

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 1°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 9 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 in the market.

## Features:

- Outstanding EMI/RFI immunity
- Heavy gauge, corrosion-resistant metal
- Proven contactless analog output Hall Effect technology
- 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 compliant



Bidirectional  
Foot Pedal

### Standard Characteristics/Ratings:

#### MECHANICAL:

<b>Mechanical Life:</b>	9,000,000 cycles
<b>Drop:</b>	1 meter max to concrete
<b>Vibration:</b>	10g 10Hz to 2KHz swept sinusoidal
<b>TRAVEL ANGLE:</b>	
<b>Degrees:</b>	13 nominal
<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

#### ELECTRICAL RATINGS:

Electrical	Units	Min	Typ	Max
Supply Current Per Sensor	mA	N/A	N/A	10
Output Resistance (Io ≤ -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	0.5°	1°	1.5°
Analog Output Overtravel	Degrees	0.5°	1°	1.5°

#### ELECTRONICS:

<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 1D/SAE J1113-22

#### ENVIRONMENTAL:

<b>Operating Temp Range:</b>	-40°C to +85°C
<b>Storage Temp Range:</b>	-55°C to +105°C
<b>Humidity:</b>	96% RH, 70°C, 96 hours
<b>Sand/Dust:</b>	Withstand per SAE J1455

#### MATERIALS:

<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

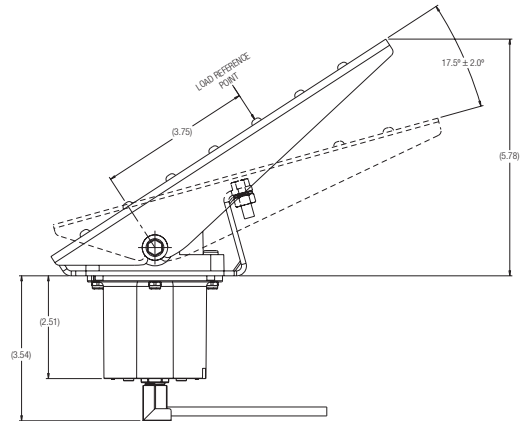
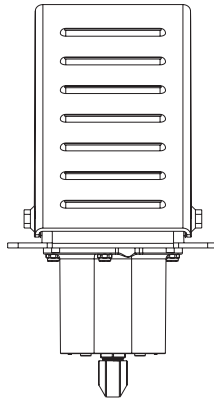
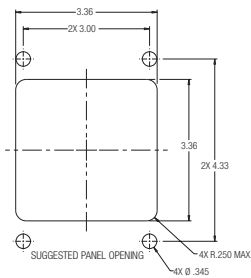
## UNIDIRECTIONAL & BIDIRECTIONAL

### HJFC PART NUMBER CODE

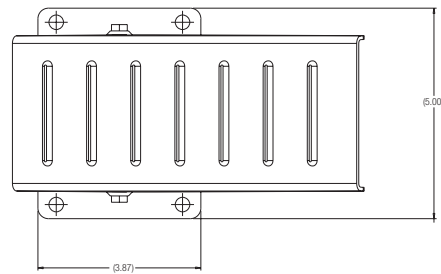
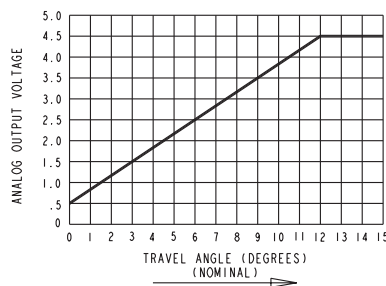
HJFC		-	X	X	X	X	X	X	X
Direction	Travel	Output*			Sealing	Power	Termination	Pedal	
1. Uni	1. 15 Degrees Unidirectional	1. Unidirectional Analog Output: (Rest/Full) 0.5/4.5VDC			1. Fully Sealed	1. Requires 5VDC Clean Supply, No Reverse Polarity Protection	1. 0.225" Dia., 12" Cable, Unterminated	1. Narrow Mounting**	
2. Bi	2. 13 Degrees Bidirectional	2. Bidirectional Analog Output: (REV/CTR/FWD) 0.5/2.5/4.5VDC			2. Unsealed	2. Regulated 12VDC Power Supply with Reverse Polarity Protection		2. Wide Mounting	
		3. Bidirectional Analog Output: (REV/CTR/FWD) 0.5/2.5/4.5VDC & Bidirectional Position Indication			3. Plate Seal				
		4. Bidirectional Dual Analog Output 1: (CTR/FWD) 0.5/4.5VDC Output 2: (REV/CTR) 4.5/0.5VDC			4. Shaft Seal				
		5. Unidirectional Analog Output: (Rest/Full) 0.5/4.5VDC & Unidirectional Position Indication							
		6. Unidirectional Dual Analog Output 1: (Rest/Full) 0.5/4.5VDC Output 2: (Rest/Full) 4.5/0.5VDC							
		7. Bidirectional Analog Output 1: (REV/CTR/FWD) 0.5/2.5/4.5VDC Output 2: (REV/CTR/FWD) 0.5/2.5/4.5VDC							

