

# Ismatec® Reglo Peristaltic Pumps

## Ideal for space-limited applications

- Get the benefits of peristaltic dispensing with these compact, easy-to-use pumps
- Reglo ICC models offer independent channel control—each channel can be individually set to a different flow rate and/or rotational direction
- Reglo Analog and Digital models provide multichannel pumping, remote control, and easy tubing changes with Click'n'go™ tubing cassettes
- Choose the single-channel Reglo Quick™ model for a higher flow rate, flexible tubing configuration, and easy tubing changes

Reglo ICC

Reglo Digital

Reglo Quick

## Reglo ICC (Independent Channel Control) Pumps

- Set each channel to pump at different speeds and directions
- Independent channel calibration minimizes the tube-to-tube differences offering excellent accuracy
- Control each channel individually via front panel or up to eight pumps remotely via USB or RS-232 interface—eliminates the clutter of multiple pumps
- Click'n'go™ tubing cassettes allow quick changeovers

Use the Reglo ICC pump to control up to four channels, each with independent functionality—start, stop, dispense, reverse, aspirate, and calibrate. Time-based routines allow for complex experiment development. Control up to eight pumps at once, via the USB hub or by daisy-chaining the RS-232 connectors. Windows®-based software is included. Select from benchtop or panel-mount models.



## Specifications

**Motor type:** stepper motor (1/channel)

**Speed range:** 0.1 to 100 rpm, 0.01 rpm resolution

**Interfaces:** USB 2.0, Mini-B, RS-232

**Protection rating:** IP30

**Weight:** 2.7 kg

**Power consumption:** 30 W

**Differential pressure:** 1.0 bar (14.5 psi)

## Operating Modes

**Flow rate:** continuous operation at a set rate and direction

**Volume over time:** dispensing a desired volume over a desired time

**Volume:** dispensing a desired volume at a set flow rate

**Time mode:** dispensing for a set time duration with a set flow rate

**Volume with pause:** dispensing a set volume over multiple cycles with defined pause time in between

**Time with pause:** dispensing for a set time duration over multiple cycles with defined pause time in between

**Calibration:** allows each channel to be calibrated for dispensed fluid volume accuracy

## Flow Ranges (mL/min per channel)



| Tubing ID (mm) | 6 rollers      | 8 rollers      | 12 rollers      |
|----------------|----------------|----------------|-----------------|
| 0.13           | 0.0002 to 0.14 | 0.0002 to 0.11 | 0.0001 to 0.093 |
| 0.51           | 0.0019 to 1.9  | 0.0017 to 1.7  | 0.0016 to 1.6   |
| 0.57           | 0.0024 to 2.4  | 0.0021 to 2.1  | 0.0019 to 1.9   |
| 0.64           | 0.0030 to 3.0  | 0.0026 to 2.6  | 0.0024 to 2.4   |
| 0.95           | 0.0064 to 6.4  | 0.0056 to 5.6  | 0.0050 to 5.0   |
| 1.02           | 0.0073 to 7.3  | 0.0063 to 6.3  | 0.0056 to 5.6   |
| 1.42           | 0.013 to 13    | 0.011 to 11    | 0.0094 to 9.4   |
| 1.75           | 0.019 to 19    | 0.016 to 16    | 0.013 to 13     |
| 1.85           | 0.021 to 21    | 0.017 to 17    | 0.014 to 14     |
| 2.54           | 0.033 to 33    | 0.027 to 27    | 0.019 to 19     |
| 2.79           | 0.036 to 36    | 0.031 to 31    | 0.021 to 21     |
| 3.17           | 0.043 to 43    | 0.035 to 35    | 0.024 to 24     |

