<b>TRAVEL ANGLE:</b>				
<b>Degrees:</b>	13° nominal dual direction, 15° nominal single direction			
<b>Operating Force (lbs.):</b>	14.0 lbs. typical -40°C to +85°C at load reference point			
<b>Electrical Life:</b>	9,000,000 cycles			
<b>ELECTRICAL RATINGS:</b>				
Electrical	Units	Min	Typ	Max
Supply Current Per Sensor	mA	N/A	N/A	10
Output Resistance (I <sub>o</sub> ≤ -2mA)	Ω	N/A	100	N/A
Analog Supply Voltage (Option 1)	VDC	4.5	5	5.5
Analog Supply Voltage (Option 2)	VDC	8	12	18
Analog Output Voltage Tolerance at Center (see graph for output values)	VDC @ 5V Vcc	-0.15	N/A	+0.15
Analog Output Voltage Tolerance at Full Travel (see graph for output values)	VDC	-0.15	N/A	+0.15
Limit Switch Supply Voltage (if applicable)	V	5	N/A	30
Limit Switch Actuation (if applicable)	Degrees	1°	2°	3°
Analog Output Pretravel	Degrees	1°	2°	3°
Analog Output Overtravel	Degrees	1°	2°	3°
<i>Note: Limit switch outputs will source limit switch supply voltage when actuated.</i>				
<b>ELECTRONICS:</b>				
<b>Seal Integrity:</b>	Electronics IP68S			
<b>RFI:</b>	Withstand 100V/M, 14KHz to 1GHz (excludes output options 3 & 5)			
<b>EMC:</b>	Withstand per MIL-STD-46 ID/SAE J1113-22			
<b>ENVIRONMENTAL:</b>				
<b>Operating Temp Range:</b>	-40°C to +85°C			
<b>Storage Temp Range:</b>	-65°C to +105°C			
<b>Humidity:</b>	96% RH, 70°C, 96 hours			
<b>Sand/Dust:</b>	Withstand per SAE J1455			
<b>MATERIALS:</b>				
<b>Foot Pedal Plate:</b>	Plated steel			
<b>Housing:</b>	Glass filled thermoplastic			
<b>Cable:</b>	22 AWG (19 strands of 34 AWG TSC) PVC/Polyurethane blend outer jacket			
<b>Mounting Hardware:</b>	None provided			

# HALL EFFECT FOOT PEDAL

**HJFC**  
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FOOT PEDAL

## SINGLE DIRECTION & DUAL DIRECTION

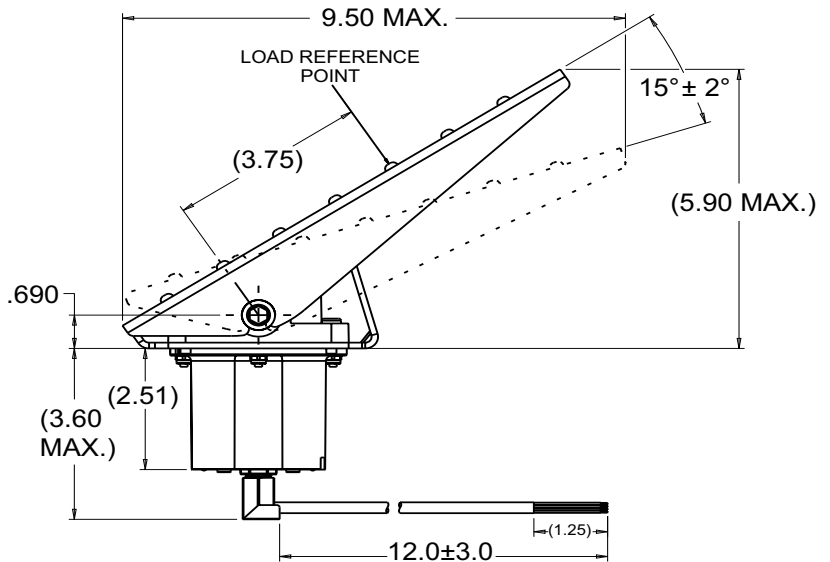
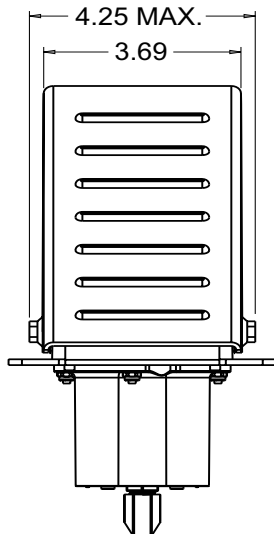
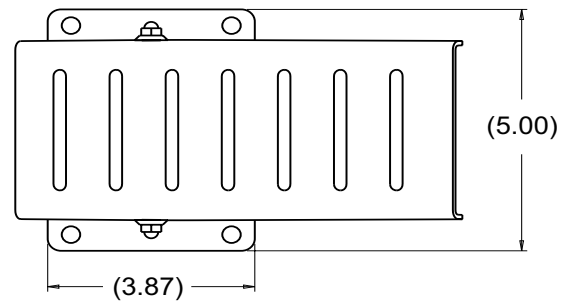
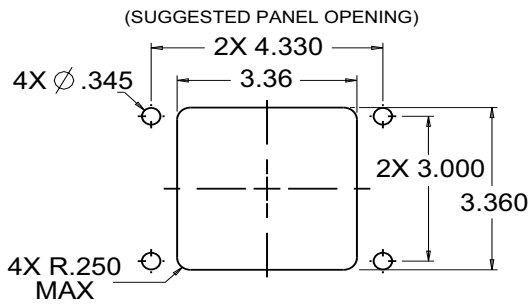
### HJFC PART NUMBER CODE

