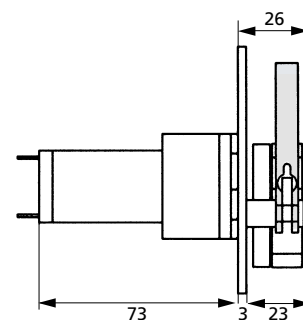


DC motor with gear box

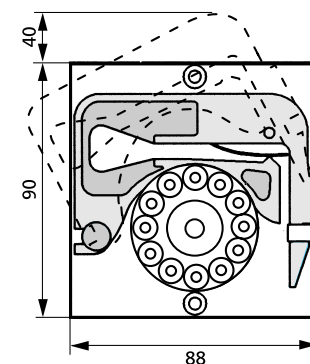
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

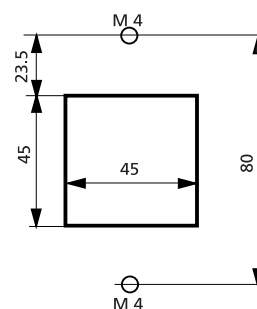
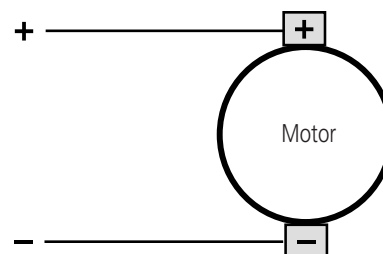


Diagram and electrical connections



Please note

The specifications depend on the **motor control** used by the customer.

Technical specifications

Pump model	MS/CA1-E/12/DC
Motor type	DC motor
Gear ratio	100:1 60:1
Rotation speed* max.	50 80 rpm
Flow rates* max.	12 19.2 ml/min
Motor control	possible, user-dependent
Power consumption	max. 7 W
Channels	1
Pump rollers	12
Weight	0.350 kg

Tubing type	3-stop collared tubing
Tubing i.d.	0.13–3.17 mm
Cassettes	MS/CA Click'n'go, POM

*The specifications depend on the **motor control** used by the customer.

- 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
 → 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
 80 x 0.24 = 19.2

Ask for the ISMATEC® Pump Tubing Selection Guide.

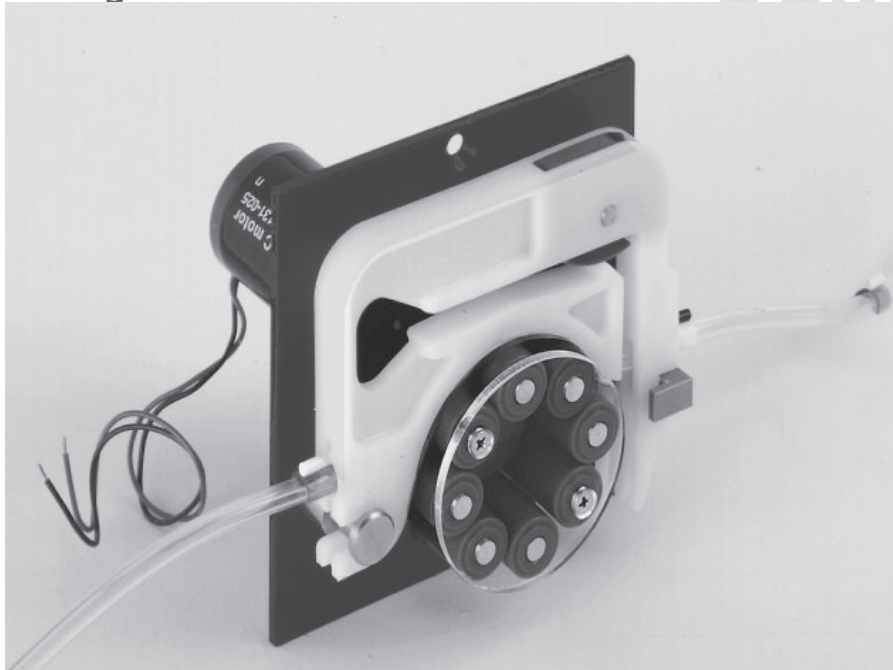
Ordering information

Data sheet	Nominal voltage	Type MS/CA1-E/12/DC/ . . .	100:1	60:1
		Revolutions per minute (rpm) max.	50	80
	12 V _{DC}		1EB 901	1EB 902
	24 V _{DC}		1EB 903	1EB 904

