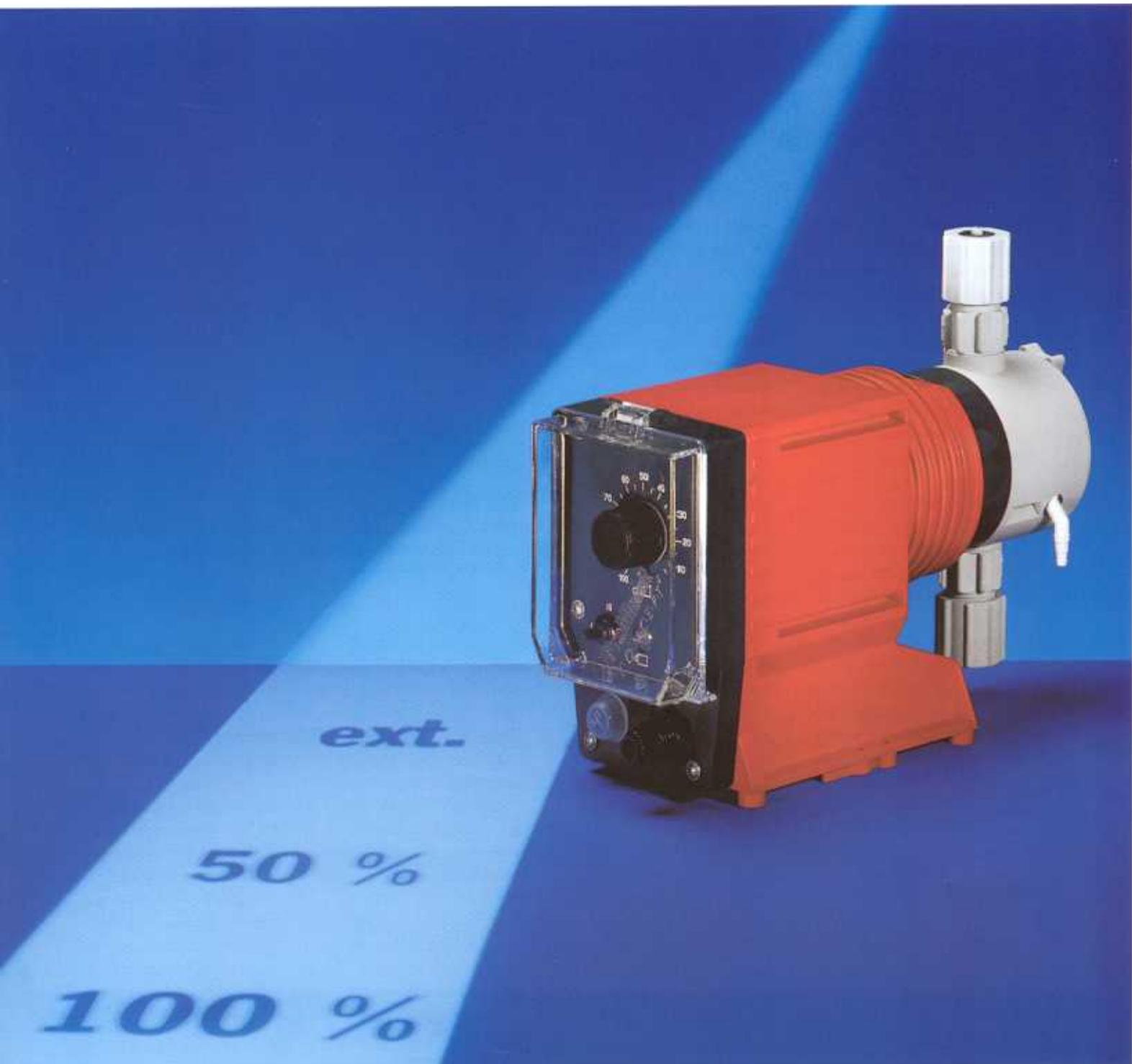




ProMinent® CONCEPT SOLENOID-TYPE METERING PUMP



Precision and Flexibility

For exacting requirements

Maximum operational reliability and accuracy rank among the essential requirements with regard to metering of chemicals in water preparation and treatment processes.

