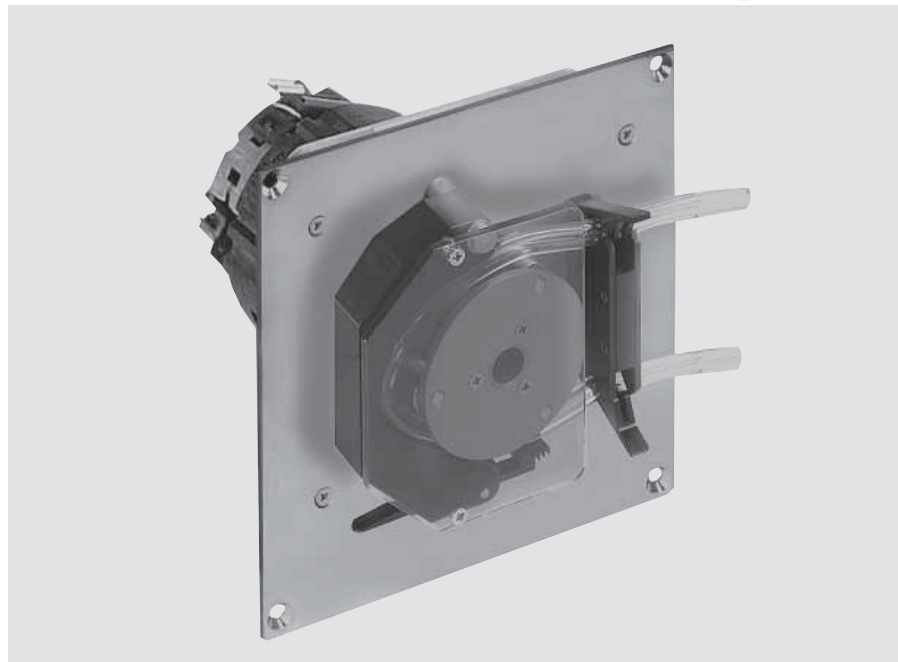
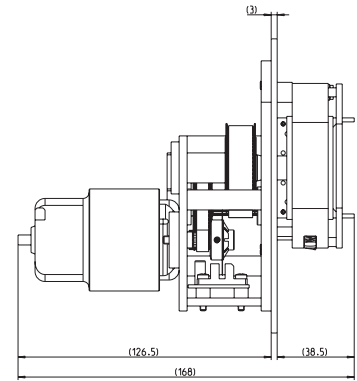


DC motor with optical encoder and gear box

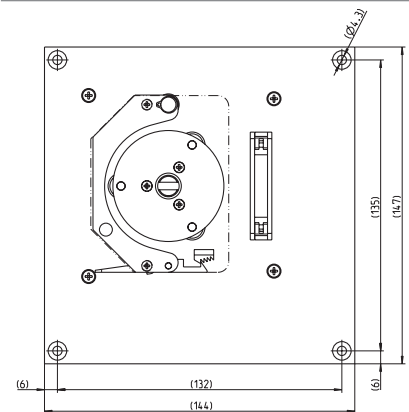
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

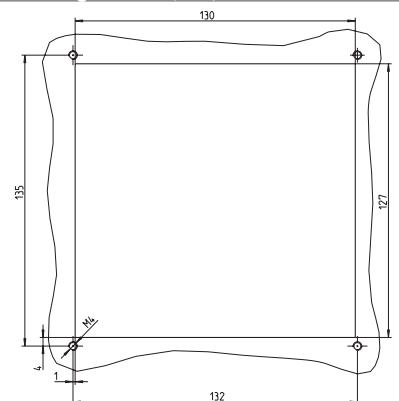
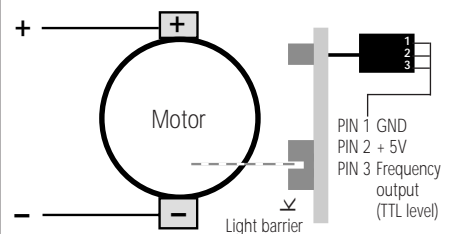