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

### UNIDIRECTIONAL



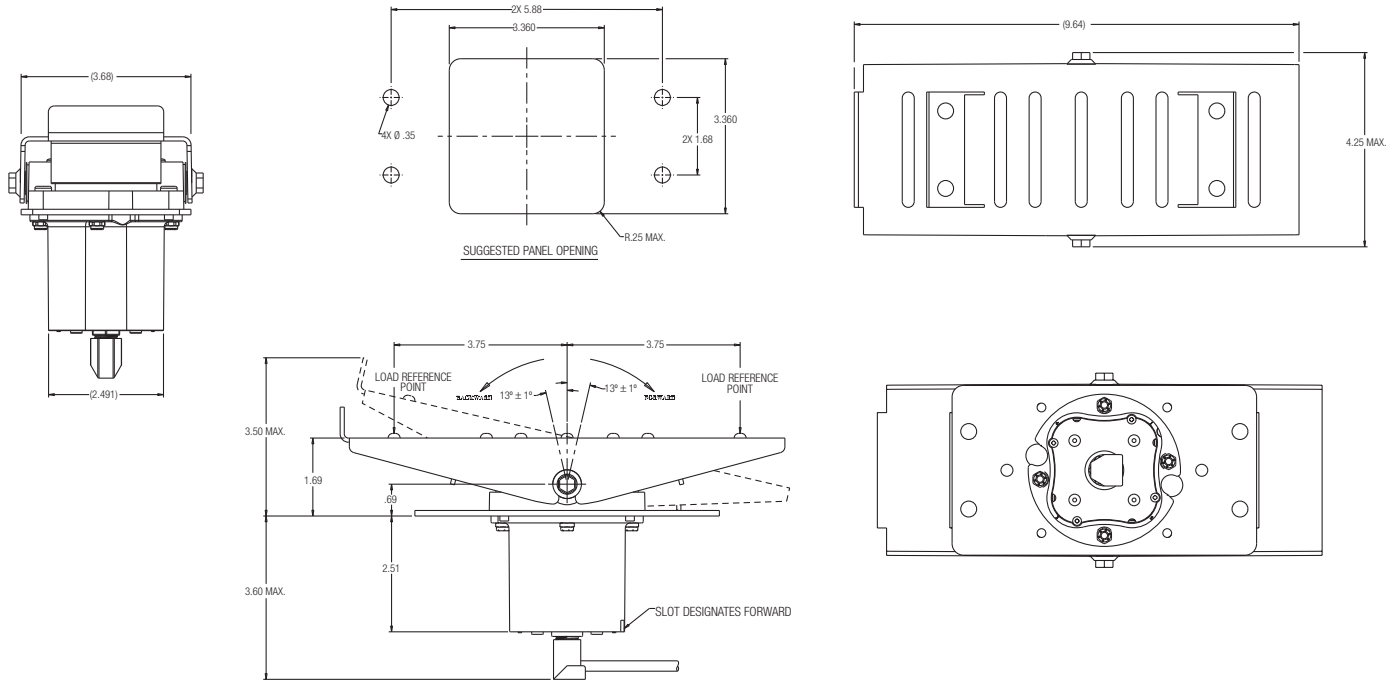
Option 1



Wide mounting version shown

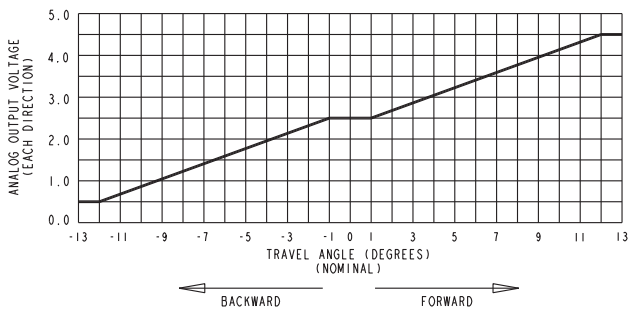
## UNIDIRECTIONAL & BIDIRECTIONAL

### BIDIRECTIONAL



Narrow mounting version shown

Option 2



Option 3

