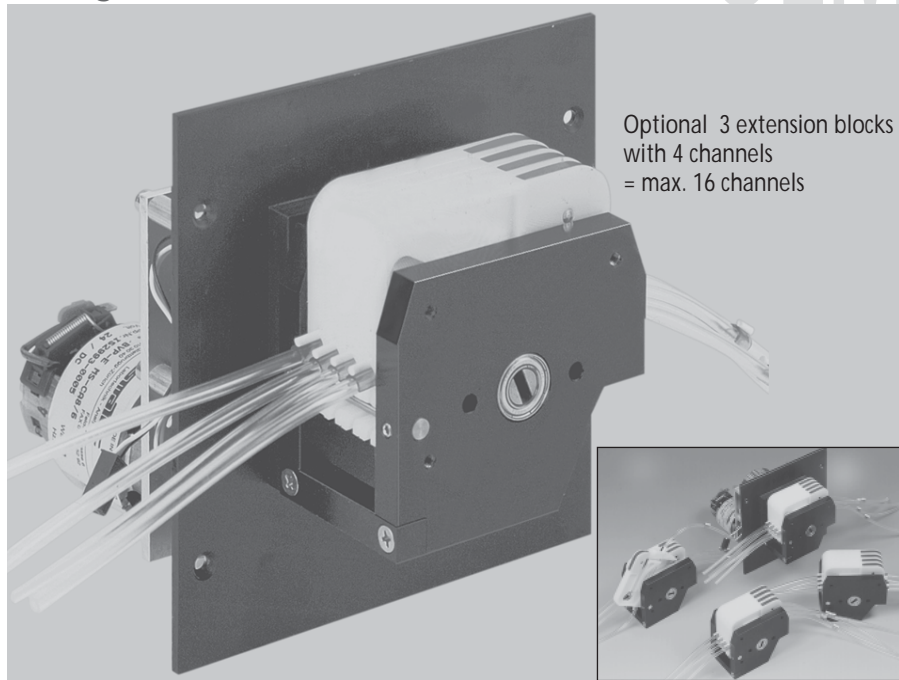


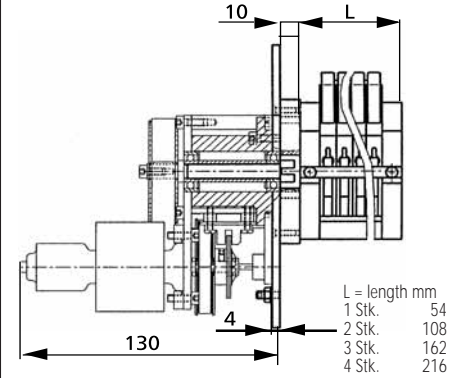
DC motor with optical encoder and gear box

OEM

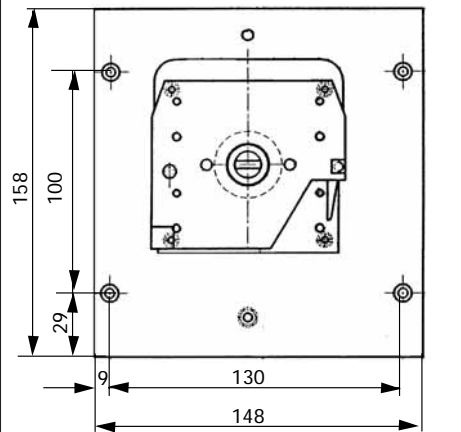


Optional 3 extension blocks with 4 channels = max. 16 channels

Side view (mm)



Front view (mm)



Mounting cut-out (mm)

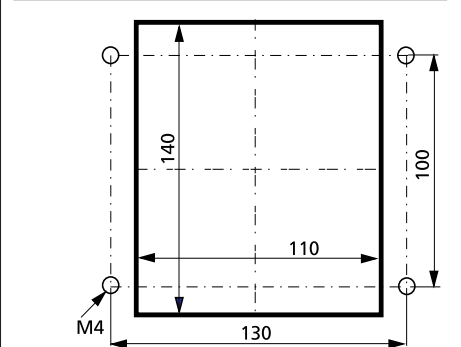
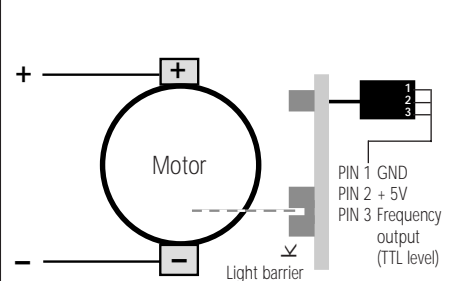


Diagram and electrical connections



Please note
Specifications valid for the following ISMATEC® control units:
a) BVP-E - see data sheet 08.3
b) MCP-E - see data sheet 08.5

Technical specifications

Pump model	MCP-E MS/CA4-12
Motor type	DC motor with encoder
Gear ratio	25:1
Rotation speed*	2.4 -240 rpm ^{a)} 1 -240 rpm ^{b)}
Flow rates*	0.00093-57 ml/min
Motor control*	optional control unit
Power consumption	max. 67 W
Optical encoder	120 impulses/motor rev.
Channels	4-16
Pump rollers	12
Weight	1.6 kg
Tubing type	3-stop collared tubing
Tubing i.d.	0.13-3.17 mm
Cassettes	MS/CA Click'n'go, POM

*See 'Please note'

Cassettes (Spare part / Option)
IS 3510 MS/CA Click'n'go, *POM-C*²⁾
IS 0649 MS/CA Pressure lever, *POM-C*
IS 3629 MS/CA Pressure lever, *PVDF*
²⁾ Standard equipment
K 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

K Calculation example for flow rate
rpm x ml per revolution = ml/min
240 x 0.24 = 57.6

Ask for the ISMATEC®
Pump Tubing Selection Guide.

Ordering information

Nominal voltage	Type MCP-E MS/CA4-12
	Order No. 1 Extension MS/CA4-12
24 V _{DC}	IS 3967 ISM 737

Data sheet

04.5
30.09.05