



**KGK Corp.**

# Electromagnetic Flowmeter

## Model EMF-300E

## EMF-310A

### Flow Measuring Instrument for Fire Engines

As used on all front line appliances of Greater Manchester County Fire Service in UK

No.1 Choice of British and Irish Fire Brigades

More than 90% share in Japan



#### Benefits of using Flow Meters

- **Optimum efficiency and effectiveness**  
Operate different size branches at the same time. Each branch will be at its optimum efficiency with its optimum flow and pressure settings
- **Improved water management**  
Know at a glance how much water is being used by each appliance.
- **Health and safety benefits**  
No more hose lines out of control and no jet reaction. Less tasking on fire-fighters. Engine is running at lower revs and is much quieter.
- **Reduced risk of pollution and contamination**  
Chemical officer will know from flow meter readout whether dilution is sufficient.
- **Less wear and tear on appliances**  
Lower engine speeds mean reduced mechanical wear and tear on appliances and lower diesel consumption.

## Comparison with Paddlewheel Type Flow Meters

Both of EMF-300E and EMF-310A are Electromagnetic Flow Meters, which have following benefits, compared with Paddlewheel Type Flow Meter.

- Accuracy in measurement is never affected by gravel and foreign particles in water.
- It has a high durability because there are no mechanically moving parts in sensor.

The flow meter brings significant benefits to the fire fighter. Flow meter usage enables a fire fighter respond to an incident with optimum efficiency and effectiveness. Different size branches to be operated at the same time, each at its optimum flow and pressure settings. Water management is improved there are significant health and safety benefits, reduced risk of pollution and contamination and less wear and tear on appliances.

The KGK flow meter measures the flow rate of water through each delivery. It gives an instantaneous readout of flow up to 3,000 lpm and also calculates the cumulative total flown. The flow meter is ready to measure flow as soon as power is applied. Standard functions are flow (instantaneous) measurement and total (volume) measurement.

The Model EMF-300/310 is a compact and light flow meter of electromagnetic type. Sensor dimensions match those of the pipe so there is no pressure loss. There is no projection into the flow channel so that dirt and rubbish are not trapped and with no moving parts, breakdowns are a rare occurrence. The flow meter is economical and easy to install

## Main Specification of Flow Meter

### General

- Range: 40 - 5,000 lpm
- Resolution: 50 ~ 750 l/min  $\pm$  15l/min  
750 l/min  $\sim$   $\pm$ 2%
- Supply Voltage: DC +24V +20%-10%  
Negative Chassis Earth
- Supply Current: 0.35A
- Operating Temp: -10°C ~ +50°C
- Standard Functions: Flow reading & Totaliser readout

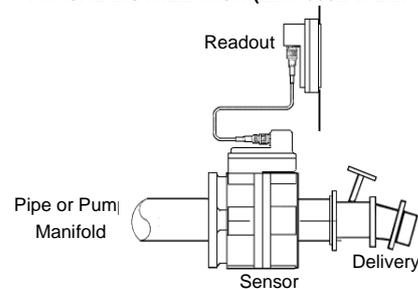
### Sensor

- Measurement Principle: Electromagnetic
- Casing Material: ADC6/AC7A, marine grade,  
Hard anodized aluminium
- Pressure rating: 3.93Mp
- Inner Pipe Diameter: 60 mm (EMF-300E), 100mm (EMF-310A)
- Dimensions:  $\varnothing$ 140 x 210 x 110 (W x H x D) mm (EMF-300E)  
 $\varnothing$ 220 x 220 x 110 (W x H x D) mm (EMF-310A)
- Weight: ~3.0 Kg. (EMF-300E), 7.0 Kg. (EMF-310A)

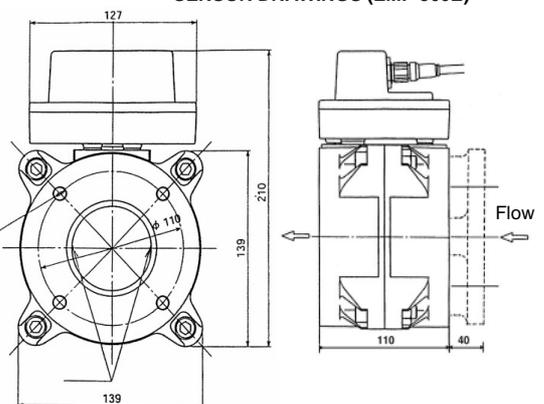
### Readout (Display)

- Digital LCD display gauge
- 4 digits
- 17.6mm high digits
- Analogue bar graph 0~1,000L/min in 50 litre steps.
- Internal backlighting
- Casing Material: Black polycarbonate.
- Protection: IP65
- Dimensions: 127 x 111 x 61 (W x H x D) mm
- Weight: ~0.5 Kg

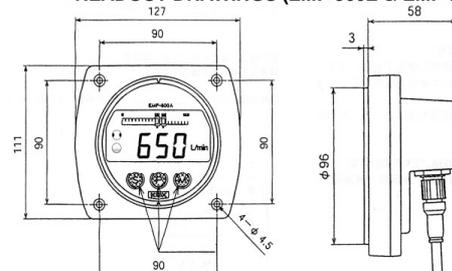
TYPICAL INSTALLATION (EMF-300E & EMF-310A)



SENSOR DRAWINGS (EMF-300E)



READOUT DRAWINGS (EMF-300E & EMF-310A)



Specification subject to change

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