

## PROCESS-SCALE CHROMATOGRAPHY

# Bio-Rad® InPlace™ Control Console

- Precise, reproducible packing by axial compression
- Designed for multiple automated packing methods
- Motorized adjustable height adaptor for axial compression
- Onboard maintenance guide
- Closed system design
- No media loss during packing
- Complete documentation for regulatory submission

## Perform all Process Operations in a Self-Contained System with Preprogrammed Methods



Bio-Rad InPlace process-scale chromatography columns are designed for industrial applications and allow contained filling, packing, unpacking, and cleaning in place. The columns have a sanitary design, variable height adaptor, inflatable seal, and special low-shear valves for slurry transfer.

### Control Console

The Bio-Rad InPlace control console simplifies column operations by using preprogrammed methods for column filling, packing, unpacking, and cleaning to ensure reproducibility, reduce operator hands-on time, and eliminate operator variances.

The packing motor is controlled by the variable frequency drive of the control console. It ensures precise packing speed and bed-height adjustment at each step of the procedures.

### User-Friendly Software

Methods can be programmed and saved by entering the settled bed-height of the media,

the speed of the adjustable height adaptor, and by programming the compression factor, which is characteristic for each type of chromatography media. The software allows the parameters of all available chromatography media to be entered.

Packing the column by axial compression, flow, or a combination of both is supported by the software.

### Benefits Include:

- An intuitive and easy-to-use touch screen interface (OMRON PLC)
- Preprogrammed methods in automatic mode for time savings and reproducible packing results
- Choice of programming media transfer in either syringe mode or using the media transfer device
- Easy-to-use preprogrammed piston height adjustment
- A safety system for automatic shutoff when reaching preset pressure limits, piston positions, or torque
- Recognition and control of up to three different column diameters
- Software that is U.S. FDA 21 CFR Part 11 compliant
- Data accessibility through ethernet connections
- Onboard maintenance and inspection guide with easy-to-follow, step-by-step instructions

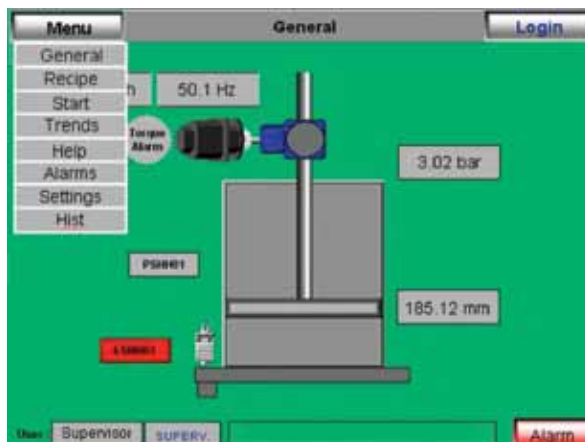
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## Manual Mode Operation

The control console can operate the column in manual mode without using a preprogrammed method. This is an important feature especially during maintenance and inspection. In the menu, the operator can set the final piston height and linear speed or just press “down” or “up” to move the adjustable height adaptor.

## Ordering Information

Catalog #	Description
739-2115	<b>Bio-Rad InPlace Control Console</b> , column diameters 180–446 mm, includes variable frequency drive (1.5 kW) and instrumentation on the column
739-2116	<b>Bio-Rad InPlace Control Console</b> , column diameters 446–1300 mm, includes variable frequency drive (7.5 kW) and instrumentation on the column
739-2117	<b>Bio-Rad InPlace Control Console</b> , column diameters ≥1400 mm, includes variable frequency drive (7.5 kW) and instrumentation on the column



Software controller main screen.

## Specifications

Parameters	Column Diameter Range (mm)	
	180–446	446–1,300*
Power supply	1 x 230 V AC–50 Hz or 60 Hz 3 x 400 V AC–50 Hz or 60 Hz 3 x 208 V AC–60 Hz	3 x 400 V AC–50 Hz or 60 Hz 3 x 208 V AC–60 Hz N/A
Configuration 1: 1 x 230 V AC	Max current Protection fuse Power	23 A 23 A 1.7 kW
Configuration 2: 3 x 400 V AC	Max current Protection fuse Power	7 A 7 A 1.7 kW
Configuration 3: 3 x 208 V AC	Max current Protection fuse Power	13 A 13 A 1.7 kW
Dimensions	428 x 585 x 1,177 mm 1'5" x 1'92" x 3'10"	428 x 665 x 1,177 mm 1'5" x 2'2" x 3'10"
Weight	47 kg	49 kg
Temperature range	From 18–25°C	
Degree protection	IP55	
Material	Stainless steel 304	
Surface finish	Ra<1.2 μm	
Support	4 rollers with pivot and break	

### Instruments Embedded in the Control Console

Variable frequency drive  
Human machine interface

### Instruments Embedded on the Column

Pressure probe  
Coder mounted on motor

\* Specifications for column diameter ≥1400 mm are available on request. For further information, please contact your local Bio-Rad sales representative.



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