# Pump-heads up to 24 channels

## For MCP and BVP drives

Change the pump-heads in seconds without tools



#### CA-4, CA-8, CA-12

#### 0.002-230 ml/mir

Order No. ISM 721 CA 4 (with cassettes for 4 channels)
Order No. ISM 732 CA 8 (with cassettes for 8 channels)
Order No. ISM 733 CA 12 (with cassettes for 12 channels)

- CA Click'n'go cassettes (spare cassettes, see Page 60)
- Automatic pressure setting
- Easy and rapid tube change-over;
   each channel separately, even while pump is running
- 8 roller
- 4 to 12 channels, each channel can take different tube sizes
- 2-stop tubing, 0.13 to 3.17 mm i.d.
- 1.0 bar differential pressure¹

Ideal pump-head for multi-channel applications at higher flow rates

Flow rates / Tubing			
Tygon®ST R-3603/R-3607	Tubing	ml/min per channel	
Order No.	i.d. (mm)	min.	max.
SC0188	0.13	0.002	0.31
SC0002	0.25	0.008	1.8
SC0005	0.51	0.034	8.2
SC0008	0.76	0.074	18
SC0011	1.02	0.13	31
SC0014	1.22	0.18	42
SC0017	1.52	0.26	62
SC0020	1.85	0.36	86
SC0023	2.54	0.62	150
SC0222	3.17	0.94	230



OEM versions of these pump-heads are also available. Ask for the detailed data sheet.





SB2V ISM 734 + ISM 010 Standard tubing 3.2 to 8.0 mm i.d. Wall thickness 1.6 mm





SB3V ISM 734 + ISM 011 Standard tubing 0.8 to 4.8 mm i.d. Wall thickness 1.6 mm

#### **SB 2V / SB 3V**

#### 0.09-1100 ml/min

Order No. ISM 734

+ Tube-bed set:

2-channel, SB 2V ISM 010 for Standard tubing 3-channel, SB 3V ISM 011 for Standard tubing (depends on tube-bed)

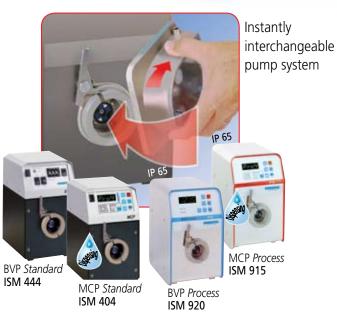
1.1 to 1100 ml/min
0.09 to 530 ml/min

- Spring-loaded, exchangeable tube-beds
- Individual and continuously adjustable pressure setting per channel
- 6 rollers, 2 to 3 channels, for Standard tubing
- Differential pressure 1.5 bar 1

Ideal for sensitive substances requiring a smooth pressure adjustment

Flow rates / Tubing SB2V				
Tygon ST R-3603/R-3607	WT	Tubing	ml/min per channel	
Order No.	(mm)	i.d. (mm)	min.	max.
MF0030	1.6	3.2	1.1	260
SC0379	1.6	4.8	2.3	550
MF0031	1.6	6.4	3.7	890
MF0032	1.6	8.0	4.6	1100

Flow rates / Tubing SB3V				
Tygon ST R-3603/R-3607	WT	Tubing	ml/min per channel	
Order No.	(mm)	i.d. (mm)	min.	max.
MF0001	1.6	0.8	0.09	22
MF0028	1.6	1.6	0.26	63
MF0030	1.6	3.2	0.99	240
SC0379	1.6	4.8	2.2	530





#### MS/CA 4-12

#### 0.001-57 ml/min

### Order No. ISM 735

- + max. 3 extension blocks ISM 737
- Click'n'go cassettes (spare cassettes, Page 60)
- Each channel can take different tube sizes. Tube change-over is possible even while pump is running.
- 12 rollers for extremely low pulsation
- 4 channels, extendable up to 16 channels
- 3 extension blocks with 4 channels each
- 3-stop tubing, 0.13 to 3.17 mm i.d.
- 1.0 bar differential pressure¹

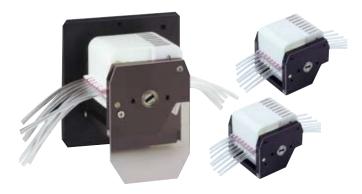
Flow rates / Tubing				
Tygon®ST R-3603/R-3607	Tubing	ml/min per channel		
Order No.	i.d. (mm)	min.	max.	
SC0189	0.13	0.001	0.22	
SC0050	0.25	0.004	0.91	
SC0053	0.51	0.016	3.8	
SC0056	0.76	0.033	8.0	
SC0059	1.02	0.056	13	
SC0062	1.22	0.075	18	
SC0065	1.52	0.10	25	
SC0068	1.85	0.13	32	
SC0071	2.54	0.19	46	
SC0224	3.17	0.24	57	

#### Choose from 4 drives

Memory for up to 4 user-defined programs. Pump-heads and tubing are pre-programmed, which enables you to work with varying flow rates. See Pages 14 to 19.

Single-channel pump-heads for MCP and BVP drives: See Pages 20 to 23.

Tubing for aggressive media, see Page 35.



#### MS/CA 8-6

#### 0.002-100 ml/min

#### Order No. ISM 724

- + max. 2 extension blocks ISM 185
- Click'n'go cassettes (spare cassettes, Page 60)
- Each channel can take different tube sizes. Tube change-over is possible even while pump is running.
- 6 rollers
- 8 channels, extendable up to 24 channels
- 2 extension blocks with 8 channels each
- 3-stop tubing, 0.13 to 3.17 mm i.d.
- 1.0 bar differential pressure<sup>1</sup>

Flow rates / Tubing			
Tygon ST R-3603/R-3607	Tubing	ml/min per channel	
Order No.	i.d. (mm)	min.	max.
SC0189	0.13	0.002	0.33
SC0050	0.25	0.005	1.1
SC0053	0.51	0.019	4.6
SC0056	0.76	0.042	10
SC0059	1.02	0.073	18
SC0062	1.22	0.10	24
SC0065	1.52	0.15	36
SC0068	1.85	0.21	50
SC0071	2.54	0.33	79
SC0224	3.17	0.43	100

<sup>&</sup>lt;sup>1</sup> Differential pressure depends on tubing material; tubing with small i.d.'s and/or cassettes with the pressure lever (see Page 60) may enable higher pressures.

The flow rates are based on a drive speed of 1 (or 2.4) to 240 rpm. For the BVP Standard drive the indicated min. flow rates must be multiplied by factor 2.4. The indicated flow rates are approx. values: determined with water, at 22° C, no differential pressure, and Tygon tubing.