With the ProMinent® CONCEPT series, an electronically controlled solenoid-type metering pump is available with features adapted precisely to meet these application requirements. It is particularly suitable for precision metering of standard chemicals used in water preparation and treatment processes such as alkaline solutions, acids, disinfectants and flocculants or biocides. Its microprocessor control ensures maximum operational reliability and enables precise setting of the stroke rate independent of the mains frequency. Added to this, the ProMinent® CONCEPT series is equipped with improved valves thus ensuring optimum intake characteristics, easy cleaning and reduced component diversity. To suit your particular requirements, select between six ProMinent® CONCEPT pump types with delivery capacity ranging from 1 l/h to 15 l/h.



Metering precision

The ProMinent® CONCEPT pump series offers high metering accuracy and exact reproducibility of the required metering rate since the delivered quantity can be set precisely both by way of the stroke rate as well as the maximum stroke length of 1.25 mm. This setting concept ensures, for example, thorough mixing of the medium at a high stroke rate or reliable metering of gas-emitting or viscous media at a large stroke length and low stroke rate.

The ProMinent® CONCEPT series is available in two control variants in order to ensure the positive characteristics of this solenoid-type metering pump can be fully utilized both in applications with continuous metering as well as with metering dependent on measured values. These variants not only increase the flexibility of possible applications but they also contribute to reducing stock-keeping costs.

Simple stroke frequency adjustment and external drive capability are characteristic features of the ProMinent® CONCEPT series.



The efficient solenoid-type metering pump for water treatment: ProMinent® CONCEPT

For constant metering, the ProMinent® CONCEPT **control type 0** offers three fixed stroke rates which are set by means of a selector switch. Depending on the setting, the pump operates at 100%, 50% or 25% of the maximum stroke rate. Precision setting is achieved on the basis of the stroke length within the range 10 - 100%.

With two fixed stroke rate settings and an external contact control facility, the ProMinent® CONCEPT **control type 1** is particularly suitable for variable metering dependent on measured values.

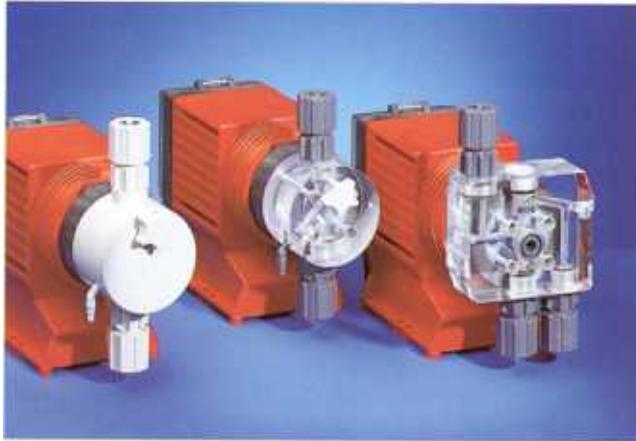
Depending on the switch position, the pump operates at 100% or 50% of the maximum stroke rate or is stationary. In this setting, activation takes place via floating contacts such as a contact water meter or a DULCOMETER® measurement and control device. Pluggable, two-core contact control cables or four-core universal control cables are used for activation as also used in the gamma and Vario series.

Reliability and Quality

Durability

Selected materials ensure that the ProMinent® CONCEPT series is especially suitable to meet the demanding requirements in water treatment processes. For instance, the use of glass fibre reinforced PPE makes the two-part pump case with degree of protection IP 65 resistant with respect to aggressive media. The materials used for the liquid end are also adapted to the standard chemicals used in water conditioning and treatment processes. A selection of three liquid end versions with different material variants is available for the delivery units of the ProMinent® CONCEPT series:

- Liquid end made of polypropylene with controllable bleeder valve and bypass (PP1)
- Liquid end made of Plexiglas with inclined holes for improved bleeding in conjunction with gas-emitting media (NP6), optionally with bleeder valve and bypass (NP1)
- Liquid end made of Plexiglas, self-bleeding for reliable metering of gas-emitting media (NS3).



Three liquid ends available for selection

important safety aspect for ensuring optimum operation of the ProMinent® CONCEPT series. For this reason, the ProMinent® CONCEPT metering pump features a connection facility for a level switch for monitoring the chemical supply. If low level is signalled, the pump switches off automatically and signals this status visually by means of a red multifunction indicator.

