

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:

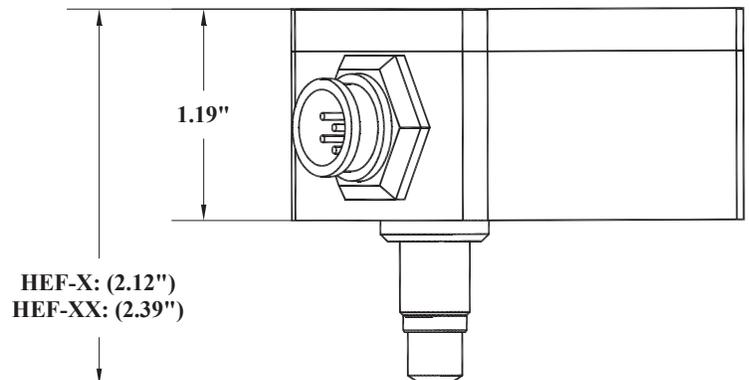
	Pin Number	Wire Color
Supply Voltage:	6	Red
Ground:	5	Black
Signal:	4	White

Part number configuration:

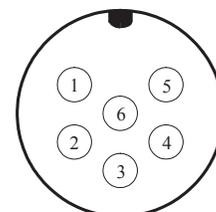
HEF sensors can be used with all Aluminum, 303 Stainless Steel and 316 Stainless Steel body flow meters

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

JV-60CG & JV-60KG **ONLY** | — HEF-AA, HEF-BB



Pinout looking at male connector on sensor



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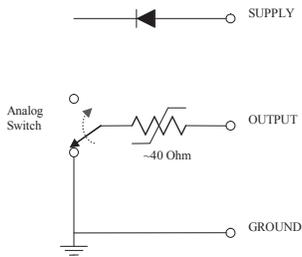
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Technical Data:

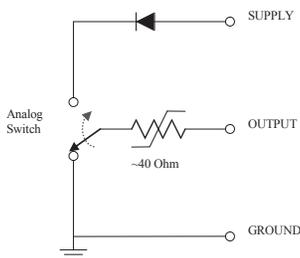
Supply Voltage:	+10 to 28 Volt DC
Supply Current:	8 mA @ 12 VDC, 12mA @ 24 VDC
Duty Signal:	50% ± 15%
Minimum Signal:	0.5 Hz
Frequency Output:	Flow dependent, up to 2,000 Hz
Driving Capacity:	50 mA Max resistive load
Output Impedance:	~ 40 Ohm - analog switch and self-resetting fuse
Temperature Range:	-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 :
 $V_{high} = \text{Supply} - 1V$ @ no output load
 $V_{low} = 0.1V$
- Max sourced output voltage: Supply -0.5V
- Max current sourcing capabilities: 50mA