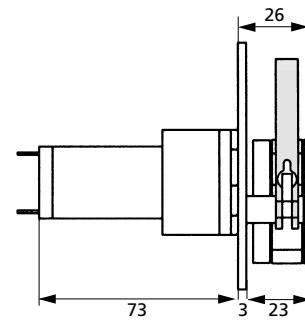
02.2.3
30.09.05

DC motor with gear box

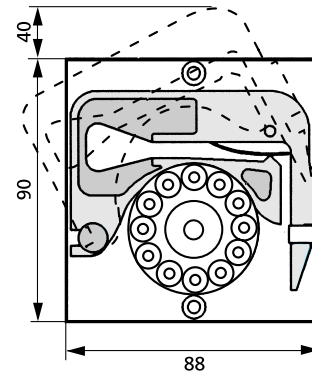
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

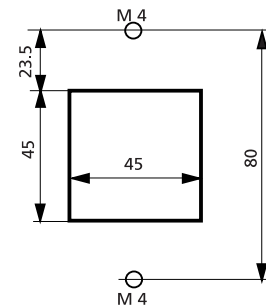
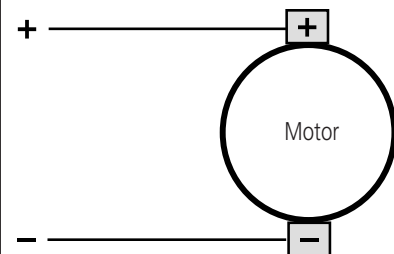


Diagram and electrical connections



Please note

The specifications depend on the **motor control** used by the customer.

Technical specifications

Pump model	MS/CA1-E/08/DC
Motor type	DC motor
Gear ratio	100:1 60:1
Rotation speed* max.	50 80 rpm
Flow rates* max.	17.5 28 ml/min
Motor control	possible, user-dependent
Power consumption	max. 7 W
Channels	1
Pump rollers	8
Weight	0.350 kg

Tubing type	3-stop collared tubing
Tubing i.d.	0.13–3.17 mm
Cassettes	MS/CA Click'n'go, POM

*The specifications depend on the **motor control** used by the customer.

- 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
 → Please see data sheet 09.1

Flow rates¹⁾

Tubing i.d. mm	ml per revolution	Tubing i.d. mm	ml per revolution
0.13	0.0011	1.14	0.078
0.19	0.0023	1.22	0.088
0.25	0.0041	1.30	0.098
0.38	0.0094	1.42	0.11
0.44	0.013	1.52	0.13
0.51	0.017	1.65	0.15
0.57	0.021	1.75	0.16
0.64	0.026	1.85	0.17
0.76	0.036	2.06	0.20
0.89	0.049	2.29	0.24
0.95	0.056	2.54	0.27
1.02	0.063	2.79	0.31
1.09	0.072	3.17	0.35

¹⁾ Water, Tygon® tubing, without differential pressure

→ Calculation example for flow rate
 rpm x ml per revolution = ml/min
 80 x 0.35 = 28

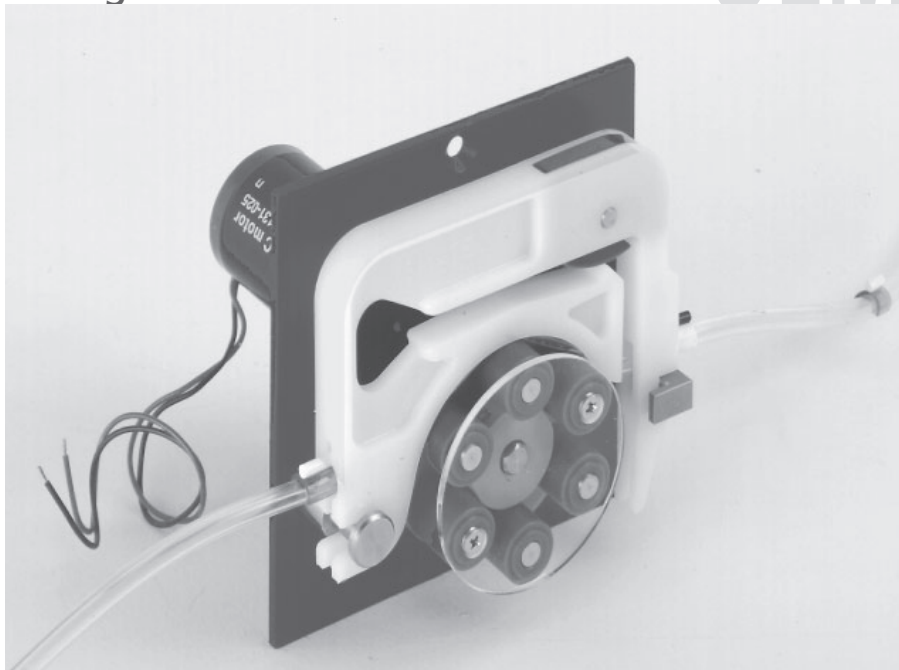
Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

