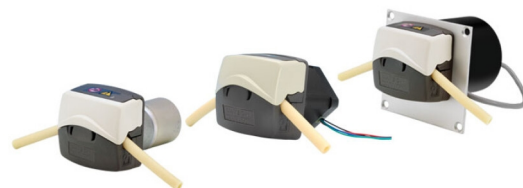


# 100VDL DV

## 100 series panel mount pumps

- Unique easy load pump head for flows up to 510ml/min
- Brushless Direct-Drive technology for life up to 20,000hrs
- No maintenance - Minimum total life cost
- Simple to use - Analogue speed control, 0-4 V
- CW/CCW direction control
- Brake feature - Stops in microseconds
- Encoder feedback, 36 pulses per motor revolution

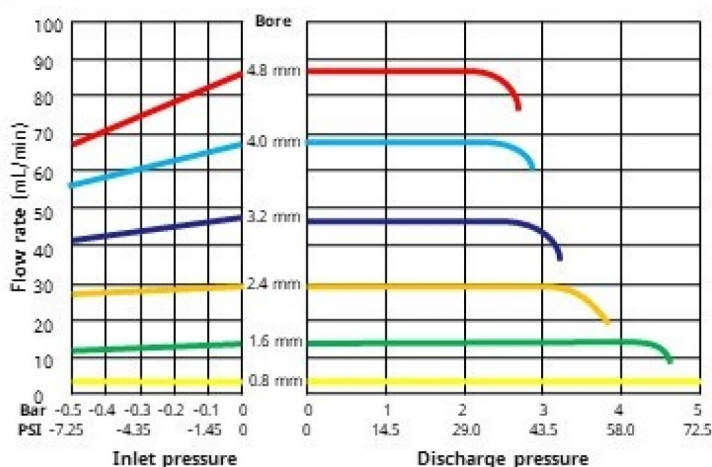


## 100VDL DV performance

| Flow rates (ml/min) Tubing 1.6 mm wall |                                         |             |     |                    |
|----------------------------------------|-----------------------------------------|-------------|-----|--------------------|
| Tube bore (mm)                         | (ml/rev)                                | Speed (rpm) |     |                    |
|                                        |                                         | 100         | 400 | 600 (Intermittent) |
| 0.5                                    | 0.02                                    | 2.2         | 9.1 | 13.5               |
| 0.8                                    | 0.04                                    | 4.3         | 17  | 26                 |
| 1.6                                    | 0.14                                    | 14          | 56  | 84                 |
| 2.4                                    | 0.29                                    | 29          | 115 | 175                |
| 3.2                                    | 0.47                                    | 47.5        | 190 | 285                |
| 4.0                                    | 0.67                                    | 67          | 270 | 405                |
| 4.8                                    | 0.85                                    | 85          | 340 | 510                |
| Custom options                         |                                         |             |     |                    |
| Drives                                 | 0-10 V analogue control                 |             |     |                    |
|                                        | 4-20mA analogue control                 |             |     |                    |
|                                        | Fixed speed (no control voltage needed) |             |     |                    |
|                                        | Potentiometer control                   |             |     |                    |
| Pumphead                               | No visible rotation - covered holes     |             |     |                    |
|                                        | Logic off switch and rotation sensor    |             |     |                    |
|                                        | Custom colors                           |             |     |                    |
|                                        | Custom occlusion settings               |             |     |                    |

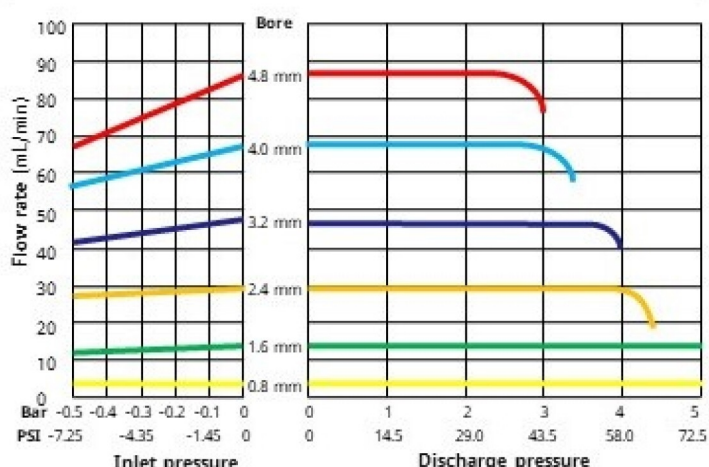
### 114DV Pumphead

Marprene, water, 100 rpm, counter-clockwise



### 114DVP Pumphead

Marprene, water, 100 rpm, counter-clockwise



Technical specifications

|                                  | 100VDL DV                          |
|----------------------------------|------------------------------------|
| Motor types                      | Variable speed brushless DC motor  |
| Pumphead options                 | 114DV                              |
| Number of rollers                | 4                                  |
| Number of channels               | 1                                  |
| FlowRateRange                    | 2.2 ml/min to 510 ml/min           |
|                                  | 100 rpm to 600                     |
| Supply voltage                   | 24VDC                              |
| Operating temperature            | 14 °F to 113 °F (-10 °C to 45 °C)  |
| Power consumption                | 75W                                |
| Control options                  | 0-10 V, 0-4 V, 4-20 mA, Manwel     |
| Outputs                          | Tacho                              |
| Weight                           | 1.763 lbs (0.8 kg)                 |
| Location                         | Indoor, Enclosure                  |
| Compatible tubing bore size      | 0.5, 0.8, 1.6, 2.4, 3.2, 4, 4.8 mm |
| Compatible tubing wall thickness | 1.6 mm                             |
|                                  | Up to 20,000hrs                    |

