

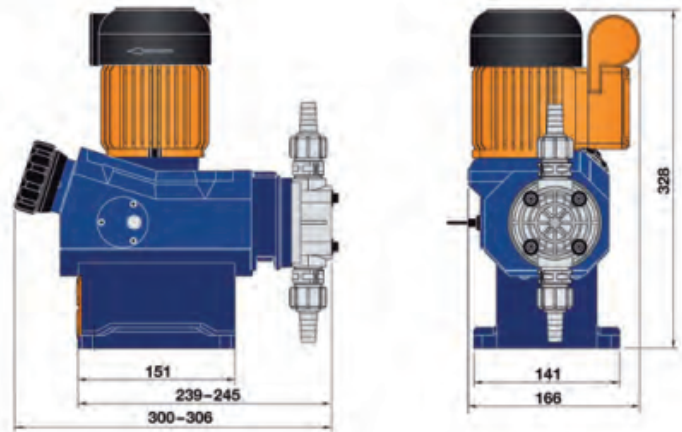


## Vario C

### Motor-driven diaphragm metering pump

The pump for simple applications.

- Capacity range  
8–75 l/h, 10–4 bar
- Good suction capacity, smooth dosing stroke and constant, precise dosing
- High process quality through dosing reproducibility of better than  $\pm 2\%$
- Robust construction with powerful motor and glass fibre reinforced housing
- Suitable for many applications through four gear ratios, two sizes of liquid end and two material versions



Pump type	With motor 1,500 rpm at 50 Hz Delivery rate at max. backpressure			Stroke rate strokes/min	Suction head mWC	Perm. admis. pressure suction side bar	Connection suction/pressure side G-DN
	bar	l/h	ml/stroke				
10008	10	8	3.6	38	7	2.8	3/4–10
10016	10	16	3.6	77	7	2.8	3/4–10
07026	7	26	3.6	120	7	2.8	3/4–10
07042	7	42	3.6	192	7	2.8	3/4–10
07012	7	12	5.4	38	6	1.7	3/4–10
07024	7	24	5.4	77	6	1.7	3/4–10
04039	4	40	5.4	120	6	1.7	3/4–10
04063	4	64	5.4	192	6	1.7	3/4–10

With 60 Hz design approx. 20 % increasing delivery rate

Materials in contact with medium					
Material	Liquid end	Suction/pressure port	Seals	Valve balls	Valve seat
PVT	PVDF	PVDF	PTFE	Ceramic	PTFE
SST	Stainless steel Mat. Nr. 1.4404	Stainless steel Mat. Nr. 1.4404	PTFE	Stainless steel Mat. Nr. 1.4404	

DEVELOPAN® metering diaphragm with PTFE coating for all types.  
FPM: fluorine rubber.

# 1.3 Motor-Driven Metering Pumps

## 1.3.3 Motor-Driven Metering Pump Vario C

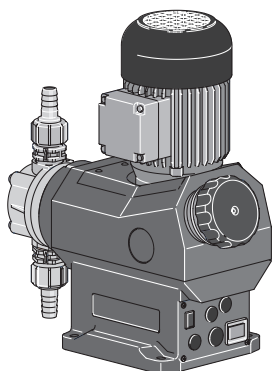
### The basic pump for simple applications

Capacity range 8 – 76 l/h, 10 – 4 bar



The motor-driven metering pump Vario C delivers a high level of process quality for continuous metering within simple metering tasks. It can be used, for example, in the metering of additives or flocculants in chemical metering.

With 4 gear reduction ratios, 2 dosing head sizes and 2 dosing head materials, the Vario C motor-driven metering pump is well adapted to basic metering tasks. It is available with a three-phase or single-phase AC motor. Its pump capacity is adjusted via the stroke length, in 1% increments, with a self-locking rotary dial.



Vario C

### Your benefits

- Excellent suction capacity, gentle metering stroke and consistently precise metering
- Excellent process quality: Metering reproducibility is better than  $\pm 2\%$  within the stroke length adjustment range of 30 to 100%
- Flexible adjustment of the pump capacity by means of the stroke length in 1% increments
- Fibreglass-reinforced plastic housing
- Good adaptation to the specific application, thanks to 4 different gear reduction ratios and 2 sizes of liquid ends in 2 material versions
- Power end optionally available with three-phase or single-phase AC motor
- Customised designs are available on request

### Technical Details

- Stroke length: 3 mm
- Stroke length adjustment range: 0 – 100 %
- Stroke length adjustment: manually by means of self-locking rotary dial
- Metering reproducibility is better than  $\pm 2\%$  in the 30 – 100% stroke length adjustment range under defined conditions and with correct installation
- Wetted materials: PVDF, stainless steel 1.4571/1.4404
- DEVELOPAN® diaphragm (single diaphragm with PTFE)
- Motor: Three-phase AC motor (0.07 kW, 230/400 V, 50/60 Hz) or single-phase AC motor (0.06 kW, 230 V 50 Hz or 115 V 60 Hz)
- Degree of protection: IP 55
- Fibreglass-reinforced plastic housing
- Provide suitable overload protection in all motor-driven metering pumps during installation for safety reasons.

### Field of application

- Chemical metering in potable water, cooling and waste water circuits
- Metering of additives, flocculants etc.

