DIN EN ISO 9001
70 100 M 502

ProMinent EXtronic® METERING PUMPS

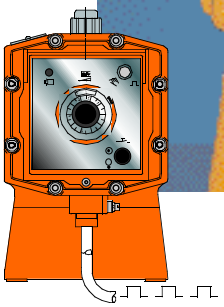
ProMinent®

Exact Metering with EX-Protection

Tested and approved

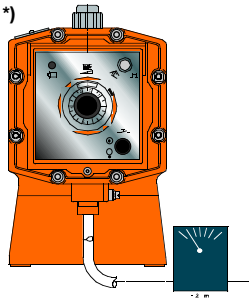
Metering liquid media in hazardous locations renders exacting demands on the components used. The design as well as material selection must satisfy the most demanding requirements with regard to reliability in permanent operation, operational safety, precision and operating convenience.

The ProMinent EXtronic® series metering pumps are well qualified to meet the requirements of this sensitive scope of applications. The EXBa E version is suitable for use in hazardous, explosive locations in compliance with Zone 1, Group II while the versions EXBa S is used for firedamp-prone mining applications, Group I. Their suitability is confirmed by testing and approval in compliance with the harmonised EC regulations of EN 50014/ 50018 for the type of protection "explosion-proof housing" as well as by the fact that they feature the highest protection classification of this type of protection and are therefore approved for gasses and vapours with an ignition temperature >85 °C.



Control type "internal":
Stroke length setting 1:10,
Stroke rate setting 4-100 %
Overall setting range 1:250

Control type "external contact":
Stroke length setting 1:10,
Stroke rate setting dependent on external switching contacts. *)



Control type "analog"
Stroke length setting 1:10,
Stroke rate setting proportional to analog signal 0/4-20 mA. *)

***) Electrical connection cables for power supply contact or analog control are provided already leading out of the pump.**

Photo: IFA

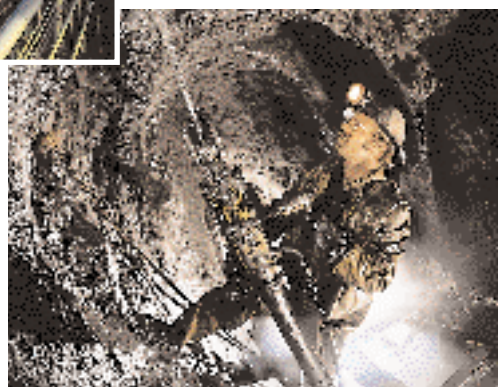
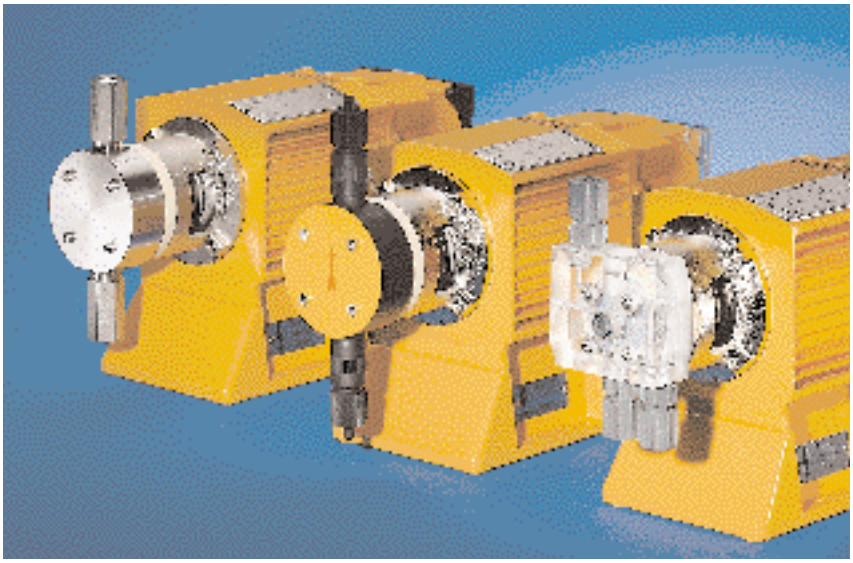


Photo: Tony Stone



The type of liquid end depends on the particular application.