## Ordering Information



| No. of channels   | No. of rollers | Tubing accepted           | Size (mm)       | Power                    | Catalog number |
|-------------------|----------------|---------------------------|-----------------|--------------------------|----------------|
| Benchtop pumps    |                |                           |                 |                          |                |
| 2                 | 6              | Ismatec three-stop tubing | 193 x 125 x 170 | 100 to 240 VAC, 50/60 Hz | ISM4206        |
|                   | 8              |                           |                 |                          | ISM4208        |
|                   | 12             |                           |                 |                          | ISM4212        |
| 3                 | 6              |                           | 205 x 125 x 170 |                          | ISM4306        |
|                   | 8              |                           |                 |                          | ISM4308        |
|                   | 12             |                           |                 |                          | ISM4312        |
| 4                 | 6              |                           | 218 x 125 x 170 |                          | ISM4406        |
|                   | 8              |                           |                 |                          | ISM4408        |
|                   | 12             |                           |                 |                          | ISM4412        |
| Panel-mount pumps |                |                           |                 |                          |                |
| 2                 | 8              | Ismatec three-stop tubing | 157 x 127 x 145 | 24 VDC                   | ISM4208P       |
| 3                 | 8              |                           | 169 x 127 x 145 |                          | ISM4308P       |
| 4                 | 8              |                           | 182 x 127 x 145 |                          | ISM4408P       |
| 4                 | 12             |                           | 182 x 127 x 145 |                          | ISM4412P       |

IS3510A Replacement MS/CA Click'n'go tubing cassette, POM-C

IS3610A MS/CA Click'n'go tubing cassette, PVDF

POM-C = polyoxymethylene copolymer, PVDF = polyvinylidene fluoride

## Reglo Analog and Digital Pumps

- Consistent flow and reduced tubing wear for improved results
- Easy tubing changes—Click'n'go™ minicartridges snap in place
- No maintenance—rollers are self-lubricating
- Select twelve roller pumps for smoother flow

### Analog Pump

Control speed remotely with an analog input signal. Start/stop or change direction via contact closure; monitor speed through frequency output.

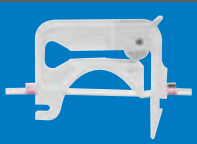
### Digital Dispensing Pumps with LED Display

- The smallest dispensing pump with calibration function for flow rate and dispensing volume
- Dispense by time: 0.1 seconds to 999.9 hours
- Batches: set delay between dispensed volumes
- Rollers backstep to prevent drips

Remote control capabilities: RS-232 to control all operating functions; 0 to 5, 0 to 10 VDC, 0 to 20, 4 to 20 mA for speed control, start/stop, reverse direction, and autostart via contact closure; foot switch.

### High-Pressure Applications?

Pumps are also available with pressure lever cassettes for applications at elevated differential pressure conditions (>1 bar). Contact our Application Specialists for information.