Diagram and electrical connections



Technical specifications	
Pump model	Ecoline-E VC-360
Motor type	DC motor with encoder
Gear ratio	16:1
Rotation speed*	3.5–350 rpm
Flow rates*	0.25–1300 ml/min
Motor control*	optional control unit
Power consumption	max. 67 W
Optical encoder	120 impulses/motor rev.
Channels	1
Pump rollers	3
Weight	1.0 kg
Tubing type	Standard tubing
Tubing i.d.	0.8–6.4 mm

Flow rates ¹⁾		
Tubing i.d. mm	Wall thickness mm	ml per revolution
0.8	1.6	0.0719
1.6	1.6	0.256
3.2	1.6	0.997
4.8	1.6	2.20
6.4	1.6	3.65

¹⁾ Water, Tygon® tubing, without differential pressure

k Calculation example for flow rate
 rpm x ml per revolution = ml/min
 350 x 3.65 = 1277.5

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

Nominal voltage	Type Ecoline-E VC-360	Order No.
24 V _{DC}		IS 3743A

Data sheet

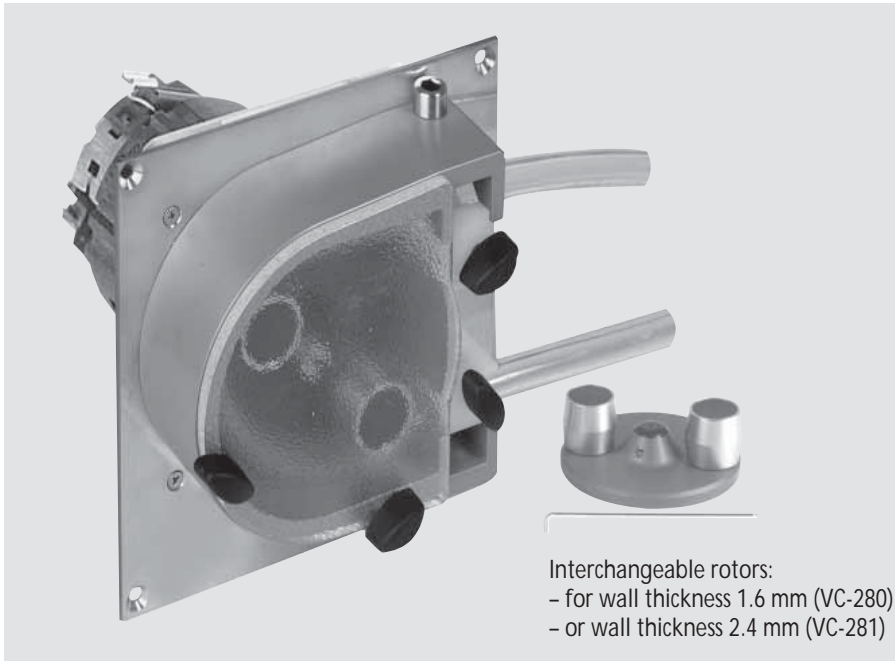
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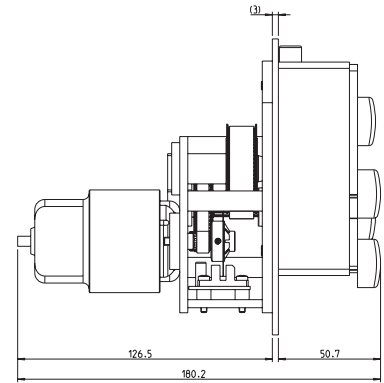
* Please note
 Specifications valid for following ISMATEC® control unit:
 Ecoline-E - see data sheet 08.4

DC motor with optical encoder and gear box

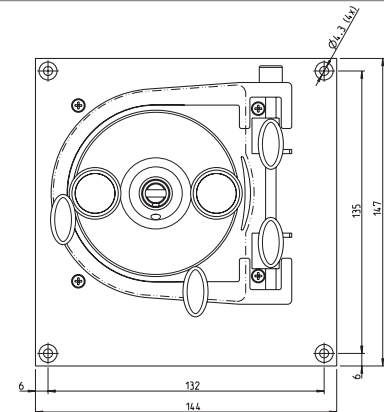
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