HJFC - X X X X X X X X

Direction	Travel	Output*	Sealing	Power	Termination	Pedal
1. Single	1. 15 Degrees Single Direction	1. Single Direction Analog Output: (Rest/Full) 0.5/4.5VDC	1. Fully Sealed	1. Regulated 5VDC Clean Supply, No Reverse Polarity Protection	1. 0.0225" Dia., 12" Cable, Unterminated	1. Narrow Mounting**
2. Dual	2. 13 Degrees Dual Direction	2. Dual Direction Analog Output: (REV/CTR/FWD) 0.5/2.5/4.5VDC	2. Unsealed	2. 12VDC Power Supply with Reverse Polarity Protection		2. Wide Mounting
		3. Dual Direction Analog Output: (REV/CTR/FWD) 0.5/2.5/4.5VDC & Bidirectional Position Indication		3. 24VDC Power Supply with Reverse Polarity Protection		
		4. Dual Direction Dual Analog Output 1: (CTR/FWD) 0.5/4.5VDC Output 2: (REV/CTR) 4.5/0.5VDC				
		5. Single Direction Analog Output: (Rest/Full) 0.5/4.5VDC & Unidirectional Position Indication				
		6. Single Direction Dual Analog Output 1: (Rest/Full) 0.5/4.5VDC Output 2: (Rest/Full) 4.5/0.5VDC				
		7. Dual Direction Analog Output 1: (REV/CTR/FWD) 0.5/2.5/4.5VDC Output 2: (REV/CTR/FWD) 0.5/2.5/4.5VDC				
		8. Dual Direction Dual Analog Output 1: (REV/CTR/FWD) 0.5/2.5/4.5 Output 2: (REV/CTR/FWD) 4.5/2.5/0.5				

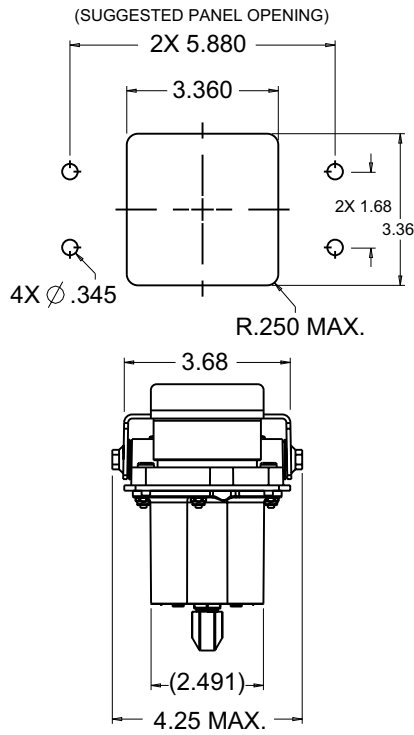
\* Additional configurations are available. Contact factory.  
\*\* Unidirectional not available in Narrow Mounting.

