

# APPLICATION NOTE

## DIESEL ENGINE MANUFACTURER- ELECTROMAGNETIC FLOWMETER – BY FLOWLINE

### BACKGROUND:

This leading diesel engine manufacturer had a requirement to measure the flow of engine coolant for the purposes of final testing and certification. The engines have to be tested with meters that have a proven calibration test procedure at the time of supply, and the possibility of calibration testing at designated calibration intervals.

### THE PROBLEM:

The coolant runs at a fairly high temperature, so the meter needed to have a high maximum operating temperature as standard. In addition, the straight length of pipe available was fairly limited so a meter with a tested proven accuracy with short metering run was required.

### FLOWLINE'S METERING SOLUTION:

Flowline offered their MAGFLO MAG 5000 and MAG3100 Solution. The MAG3100 magnetic meter can be supplied with a number of optional characteristics, and in this case it was supplied with a high temperature PTFE liner, capable of temperatures up to 180 C. The MAG5000 converter was supplied in an IP67 remote mount configuration to keep the electronics at a reasonable temperature. The MAG5000 have most of the standard outputs required by industry and it includes a digital display of flowrate and total.

### EQUIPMENT DESCRIPTION:

MAG 3100 sensor	Specifications
Size (mm)	DN 15-2000
Connection	Flange
Pressure (bar)	Max. 100
Temperature (°C)	-40 to 180
Liner	Teflon (PTFE),
Electrodes	316
Enclosure	IP 67 / 68



### Further Information



For Further information on the MAGFLO range of Flowmeters contact us on  
T: 020 8207 6565  
E:  
[sales@flowline.co.uk](mailto:sales@flowline.co.uk)

### EQUIPMENT DESCRIPTION:

Compact Mount Magnetic Meter  
With plug and play commissioning; Self-diagnostics with error reporting;  
Bi-directional flow; Flow limit switches; External input and empty pipe detection.  
Analogue 0-20mA or 4-20mA,  
Digital Output for Error signal, Flow direction and Flow limit switches  
System Accuracy 0.5% (reference conditions)  
Housing IP67 – “Plug in” module in Polyamide  
MAG3100

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