Accurate, Non-Contacting Flow Monitor

Measures Open Channel Flow through Flumes and Weirs

Open Channel Flow Monitor

New!

Greyline OCF-IV

Displays, Transmits
Totalizes and Data Logs

Simple 3-key Calibration
Password Protected
50,000 point Data Logger
RS232 Serial Output
4-20mA Output
10-Digit Totalizer
Windows Software

254.8

DATA LOGGING

**Easy to Install and Calibrate
Simple, Accurate and Reliable**

Non-Contacting Sensor

The OCF-IV uses a non-contacting ultrasonic sensor mounted over a flume or weir to measure flow. It is accurate, reliable and verifiable. The separate, watertight electronics/display enclosure is mounted at a convenient location within 500 ft (150 m) of the sensor. The OCF-IV continuously displays, totalizes, transmits and data logs open channel flow.

Simple Keypad Operating System

Use the built-in keypad for fast, easy calibration with menu selection of flume or weir and measurement units (e.g. gallons, litres etc.) Calibration values and data logs are password-protected and retained during power interruptions. Use the OCF-IV to display flow reports of daily minimum, maximum average and total flow, or to transfer data logs to a PC computer.

Greyline
instruments inc.

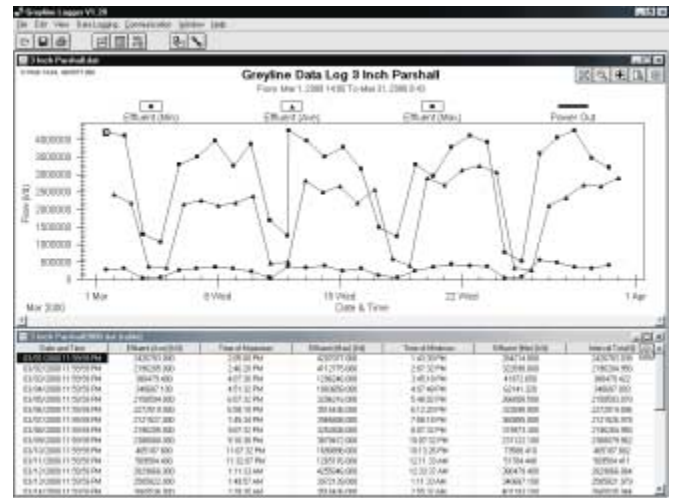*RELIABLE MEASUREMENT AND CONTROL*

Built-in Data Logger creates Flow Reports

Save time and labour — flow information is stored automatically

- ☑ *50,000 data point capacity*
- ☑ *Logs reports including minimum, maximum, average and total in 1 to 24 hour intervals*
- ☑ *Logs flow rates in 1 second to 30 minute intervals*
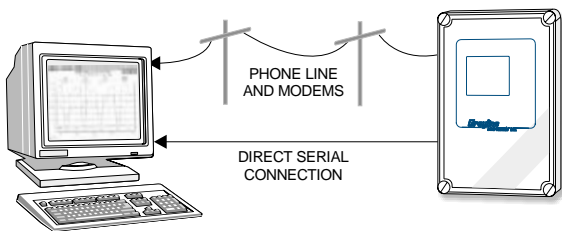- ☑ *RS232 output supports direct data transfer by cable or dial-up connection*

FREE 'Greyline Logger' software for Windows™

It's included with each OCF-IV. This powerful software displays data in both graph and table formats. Greyline Logger runs on any PC with Windows™ 95, 98 or NT.

You can analyse flow data on-screen and save as disk files. Then reload the files to compare current and past date, or logs from different sites. Data files can be exported in graphic file formats, and as delimited text files for use in other spreadsheet or database programs.

Greyline Logger software instantly converts engineering units. Download the log file from your OCF-IV and then select 'Change Units' to instantly convert between US gallons, cubic meters, liters, imperial gallons or barrels. Change the graph display to line, bar or area plots to help analyse flow trends.

Retrieve Data Logs by Modem or by direct connection to your PC

Transfer flow logs to your PC or laptop through the OCF-IV's RS232 output or by 'dial-up' connection through modems and telephone lines. Shielded RS232 cable and plugs are included with each OCF-IV.

