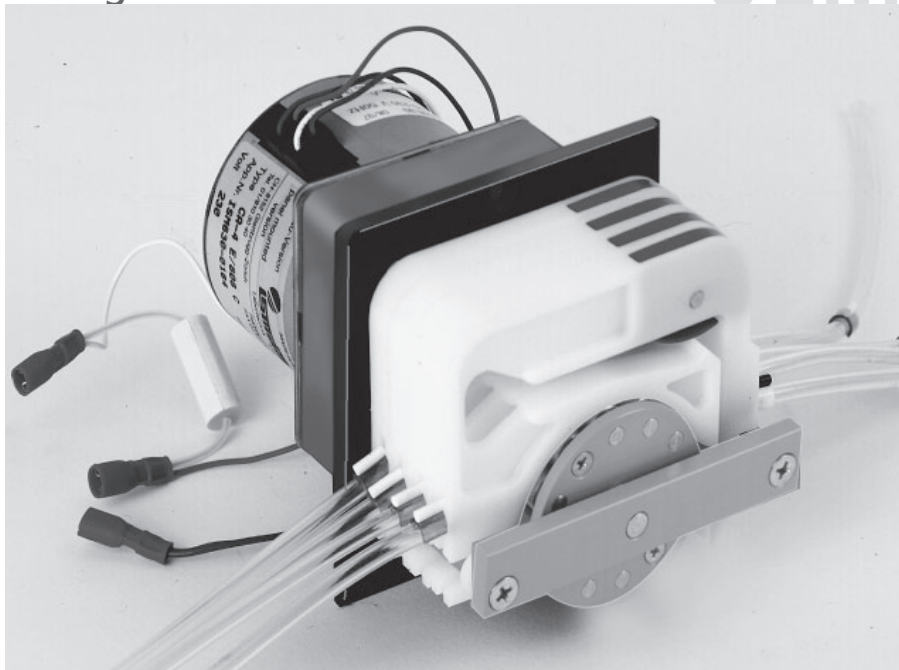
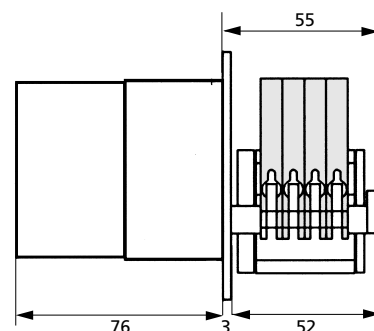


Synchronous motor with gear box

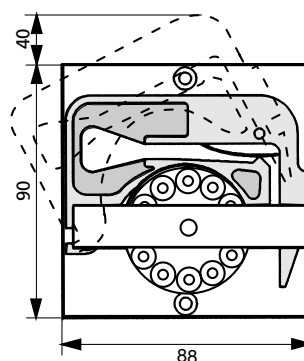
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

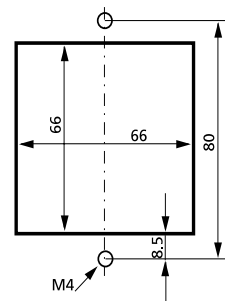
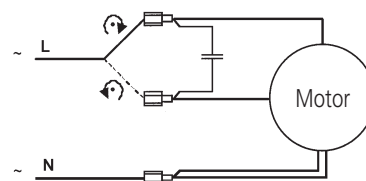


Diagram and electrical connections



The polarity of L and N has no effect on the rotation direction.

Technical specifications

Pump model	MS/CA4-E/12/Synchro
Motor type	Synchronous motor with reversible rotation
Rotation speed	fixed, available with: 6 8 10 12 20 40 60 (rpm)
Flow rates	0.006–14.4 ml/min
Power consumption	8 W
Channels	4
Pump rollers	12
Weight	1.080 kg
Tubing type	3-stop collared tubing
Tubing i.d.	0.13–3.17 mm
Cassettes	MS/CA Click'n'go, POM

Cassettes (Spare part / Option)

- IS 3510 MS/CA Click'n'go, **POM-C**²⁾
- IS 0649 MS/CA Pressure lever, **POM-V**
- IS 3629 MS/CA Pressure lever, **PVDF**

²⁾ Standard equipment

➔ Please see data sheet 09.1

Flow rates¹⁾

Tubing i.d. mm	ml per revolution	Tubing i.d. mm	ml per revolution
0.13	0.00093	1.14	0.067
0.19	0.0021	1.22	0.075
0.25	0.0038	1.30	0.083
0.38	0.0088	1.42	0.094
0.44	0.012	1.52	0.10
0.51	0.016	1.65	0.12
0.57	0.019	1.75	0.13
0.64	0.024	1.85	0.13
0.76	0.033	2.06	0.15
0.89	0.044	2.29	0.17
0.95	0.050	2.54	0.19
1.02	0.056	2.79	0.21
1.09	0.063	3.17	0.24

¹⁾ Water, Tygon® tubing, without differential pressure

➔ Calculation example for flow rate
 rpm x ml per revolution = ml/min
 60 x 0.24 = 14.4

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

Voltage and frequency	Type MS/CA4-E/12/Synchro/ . .						
	Revolutions per minute (rpm)						
	6	8	10	12	20	40	60
24 V _{AC} /50 Hz	4EB 027	4EB 028	4EB 029	4EB 030	4EB 031	4EB 032	4EB 033
24 V _{AC} /60 Hz	4EB 034	4EB 035	4EB 036	4EB 037	4EB 038	4EB 039	4EB 040
115 V _{AC} /50 Hz*							
115 V _{AC} /60 Hz	4EB 041	4EB 042	4EB 043	4EB 044	4EB 045	4EB 046	4EB 047
230 V _{AC} /50 Hz	4EB 048	4EB 049	4EB 050	4EB 051	4EB 052	4EB 053	4EB 054
230 V _{AC} /60 Hz*							

*on request

Data sheet

02.1.12

30.09.05