Open Channel Flow Monitor

Non–Contacting– Accurately Measures Flow Through Flumes and Weirs

Open Channel Flow Monitor

Model OCF 5.0

Displays, Transmits
Totalizes and Data Logs

Simple 5-key Calibration
Password Protected
2 million point Data Logger
On-screen Flow Reports
USB Output to Flash Drives
4-20mA/0-5V Output

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

Non–Contacting Sensor

The OCF 5.0 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 5.0 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, liters etc.) Calibration values and data logs are password-protected and retained during power interruptions. The OCF 5.0 will display on-screen flow reports with daily total, minimum, maximum and average flow and will transfer data logs to a USB flash drive. PC software is included.

Greyline
Precision Flow Measurement
An ONICON Brand

www.greyline.com

Built-in Data Logger Creates Flow Reports
Save time and labour — flow information is stored automatically

2-MillionPoint Data Logger

The OCF 5.0 stores time and date-stamped flow values at programmable intervals of 10 seconds to 60 minutes. Daily flow reports are automatically created and can be viewed right on the instrument's LCD display including total, minimum, maximum and average flow rates.

Easy Data Logger Downloads

You don't need a laptop to retrieve log files! Plug any USB Flash Drive into the OCF 5.0 USB output to download data log files automatically. Downloaded files are sequentially named by the flowmeter so log files from the same or multiple instruments can be stored on one flash drive.

Greyline Logger software for Windows

Greyline Logger is included with each OCF 5.0. This powerful software displays data in both graph and table formats. You can view flow data on-screen, generate flow reports and save files to disk. Graphs can be exported as images and data tables can be exported as delimited text files, or directly to Microsoft Excel.

- Display, analyze and export log files in graph and table formats
- Generate flow reports including totalizer, minimum, maximum and average flow rates
- Convert measurement units
- One-click export to Microsoft Excel

Non-ContactingUltrasonic Sensor

Each OCF 5.0 includes a non-contacting PZ15 sensor designed for the special requirements of open channel flow measurement. The sensor can be installed 8" (203 mm) or more above the highest water level. The ultrasonic sensor beam is narrow enough to work on very small flumes and powerful enough for really large applications. The OCF 5.0 automatically tunes to extended cable lengths up to 500 ft (150 m) lengths.

OCF 5.0 Outputs Included

Connect the OCF 5.0's isolated 4-20mA output to external displays, chart recorders or controllers and use the built-in relays for flow/level alarms and flow proportionate pulse to samplers, chlorinators or external totalizers.

Retains Memory during Power Interruptions

Date, time, calibration data and user settings are stored and retained in back-up battery protected memory. Data log files are in stored Secure Digital (SD) non-volatile memory.

Security

Access to the OCF 5.0 calibration menu and settings are password-protected when enabled.

