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	<u>HEF-B / -BB</u>
1	NC	NC
2	NC	NC
3	NC	NC
4	Output	Output
5	Ground	Ground
6	Supply	Supply

AW wiring color code:

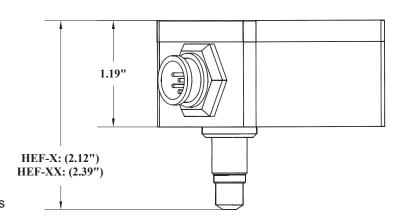
	Pin Number	Wire Color
Supply Voltage:	6	Red
Ground:	5	Black
Signal:	4	White

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 — 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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Technical Data:

Supply Voltage: +10 to 28 Volt DC

Supply Current: 8 mA @ 12 VDC, 12mA @ 24 VDC

Duty Signal: $50\% \pm 15\%$ Minimum Signal: 0.5 Hz

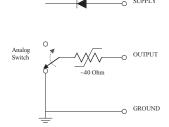
Frequency Output: Flow dependent, up to 2,000 Hz

Driving Capacity: 50 mA Max resistive load

Output Impedance: ~ 40 Ohm - analog switch and self-resetting fuse

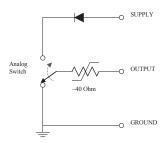
Temperature Range: -40° F to 185° F (-40° C to 85° C)

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

