# HEF Hall Effect Pickup

## Installation and Technical Data Guide

Rev. 07/2017

### Description:

The HEF is a Hall Effect sensor which is compatible with the Aluminum, 303 Stainless Steel and 316 Stainless Steel body JV-CG and JV-KG series of flow meters. The sensor detects the rotation of the flow meter's gears and emits a frequency signal proportional to flow. The output signal is a square wave pulse which has a duty cycle of approximately 50%.

HEF signal outputs are protected with a self-resetting fuse. This fuse has a 50mA nominal trip point. When a trip occurs, turn off power to the sensor and remove output load to reset fuse.

The HEF sensor has two different output configurations: HEF-A or HEF-AA for a sinking output and HEF-B or HEF-BB for sourcing output.

### Installation:

- Ensure that the flowmeter sensor cavity is free of debris prior to installing pickup
- Make sure the sensor mounting screws line up with the mounting holes. If they do not, remove and rotate the sensor 180°

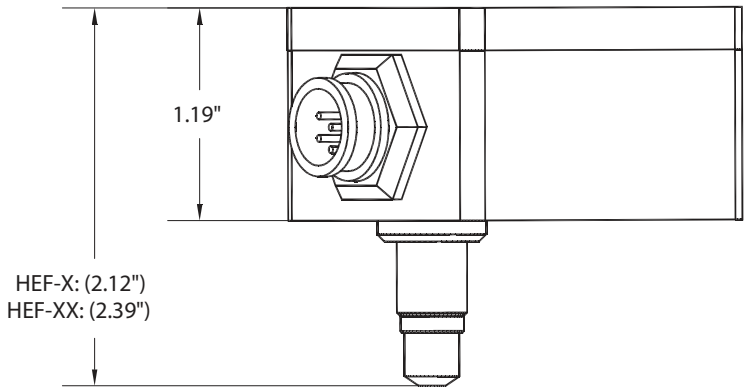
NOTE: WIRING SHOULD BE INSTALLED BY A QUALIFIED INSTRUMENTATION TECHNICIAN

### Electrical Connection for Pin Connector:

| Pin Number | HEF-A / -AA | HEF-B / -BB |
|---|---|---|
| 1 | NC | NC |
| 2 | NC | NC |
| 3 | NC | NC |
| 4 | Output | Output |
| 5 | Ground | Ground |
| 6 | Supply | Supply |

### AW Wiring Color Code:

| | Pin Number | Wire Color |
|---|---|---|
| Supply Voltage: | 6 | Red |
| Ground: | 5 | Black |
| Signal: | 4 | White |



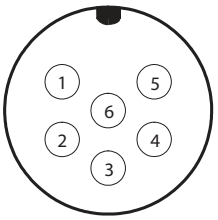

### Part Number Configuration:

HEF sensors can be used wih all Aluminum, 303 Stainless Steel and 316 Stainless Steel body flow meters

JV-CG 01, 10, 15, 20 & 30
JV-KG 12, 20 & 30 ⊢ HEF-A, HEF-B

JV-60CG & JV-60KG ONLY ⊢ HEF-AA, HEF-BB

Pinout looking at male connector on sensor




AW-LAKE COMPANY
2440 W. Corporate Preserve Dr. #600, Oak Creek, WI 53154 | www.aw-lake.com

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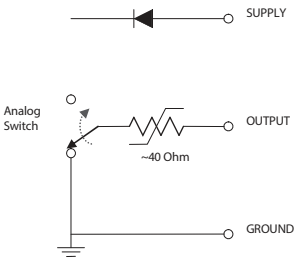
## Technical Dat a:

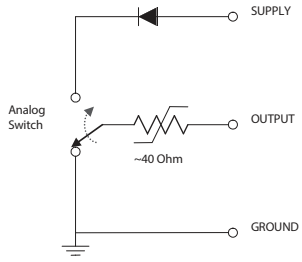
| | |
|---|---|
| Supply Voltage: | +10 to 28 Volt DC |
| Supply Current: | 8 mA @ 12 VDC, 12mA @ 24 VDC |
| Duty Signal: | 50% ± 15% |
| Minimum Signal: | 0.5 Hz |
| Frequency Output: | Flow dependent, up to 2,000 Hz |
| Driving Capacity: | 50 mA Max resistive load |
| Output Impedance: | ~ 40 Ohm - analog switch and self-resetting fuse |
| Temperature Range: | -40° F to 185° F (-40° C to 85° C) |

## HEF-A / -AA Sinking Output Circuit




- User may need to add external components to interface to displays or other instruments
- User must limit output voltage to Supply -1V
- Max current sinking capability: 50mA

## HEF-B / -BB Sourcing Output Circuit




- Signal output square wave :
  $V_{high}$ = Supply -1V @ no output load
  $V_{low}$ = 0.1V
- Max sourced output voltage: Supply -0.5V
- Max current sourcing capabilities: 50mA

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