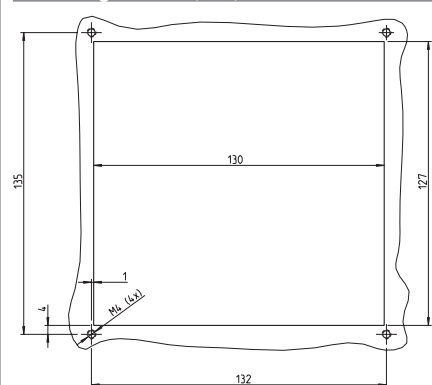
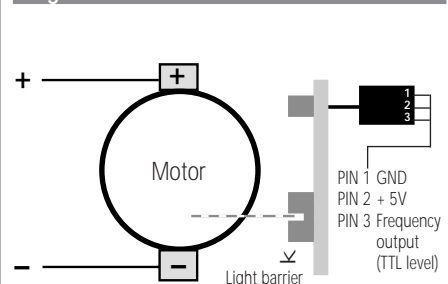


Diagram and electrical connections



Technical specifications	
Pump model	Ecoline-E VC-280/VC-281
Motor type	DC motor with encoder
Nominal voltage	24 V _{DC}
Gear ratio	16:1
Rotation speed*	3.5–350 rpm
Flow rates*	1.7–5400 ml/min (VC-280) 12.7–4580 ml/min (VC-281)
Motor control*	optional control unit
Power consumption	max. 67 W
Optical encoder	120 impulses/motor rev.
Channels	1
Pump rollers	2
Weight	1.4 kg
Tubing type	Standard tubing
Tubing i.d.	1.6–11.1 mm (VC-280) 4.8–9.5 mm (VC-281)

Rotors (Spare part / Option)			
Rollers	Colour	WT	Order No
2	red	1.6 ¹⁾	IS 3762
2	black	2.4 ²⁾	IS 3757

- 1) Standard equipment
- 2) WT 2.4 mm: for elevated differential pressure

Flow rates ¹⁾		
Tubing i.d. mm	Wall thickness mm	ml per revolution
1.6	1.6	0.488
3.2	1.6	1.89
4.8	1.6	4.18
6.4	1.6	7.21
8.0	1.6	10.6
9.5	1.6	13.6
11.1	1.6	15.5
4.8	2.4	3.64
6.4	2.4	6.5
8.0	2.4	9.93
9.5	2.4	13.1

¹⁾ Water, Tygon® tubing, without differential pressure

k Calculation example for flow rate
 rpm x ml per revolution = ml/min
 350 x 15.5 = 5425 (VC-280)
 350 x 13.1 = 4585 (VC-281)

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

Wall thickness	Type Ecoline-E ...	Order No.
1.6 mm	VC-280	IS 3886A
2.4 mm	VC-281	IS 3887A