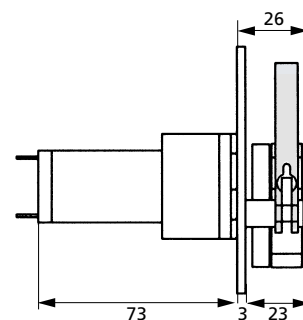
Data sheet 02.2.2 30.09.05	Nominal voltage	Type MS/CA1-E/08/DC/ . . .	100:1	60:1
		Revolutions per minute (rpm) max.	50	80
	12 V _{DC}		ISM 302	ISM 301
	24 V _{DC}		ISM 303	ISM 243

DC motor with gear box

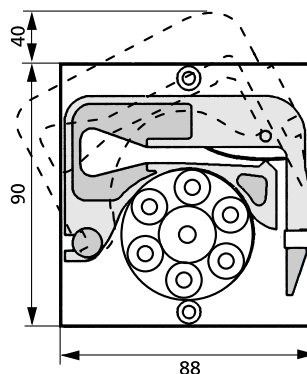
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

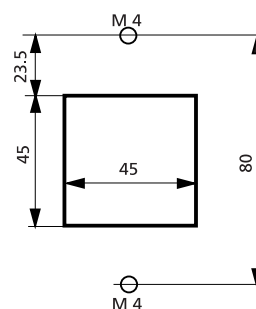
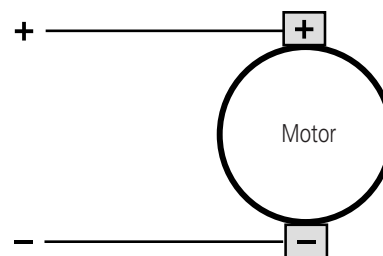


Diagram and electrical connections



Please note

The specifications depend on the **motor control** used by the customer.

Technical specifications

Pump model	MS/CA1-E/06/DC	
Motor type	DC motor	
Gear ratio	100:1	60:1
Rotation speed* max.	50 rpm	80 rpm
Flow rates* max.	21.5 ml/min	34.4 ml/min
Motor control	possible, user-dependent	
Power consumption	max. 7 W	
Channels	1	
Pump rollers	6	
Weight	0.350 kg	

Tubing type	3-stop collared tubing	
Tubing i.d.	0.13–3.17 mm	
Cassettes	MS/CA Click'n'go, POM	

*The specifications depend on the **motor control** used by the customer.

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
 → Please see data sheet 09.1

Flow rates¹⁾

Tubing i.d. mm	ml per revolution	Tubing i.d. mm	ml per revolution
0.13	0.0014	1.14	0.09
0.19	0.0028	1.22	0.10
0.25	0.0048	1.30	0.11
0.38	0.011	1.42	0.13
0.44	0.014	1.52	0.15
0.51	0.019	1.65	0.17
0.57	0.024	1.75	0.19
0.64	0.030	1.85	0.21
0.76	0.042	2.06	0.25
0.89	0.057	2.29	0.29
0.95	0.064	2.54	0.33
1.02	0.073	2.79	0.37
1.09	0.083	3.17	0.43

¹⁾ Water, Tygon® tubing, without differential pressure

→ Calculation example for flow rate
 rpm x ml per revolution = ml/min
 80 x 0.43 = 34.4

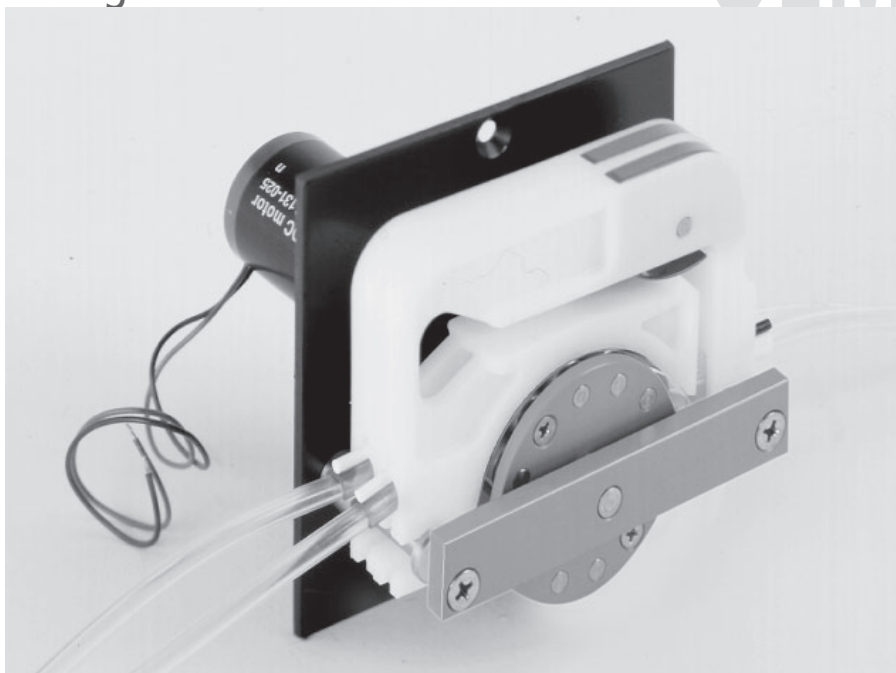
Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

