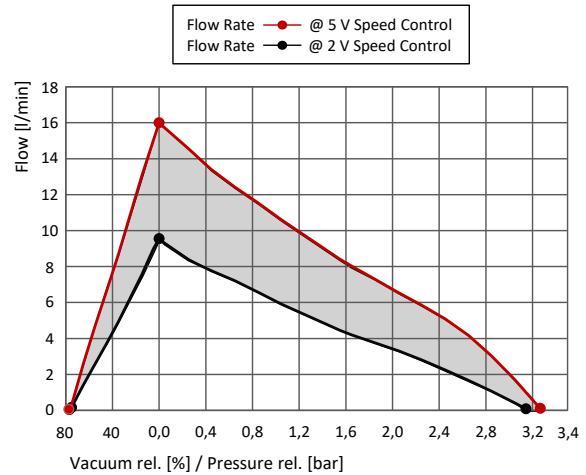


# Diaphragm Pump 1520VDP BLDC High Performance

|                       |                     |
|-----------------------|---------------------|
| <b>FLOW 12/24 VDC</b> | <b>15/16 l/min</b>  |
| <b>FINAL VACUUM</b>   | <b>80%</b>          |
| <b>FINAL PRESSURE</b> | <b>3.3 bar rel.</b> |



## PERFORMANCE CURVE



## PNEUMATIC DATA\*

|                            |              |
|----------------------------|--------------|
| Max. flow 12/24VDC         | 15/16 l/min  |
| Max. intermittent vacuum   | 80%          |
| Max. continuous vacuum     | 80%          |
| Max. restart vacuum        | 80%          |
| Max. intermittent pressure | 3.3 bar rel. |
| Max. continuous pressure   | 0.8 bar rel. |
| Max. restart pressure      | 0.8 bar rel. |

\*@ Speed control 5 VDC (Pin3)

## ELECTRICAL DATA

|                        |                     |
|------------------------|---------------------|
| Motor type             | Brushless DC (BLDC) |
| Nominal voltage        | 12/24 VDC           |
| Max. power consumption | 30/31 W             |
| Insulation class       | B                   |
| Protection class       | IP 20               |
| Drive electronics      | Integrated          |
| Connector housing      | Molex 09-50-8043    |
| Connector terminal     | Molex 08-50-0105    |

## OPERATING CONDITIONS\*

|                     |                             |
|---------------------|-----------------------------|
| Media temperature   | 5 to 40 °C                  |
| Ambient temperature | 5 to 40 °C                  |
| Storage temperature | -30 to 70 °C                |
| Storage humidity    | 15 to 85% (no condensation) |

\*Standard configuration part number 15200504/15200505

## ELECTRICAL CONNECTION

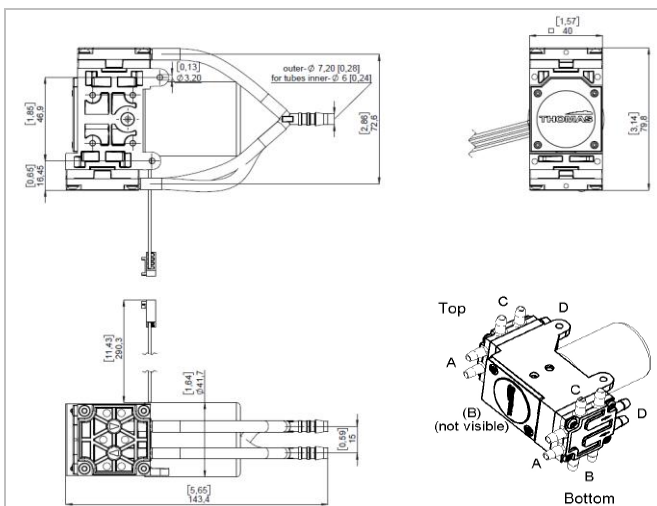
| Pin   | Function       | Color   | Specifications  |
|-------|----------------|---------|---|
| Pin 1 | V Supply       | Red     | 12 VDC (max. range 10 - 18 V)<br>24 VDC (max. range 10 - 28 V)    |
| Pin 2 | Ground         | Black   | Ground for all pins   |
| Pin 3 | Speed Control  | White   | Analog 0 - 5 VDC<br>PWM 6 - 20 kHz / 4 - 78%<br>Threshold 0.3 VDC |
| Pin 4 | Tacho out      | Green   | 18 pulses per revolution  |
|       | - Pulse time   | 12 V DC | Pulse time 'Low' 195 µs   |
|       | - Pulse time   | 24 V DC | Pulse time 'Low' 195 µs   |
|       | - Output level |         | 'Low'-Range 0 V / max. 0.5 V                                      |
|       | - Output level |         | 'High'-Range 4 V / max. 5 V                                       |

## PHYSICAL DATA

|                       |                                  |
|-----------------------|----------------------------------|
| Dimensions* l x w x h | 95.3 x 40.0 x 79.8 mm            |
| Weight                | 420 g                            |
| Mounting on side      | Through hole Ø 3.2 mm (2x)       |
| Mounting on side      | Self tapping screw Ø 3.2 mm (8x) |

\*w/o Tubing

## DIMENSIONAL DRAWING



Dimensions in mm [in]

The information presented in this material is based on technical data and test results of nominal units. It is believed to be accurate and reliable and is offered as an aid to help in the selection of Thomas products. It is the responsibility of the user to determine the suitability of the product for the intended use and the user assumes all risk and liability whatsoever in connection therewith. Thomas does not warrant, guarantee or assume any obligation or liability in connection with this information. Models presented in this catalog are representative of the product family. Photos of products pictured in this catalog do not necessarily represent a specific model number.

## MODEL KEY

1520 - VD - P - DD - 12V - BLDC HP - 3400 - 23 - EFE - PPS

| Pos | Options       | Description                                 |
|-----|---------------|---|
| 1   | 1520          | Product Line                                |
| 2   | V / D / VD    | Vacuum / Pressure / Vacuum-Pressure         |
| 3   | P / R / 0     | Tubing: Parallel / series / no tubing       |
| 4   | A / B / C / D | Port position: standard D over motor        |
| 5   | 12 V / 24 V   | Nominal voltage                             |
| 6   | BLDC HP       | Motor: BLDC High Performance                |
| 7   | 3400          | Nominal motor speed (motor dependent)       |
| 8   | 23            | Eccentric: e.g. 23 ⇒ 2.3 mm                 |
| 9   | EFE           | Diaphragm, valve, seal material: EPDM / FKM |
| 10  | PPS           | Pump head material: Ryton                   |

## ORDER INFORMATION

| Part Number          | Model Key  |
|----------------------|--|
| 15200504             | 1520-VD-P-DD-12V-BLDC HP-3400-23-EFE-PPS                     |
| 15200505             | 1520-VD-P-DD-24V-BLDC HP-3400-23-EFE-PPS                     |
| 15200514             | 1520-VD-P-DD-12V-BLDC HP-3400-23-FFF-PPS                     |
| 15200515             | 1520-VD-P-DD-24V-BLDC HP-3400-23-FFF-PPS                     |
| Other configurations | Upon request   |
| To order go online @ | <a href="http://www.thomaspumps.com">www.thomaspumps.com</a> |