Display 'Daily' Flow Reports right on the OCF-IV Digital Display

Calibrate the OCF-IV data logger in 24-hour formatted mode and operators can scroll back through the daily flow report and view stored data. The report includes:

- Daily Total
- Daily Average
- Minimum Flow and Time of occurrence
- Maximum Flow and Time of occurrence

The OCF-IV's flow totalizer is also visible directly on the instrument and the isolated 4-20mA output can be connected to chart recorders, remote displays and wastewater samplers.

Retains Memory during Power Interruptions

Time, date and data logs are retained by the built-in real time clock with battery backup. Calibration data is stored in permanent non-volatile memory and password-protected.

OCF-IV Specifications

General Specifications
Greyline OCF-IV Open Channel Flow Monitor

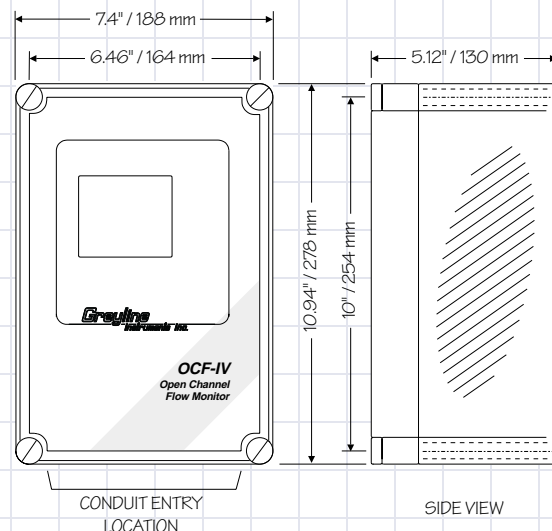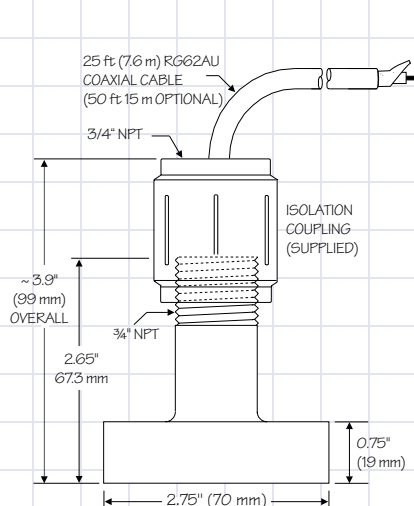|	
Electronics Enclosure:	Watertight and dust tight NEMA4X (IP 66) polycarbonate with clear, shatterproof cover
Accuracy:	±0.25% of Range or 2 mm (0.08") whichever is greater, Repeatability and Linearity: ±0.1%
Displays:	Numeric Values: large 4 digit LCD; Menu/Status/Totalizer: 16 digit alphanumeric
Data Logging:	Programmable 50,000 point data capacity, time and date stamped or formatted flow reports including Total, Average, Minimum, Maximum and Times of occurrence
Programming:	3-button keypad with Menu selection. Calibration parameters are Password protected
Power Input:	100-130VAC 50/60Hz, 7.5 watts maximum
Outputs:	Isolated 4-20mA, 1000 ohm load maximum, Programmable Offset
	Isolated RS232 for Data Log transfer by cable connection to a PC, or dial-up connection through modems and phone lines. Programmable baud rates from 1200 to 19,200
Control Relays:	3 Relays, form 'C' dry contacts rated 5 amp SPDT; programmable level alarm, flow proportional pulse (sampler/totalizer), echo loss and air temperature alarm
Electrical Surge Protection:	Sensor, 4-20mA and AC power input
Operating Temp. (electronics):	-5° to 140°F (-20° to 60°C)
Approximate Shipping Weight:	10 lbs. (4.5 kg)

Sensor Specifications

Maximum Range:	12 ft (3.66 m) with standard PZ12 sensor
Deadband (Blanking):	Programmable, Minimum 8 in (203.2 mm)
Beam Angle:	8°
Operating Frequency:	92 KHz
Exposed Materials:	CPVC
Operating Temperature:	-40° to 150°F (-40° to 65°C)
Temperature Compensation:	Temperature probe inside level sensor for high accuracy in changing temperatures
Operating Pressure:	20 psi (1.35 bar) maximum
Sensor Cable:	RG62AU coaxial, 25 ft (7.6 m) standard length (See Options)

