



Improving your PERFORMANCE

## 323S/MC4 Low-flow manual control variable speed microcassette pumps

### Technical information

- High performance microprocessor controlled pumps
- Flow rates from 2µl to 53 ml/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
- 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 double segment, colour coded manifold tubing



323S/MC4

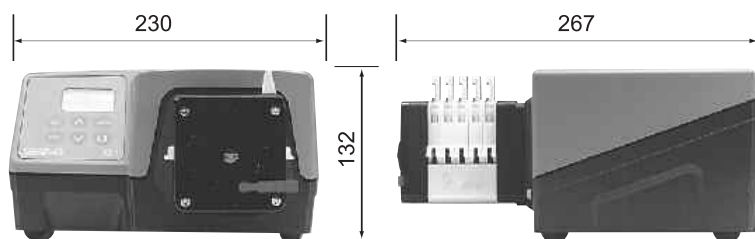


323S/MC4 + 314MCX

### Flow rate ranges (ml/min)

| Tube code | Orange/<br>Black | Orange/<br>Red | Orange/<br>Blue | Orange/<br>Green | Orange/<br>Yellow | Orange/<br>White | Black/<br>Black | Orange/<br>Orange | White<br>White | Red<br>Red | Grey<br>Grey | Yellow<br>Yellow | Yellow<br>Blue |
|-----------|------------------|----------------|-----------------|------------------|-------------------|------------------|-----------------|-------------------|----------------|------------|--------------|------------------|----------------|
| Bore mm   | 0.13             | 0.19           | 0.25            | 0.38             | 0.50              | 0.63             | 0.76            | 0.88              | 1.02           | 1.14       | 1.29         | 1.42             | 1.52           |
| 3.0rpm    | 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           |
| 110rpm    | 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/<br>Blue | Green/<br>Green | Purple/<br>Purple | Purple/<br>Black | Purple/<br>Orange | Purple/<br>White |
|-----------|---------------|-----------------|-------------------|------------------|-------------------|------------------|
| Bore mm   | 1.65          | 1.85            | 2.05              | 2.29             | 2.54              | 2.79             |
| 3.0rpm    | 0.60          | 0.76            | 0.90              | 1.1              | 1.3               | 1.4              |
| 110rpm    | 22            | 28              | 33                | 40               | 47                | 53               |



## 323S/MC4 Low-flow manual control variable speed microcassette pumps

| Product codes   |   |               |
|-----------------|---|---------------|
| 323S 3.0-400rpm | drive only, 400rpm                          | 036.3134.000* |
| 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) | Marprene*    | 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>                 | 133:1                                  |
| <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                            |
| <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</b>                          | Machined aluminium                         |
| <b>Spindles</b>                       | Stainless steel                            |
| <b>Sealed bearings</b>                | Carbon steel                               |



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