The Technology

ProMinent EXtronic® metering pumps make available a capacity range from 0.23 l/h up to 60 l/h at backpressures of up to max. 25 bar and are suitable for operating voltages up to 500 V. Their microprocessor control ensures a high degree of operational and functional reliability as it compensates fluctuations in the mains voltage and switches over automatically from 50 to 60 Hz operation. Features such as short-stroke solenoid drive and complete pump control are integrated in the pump housing where the drive is not only ex-protected but, in addition to this, it also features contact and moisture protection IP 65 in compliance with DIN 40050 when the front cover is open. In the EXBa E version, the "external contact" and "analog" control inputs are available intrinsically safe and approved in accordance with EN 50020. The materials used for the ProMinent EXtronic® series ensure it achieves the highest degree of safety and operational reliability even under the most severe conditions. For instance, the tried and tested DEVELOPAN® metering diaphragm with PTFE base is used for the delivery unit. To suit varied requirements, the liquid ends are available in Plexiglas®, polypropylene, PTFE Teflon®, stainless steel 1.4571 or in SB version for combustible media. A range of self-bleeding liquid ends in Plexiglas and PVC can be selected for gas-emitting media. Exact setting of the metered quantity and precision reproducibility are achieved with the micrometer setting knob.

Materials in contact with metered medium

Version	Liquid end	Intake/delivery connection	Seals	Balls (6-12 mm connection)	Balls (DN 10 and DN 15 connection)
PP1	Polypropylene	Polypropylene	EPDM	Ceramic	Duran
PP4*	Polypropylene	Polypropylene	EPDM	–	Ceramic
NP1	Plexiglas	PVC	Viton A (FPM)	Ceramic	Duran
NS3**	Plexiglas	PVC	Viton B (FPM)	Ceramic	–
PS3**	PVC	PVC	Viton B (FPM)	Ceramic	–
TT1	PTFE with carbon	PTFE with carbon	PTFE	Ceramic	Ceramic
SS1/SB1	Stainless steel Material No. 1.4571	Stainless steel Material No. 1.4571	PTFE	Ceramic	Stainless steel Material No. 1.4401

* For higher viscosity media PP4 with Hastelloy C valve springs, only for type 1002, 1006, 1310 and 0814
** NS3 and PS3 with Hastelloy C valve spring, valve insert made of PVDF, only for type 1601, 1201, 0803, 1002

DEVELOPAN® metering diaphragm with PTFE base.
Plexiglas, Viton and Duran are registered trademarks.

Technical Data

	Capacity at max. backpressure			Capacity at medium backpressure			Stroke rate	Connection size	Intake head	Shipping weight PP, NP, TT-SS
Pump type EXtronic®	**bar**	**l/h**	**ml/ stroke**	**bar**	**l/h**	**ml/ stroke**	**Strokes/ min.**	**mm**	**m water column**	**approx. kg**
EXBa										
1000	10	0.23	0.032	5	0.3	0.042	120	6 x 4	1.5	12 - 16
1601	16	1.0	0.14	8	1.3	0.18	120	6 x 4	6	12 - 16
1201	12	1.7	0.23	6	2.0	0.28	120	6 x 4	6	12 - 16
0803	8	3.7	0.51	4	3.9	0.54	120	6 x 4	3	12 - 16
1002	10	2.3	0.31	5	2.7	0.38	120	8 x 5	6	12 - 16
0308	3	8.6	1.20	1.5	10.3	1.43	120	8 x 5	6	12 - 16
2502	25	2.0	0.28	20	2.2	0.31	120	8 x 5	6	13 - 17
1006	10	6.0	0.83	5	7.2	1.00	120	8 x 5	6	13 - 17
0613	6	13.1	1.82	3	14.9	2.07	120	8 x 5	5.5	13 - 17
0417	3.5	17.4	2.42	2	17.9	2.49	120	12 x 9	4.5	13 - 17
2505	25	4.2	0.64	20	4.8	0.73	110	8 x 5	6	16 - 20
1310	13	10.5	1.59	6	11.9	1.80	110	8 x 5	6	16 - 20
0814	8	14.0	2.12	4	15.4	2.33	110	12 x 9	6	16 - 20
0430	3.5	27.0	4.09	2	29.5	4.47	110	DN 10	5	16 - 20
0260	1.5	60.0	9.09	-	-	-	110	DN 15	1.5	16 - 20

Tests and approvals

Device type	**Explosion protection**	**Approval**
EXBaE	EEx d IIC T6	BVS 95.D.2021
EXBaE, intrinsically safe	EEx d [i,a] IIC T6	BVS 95.D.2021 X
EXBaS	EEx d I	BVS 94.C.1095 X
EXBaS	EEx d IIC T6	BVS 94.C.2055

Subject to technical modifications.
Printed in Germany / PT EX 003 2/99 GB

Address and delivery through manufacturer:
ProMinent Dosiertechnik GmbH
Im Schuhmachergewann 5-11
D-69123 Heidelberg
P.O. Box 10 17 60
D-69007 Heidelberg
Telephone: +49 (6221) 842-0
Fax: +49 (6221) 842-419
info@prominent.de · www.prominent.de