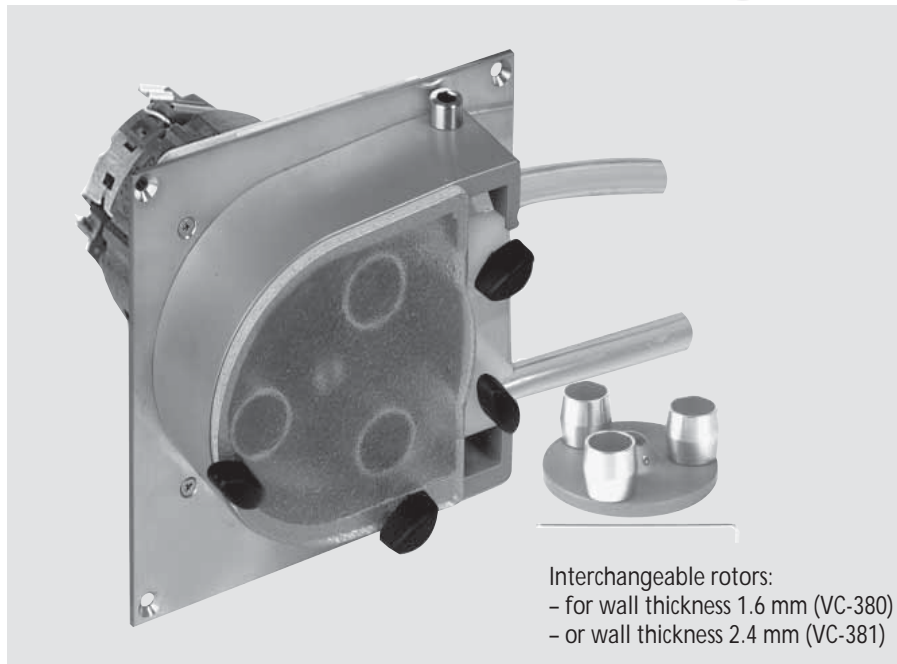
* Please note

Specifications valid for following ISMATEC® control unit:

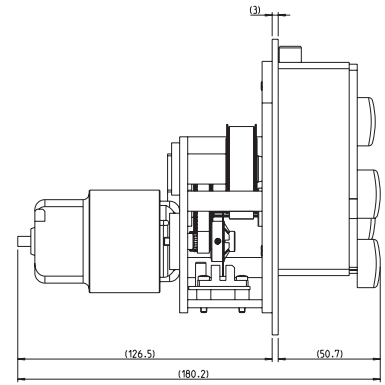
Ecoline-E - see data sheet 08.4

DC motor with optical encoder and gear box

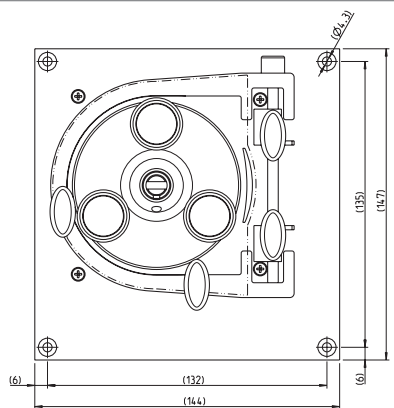
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

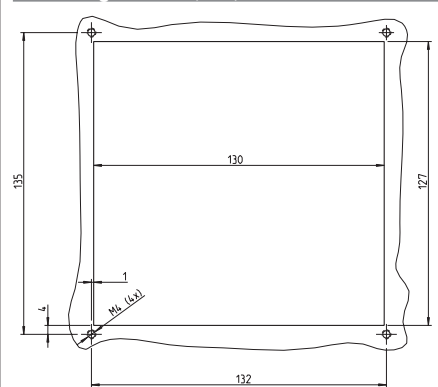
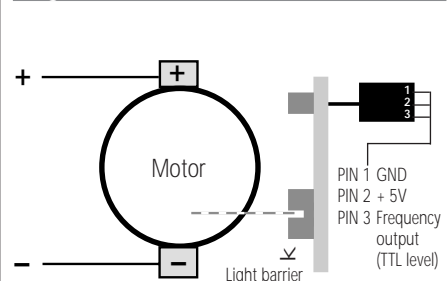


Diagram and electrical connections



Technical specifications	
Pump model	Ecoline-E VC-380/VC-381
Motor type	DC motor with encoder
Nominal voltage	24 V _{DC}
Getriebe	16:1
Rotation speed*	3.5–350 rpm
Flow rates*	1.6–5000 ml/min (VC-380) 11.6–4200 ml/min (VC-381)
Motor control*	optional control unit
Power consumption	max. 67 W
Optical encoder	120 impulses/motor rev.
Channels	1
Pump rollers	3
Weight	1.5 kg
Tubing type	Standard tubing
Tubing i.d.	1.6–11.1 mm (VC-380) 4.8–9.5 mm (VC-381)

Rotors (Spare part / Option)			
Rollen	Farbe	WS	Bestell-Nr.
3	red	1.6 ¹⁾	IS 3763
3	black	2.4 ²⁾	IS 3754