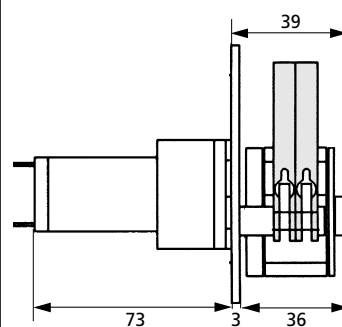
Data sheet 02.2.1 30.09.05	Nominal voltage	Type MS/CA1-E/06/DC/ . . .	100:1	60:1
		Revolutions per minute (rpm) max.	50	80
	12 V _{DC}		ISM 246	ISM 245
	24 V _{DC}		ISM 382	ISM 251

DC motor with gear box

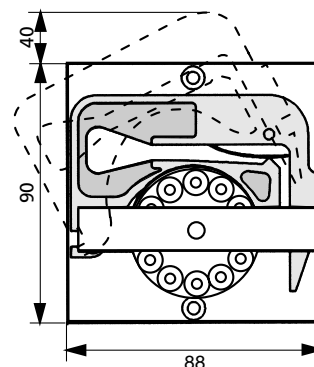
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

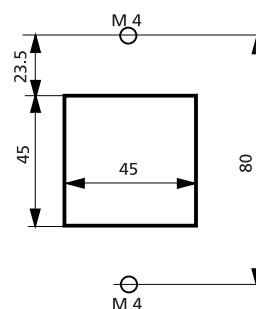
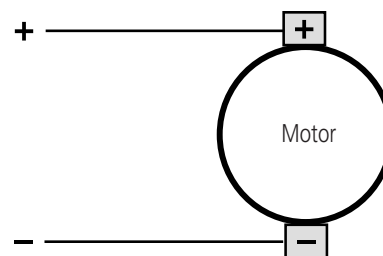


Diagram and electrical connections



Please note

The specifications depend on the **motor control** used by the customer.

Technical specifications

Pump model	MS/CA2-E/12/DC
Motor type	DC motor
Gear ratio	100:1 60:1
Rotation speed* max.	50 80 rpm
Flow rates* max.	12 19.2 ml/min
Motor control	possible, user-dependent
Power consumption	max. 7 W
Channels	2
Pump rollers	12
Weight	0.410 kg

Tubing type	3-stop collared tubing
Tubing i.d.	0.13–3.17 mm
Cassettes	MS/CA Click'n'go, POM

*The specifications depend on the **motor control** used by the customer.

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

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
 80 x 0.24 = 19.2

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

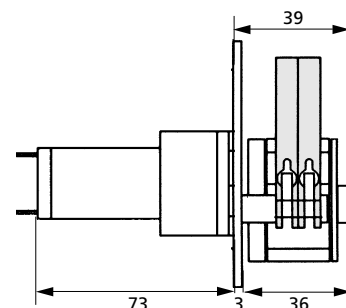
Data sheet 02.2.6 30.09.05	Nominal voltage	Type MS/CA2-E/12/DC/ . . .	100:1	60:1
		Revolutions per minute (rpm) max.	50	80
	12 V _{DC}		ISM 623	2EB 201
	24 V _{DC}		2EB 200	2EB 202

DC motor with gear box

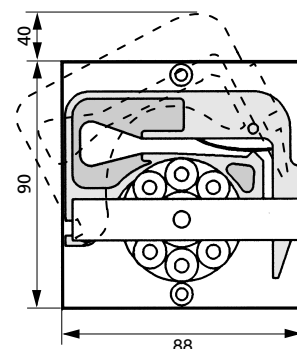
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

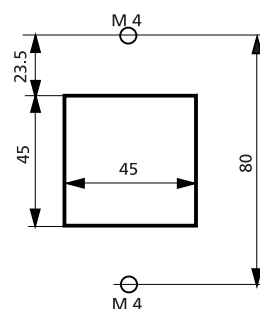
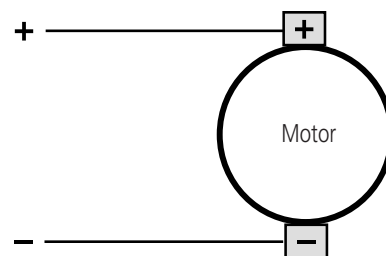


Diagram and electrical connections



Please note

The specifications depend on the **motor control** used by the customer.