### SINGLE DIRECTION WIDE MOUNTING

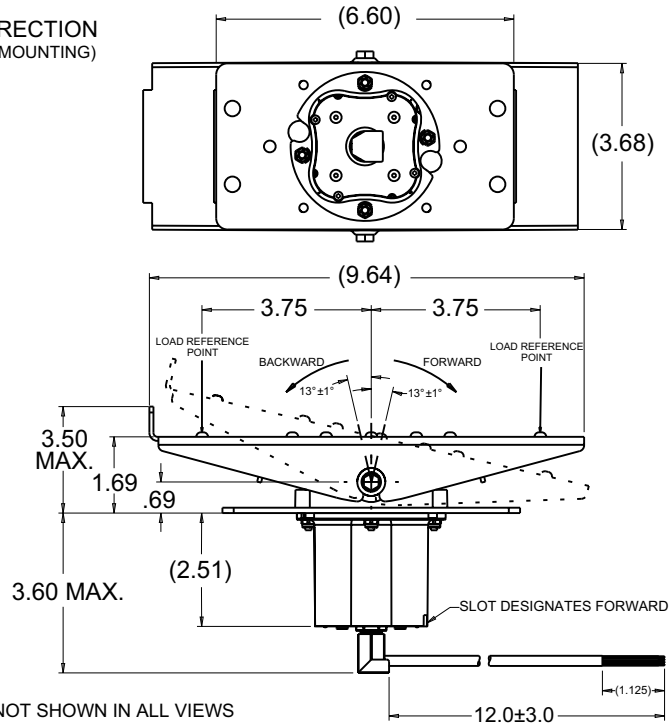


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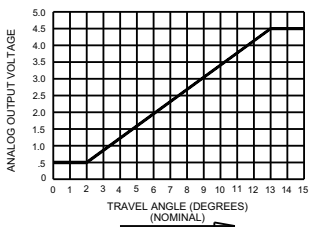
## SINGLE DIRECTION & DUAL DIRECTION



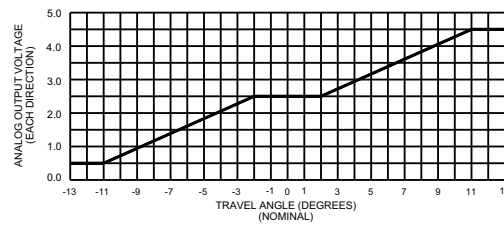
### DUAL DIRECTION (NARROW MOUNTING)



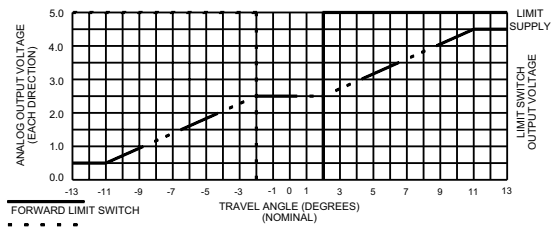
## OUTPUT OPTIONS



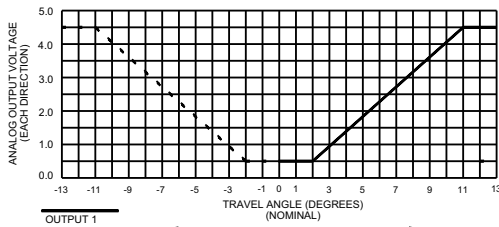
OPTION 1



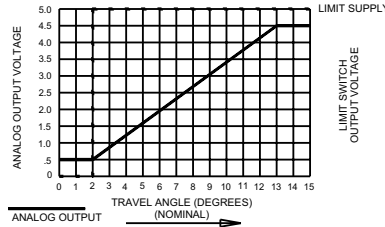
OPTION 2



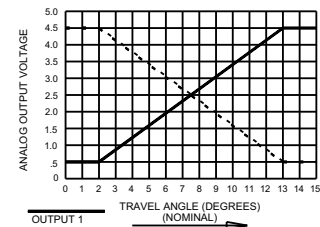
OPTION 3



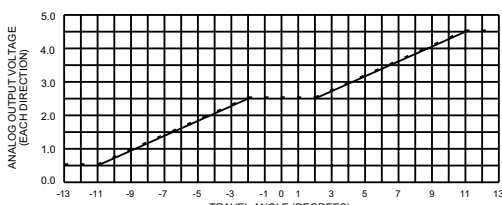
OPTION 4



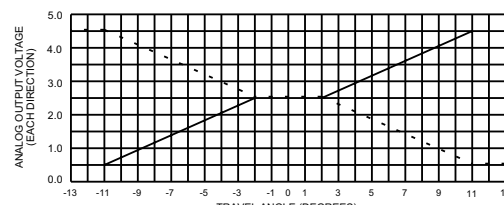
OPTION 5



OPTION 6



OPTION 7



OPTION 8