- 1) Standard equipment
- 2) WT 2.4 mm: for elevated differential pressure

Flow rates ³⁾		
Tubing i.d. mm	Wall thickness mm	ml per revolution
1.6	1.6	0.455
3.2	1.6	1.68
4.8	1.6	3.72
6.4	1.6	6.48
8.0	1.6	9.67
9.5	1.6	12.5
11.1	1.6	14.3
4.8	2.4	3.32
6.4	2.4	5.78
8.0	2.4	8.77
9.5	2.4	12.0

³⁾Water, Tygon® tubing, without differential pressure

k Calculation example for flow rate		
rpm	x ml per revolution	= ml/min
350	x 14.3	= 5005 (VC-380)
350	x 12.0	= 4200 (VC-381)

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

Wall thickness	Type Ecoline-E ...	Order No.
1.6 mm	VC-380	IS 3888A
2.4 mm	VC-381	IS 3889A

Data sheet

03.02.3

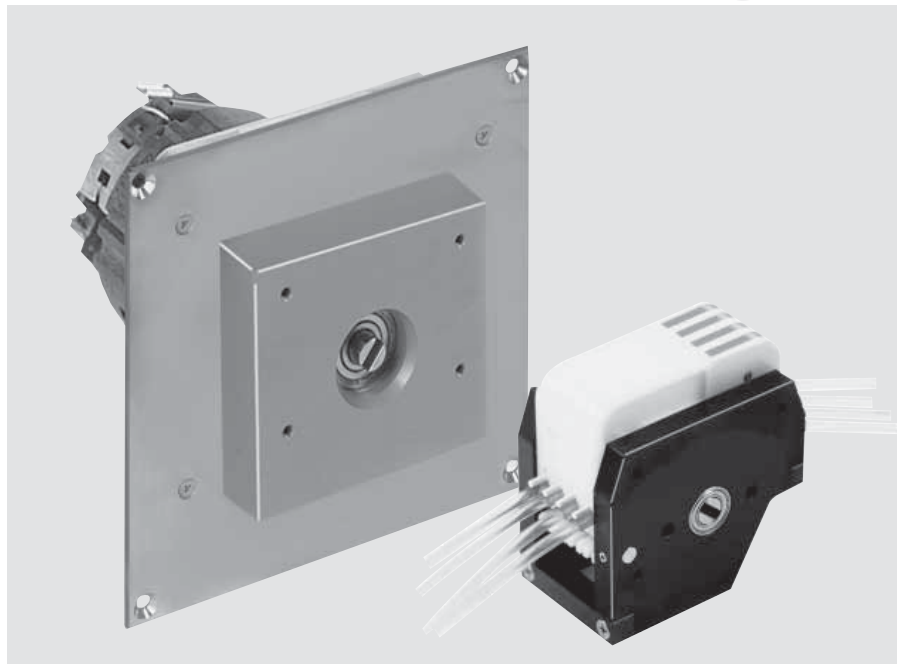
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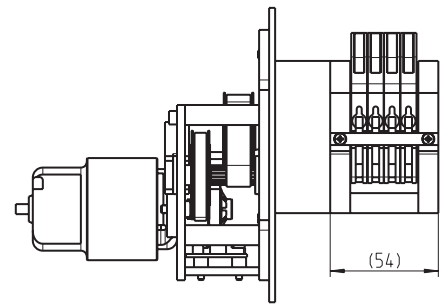
Please note
 Specifications valid for following ISMATEC® control unit:
 Ecoline-E - see data sheet 08.4

DC motor with optical encoder and gear box

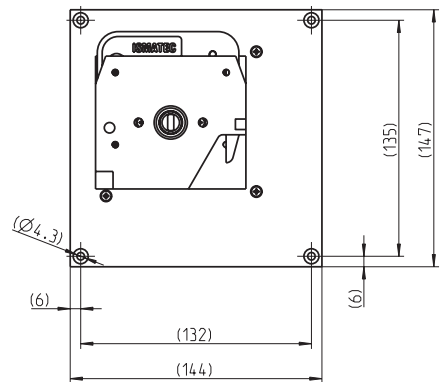
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

