

Accurate, Non-Contacting Flow Monitor

Measures Open Channel Flow through Flumes and Weirs

Open Channel Flow Monitor

Greyline OCF 4.0

Displays, Transmits
Totalizes and Data Logs

Simple 3-key Calibration
Password Protected
50,000 point Data Logger
On-screen Daily Flow Reports
USB and RS232 Serial Output
4-20mA/0-5V Output
10-Digit Totalizer



Easy to Install and Calibrate
Simple, Accurate and Reliable

Non-Contacting Sensor

The OCF 4.0 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 can be mounted within 500 ft (150 m) of the sensor. The OCF 4.0 continuously displays, totalizes, transmits and data logs open channel flow.

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. The OCF 4.0 will display on-screen flow reports with daily total, minimum, maximum and average flow and will transfer data logs to a computer with PC software included.

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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
- ✓ Displays on-screen flow reports with daily total, minimum, maximum and average flow
- ✓ Logs flow readings in selectable intervals from 1 second to 30 minutes
- ✓ USB and RS232 outputs, supports data transfer by cable or by modem

FREE 'Greyline Logger' software for Windows™

Greyline Logger is included with each OCF 4.0. This powerful software displays data in both graph and table formats. Greyline Logger runs on any PC with Windows™ 98, 2000, NT or XP.

You can view flow data on-screen and save as disk files. Data graphs can be exported in image file formats. Data tables can be exported as delimited text files for use in other database programs, or directly to Microsoft Excel™.

Greyline Logger software instantly converts engineering units. Download the log file from your OCF 4.0 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 analyze flow trends.

Retrieve Data Logs by connection to your PC or by Modem

Transfer flow logs to your PC or laptop through the USB and RS232 outputs, or by 'dial-up' through modems. Shielded USB and RS232 cables are included with each OCF 4.0.

Display 'Daily' Flow Reports right on the OCF 4.0 Digital Display

Operators can scroll back through the on-screen 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 4.0'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 4.0 Specifications

General Specifications

Greyline OCF 4.0 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, plus formatted flow reports including daily 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, 2.1 to 6.2 Watts
Outputs:	Isolated 4-20mA, 1000 ohm load maximum. Can be user-configured to 0-5V output. USB and isolated RS232 for data log transfer by cable connection to a PC, or dial-up connection through modems. Programmable baud rates of 9600 or 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/0-5V and AC power input
Operating Temp. (electronics):	-5° to 140°F (-20° to 60°C)
Approximate Shipping Weight:	10 lbs. (4.5 kg)

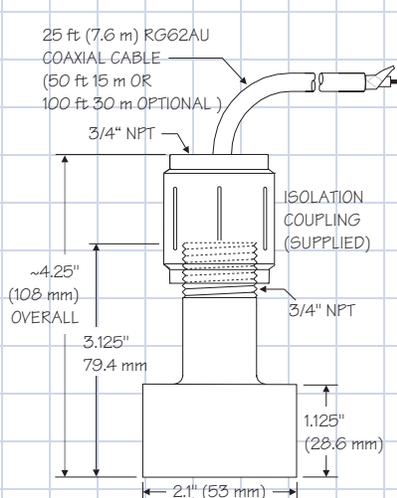
Sensor Specifications

Maximum Range:	15 ft (4.57 m) with standard PZ15 sensor
Deadband (Blanking):	Programmable, Minimum 8 in (203.2 mm)
Beam Angle:	8°
Operating Frequency:	92 KHz
Exposed Materials:	PVC
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)

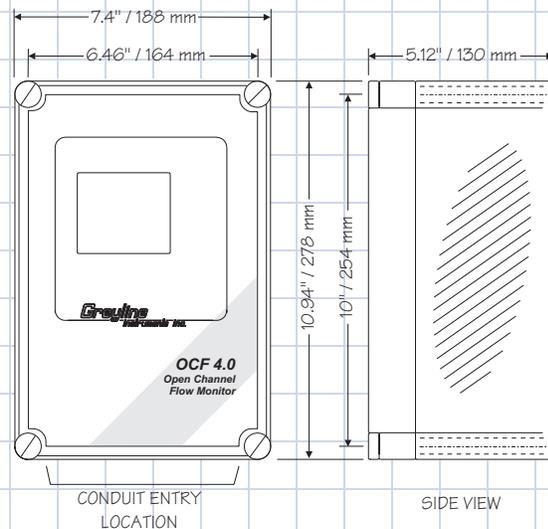
Options

Sensor Cable:	50 ft. (15 m) or 100 ft (30 m) RG62AU coaxial continuous from Sensor, or splice up to 500 ft (150 m) with optional JB. Watertight NEMA4 steel with connection terminal strip
Power Input:	200-250VAC 50/60Hz or 9-36VDC
Sunscreens:	Sensor sunscreen and enclosure sunscreen for outdoor installations
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



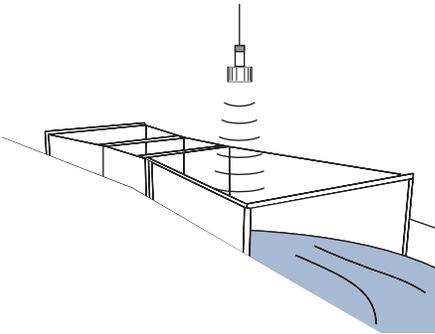
PZ15 SENSOR



ENCLOSURE

OCF 4.0 Open Channel Flow Monitor

Displays · Transmits · Totalizes · Reports



Field Programmable for Any Flume or Weir

The OCF 4.0 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 non-standard flumes and weirs. Greyline's software utility 'Find K&n' (included) can be used to calculate non-standard calibration constants for entry into the calibration menu.

Three built-in control relays can be individually programmed for flow alarms or a flow proportionate pulse for remote totalizers, samplers or chlorinators. The isolated 4-20mA (or 0-5V) output can be connected to chart recorders, remote displays or controllers.

Smart Operating System

The OCF 4.0 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 PZ15 sensor can be mounted just 8" (20.3 cm) above the maximum water level. It is ideal for confined space and small flumes. The PZ15 sensor is rated for measurement distances up to 15 ft (4.576 m).

The PZ15 sensor mounts above the flowing liquid so there is no fouling. No maintenance is required. The sensor 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 4.0 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.

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RELIABLE MEASUREMENT AND CONTROL

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