

SOLE SOURCE JUSTIFICATION

PURCHASE AND SUPPLY OF THE AUTOMATIC FRACTION COLLECTOR V2



OVERVIEW

Izon Science Limited is the only manufacturer of the Automatic Fraction Collector V2 (AFC V2). The AFC V2 is the only commercially available automatic benchtop volume collection system for use with qEV columns, Izon's size exclusion chromatography-based columns. In combination with qEV columns, the AFC V2 is widely used for the isolation of extracellular vesicles from cell culture media and a wide range of biofluids. The AFC V2 has several unique capabilities that are necessary for ensuring uniformity of volumes, decreasing experimental run time and eliminating many of the inaccuracies involved with manual collection of purified samples. The AFC V2 measures the volume of each fraction by weight as it is being collected. When the designated threshold weight is reached, the fluid flow is automatically stopped to prevent dripping of fluid during repositioning of the carousel.

The AFC V2 uses RFID control of Izon's qEV columns which are used in tandem to enable rapid and precise isolation. The RFID label on the qEV column is registered by the AFC V2 and critical information for the user is displayed, such as column size, type and usage information.

Because the AFC V2 is completely automatic once isolation is initiated via the integrated touchscreen, the user can work on other tasks while the AFC V2 runs, which is an advantage in a busy laboratory environment. The automatic nature of the AFC V2 means that the previously labour-intensive process of sample isolation can be high-precision, large-scale, and standardised. In tandem with Izon's qEV columns, a wide range of sample volumes can be purified.

Downloadable firmware updates and technical support are included in the package. The AFC V2 follows the AFC V1, which is still supported but no longer in production.

SPECIFICATIONS

Touchscreen

- ▶ 5" touch screen, 800 x 480 resolution.
- ▶ Resistive touchscreen.

RFID Reader

- ▶ Reads the RFID label on the qEV column. No other column is compatible with the AFC V2.

AFC Halo and Tower Lighting

- ▶ LED lighting is used to indicate the status of the AFC V2.
- ▶ Lighting can be adjusted in the AFC V2 settings.

Running Buffer

- ▶ A wide range of pH stabilised solutions can be used, including PBS, HEPES, MES, KCl, and Low Protein Growth Medium.
- ▶ Molarity: 150-500 mM

Sample Volume

- ▶ A range of volumes could be required depending on the qEV column used, and the extent to which samples are concentrated prior to isolation. qEV columns compatible with the AFC V2 are optimised for sample loading volumes ranging from 150 μ L to 10 mL.

Computer System

- ▶ A computer system is not required to operate the AFC V2.
- ▶ A computer system with Windows 10 or later with an internet connection and a USB cable are required to update the AFC V2 firmware.

Power Supply

- ▶ Normal wall-socket power. Input AC: 100-240 V, 1.2 A, 47-63 Hz.

Training and Support

- ▶ Izon Science Support Centre: online support resources.
- ▶ Remote video support is available.

Manuals

- ▶ Instructions for operation are provided as PDFs on Izon's online support portal.

Warranty

- ▶ A 24-month warranty is provided by the manufacturer.

Shipment

- ▶ AFC V2 box dimensions: ~38 x 31 x 46 cm
- ▶ Weight (boxed): ~5 kg
- ▶ Weight (unboxed): 1.2 kg