



Improving your PERFORMANCE

## 323Du/MC4 Low-flow RS232/analogue/manual control microcassette pumps

### Technical information and features

- RS232 serial communication
- High-performance microprocessor controlled pumps
- Flow rates from 2µl/min to 53ml/min per channel
- Precision digital speed control 1rpm steps from 3 to 110rpm
- Fitted with 314MC four-roller five channel microcassette pumphead
- Add one snap-fit 314MCX extension pumphead for ten channels of flow
- Digital TTL or remote switch inputs for run/stop and direction
- Rear panel 25D socket accepts analogue auto-control signal input for speed control 4-20mA, 0-10V
- High visibility digital display and keypad lock
- Compact design, chemical resistant case, contemporary styling
- Zero maintenance, quiet brushless DC motor
- MemoDose facility for accurate single shot dosing
- Auto-restart for mains failure recovery and timer control
- Uses colour coded, double segment manifold tubing



323Du/MC4



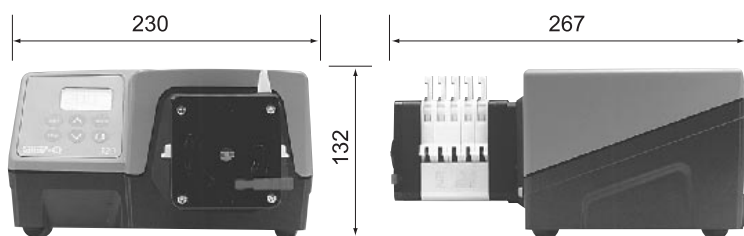
323Du/MC4 + 314MCX



Flow rate ranges (ml/min)

Tube code	Orange/Black	Orange/Red	Orange/Blue	Orange/Green	Orange/Yellow	Orange/White	Black/Black	Orange/Orange	White/White	Red/Red	Grey/Grey	Yellow/Yellow	Yellow/Blue
<b>Bore mm</b>	<b>0.13</b>	<b>0.19</b>	<b>0.25</b>	<b>0.38</b>	<b>0.50</b>	<b>0.63</b>	<b>0.76</b>	<b>0.88</b>	<b>1.02</b>	<b>1.14</b>	<b>1.29</b>	<b>1.42</b>	<b>1.52</b>
<b>3.0rpm</b>	0.002	0.01	0.01	0.03	0.05	0.08	0.13	0.17	0.22	0.27	0.35	0.46	0.52
<b>110rpm</b>	0.09	0.3	0.5	0.9	1.7	3.1	4.6	6.4	8.1	9.9	13	17	19

Tube code	Blue/Blue	Green/Green	Purple/Purple	Purple/Black	Purple/Orange	Purple/White
<b>Bore mm</b>	<b>1.65</b>	<b>1.85</b>	<b>2.05</b>	<b>2.29</b>	<b>2.54</b>	<b>2.79</b>
<b>3.0rpm</b>	0.60	0.76	0.90	1.1	1.3	1.4
<b>110rpm</b>	22	28	33	40	47	53



## 323Du/MC4 Low-flow RS232/analogue/ manual control microcassette pumps

Product codes		
323Du 3.0-400rpm	drive only	036.3154.000*
314MC	four roller five channel pumphead	033.6453.000
314MCX	four roller five channel extension pumphead	033.6454.000

\*Replace last 0 with A, E or U for American, European or UK mains supply (American 110V 1ph 60Hz)

Tube ordering codes				
Double pump segment for 314MC pumpheads				
Colour code	Tube mm	Marpren* <sup>*</sup>	PVC	Silicone
Orange/black	0.13		981.0013.000	
Orange/red	0.19		981.0019.000	
Orange/blue	0.25	979.0025.000	981.0025.000	
Orange/green	0.38	979.0038.000	981.0038.000	
Orange/yellow	0.50	979.0050.000	981.0050.000	
Orange/white	0.63	979.0063.000	981.0063.000	983.0063.000
Black/black	0.76	979.0076.000	981.0076.000	983.0076.000
Orange/orange	0.88	979.0088.000	981.0088.000	983.0088.000
White/white	1.02	979.0102.000	981.0102.000	983.0102.000
Red/red	1.14	979.0114.000	981.0114.000	983.0114.000
Grey/grey	1.29	979.0129.000	981.0129.000	983.0129.000
Yellow/yellow	1.42	979.0142.000	981.0142.000	983.0142.000
Yellow/blue	1.52	979.0152.000	981.0152.000	983.0152.000
Blue/blue	1.65	979.0165.000	981.0165.000	983.0165.000
Green/green	1.85	979.0185.000	981.0185.000	983.0185.000
Purple/purple	2.05	979.0205.000	981.0205.000	983.0205.000
Purple/black	2.29	979.0229.000	981.0229.000	983.0229.000
Purple/orange	2.54	979.0254.000	981.0254.000	983.0254.000
Purple/white	2.79	979.0279.000	981.0279.000	983.0279.000

\* For autoclavable Marprene tubing, please replace last "0" with "\*\*\*" - for example 979.0238.00\*  
Please state the product code when ordering pumps and tubing

### Specification

<b>Weight</b>	5.0kg
<b>Operational temperature range</b>	5°C to 40°C
<b>Noise</b>	<70dBA at 1m
<b>Control ratio</b>	3-110rpm
<b>Standards</b>	CE, BS0800, IEC335-1, EN60529 (IP31)
<b>Supply</b>	1ph, 100-120V, 220-240V 50/60Hz, 100VA

### Materials of construction

<b>Drive</b>	
<b>Drive base</b>	Powder coated aluminium casework
<b>Drive top</b>	Self-coloured ABS plastic
<b>Pumphead</b>	
<b>Cassettes</b>	Acetal copolymer-Kematal (PVDF optional)
<b>Fixings</b>	Stainless steel pins
<b>Mounting plate, front and rear</b>	Glass filled Nylon
<b>Pumphead cradle</b>	Aluminium extrusion, anodised
<b>Rollers</b>	MoS2 filled Nylon 6 (Nylatron)
<b>Rotor spindle carriers</b>	Machined aluminium
<b>Spindles</b>	Stainless steel
<b>Fixings</b>	Stainless steel
<b>Sealed bearings</b>	Carbon steel



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