# 1.3 Motor-Driven Metering Pumps

## Technical Data

Type	Capacity at max. back pressure with 1500 rpm motor at 50 Hz				Pump capacity at max. back pressure with 1800 rpm motor at 60 Hz			Suction lift m WC	Perm. pre-pressure suction side bar	Connector Suction/Discharge Side G-DN
	l/h	bar	ml/stroke	Max. stroke rate	l/h/gph (US)	psi	Max. stroke rate			
				Strokes/min			Strokes/min			
10008	8	10	4	38	9.6/2.5	145	45	7	2.8	3/4-10
10016	16	10	4	77	19.2/5.0	145	92	7	2.8	3/4-10
07026	26	7	4	120	31.2/8.2	100	144	7	2.8	3/4-10
07042	42	7	4	192	50.4/13.3	100	230	7	2.8	3/4-10
07012	12	7	5	38	14.4/3.8	100	45	6	1.7	3/4-10
07024	24	7	5	77	28.8/7.6	100	92	6	1.7	3/4-10
04039	40	4	5	120	48.0/12.6	58	144	6	1.7	3/4-10
04063	64	4	5	192	76.8/20.2	58	230	6	1.7	3/4-10

The shipping weight of all pump types is 6/7.2 kg (PVDF/SS)

## Materials in Contact With the Medium

Identity code of material	Dosing head	Suction/discharge connection	Seals	Valve balls	Ball seat
PVT	PVDF	PVDF	PTFE	Ceramic	PTFE
SST	stainless steel 1.4404	stainless steel 1.4404	PTFE	stainless steel 1.4404	PTFE

## Motor Data

Identity code specification	Power supply			Remarks
S	3-phase, IP 55	220 – 240 V/380 – 420 V	50 Hz	0.07 kW
		250 – 280 V/440 – 480 V	60 Hz	0.07 kW
M	1-phase AC, IP 55	230 V ± 5 %	50/60 Hz	0.06 kW
N	1-phase AC, IP 55	115 V ± 5 %	60 Hz	0.06 kW

Motor data sheets can be requested for more information. Versions 265/460V - 60Hz, special motors or special motor flanges are available on request.

Motors less than 0.75 kW and motors designed for speed-controllable operation are not subject to the IEC3 standard in compliance with the Ecodesign Directive 2009/125/EC.



# 1.3 Motor-Driven Metering Pumps

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## Identity Code Ordering System for Vario Diaphragm Metering Pump

VAMc	Type *	Output	
	10008	10 bar	8 l/h
	10016	10 bar	16 l/h
	07026	7 bar	26 l/h
	07042	7 bar	42 l/h
	07012	7 bar	12 l/h
	07024	7 bar	24 l/h
	04039	4 bar	40 l/h
	04063	4 bar	64 l/h
		<b>Liquid end material</b>	
	PVT	PVDF	
	SST	Stainless steel	
		<b>Seal material</b>	
	T	PTFE	
		<b>Liquid end version</b>	
		0	No valve springs (standard)
		1	with 2 valve springs. Hastelloy C4
		<b>Hydraulic connections</b>	
		0	standard connection
		1	PVC union nut and insert
		2	Union nut and insert PP
		3	PVDF union nut and insert
		4	Stainless steel union nut and insert
		5	PP union nut and hose nozzle
		7	Union nut and PVDF hose nozzle
		8	Stainless steel union nut and hose nozzle
		<b>Version</b>	
		0	With ProMinent® logo (standard)
		1	without ProMinent logo
		M	Modified
		<b>Electrical power supply</b>	
		S	3 ph, 230 V / 400 V; 50/60 Hz
		M	1 ph AC 230 V; AC 50/60 Hz
		N	1 ph AC 115 V; AC 60 Hz
		<b>Stroke sensor</b>	
		0	No stroke sensor
		3	With stroke sensor (Namur)
		<b>Stroke length adjustment</b>	
		0	Manual (Standard)

\* Digits 1 and 2=back pressure [bar]; digits 3, 4, 5=pump capacity [l/h]



# 1.3 Motor-Driven Metering Pumps

## Spare Parts

The spare parts kit generally includes the wear parts for the liquid ends.

### Scope of delivery with PPE, PCB, PVT material versions:

- 1 diaphragm
- 1 suction valve assembly
- 1 discharge valve assembly
- 2 valve balls
- 1 complete sealing set (O-rings or cover rings with PVT design)

### Scope of delivery with SST material version:

- 1 diaphragm
- 2 valve balls
- 1 complete sealing set (cover rings, flat seals, ball seat)

## Spare parts kits for motor-driven metering pump Vario C

Identity code for type VAMc 10008, 10016, 07026, 07042

Liquid end	Materials in contact with the medium	Order no.
FM 042 - DN 10	PCB Version	910754
FM 042 - DN 10	PPE	910753
FM 042 - DN 10	PVT	1003641
FM 042 - DN 10	SST	910751

Identity code for type VAMc 07012, 07024, 04039, 04063

Liquid end	Materials in contact with the medium	Order no.
FM 063 - DN 10	PCB Version	910759
FM 063 - DN 10	PPE	910758
FM 063 - DN 10	PVT	1003642
FM 063 - DN 10	SST	910756



## Spare Diaphragms for Motor-Driven Metering Pump Vario C

	Order no.
Vario with FM 063 Type VAMc 07012, 07024, 04039, 04063	811459
Vario with FM 042 Type VAMc 10008, 10016, 07026, 07042	811458

## Accessories

- Foot valves for motor-driven metering pumps, see page
- Injection valves for motor-driven metering pumps, see page
- Hoses and pipework for motor-driven metering pumps, see page
- Suction lances, suction assemblies without level switches, see page
- Connectors, fittings, connector kits, seals, see page
- Speed controllers, see page

## Spare Parts

- Special valve balls/special valve springs, see page → 248

