

Accessories

Membrane Degassers

DGU-20A3 (3 channel)

DGU-20A5 (5 channel)

- <400 uL internal volume
- Connects to pump for power and control
- Teflon AF® high efficiency membrane



Removing dissolved gases in mobile phase is a critical step for ensuring proper function of the pumping system. It is especially important in a low-pressure gradient mixing system, sometimes referred to as a quaternary system, where mobile phase components are mixed at near ambient pressure. Solvents mixed under these conditions can form micro bubbles from out-gassing caused by the mixing of liquids with dissimilar gas solubilities. These micro bubbles can affect the system in many ways – from impaired check valve performance to a noisy baseline to bubbles being trapped in the detector flow cell.

The DGU-20A's utilize an additional channel for degassing the rinse phase of the autosampler. Degassing of the rinse phase is necessary to get the ultimate in accuracy and precision from the injector. The DGU-20A's are conveniently powered by the Prominence series pumps and can be controlled by Shimadzu software. Regulated laboratories will appreciate the DGU-20A's ability to output the vacuum level – allowing one to monitor and record its stability throughout the run.

All of these features in a compact module designed to stack efficiently with the Prominence series makes the DGU-20A an indispensable accessory for any HPLC system.

SPECIFICATIONS

	DGU-20A3 (228-45018-32)	DGU-20A5 (228-45019-32)
Degassing Channels	3	5
Internal volume	380uL	
Operating Temperature Range	4°C to 35°C (non-condensing conditions)	
Dimensions	260 (W) x 70 (H) x 420 (D) mm, 5kg	260 (W) x 70 (H) x 420 (D) mm, 5.2kg
Power	Supplied from LC-20AB/AD/AT pump	
Auxiliary AC adapter (for non-Prominence pumps)	228-45110-92	

Reservoir Tray

The Prominence series reservoir tray can accommodate up to seven one-liter bottles. It stacks with other Prominence modules and is designed to safely secure your mobile phase containers. Solvent lines are kept neatly organized by passing them behind the front panel, further reducing the chance of inadvertent spills.



Flow Control Valves



2-position/6-port Column Switching Valves

FCV-20AH2

- Standalone front panel control
- Event signal required for time-programmed operation

FCV-12AH

- Sub-controller required for operation
- Controlled via SCL or CBM system controllers

6-position/7-port Column Selection Valves

FCV-20AH6

- Standalone front panel control
- Event signals required for time-programmed operation

FCV-14AH

- Sub-controller required for operation
- Controlled via SCL or CBM system controllers

SPECIFICATIONS

	FCV-20AH2	FCV-12AH	FCV-20AH6	FCV-14AH
P/N	228-45015-32	228-45013-91	228-45017-32	228-45014-91
Valve Type	2-position/6-port rotary valve		6-position/7-port rotary valve	
Maximum Pressure	39.6 MPa			
pH Range	pH 1-10			
Temperature Range	4°C - 35°C (non-condensing)			
Dimensions	110 (W) x 140 (H) x 250 (D) mm, 4kg	110 (W) x 110 (H) x 250 (D) mm, 4kg	110 (W) x 140 (H) x 250 (D) mm, 4kg	110 (W) x 110 (H) x 250 (D) mm, 4kg
Power	AC 110V, 50/60 Hz	Sub-Controller	AC 110V, 50/60 Hz	Sub-Controller

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With the introduction of the Prominence series, Shimadzu has expanded its offering of high-pressure flow control valves. The FCV-20AH2 and 20AH6 join the successful FCV-12AH and 14AH. The FCV-20AH2/AH6 are designed for standalone operation via manual front-panel control or for incorporation into any HPLC system via contact closure control. The FCV-12AH/14AH are better suited for more advanced systems and automated control through the Shimadzu system controllers and software using a sub-controller – thereby leaving all contact closures available for other uses.

The FCV-20AH2/12AH valves are used for switching between flow lines. Applications for these valves include, among others: column switching for offline column regeneration; column or module bypass; detector selection.

The FCV-20AH6/14AH valves are used for column selection, typically used in a method development environment. By combining these valves with solvent selection valves on the pumping system, one can subject a sample to many different mobile phase and column selectivity combinations. Using these valves in series allows up to eleven different columns to be evaluated. Shimadzu software can be used to automate this operation to reduce the time needed to screen samples and select chromatographic conditions for optimization.

The entire series of FCV high-pressure valves can be mounted in and controlled by the Prominence series column ovens. Mounting the liquid end of the valves in the oven with the columns assures an isothermal separation. Prominence series ovens can accommodate up to two valves.