Technical specifications

Pump model	MS/CA2-E/08/DC
Motor type	DC motor
Gear ratio	100:1 60:1
Rotation speed* max.	50 80 rpm
Flow rates* max.	17.5 28 ml/min
Motor control	possible, user-dependent
Power consumption	max. 7 W
Channels	2
Pump rollers	8
Weight	0.410 kg

Tubing type	3-stop collared tubing
Tubing i.d.	0.13–3.17 mm
Cassettes	MS/CA Click'n'go, POM

*The specifications depend on the **motor control** used by the customer.

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
 → Please see data sheet 09.1

Flow rates¹⁾

Tubing i.d. mm	ml per revolution	Tubing i.d. mm	ml per revolution
0.13	0.0011	1.14	0.078
0.19	0.0023	1.22	0.088
0.25	0.0041	1.30	0.098
0.38	0.0094	1.42	0.11
0.44	0.013	1.52	0.13
0.51	0.017	1.65	0.15
0.57	0.021	1.75	0.16
0.64	0.026	1.85	0.17
0.76	0.036	2.06	0.20
0.89	0.049	2.29	0.24
0.95	0.056	2.54	0.27
1.02	0.063	2.79	0.31
1.09	0.072	3.17	0.35

¹⁾ Water, Tygon® tubing, without differential pressure

→ Calculation example for flow rate
 rpm x ml per revolution = ml/min
 80 x 0.35 = 28

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

Nominal voltage	Type MS/CA2-E/08/DC/ . . .	100:1	60:1
	Revolutions per minute (rpm) max.	50	80
12 V _{DC}		ISM 1009	ISM 306
24 V _{DC}		ISM 312	ISM 340

Data sheet

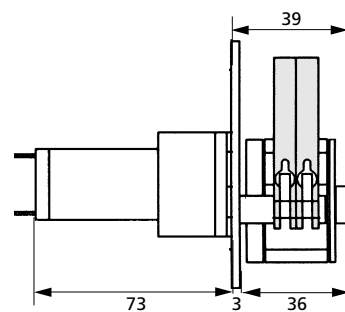
02.2.5
30.09.05

DC motor with gear box

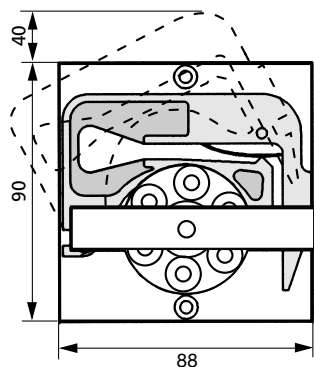
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

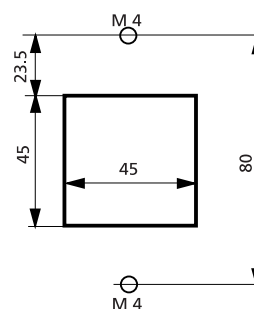
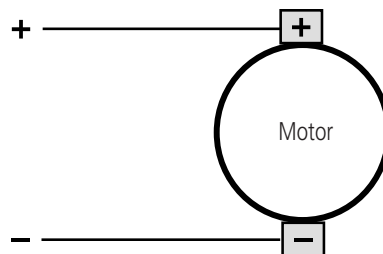


Diagram and electrical connections



Please note

The specifications depend on the **motor control** used by the customer.

Technical specifications

Pump model	MS/CA2-E/06/DC
Motor type	DC motor
Gear ratio	100:1 60:1
Rotation speed* max.	50 80 rpm
Flow rates* max.	21.5 34.4 ml/min
Motor control	possible, user-dependent
Power consumption	max. 7 W
Channels	2
Pump rollers	6
Weight	0.410 kg

Tubing type	3-stop collared tubing
Tubing i.d.	0.13–3.17 mm
Cassettes	MS/CA Click'n'go, POM

*The specifications depend on the **motor control** used by the customer.

