### Simple, Non-Contacting Flow Meter

Works from Outside a Pipe with Strap-On Sensor



### Doppler Flow Meter Model DFM-IV

### Displays, Transmits, Totalizes and Controls

User-Friendly, 3-Key Calibration
Password Protected
Isolated 4-20mA Output
3 Control Relays
Self-Testing, Surge-Protected
RFI Rejection Filters
Optional Data Logger



### Non-Contacting Flow Monitoring and Control Standard Sensor mounts on any Pipe

Ideal for "Problem Liquids"

Greyline Doppler Flow Meters monitor the flow rate of "difficult" liquids including: wastewater, chemicals, acids, slurries, abrasives and viscous liquids. Recommended for full pipes and any fluid that contains solids or bubbles.

External Sensor No Contact, No Maintenance

The DFM-IV strap-on sensor is mounted on the outside of a plastic or metal pipe. To measure flow an acoustic signal is reflected back to the sensor from particles or gas bubbles in the fluid.

Installation is easy - without shutting down the flow system. No contact is made with the moving fluid and no pipe cutting or drilling is required. There is no fouling or scale build-up on the sensor.



Nixon Flowmeters Limited, Badminton Close, Naunton Lane, Leckhampton, Cheltenham,

Gloucestershire GL53 7BX, England

Fax: +44 (0)1242 222487 Email: flowmeters@compuserve.com

Tel: +44 (0)1242 243006

# Non-Contacting Doppler Flow Meter Measures Flow with Strap-On Ultrasonic Sensor

### Ideal for "difficult" liquids

The DFM-IV Doppler flow meter works best in applications that would defeat regular contacting flow meters. Because the Sensor is mounted on the outside of the pipe, it is unaffected by abrasives or harsh chemicals. There is no obstruction to flow and no pressure drop.

#### Easy to Install

Each DFM-IV Flow Meter includes one strap-on Doppler Sensor, an adjustable stainless steel mounting clamp and sensor coupling compound. The standard sensor fits on the outside of *any* pipe diameter 1" (25 mm) or larger. It takes just a few minutes to install. There is no pipe cutting and no need to shut down flow.

## DFM-IV Flow Meters are Installed in these Applications:

- ✓ Sewage
- **▼ Viscous liquids**
- **✓** Acids
- Slurries
- **▼** Solvents
- ▼ Treated wastewater
- ✓ Pulp stock
- Food products
- Lubricating Oils
- **☑** Crude Oil
- **✓ Chemicals**
- ✓ Aerated Water

Ideal for full pipes and any liquid containing gas bubbles or solids larger than 100 microns and in concentrations greater than 75 ppm.

#### Works on most Pipes

The Greyline DFM-IV Flow Meter measures flow in most common pipe materials: PVC, carbon steel, stainless steel, cast iron, fiberglass, and lined pipes...any pipe material that conducts ultrasound. Doppler signals cannot be transmitted through pipes walls which



contain air pockets (materials like concrete and wood), or loose insertion liners (with an air gap between the liner and pipe wall). Because the sensor is so easy to install you can test any application and pipe material in a few minutes.

### Simple, Single-Head Sensor design

Ultrasonic signals are transmitted and received from a single sensor so installation is easy. The mounting clamp (included) ensures correct sensor alignment on horizontal or vertical pipes. Optional dual-head Sensors are available for special applications.

### Self-tunes to extended Sensor Cable length

Each Sensor includes 20 ft. (6 m), shielded coaxial cable. Cable can be extended up to 500 ft. (152 m) with no loss of signal strength or performanc The DFM-IV automatically self-tunes to the cable length.

### Intrinsically Safe Sensor for Hazardous locations

DFM-IV Sensors are CSA rated for installation in hazardous locations with optional intrinsic safety barriers. Safety barriers are factory-installed in the electronics enclosure so all sensor cable and any junction boxes are intrinsically safe. Electronics are normally mounted in a non-rated general purpose location, or they can be factory-installed in an optional explosion proof enclosure for mounting in hazardous-rated areas.

### Displays, Totalizes, Controls and Transmits

Each DFM-IV Doppler Flow Meter includes a large, 4-digit LCD display of flow rate, a 16-digit alphanumeric display for calibration menu and totalizer, programmable control relays, and an isolated 4-20mA output (1000 ohm). A 50,000 point data logger is optional.