

## CMI Novacast FS Series Electromagnetic Liquid Metal Flow Meters

The CMI Novacast contactless electromagnetic flow meter operates by measuring the amount of distortion in a magnetic field that is caused by movement of a conductor within that magnetic field. The effect is similar to what is called "armature reaction" in certain electric motors and generators. To achieve this, permanent magnets are set near the moving material. The moving material may or may not be contained within a pipe or conduit. The amount of shift of the magnetic field is measured in the direction of movement of the measured material which corresponds to the flow velocity of the material. The measured signal is then used to drive an indicator calibrated into the unit of measurement necessary.

Flow meters can be built for almost any size pipes from small to over 10 inches in diameter. For large size pipe specifications, contact CMI Novacast.

Currently for use with aluminum, zinc, sodium, mercury, and magnesium. For all other metals, contact CMI Novacast.

### Advantages

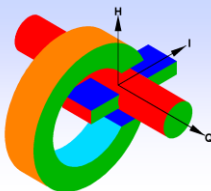
- No moving parts
- No contact with measured liquid metal
- Continuous operation at liquid metal temperatures over 1000° C
- Can be used on virtually any size pipe or conduit
- Low power consumption
- Welded or flanged connected to existing piping
- High accuracy +/- 2% or better (optional)

## CMI Novacast FS365HA Electromagnetic Liquid Metal Flow Meter

### Specifications for Sodium



- Max temperature: 600° C
- Max pressure: 10 bar
- Max flow rate: 365 liter/min
- OD of flow pipe: 114.3 mm
- ID of flow pipe: 102.3 mm
- Output signal: 4-20 mA



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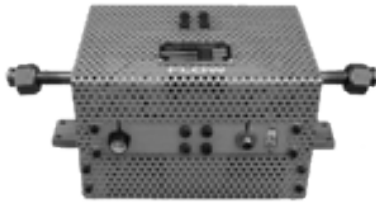
[www.cminovacast.com](http://www.cminovacast.com)

**CMI Novacast FS15 Electromagnetic Liquid Metal Flow Meter****Specifications for Sodium**

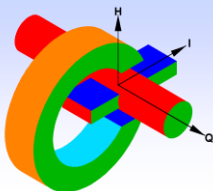
Max temperature: 600° C  
Max pressure: 10 bar  
Max flow rate: 1300 cc/sec  
OD of flow pipe: 12.7 mm  
ID of flow pipe: 10.2 mm  
Output signal: 4-20 mA

**CMI Novacast FS10NA Electromagnetic Liquid Metal Flow Meter****Specifications for Sodium**

Max temperature: 600° C  
Max system pressure: 15 bar  
Flow rate: 15.0 gpm  
OD of flow pipe: 48.26 mm  
ID of flow pipe: 40.89 mm  
Output signal: 0-5 mV

**CMI Novacast FS02NA Electromagnetic Liquid Metal Flow Meter****Specifications for Sodium**

Max temperature: 600° C  
Max system pressure: 15 bar  
Flow rate: 5.0 gpm  
OD of flow pipe: 19.05 mm  
ID of flow pipe: 15.75 mm  
Output signal: 0-5 mV



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