520Di/L IP31 and 520DiN/L IP66 high accuracy dispensers

FEATURES

- Dispensing accuracy to ±0.5%
- Single or twin channel flows
- Flow rates up to 4400 ml/min (69.74 USGPH)
- Full calibration by weight or by volume with choice of units
- “Suck-back” facility eliminates drips at dose end, plus ramps ensure soft start and end of dose
- Up to 50 dispensing programs including dose parameters and calibration can be stored in the memory with full file name
- 505L pumphead features low inertia stainless steel rollers and twin offset track to provide smooth flows.
- One 505LX extension pumphead can be used to double the flow

TECHNICAL DATA

<table>
<thead>
<tr>
<th>Pump drives</th>
<th>520Di</th>
<th>520DiN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enclosure</td>
<td>IP31</td>
<td>IP66</td>
</tr>
<tr>
<td>Manual control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital speed control with full calibration to display flow</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Choice of flowrate or speed display</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Numerical keypad for entry of speed</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Remote control</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Run/Stop, direction change, auto/manual toggle, leak detector input (via contact closure or 5V TTL or 24V industrial logic)</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Remote operation of Dosestart with instantaneous switch</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Four programmable digital status outputs through 24V, 30W relays</td>
<td>•</td>
<td>•</td>
</tr>
<tr>
<td>Digital communication</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Digital network serial control</td>
<td>RS232</td>
<td>RS485</td>
</tr>
<tr>
<td>Security</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security code to protect set-up, programs and dose parameters</td>
<td>•</td>
<td>•</td>
</tr>
</tbody>
</table>

PERFORMANCE

520 Di/L flow rates (ml/min)

<table>
<thead>
<tr>
<th>Tube bore</th>
<th>1.6mm</th>
<th>3.2mm</th>
<th>4.8mm</th>
<th>6.4mm</th>
<th>8.0mm</th>
<th>9.6mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.1 to 350rpm</td>
<td>0.04-150</td>
<td>0.23-800</td>
<td>0.42-1500</td>
<td>0.70-2500</td>
<td>0.90-3200</td>
<td>1.3-4400</td>
</tr>
<tr>
<td>Marprene TL, Bioprene TL</td>
<td>0.04-130</td>
<td>0.17-500</td>
<td>0.38-1100</td>
<td>0.67-2000</td>
<td>1.1-3200</td>
<td>1.5-4500</td>
</tr>
</tbody>
</table>

520 Di/L recommended dose sizes

<table>
<thead>
<tr>
<th>Tube bore</th>
<th>1.6mm</th>
<th>3.2mm</th>
<th>4.8mm</th>
<th>6.4mm</th>
<th>8.0mm</th>
<th>9.6mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum speed 350rpm</td>
<td>Minimum dose</td>
<td>0.9ml</td>
<td>4.5ml</td>
<td>8.5ml</td>
<td>14ml</td>
<td>18ml</td>
</tr>
<tr>
<td>Maximum dose</td>
<td>15ml</td>
<td>75ml</td>
<td>150ml</td>
<td>250ml</td>
<td>300ml</td>
<td>400ml</td>
</tr>
</tbody>
</table>

Dispense volume against time for the 520Di/L pump with a selection of tubes. Dispensing accuracy is indicated by the background shade.
All flow rates shown were obtained pumping water at 20°C (68°F) with zero suction and delivery heads. Watson-Marlow, Bioprene and Marprene are trademarks of Watson-Marlow Limited. Disclaimer: 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. LoadSure is a trademark of Watson-Marlow Limited. ® STA-PURE PFL and ® STA-PURE PCS are registered trademarks of W.L. Gore & Associates Inc. Please state the product code when ordering pumps and tubing.

ORDER INFORMATION

* Supplied as 2.4m mains lead without plug. To specify American, European, United Kingdom, Australian, Argentinian or Swiss 2.8m mains lead please specify A, E, U, K, R or C respectively. Replace the last zero with the mains lead code. For example - 050.7131.10A is a 520S/R pump with American mains lead. ** Supplied as 2.4m mains cable without a plug. To specify American mains lead please replace the last zero with A.

DIMENSIONS

SPECIFICATIONS

**520Di** | **520DiN**
---|---
Ingress rating | IP31 / NEMA 2 | IP66 / NEMA 4X
Enclosure | Wipedown | Watertight, dustproof
Suitability | Dry industrial environments with noncorrosive atmospheres | Corrosion resistant for heavy industrial environments
Humidity (Non-condensing) 80% to 31°C, 68°F, decreasing linearly to 50% at 40°C, 104°F | (Condensing) 10-100% RH
Temperature | 5°C to 40°C (40°F to 104°F) | 5°C to 40°C (40°F to 104°F)
Pump weight | 9.82kg (21lb 10oz) | 10.7kg (23lb 9oz)
Speed control ratio | 2200:1 | 2200:1
Torque rating | 2.2Nm, continuous duty | 2.2Nm, continuous duty
Noise | < 70dB(A) at 1m | < 70dB(A) at 1m
Standard | CE, cETLus | CE, cETLus

**505L Low pulse twin channel pumphead**
- Partcode: 053.4001.000

**505LX Low pulse twin channel extension pumphead**
- Partcode: 053.4011.000

**505LG Low pulse twin channel pumphead for STA-PURE® tubing**
- Partcode: 053.4010.00G

**505LTC Tube clamp set for 505L pumphead**
- Partcode: 059.4001.000

**505 Di (IP31) drive only**
- Partcode: 056.7171.000*

**505 DiN (IP66) drive only**
- Partcode: 056.717N.000**

**505LTC Tube clamp set for 505L pumphead**
- Partcode: 059.4001.000

**Component** | **Material**
---|---
Keypad | Polyester
Switch-plate | Glass filled ABS plastic
Rear blanking plate | Stainless steel 304
Drive casework | Pressure die-cast aluminium LM24
Case work coating | Alucrom pre-treatment, exterior grade polyester powder coat
Drive shaft | Electroless nickel plated carbon steel
Pumphead track | PPS (polyphenylene sulphone)
Guard | Polycarbonate
Guard seal | Neoprene
Rotor hub | Stainless steel 316
Roller arms, rotor cover | PPS (polyphenylene sulphone)
Rollers – main/ guide | Stainless steel 316
Main roller bearings | Stainless steel with PTFE seals
Drain port and nut | PP (polypropylene)
Drain plug | Hytrel

**MATERIALS OF CONSTRUCTION**

**Bioprene TL** | **Marprene TL** | **Pumpsil** | **Pumpsil-D** | **STA-PURE® PCS** | **STA-PURE® PFL**
---|---|---|---|---|---

Tube ordering codes

Double ‘Y’ tubing elements for 520Di/L dispenser

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**Contact Information**

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