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

→ Please see data sheet 09.1

Flow rates¹⁾

Tubing i.d. mm	ml per revolution	Tubing i.d. mm	ml per revolution
0.13	0.0014	1.14	0.09
0.19	0.0028	1.22	0.10
0.25	0.0048	1.30	0.11
0.38	0.011	1.42	0.13
0.44	0.014	1.52	0.15
0.51	0.019	1.65	0.17
0.57	0.024	1.75	0.19
0.64	0.030	1.85	0.21
0.76	0.042	2.06	0.25
0.89	0.057	2.29	0.29
0.95	0.064	2.54	0.33
1.02	0.073	2.79	0.37
1.09	0.083	3.17	0.43

¹⁾ Water, Tygon® tubing, without differential pressure

→ Calculation example for flow rate
 rpm x ml per revolution = ml/min
 80 x 0.43 = 34.4

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

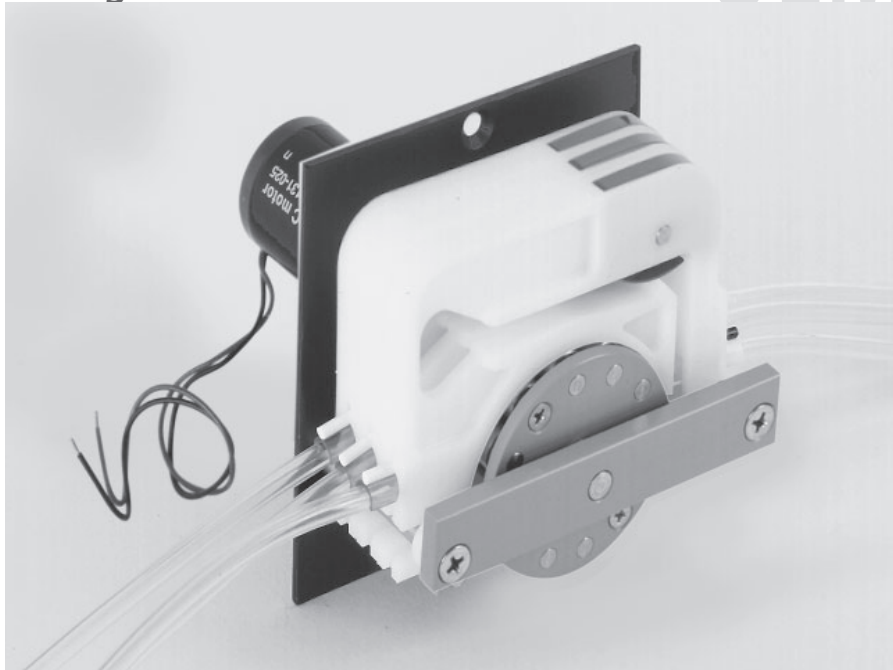
Data sheet

02.2.4
30.09.05

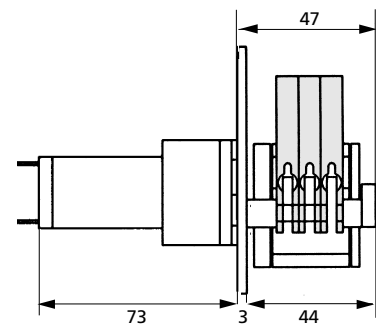
Nominal voltage	Type MS/CA2-E/06/DC/ . . .	100:1	60:1
	Revolutions per minute (rpm) max.	50	80
12 V _{DC}		ISM 357	ISM 309
24 V _{DC}		ISM 311	ISM 339

DC motor with gear box

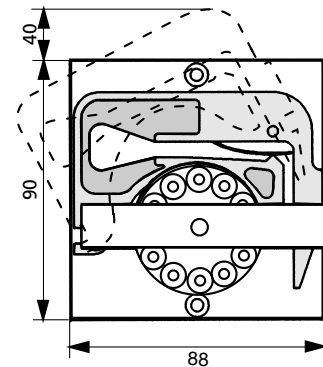
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

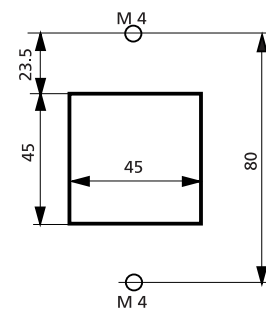
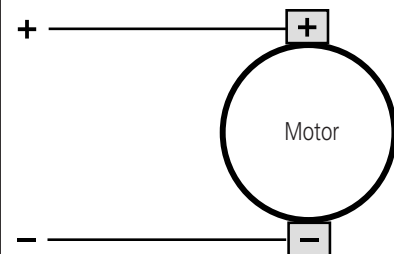


Diagram and electrical connections



Please note

The specifications depend on the **motor control** used by the customer.

Technical specifications

Pump model	MS/CA3-E/12/DC
Motor type	DC motor
Gear ratio	100:1 60:1
Rotation speed* max.	50 80 rpm
Flow rates* max.	12 19.2 ml/min
Motor control	possible, user-dependent
Power consumption	max. 7 W
Channels	3
Pump rollers	12
Weight	0.470 kg

Tubing type	3-stop collared tubing
Tubing i.d.	0.13–3.17 mm
Cassettes	MS/CA Click'n'go, POM

*The specifications depend on the **motor control** used by the customer.

