

# Safe, precise and cost-effective metering

Low-pressure metering pumps up to over 1,000 l/h



# Solenoid-driven metering pumps

## Low-wear pumps for low capacities

### Mode of operation

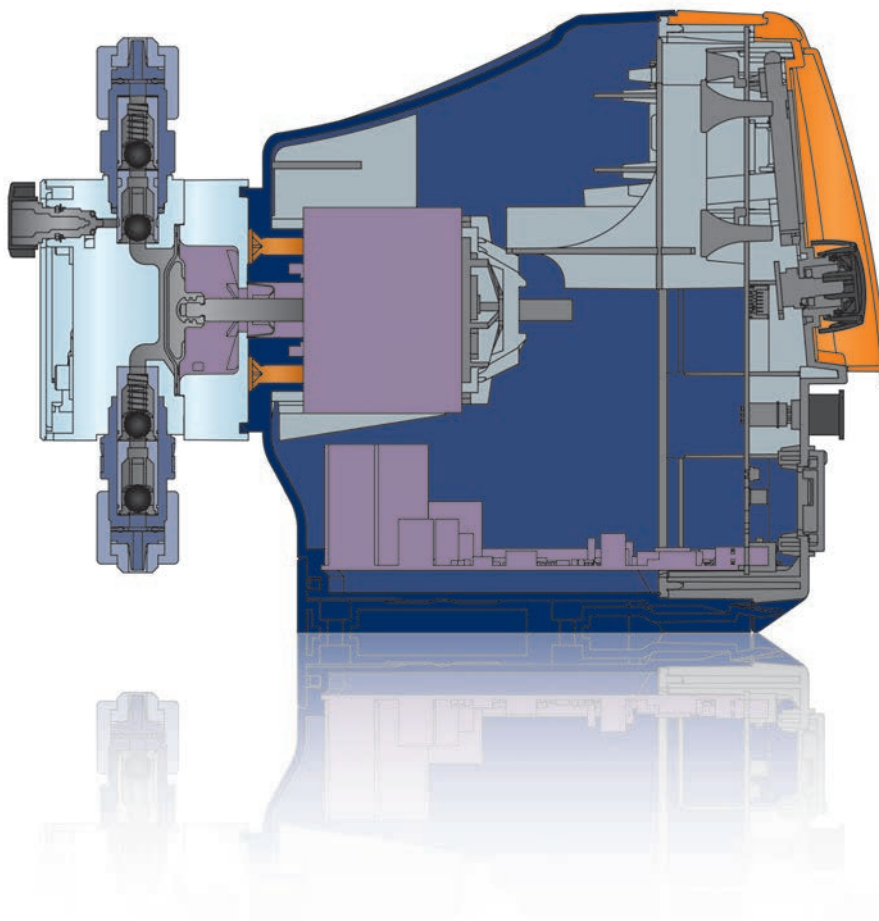
A magnet moves the solenoid shaft forwards and backwards by switching on and off. This stroke movement is transferred to the diaphragm in the dosing head. Two non-return valves prevent the feed chemical from flowing back during pumping. The stroke length and stroke rate can be adjusted to alter the capacity of a solenoid-driven metering pump.

### Features

- Capacity range: 0.74 to 80 l/h at 25 to 2 bar back pressure
- Virtually wear-free power end/drive, as only one moving part is used – the pump has no lubricated bearing or shafts
- Outstanding long-term stability
- Cost-effective technical alternative in the lower capacity range
- Maximum protection from overloading
- Low energy consumption thanks to excellent efficiency
- IP 65 degree of protection due to fully sealed housing

### Applications

- General: chemical metering in laboratories and in industry up to 80 l/h pumping capacity
- Potable water and swimming pool water treatment: metering of chemicals for disinfection and for pH correction
- General water treatment, process water, industrial water, and conditioners
- Cooling water circuits: metering disinfectants
- Mini-plant technology
- Paper industry, de-foamers
- Electroplating and surface treatment, pool additives, slide grinding systems