Options

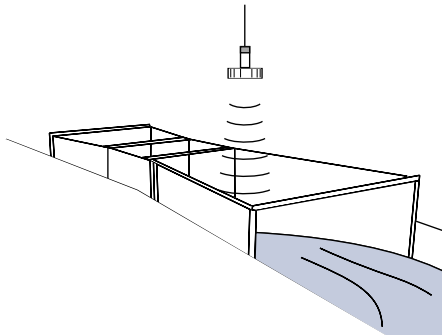|	
Sensor Cable:	50 ft. (15 m) RG62AU coaxial continuous from Sensor, or splice up to 500 ft (150 m)
Sensor Cable Junction Box:	Watertight NEMA4 steel with connection terminal strip
Power Input:	200-250VAC 50/60Hz, 12VDC (battery power) or 24VDC
Enclosure Heater:	Thermostatically controlled - recommended for temperatures below 32°F (0°C)
Intrinsic Safety Barrier:	For Sensor mounting in Class I,II,III, Div. I,II, Groups C,D,E,F,G hazardous locations
Sensor Mounting Stand:	Adjustable, includes galvanized steel pipe, flanges, fittings and hardware

Dimensions

25 ft (7.6 m) RG62AU COAXIAL CABLE (50 ft 15 m OPTIONAL)

3/4" NPT

ISOLATION COUPLING (SUPPLIED)

~ 3.9" (99 mm) OVERALL

¾" NPT

2.65" 67.3 mm

0.75" (19 mm)

2.75" (70 mm)

PZ12 SENSOR

7.4" / 188 mm

6.46" / 164 mm

5.12" / 130 mm

Greyline Instruments Inc.

OCF-IV
Open Channel
Flow Monitor

10.94" / 278 mm

10" / 254 mm

CONDUIT ENTRY LOCATION

SIDE VIEW

ENCLOSURE

OCF-IV Open Channel Flow Monitor
Displays ⋄ Transmits ⋄ Totalizes ⋄ Data Logs

Field Programmable for Any Flume or Weir

The OCF-IV includes a built-in 3-button keypad for easy calibration. Select your choice of engineering units (gallons, liters, cubic meters, etc.) and choose your flume or weir type from the 'Flume Selection' menu. The flowmeter also supports entry of flow formulae for calibration to non-standard flumes and weirs. Use Greyline's software utility 'Find K&n' (included) to calculate calibration constants for entry into the OCF-IV calibration menu.

Three built-in control relays can be individually programmed for flow alarms or with a flow proportionate pulse for remote totalizers, samplers or chlorinators. The isolated 4-20mA output can be connected to chart recorders, remote displays or controllers.

Smart Operating System

The OCF-IV tracks flow continuously through any flume or weir. False echoes from turbulence, splashing rain or snowfall are automatically rejected. Temperature compensation is automatic for high accuracy. Continuous flow is shown on the large 4-digit display while the 16-digit alphanumeric display scrolls automatically to display maximum flow and totalizer values.

NEW Non-Contacting Sensor

Designed specifically for open channel flow applications, the new Greyline PZ12 sensor can be mounted just 8" (20.3 cm) above the maximum water level so it is ideal for confined space and small flumes. It is rated for measurement ranges up to 12 ft (3.66 m).

The PZ12 sensor mounts above the flowing liquid so there is no fouling and no maintenance is required. It will not be damaged by accidental submersion and it self-tunes to extended cable lengths up to 500 ft (152 m).

How to Order

Contact a Greyline sales representative in your area or phone one of our sales engineers. Describe your requirements and receive our prompt quotation.

Applications Support

Take advantage of Greyline's applications experience. Phone toll free 1-888-473-9546 for advice and information on applications, installation or service for Greyline instruments.

No Risk Appraisal

The Greyline OCF-IV Open Channel Flow Monitor must meet your requirements. Discuss your application with a Greyline representative to arrange a performance test.

The Greyline Guarantee

Quality of Materials and Workmanship - Each instrument manufactured by Greyline is warranted against defects in materials and workmanship for a period of one year from date of purchase. Refer to our limited warranty included with each product.