OCF 5.0 Specifications

General Specifications

Greyline OCF 5.0 Open Channel Flow Monitor

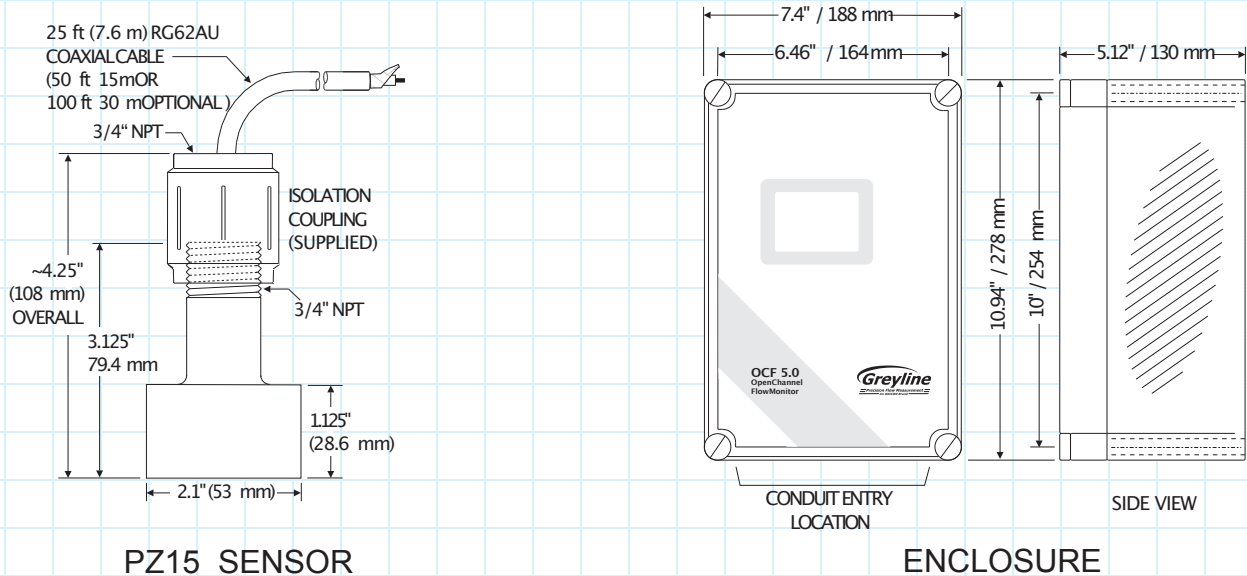|	
Electronics Enclosure:	Watertight and dust tight NEMA4X (IP 66) polycarbonate with clear, shatterproof cover
Accuracy:	±0.25% of Range or 2 mm (0.08") whichever is greater, Repeatability and Linearity: ±0.1%
Display:	White, backlit matrix - displays flow rate, totalizer, relay status, operating mode and calibration menu
Programming:	built-in 5-key calibrator with English, French or Spanish language selection
Power Input:	100-240VAC 50-60Hz (see Options), 2.95-5.6 Watts depending on options
Output:	Isolated 4-20mA/0-5V, 1000 ohm load maximum, programmable offset
Control Relays:	2 Relays, form 'C' dry contacts rated 5 amp SPDT; programmable level alarm, pump control, pump alternation, failsafe/echo-loss, 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:	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) with automatic temperature compensation
Submersion Rating:	Protected for accidental submersion to 10 ft (3 m) maximum
Sensor Cable:	RG62AU coaxial, 25 ft (7.6 m) standard length (See Options)

Popular Options

Sensor Cable:	50 ft. (15 m) continuous or 100 ft. (30 m) continuous RG62AU coaxial from Sensor, or splice up to 500 ft (150 m) with Junction Box
Intrinsic Safety Barriers:	For Sensor mounting in Class I,II,III, Div. I,II, Groups C,D,E,F,G hazardous locations
Power Input:	9-32 VDC, 2.7-4.95 Watts depending on options
Control Relays:	4 additional (6 total), rated 5 amp SPDT
Enclosure Heater:	Thermostatically controlled - recommended for temperatures below 32°F (0°C)
Sunscreens:	Sensor sunscreen and enclosure sunscreen for outdoor installations
Sensor Mounting Stand:	Adjustable, includes galvanized steel pipe, flanges, fittings and hardware

Dimensions

25 ft (7.6 m) RG62AU
COAXIAL CABLE
(50 ft 15mOR
100 ft 30 mOPTIONAL)
3/4" NPT
ISOLATION COUPLING (SUPPLIED)
~4.25" (108 mm) OVERALL
3/4" NPT
3.125" 79.4 mm
1.125" (28.6 mm)
2.1" (53 mm)

PZ15 SENSOR

7.4" / 188 mm
6.46" / 164mm
5.12" / 130 mm
10.94" / 278 mm
10" / 254 mm
OCF 5.0 OpenChannel FlowMonitor
Greyline

CONDUIT ENTRY LOCATION

SIDE VIEW

ENCLOSURE

Non–Contacting Ultrasonic
OCF 5.0 Open Channel Flow Monitor

Works with any Flume or Weir
Built–in Totalizer
Password protected

Programmable for any Flume or Weir

The OCF 5.0 includes a built-in 5-button keypad for fast, easy calibration. Select your choice of engineering units (gallons, liters, cubic meters, etc.) and choose your flume or weir type from the menu. The flowmeter also supports entry of flow formulae for non-standard flumes and weirs. 'Find K&n' software (included) can be used to calculate non-standard calibration constants for entry into the OCF 5.0 calibration menu.

Built-in control relays can be 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 and controllers.

Non–Contacting Sensor

Designed specifically for open channel flow applications, the new Greyline PZ15 ultrasonic 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).

Smart Operating System

The OCF 5.0 tracks flow continuously through a flume or weir. False echoes from turbulence, splashing rain or snowfall are automatically rejected. Temperature compensation is automatic for high accuracy. Flow rate and totalizer are shown on the large backlit LCD display.

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 or information on applications, installation or service for Greyline products.

No Risk Appraisal

The Greyline OCF 5.0 Level & Flow Monitor must meet your requirements. Discuss your application with a Greyline representative to arrange a 30-day trial.

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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