Reliability

The pumps are tested in stringent function and endurance tests under the most severe

practical conditions and under maximum load in order to ensure the ProMinent® CONCEPT series can be used effectively and efficiently even during continuous operation. In addition, this is backed by the use of only high quality, tested components as well as the comprehensive experience gained by ProMinent in all relevant areas of metering technology and water treatment. On this basis, you receive a two-year ProMinent® warranty covering reliability and safety.

System

To achieve a complete metering system, ProMinent offers a comprehensive range of accessories specially for use in water treatment applications:

Foot valves:	With intake filter and ball check valve for connection at end of intake line.
Metering valves:	With spring-loaded ball check valve for metering in open or closed systems and for securing metering line.
Multifunction valve:	For precision metering at low backpressure or as overflow safety valve.
Intake lances:	With foot valve and level switch for non-returnable packing drum or metering tank.
Metering tanks:	From 35 to 1000 l volume with lockable screw cap and necessary accessories.

In addition, a high degree of operational reliability and metering accuracy are achieved by the use of double ball valves on the intake and delivery sides as well as by the high quality DEVELOPAN® metering diaphragm with PTFE coating and large-area steel core.

Protection

Avoiding metering failure due to lack of chemicals is an



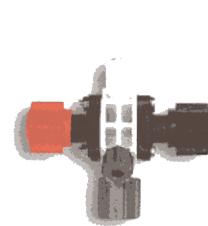
Metering tank



Metering valve



Foot valve



Multifunction valve



Intake lance

Technical Data

Pump type	Capacity at max. backpressure			Capacity at medium backpressure			Stroke rate	Connection side outside Ø x inside Ø	Intake head **	Shipping weight
	bar	l/h	ml/stroke	bar	l/h	ml/stroke				
CONCEPT							Strokes/min.	mm	m water column	approx. kg
CON b 1601	16	1.0	0.14	8	1.2	0.17	120	6 x 4	6	2.5
CON b 1201	12	1.7	0.24	6	1.9	0.27	120	6 x 4	6	2.5
CON b 0803	8	3.4	0.48	4	3.8	0.53	120	6 x 4	3	2.5
CON b 1002	10	2.3	0.32	5	2.6	0.36	120	8 x 5	6	2.7
CON b 0308	3	8.4	1.17	1.5	9.1	1.27	120	8 x 5	6	2.7
CON b 0215	1.5	14.8	2.05	1	15.8	2.20	120	12 x 9	1.5	2.9

CONCEPT metering pumps with self-bleeding liquid end*

CON b 1601	16	0.66	0.09	-	-	-	120	6 x 4	6	2.9
CON b 1201	12	1.0	0.14	-	-	-	120	6 x 4	6	2.9
CON b 0803	8	2.4	0.33	-	-	-	120	6 x 4	3	2.9
CON b 1002	10	1.8	0.25	-	-	-	120	6 x 4	6	2.9

* The specified capacity data are guaranteed minimum values determined with the medium water at room temperature.

** Intake head with liquid end and intake line filled.

Materials in contact with metered media:

	Liquid end	Intake/delivery connection	Seals	Balls
PP1 =	Polypropylene	Polypropylene	EPDM	Ceramic
NP1 =	Plexiglas	PVC	Viton	Ceramic
NP6 =	Plexiglas	PVC	Viton	Ceramic
NS3*** =	Plexiglas	PVC	Viton	Ceramic

*** NS3 with Hastelloy C valve spring, PVDF-coated, PVDF valve insert

DEVELOPAN® metering diaphragm with PTFE coating

Plexiglas (NP) and Viton (FPM) are registered trade marks.

Standard version - electrical connection 230 V, 50/60 Hz, average power intake approx. 16 W, max. power consumption approx. 1.0 A, type of protection IP 65, insulation class F, permissible ambient temperature -10 °C ... +45 °C, metering reproducibility ± 2%, when installed in accordance with operating instructions, ± 5% for type 1601 NS3.

Scope of delivery - with 2 m long power cable with plug connector and hose connection kit. On request with foot valve and metering valve in appropriate size and material version as well as other connection voltages and disturbance signalling relay as specified in accordance with identity code order.

Addresses and delivery information from the manufacturer:
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