# Motor-driven metering pumps

## High level of dosing precision and robust technology

### Mode of operation

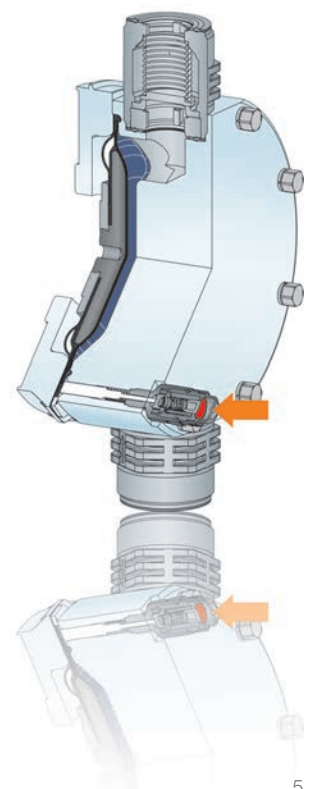
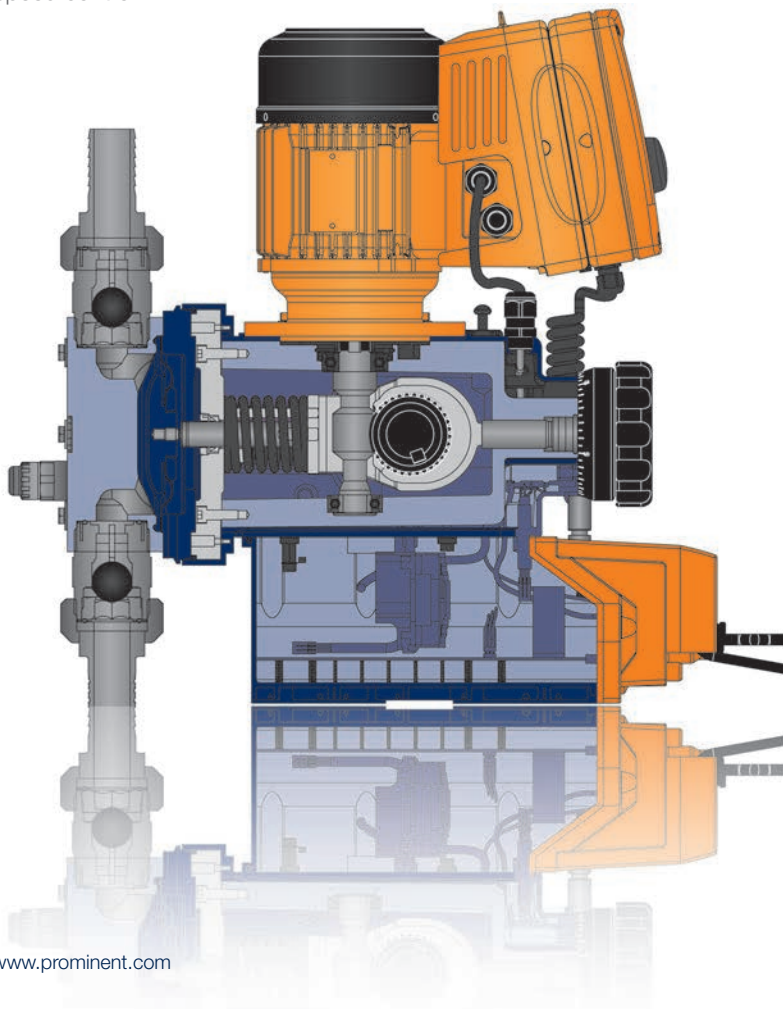
The stroke length and stroke rate – in this case the motor speed – can be adjusted to alter the capacity of this pump. The rotation of the electric motor is stepped down by a worm gear and converted into a linear stroke movement by a cam. The slide rod transfers this stroke movement to the diaphragm in the dosing head. Two non-return valves prevent the feed chemical from flowing back during pumping.

### Features

- Extremely broad capacity range
- High dosing precision even under varying pressure conditions (rigid characteristic curve) enables chemical use to be reduced and ensures exact process control
- Robust and cost-effective drive in higher capacity classes
- Simple integration and retrofitting into automated processes by flexible control via stroke length and motor speed control
- Maximum safety thanks to multi-layer safety diaphragm with rupture warning system
- Sigma basic: robust pump for safe and reliable use
- Sigma X control type: reliable, smart and network-friendly

### Applications

- General: chemical metering up to over 1,000 l/h
- Potable water treatment: metering disinfectants
- Cooling circuits: metering disinfectants
- Waste water treatment: metering flocculants
- Paper industry: metering additives
- Plastics production: metering additives