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
 → 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
 80 x 0.24 = 19.2

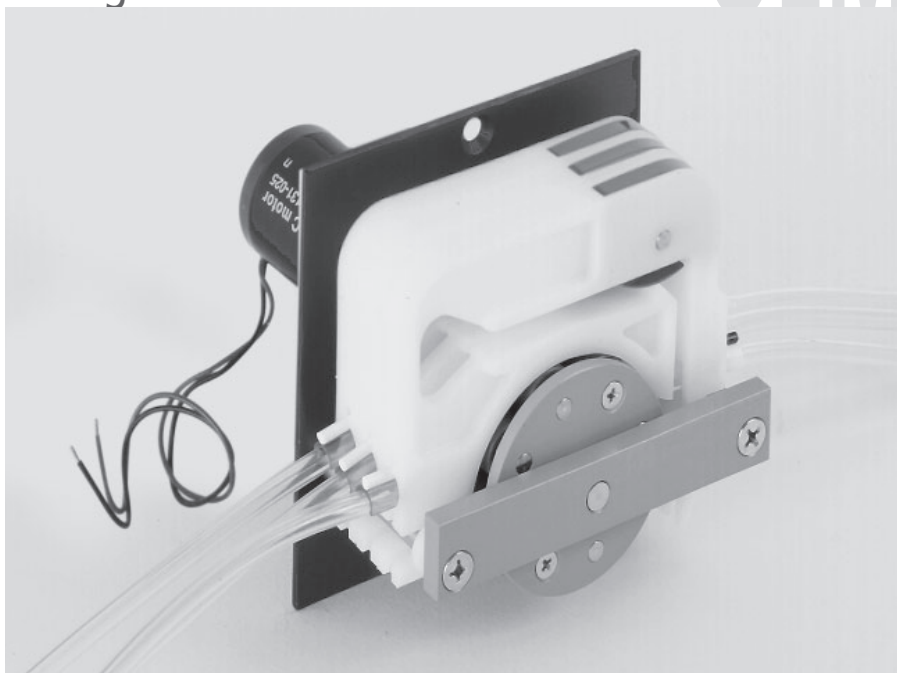
Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

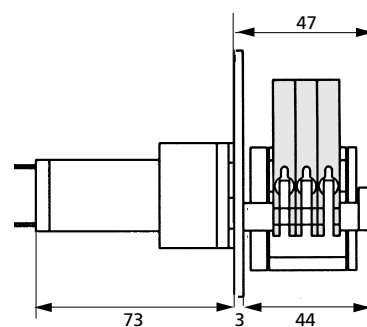
Data sheet 02.2.9 30.09.05	Nominal voltage	Type MS/CA3-E/12/DC/ . . .	100:1	60:1
		revolutions per minute (rpm) max.	50	80
	12 V _{DC}		ISM 624	3EB 208
	24 V _{DC}		3EB 207	3EB 209

DC motor with gear box

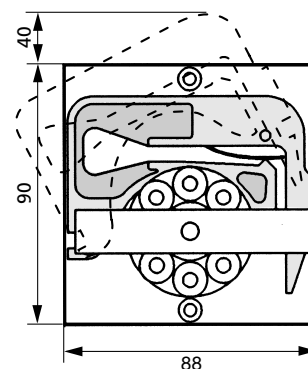
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

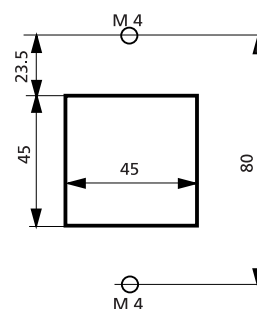
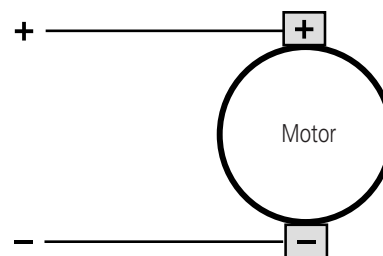


Diagram and electrical connections



Please note

The specifications depend on the **motor control** used by the customer.

Technical specifications

Pump model	MS/CA3-E/08/DC
Motor type	DC motor
Gear ratio	100:1 60:1
Rotation speed* max.	50 80 rpm
Flow rates* max.	17.5 28 ml/min
Motor control	possible, user-dependent
Power consumption	max. 7 W
Channels	3
Pump rollers	8
Weight	0.470 kg

Tubing type	3-stop collared tubing
Tubing i.d.	0.13–3.17 mm
Cassettes	MS/CA Click'n'go, POM

*The specifications depend on the **motor control** used by the customer.