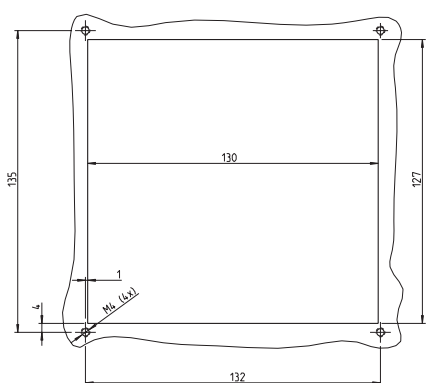
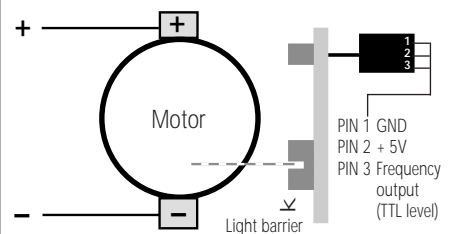


Diagram and electrical connections



Technical specifications	
Pump model	Ecoline-E VC-MS/CA4-12
Motor type	DC motor with encoder
Gear ratio	16:1
Rotation speed*	3.5-350 rpm
Flow rates*	0.003-84 ml/min
Motor control*	optional control unit
Power consumption max.	67 W
Optical encoder	120 impulses/motor rev.
Channels	4
Pump rollers	12
Weight	1.7 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 rates ¹⁾			
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
 350 x 0.24 = 84.0

Ask for the ISMATEC® Pump Tubing Selection Guide.

Ordering information

Nominal voltage	Type Ecoline-E VC-MS/CA4-12	Order No.
24 V _{DC}		on request

***** Please note

Specifications valid for following ISMATEC® control unit:

Ecoline-E - see data sheet 08.4

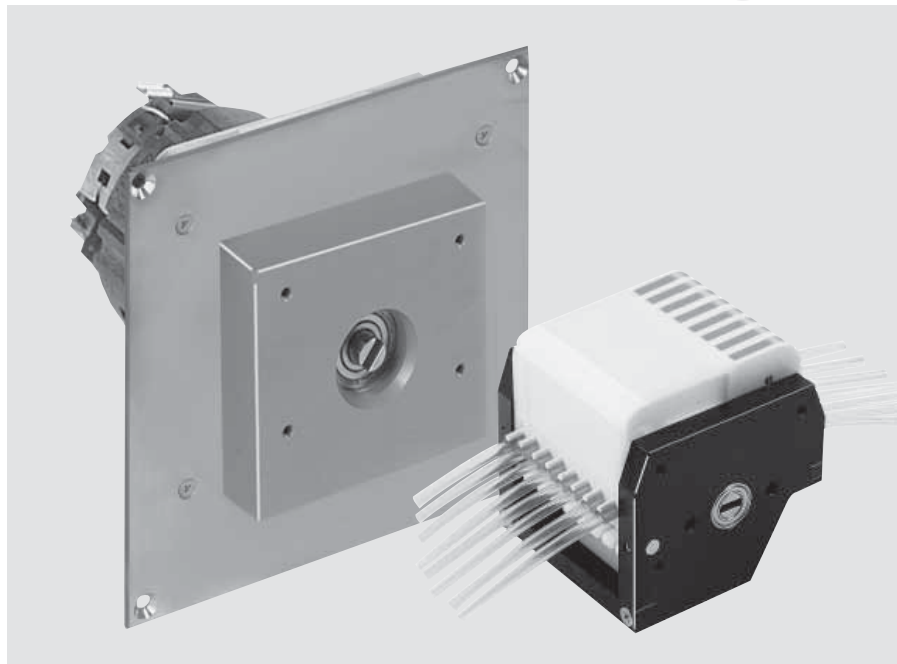
Data sheet

03.02.4

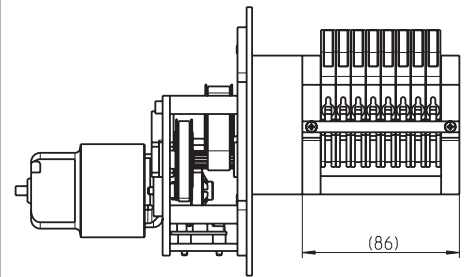
30.09.05

DC motor with optical encoder and gear box

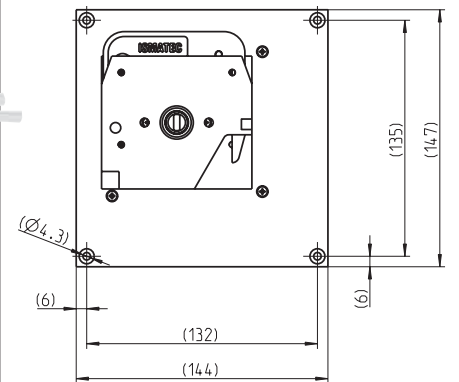
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

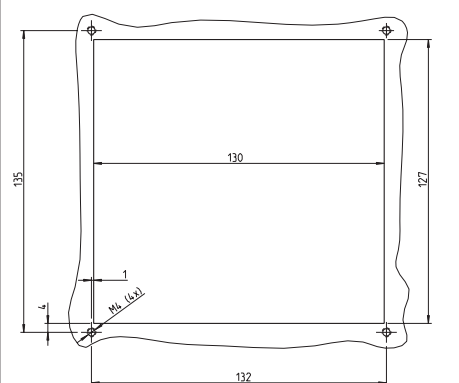
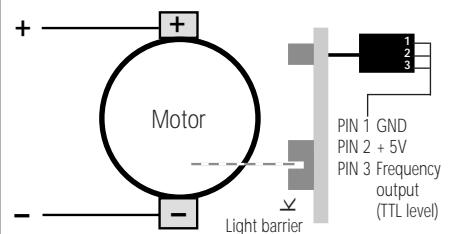


Diagram and electrical connections



***** Please note

Specifications valid for following ISMATEC® control unit:
Ecoline-E - see data sheet 08.4

Technical specifications	
Pump model	Ecoline-E VC-MS/CA8-6
Motor type	DC motor with encoder
Gear ratio	16:1
Rotation speed*	3.5–350 rpm
Flow rates*	0.005–150 ml/min
Motor control*	optional control unit
Power consumption	max. 67 W
Optical encoder	120 impulses/motor rev.
Channels	8
Pump rollers	6
Weight	1.7 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 rates ¹⁾			
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

k Calculation example for flow rate			
rpm x ml per revolution	=	ml/min	
350 x 0.43	=	150.5	

