



Simple  
and accurate

The new  
portable  
clamp-on  
flow meters

**+GF+**

**GEORG FISCHER**  
PIPING SYSTEMS

# Portaflow PF330/PF220

Easy set-up and installation – perfectly tailored and pre-set for Georg Fischer Piping Systems.

The Portaflow range brings simplicity to the non-invasive measurement of liquid flow. Portaflow offers the user quick and accurate flow measurement with its easy to follow menu and simple set up. Results can be achieved within minutes of opening the case. Compact, rugged and reliable, the Portaflow range has been designed to provide sustained performance in industrial environments.



## Industries

- Water
- Building Services
- Energy
- Chemical Industry
- Utilities
- Semiconductors

## Recommended for

- Potable water
- River water
- Cooling water
- Demineralised water
- Water/glycol solutions
- Chemicals

## Application / Use

- HVAC and energy system audits
- Pump verification
- Leak detection
- Filter sizing
- Ultrapure water measurement
- Condensate measurement
- Balancing systems
- Fire system testing
- Calibration of measurement systems

## Hardware & Operation

The Portaflow electronics are housed in a specifically designed enclosure, which incorporates the graphic display, keypad, sensor and output facility connections. Programming the unit is carried out by selecting the options displayed in the main menu and by following the simple instructions in any of the user selectable languages. The use of rechargeable batteries allows the unit to be operated for a period in excess of 20 hours depending on the facilities used. Continuous operation via the PSU is also possible while recharging the battery pack. Battery status, signal strength, time and date, as well as flow information are all continuously displayed, keeping the user fully aware of the measurement process.

## Flow Transducers

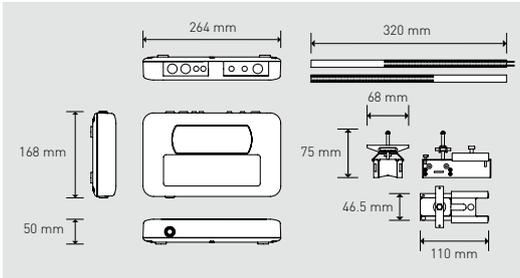
The Portaflow range is able to work with different transducer sets depending on the unit purchased and the application. Sensor mounting clamps are provided with each instrument, to ensure correct mounting and reliable operation on any size pipe, in either diagonal or reflex mode.

## Data Logger (PF330 only)

The built in data logger in the PF330 allows site details and flow data to be recorded with a memory, that is able to log 98,000 separate readings. Data can be stored in 5 second to 1 hour intervals. The data for each site is stored in the memory until it has been cleared. The stored data can be displayed on the instrument in text or graph format. The instrument is also capable of downloading the stored data via the USB or RS232 output port and the Portagraph Software supplied with the unit.

# System data

Transit time ultrasonic flow meter: a non-invasive way of measuring.



## PF330 and PF220 Product Features

- Flow Range: 0.1m/sec to 20m/sec bi-directional
- Battery or mains operation, battery running time: up to 20h
- Power: 110 – 240VAC +/-10% supply via PSU
- Languages: DE, EN, FR, RU, SWE, IT, SP, P, NO, DEN
- Accuracy for flow rate >0.2m/s:  
Pipes > DN75: ±0.5% to ±2% of flow reading  
Pipes DN13-75: ±3% of flow reading



PF330



PF330 with case



PF220



PF220 with case

### PF330 Specification

- A Transducers: d13 – d115 pipes
- B Transducers: d50 – d2000 pipes
- Transducer Operating Temp:  
A & B -20°C to +135°C
- Outputs: Opto Isolated 0/4 –20mA; RS 232/USB;  
programmable pulse: 2ms – 500ms
- Data Logging: 98,000 data points
- Up to 20 named recording blocks
- Data displayed locally in text or graph format.  
Real time or stored. Can be downloaded via  
RS232 or USB port to Windows based PC

### PF220 Specification

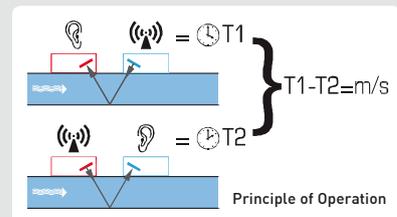
- PF220A with A Transducers: d13 – d115 pipes  
or
- PF220B with B Transducers: d50 – d1000 pipes
- Transducer Operating Temp:  
A & B -20°C to +135°C
- Outputs: – Opto Isolated 0/4 –20mA;  
Programmable Pulse – 2ms-500ms

### PF330 / PF220

Selectable pipe materials:  
PVDF-SYGEF, PP-PROGEF, PE-ELGEF,  
PB-INSTAFLEX, ABS, PVC-U/PVC-C, Copper  
Mild Steel, Ductile Iron, S'less Steel 316, ...

### Working principle

It takes just a few minutes to install and there is no need to shut down flow or drain the system.



When ultrasound is transmitted between the transducers, the speed at which the sound travels through the liquid is accelerated slightly by the velocity of the liquid through the pipe. When ultrasound is transmitted in the opposite direction, the flow of the liquid causes the transmitted sound to decelerate. The subsequent time difference is directly proportional to the flow velocity in the pipe. Having measured the flow velocity and knowing the pipe cross-sectional area, the volumetric flow can be easily calculated.

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