## Flow Ranges (mL/min per channel)



| No. of channels | 2                  |          | 2                  |          | 2                  |          | 4                  |          | 4                  |          | 4                  |          |
|-----------------|--------------------|----------|--------------------|----------|--------------------|----------|--------------------|----------|--------------------|----------|--------------------|----------|
| No. of rollers  | 6                  |          | 8                  |          | 12                 |          | 6                  |          | 8                  |          | 12                 |          |
| Speed rpm       | 1.6 160            |          | 1.6 160            |          | 1.6 160            |          | 1.0 100            |          | 1.0 100            |          | 1.0 100            |          |
| Tubing ID (mm)  | mL/min per channel |          | mL/min per channel |          | mL/min per channel |          | mL/min per channel |          | mL/min per channel |          | mL/min per channel |          |
|                 | Minimum†           | Maximum‡ | Minimum†           | Maximum‡ | Minimum†           | Maximum‡ | Minimum†           | Maximum‡ | Minimum†           | Maximum‡ | Minimum†           | Maximum‡ |
| 0.13            | 0.003              | 0.22     | 0.002              | 0.17     | 0.002              | 0.15     | 0.002              | 0.14     | 0.002              | 0.11     | 0.001              | 0.093    |
| 0.25            | 0.008              | 0.76     | 0.007              | 0.65     | 0.007              | 0.61     | 0.005              | 0.48     | 0.005              | 0.41     | 0.004              | 0.38     |
| 0.51            | 0.031              | 3.1      | 0.027              | 2.7      | 0.025              | 2.5      | 0.019              | 1.9      | 0.017              | 1.7      | 0.016              | 1.6      |
| 0.76            | 0.067              | 6.7      | 0.058              | 5.8      | 0.053              | 5.3      | 0.042              | 4.2      | 0.036              | 3.6      | 0.033              | 3.3      |
| 1.02            | 0.12               | 12       | 0.10               | 10       | 0.090              | 9.0      | 0.073              | 7.3      | 0.063              | 6.3      | 0.056              | 5.6      |
| 1.22            | 0.16               | 16       | 0.14               | 14       | 0.12               | 12       | 0.10               | 10       | 0.088              | 8.8      | 0.075              | 7.5      |
| 1.52            | 0.24               | 24       | 0.20               | 20       | 0.17               | 17       | 0.15               | 15       | 0.13               | 13       | 0.10               | 10       |
| 1.85            | 0.34               | 34       | 0.28               | 28       | 0.21               | 21       | 0.21               | 21       | 0.17               | 17       | 0.13               | 13       |
| 2.54            | 0.53               | 53       | 0.44               | 44       | 0.31               | 31       | 0.33               | 33       | 0.27               | 27       | 0.19               | 19       |
| 3.17            | 0.68               | 68       | 0.57               | 57       | 0.38               | 38       | 0.43               | 43       | 0.35               | 35       | 0.24               | 24       |

**Note:** Approximate values are determined with water, at 22°C, no differential pressure, Tygon tubing.

†Minimum flow rates shown are for the Reglo Digital models. The minimum flow rate for Reglo Analog models = 2% of maximum flow rate.

‡Maximum flow rates shown are for both the Reglo Analog and Reglo Digital models.