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

→ Please see data sheet 09.1

Flow rates¹⁾

Tubing i.d. mm	ml per revolution	Tubing i.d. mm	ml per revolution
0.13	0.0011	1.14	0.078
0.19	0.0023	1.22	0.088
0.25	0.0041	1.30	0.098
0.38	0.0094	1.42	0.11
0.44	0.013	1.52	0.13
0.51	0.017	1.65	0.15
0.57	0.021	1.75	0.16
0.64	0.026	1.85	0.17
0.76	0.036	2.06	0.20
0.89	0.049	2.29	0.24
0.95	0.056	2.54	0.27
1.02	0.063	2.79	0.31
1.09	0.072	3.17	0.35

¹⁾ Water, Tygon® tubing, without differential pressure

→ Calculation example for flow rate
 rpm x ml per revolution = ml/min
 80 x 0.35 = 28

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

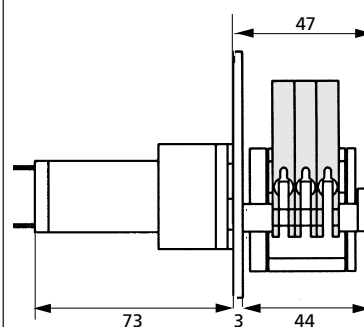
Data sheet 02.2.8 30.09.05	Nominal voltage	Type MS/CA3-E/08/DC/. . .	100:1	60:1
		Revolutions per minute (rpm) max.	50	80
	12 V _{DC}		ISM 606	3EB 205
	24 V _{DC}		3EB 204	3EB 206

DC motor with gear box

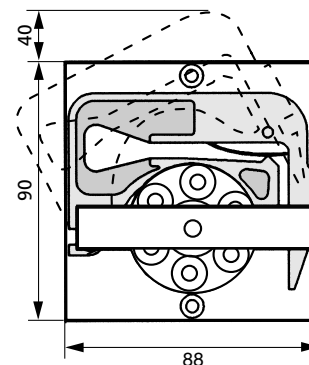
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

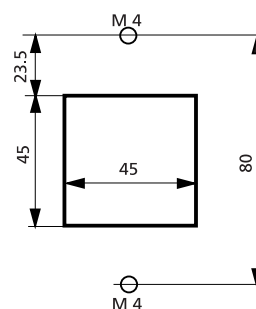
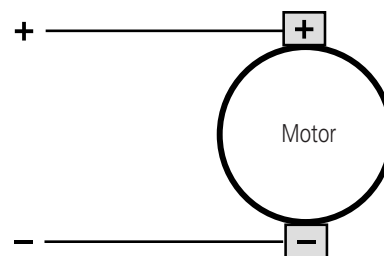


Diagram and electrical connections



Please note

The specifications depend on the **motor control** used by the customer.

Technical specifications

Pump model	MS/CA3-E/06/DC
Motor type	DC motor
Gear ratio	100:1 60:1
Rotation speed* max.	50 80 rpm
Flow rates* max.	21.5 34.4 ml/min
Motor control	possible, user-dependent
Power consumption	max. 7 W
Channels	3
Pump rollers	6
Weight	0.470 kg

Tubing type	3-stop collared tubing
Tubing i.d.	0.13–3.17 mm
Cassettes	MS/CA Click'n'go, POM

*The specifications depend on the **motor control** used by the customer.

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
 → Please see data sheet 09.1

Flow rates¹⁾

Tubing i.d. mm	ml per revolution	Tubing i.d. mm	ml per revolution
0.13	0.0014	1.14	0.09
0.19	0.0028	1.22	0.10
0.25	0.0048	1.30	0.11
0.38	0.011	1.42	0.13
0.44	0.014	1.52	0.15
0.51	0.019	1.65	0.17
0.57	0.024	1.75	0.19
0.64	0.030	1.85	0.21
0.76	0.042	2.06	0.25
0.89	0.057	2.29	0.29
0.95	0.064	2.54	0.33
1.02	0.073	2.79	0.37
1.09	0.083	3.17	0.43

¹⁾ Water, Tygon® tubing, without differential pressure

→ Calculation example for flow rate
 rpm x ml per revolution = ml/min
 80 x 0.43 = 34.4

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

Nominal voltage	Type MS/CA3-E/06/DC/ . . .	100:1	60:1
	Revolutions per minute (rpm) max.	50	80
12 V _{DC}		3EB 200	3EB 202
24 V _{DC}		3EB 201	3EB 203

Data sheet

02.2.7
30.09.05