## Solenoid metering pumps

### Beta® b The all-rounder

Capacity range  
0.74 – 32 l/h  
25 – 2 bar



### gamma/ X For versatile uses

Capacity range  
2.3 – 45 l/h  
25 – 2 bar



### gamma/ XL Capacity perfected

Capacity range  
8 – 80 l/h  
25 – 2 bar



## Peristaltic pumps

### DULCO®flex Precise and reproducible

**DF2a**  
Capacity range 0.4/0.8/1.6/2.4 l/h  
up to 1.5 bar

**DF4a**  
Capacity range 1.5/6.0/12.0 l/h  
up to 4 bar



### DULCO flex Control Combines top products

**DFXa**  
Capacity range 0.01 – 30 l/h  
up to 7 bar

**DFYa**  
Capacity range 5.5 – 410 l/h  
up to 8 bar

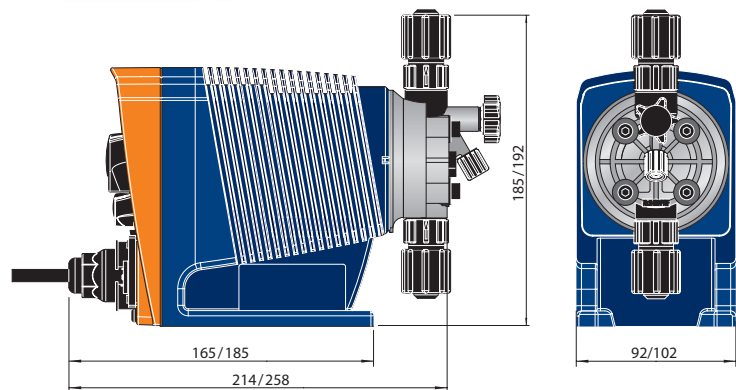


# Beta<sup>®</sup> b

## Solenoid-driven metering pump

The first choice for modern water treatment and chemical metering.

- Capacity range  
0.74–32 l/h, 25–2 bar
- Up to 50 % energy-savings through improved efficiency
- Adjustable, integrated pulse step-up and step-down for optimum adaptation to external signal generators
- Dosing heads to suit all chemicals ensure all-purpose use
- Virtually wear-free power end/drive
- Outstanding long-term stability
- Optional: relay module can be quickly and simply retrofitted
- Input for level switch



Pump type	Pump capacity at max. back pressure			Stroke rate Strokes/min	Suction lift mWs	Connector size a Ø x i Ø mm	Average power consumption W
	bar	l/h	ml/stroke				
BT4b 1000	10	0.74	0.07	180	6.0	6 x 4	7.2
BT4b 1601	16	1.10	0.10	180	6.0	6 x 4	9.6
BT4b 1602	16	2.20	0.20	180	6.0	6 x 4	11.2
BT4b 1604	16	3.60	0.33	180	6.0	6 x 4	15.2
BT4b 0708	7	7.10	0.66	180	6.0	8 x 5	15.2
BT4b 0413	4	12.30	1.14	180	3.0	8 x 5	15.2
BT4b 0220	2	19.00	1.76	180	2.0	12 x 9	15.2
BT5b 2504	25	2.90	0.27	180	6.0	8x4 <sup>1)</sup>	19.2
BT5b 1008	10	6.80	0.63	180	6.0	8 x 5	19.2
BT5b 0713	7	11.00	1.02	180	4.0	8 x 5	19.2
BT5b 0420	4	17.10	1.58	180	3.0	12 x 9	19.2
BT5b 0232	2	32.00	2.96	180	2.0	12 x 9	19.2

Beta<sup>®</sup> b metering pumps are also available with a self-bleeding dosing head and for higher-viscosity media.

Pressure-reduced pump types are available in the pressure stages 4, 7 and 10 bar for special applications, for example in the swimming pool sector.

Suction lift with a filled dosing head and filled suction line, with a self-bleeding dosing head with air in the suction line.

1) 6 mm connector width for stainless steel design.

Wetted materials					
Design	Dosing head	Suction/pressure connector	Seals	Valve balls	Ball seat
PPT	Polypropylene	PVDF	PTFE	Ceramic	PVDF
NPT	Clear acrylic	PVDF	PTFE	Ceramic	PVDF
PVT	PVDF	PVDF	PTFE	Ceramic	PVDF
TTT	PTFE + carbon	PTFE + carbon	PTFE	Ceramic	Ceramic
SST	Stainless steel material no. 1.4404	Stainless steel material no. 1.4404	PTFE	Ceramic	Ceramic

DEVELOPAN<sup>®</sup> diaphragms with PTFE support in all designs.

## Worldwide contacts

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### Ready for you. Any time, anywhere.

ProMinent is at home in more than 100 countries across the globe. This guarantees the worldwide availability of our products and comprehensive expertise on the ground with close proximity to the customer. We offer the same high quality standards for our solutions and services all over the world. And we work day in, day out to keep our promise: Ready for you. Any time, anywhere.

You can find the contact details of local branches and agencies at [www.prominent.com/en/locations](http://www.prominent.com/en/locations)

You can find the ProMinent app for iPad and iPhone in the iTunes App Store or at [www.prominent.com/app](http://www.prominent.com/app)



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