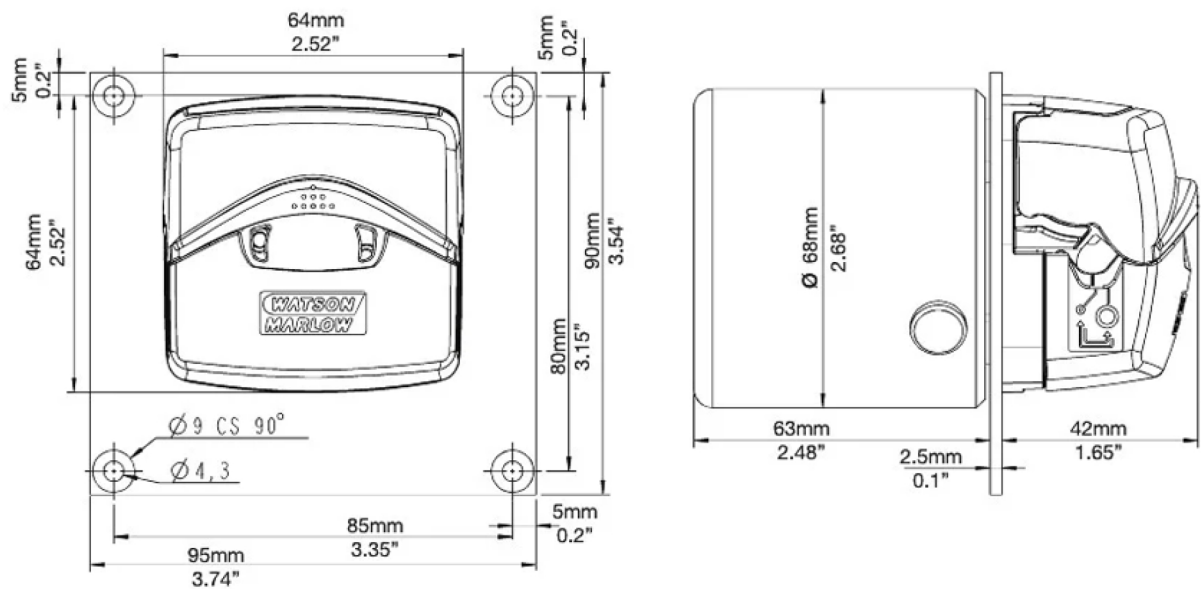
For detailed specifications of individual models refer to product reference manual or contact WMFTS representative.

Materials of construction

|                          | 100VDL DV                                                                                                                                        |
|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| Pumphead body assembly   | Grilamid PA12, Polyacrylamide-IXEF (PARA)                                                                                                        |
| Pumphead rotor assembly  | FPM rubber, Polyacrylamide-IXEF (PARA), Polytetrafluoroethylene (PTFE) filled Polybutylene Terephthalate (PBT), PTFE filled PBT, Stainless steel |
| Pumphead roller assembly | Polytetrafluoroethylene (PTFE) filled Polybutylene Terephthalate (PBT)                                                                           |
| Bearings                 | Stainless steel                                                                                                                                  |
| Adaptor plate            | IXEF PARA                                                                                                                                        |
| Driveshaft               | Stainless steel                                                                                                                                  |
| Springs                  | Stainless steel                                                                                                                                  |
| Mounting plate assembly  | Anodized aluminum                                                                                                                                |

Information listed covers the complete range. For detailed specifications of individual models/components refer to product reference manual or contact WMFTS representative.

100VDL DV dimensions



Product codes

| Pump product codes                                  |              |              |              |              |              |
|-----------------------------------------------------|--------------|--------------|--------------|--------------|--------------|
| Description                                         |              | Supply       | Speed (rpm)  | with 114DV   | with 114DVP  |
| 114VDL variable speed motor drive                   |              | 24 VDC       | 100 - 600    | 010.5NW0.00A | 010.5NW0.P0A |
| Tubing product codes for 114DV and 114DVP pumpheads |              |              |              |              |              |
| Bore/wall                                           | Pumpsil      | Marprene     | Bioprene     | STA-PURE PFL | PVC*         |
| 0.5/1.6 mm                                          | 913.A005.016 | 902.0005.016 | 933.0005.016 |              |              |
| 0.8/1.6 mm                                          | 913.A008.016 | 902.0008.016 | 933.0008.016 |              |              |
| 1.6/1.6 mm                                          | 913.A016.016 | 902.0016.016 | 933.0016.016 | 966.0016.016 | E3603.016.16 |
| 2.4/1.6 mm                                          | 913.A024.016 | 902.0024.016 | 933.0024.016 |              |              |
| 3.2/1.6 mm                                          | 913.A032.016 | 902.0032.016 | 933.0032.016 | 966.0032.016 | E3603.032.16 |
| 4.0/1.6 mm                                          |              |              | 933.0040.016 |              | E3603.040.16 |
| 4.8/1.6 mm                                          | 913.A048.016 | 902.0048.016 | 933.0048.016 | 966.0048.016 | E3603.048.16 |

\*recommended for 114DVP +pressure pumphead only

Disclaimer: All flow rates shown were obtained pumping water at 20 °C (68 °F) with zero suction and delivery heads. Watson-Marlow, Pumpsil, PureWeld XL, Bioprene and Marprene are trademarks of Watson-Marlow Limited. The information contained in this document is believed to be correct but Watson-Marlow Limited accepts no liability for any errors it contains, and reserves the right to alter specifications without notice. GORE and STA-PURE are trademarks of W. L. Gore & Associates. Please state the product code when ordering pumps and tubing.



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