## Ordering Information

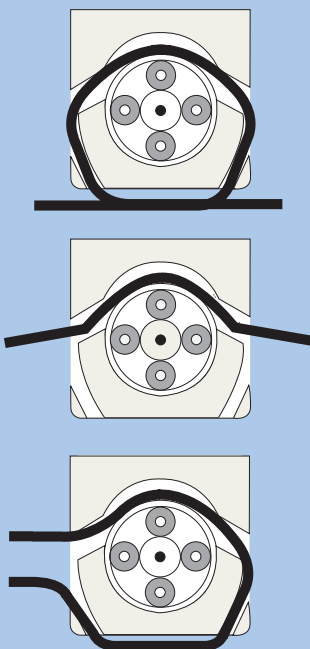
ISO9001:2008  
CERTIFIED SUPPLIER



| Model   | Flow range per channel | No. of channels | No. of rollers | Speed range    | Tubing accepted           | Size (mm)       | Weight (kg) | Catalog number |                |
|---|------------------------|-----------------|----------------|----------------|---------------------------|-----------------|-------------|----------------|----------------|
|   |                        |                 |                |                |                           |                 |             | 115 VAC, 60 Hz | 230 VAC, 50 Hz |
| Reglo Analog pumps                              |                        |                 |                |                |                           |                 |             |                |                |
| MS-2/06   | 0.005 to 68            | 2               | 6              | 1.6 to 160 rpm | Ismatec three-stop tubing | 178 x 100 x 143 | 2.0         | ISM830-115     | ISM830-230     |
| MS-2/08   | 0.004 to 57            |                 | 8              |                |                           |                 |             | ISM829-115     | ISM829-230     |
| MS-2/12   | 0.003 to 38            |                 | 12             |                |                           |                 |             | ISM795-115     | ISM795-230     |
| MS-4/06   | 0.003 to 43            | 4               | 6              | 1.0 to 100 rpm | Ismatec three-stop tubing | 190 x 100 x 143 | 2.1         | ISM828-115     | ISM828-230     |
| MS-4/08   | 0.003 to 35            |                 | 8              |                |                           |                 |             | ISM827-115     | ISM827-230     |
| MS-4/12   | 0.002 to 24            |                 | 12             |                |                           |                 |             | ISM796-115     | ISM796-230     |
| Reglo Digital dispensing pumps with LED display |                        |                 |                |                |                           |                 |             |                |                |
| MS-02/6   | 0.003 to 68            | 2               | 6              | 3.2 to 160 rpm | Ismatec three-stop tubing | 178 x 100 x 143 | 4.4         | ISM831-115     | ISM831-230     |
| MS-2/08   | 0.002 to 57            |                 | 8              |                |                           |                 |             | ISM832-115     | ISM832-230     |
| MS-2/12   | 0.002 to 38            |                 | 12             |                |                           |                 |             | ISM596-115     | ISM596-230     |
| MS-4/06   | 0.002 to 43            | 4               | 6              | 2.0 to 100 rpm | Ismatec three-stop tubing | 190 x 100 x 143 | 4.6         | ISM833-115     | ISM833-230     |
| MS-4/08   | 0.002 to 35            |                 | 8              |                |                           |                 |             | ISM834-115     | ISM834-230     |
| MS-4/12   | 0.001 to 24            |                 | 12             |                |                           |                 |             | ISM597-115     | ISM597-230     |



Flexible layout for tubing appropriate to your application.



## Reglo Quick™ Pump

- Four-roller head achieves flow rates up to 230 mL/min
- Easy tubing replacement for reduced downtime
- Compact design frees valuable benchtop space

Wide opening angle makes the tube bed easily accessible for a quick tubing change. Only use with Tygon® LFL, Tygon Lab/LMT-55, Tygon HC, PharMed® BPT, peroxide-cured silicone, and Santoprene® tubing.

## Flow Ranges (mL/min)



| Tubing ID (mm) | Wall thickness (mm) | Flow range |
|----------------|---------------------|------------|
| 3.2            | 1.6                 | 2.1 to 103 |
| 4.8            | 1.6                 | 4.6 to 230 |

## Specifications

**Motor type:** DC motor

**Speed range:** 3.2 to 160 rpm

**Speed setting:** 1 to 99%, 1% resolution; 2-digit potentiometer

### Interfaces:

Analog input: speed control (0 to 5 or 0 to 10 VDC; 0 to 20 or 4 to 20 mA)

Analog output: speed monitoring (0 to 8 kHz)

Digital input (TTL level): start/stop, rotation direction

**Protection rating:** IP30

**Size:** 178 x 100 x 143 mm (pump head closed)

**Weight:** 2.2 kg

**Power consumption:** 30 W

## Ordering Information

ISO9001:2008  
CERTIFIED SUPPLIER



| Model       | Flow range        | No. of channels | No. of rollers | Tubing accepted     | Power (VAC, Hz) | Catalog number |
|-------------|-------------------|-----------------|----------------|---------------------|-----------------|----------------|
| Reglo Quick | 2.1 to 230 mL/min | 1               | 4              | Ismatec pump tubing | 115, 60         | ISM897-115     |
|             |                   |                 |                |                     | 230, 50         | ISM897-230     |

ISM891 Foot switch for start/stop operation, 6-ft cable

**ISMATEC®**

For ordering and technical support, please contact:

North America sales@ismatec.com | 1-800-323-4340 | 1-847-549-7600

Europe sales.europe@ismatec.com | +49 (0) 9377 9203-0

Helago-CZ s.r.o.  
Kladská 1082  
500 03 Hradec Králové  
Tel.: 495 220 229, 495 220 394  
Fax: 495 220 154  
<http://www.helago-cz.cz>  
E-mail: info@helago-cz.cz