Ask for the ISMATEC® Pump Tubing Selection Guide

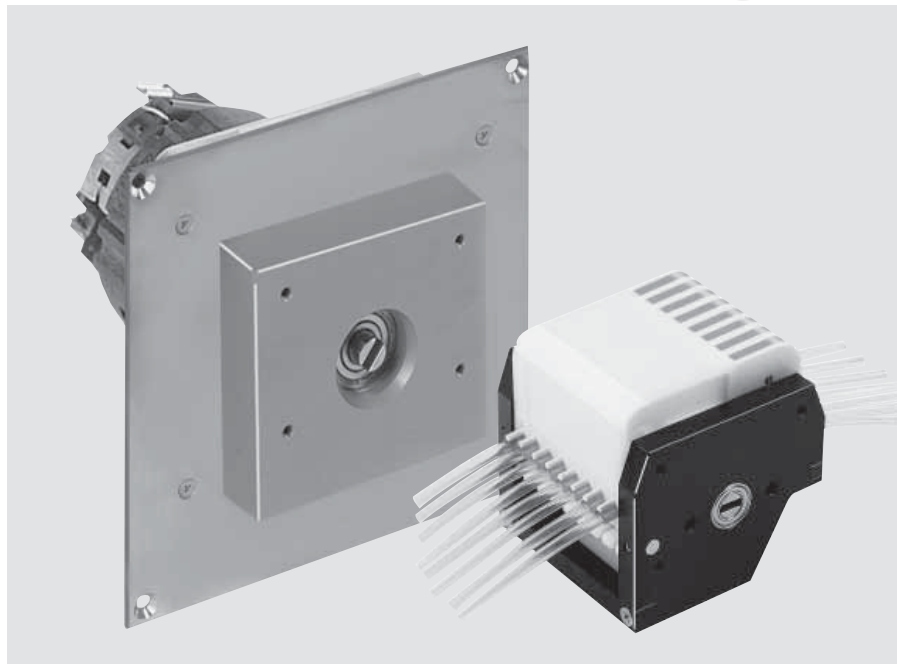
Ordering information

Nominal voltage	Type Ecoline-E VC-MS/CA8-6	Order No.
24 V _{DC}		on request

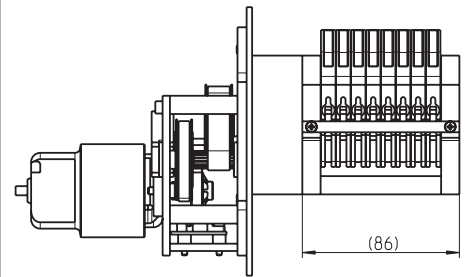
Data sheet
03.02.5
30.09.05

DC motor with optical encoder and gear box

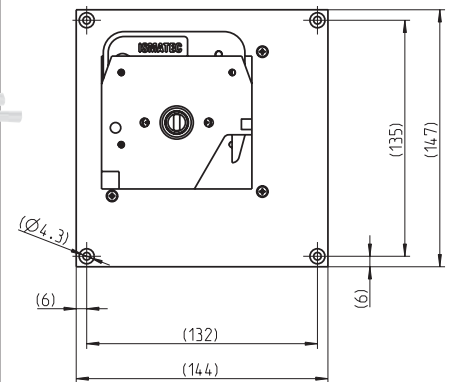
OEM



Side view (mm)



Front view (mm)



Mounting cut-out (mm)

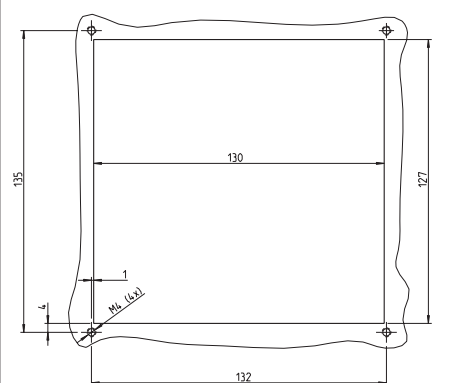
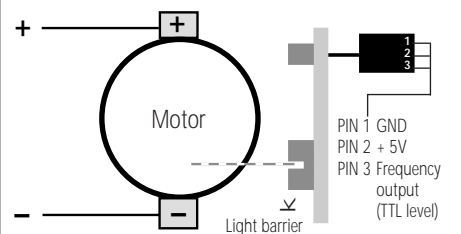


Diagram and electrical connections



Technical specifications	
Pump model	Ecoline-E VC-MS/CA8-8
Motor type	DC motor with encoder
Gear ratio	16:1
Rotation speed*	3.5–350 rpm
Flow rates*	0.004–122 ml/min
Motor control*	optional control unit
Power consumption	max. 67 W
Optical encoder	120 impulses/motor rev.
Channels	8
Pump rollers	8
Weight	1.7 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 rates ¹⁾			
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

k Calculation example for flow rate
 rpm x ml per revolution = ml/min
 350 x 0.35 = 122.5

Ask for the ISMATEC® Pump Tubing Selection Guide

Ordering information

Nominal voltage	Type Ecoline-E VC-MS/CA8-8	Order No.
24 V _{DC}		on request

* Please note
 Specifications valid for following ISMATEC® control unit:
 Ecoline-E - see data sheet 08.4

Data sheet
 03.02.6
 30.09.05