beta b Solenoid Diaphragm Metering Pump

Energy efficient and NSF approved



The ProMinent beta is a microprocessor-based diaphragm solenoid metering pump capable of flows from 0.16 to 8.45 gph (0.59 to 32 l/h) and pressures to 363 psi (25 bar).

Features and Benefits

- Certified to NSF/ANSI 61 (acrylic or PVDF liquid ends)
- 50% less power consumption
- Auto-degassing liquid ends ideal for off-gassing chemicals such as bleach
- Capable of handling up to 3000 cps of viscous media such as polymers
- Integral bleed valve eliminates priming issues
- Continuous monitoring of chemical supply with optional dual stage level switch
- Adjustable stroke length and stroke frequency
- Fault and pacing relays optional
- Standard external control via potential-free contacts with pulse step-up and step-down to adapt to existing signal transducers of 64:1 to 1:64
- (Optional) External control via standard 4-20 mA and potential-free contacts with pulse step-up and step-down of 32:1 to 1:32

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Technical Data

Pump type	Capacity at max. back pressure			Capacity at medium back pressure			Stroke rate	Connector size o Ø x i Ø	Suction lift*	Average power consumption	Shipping weight	
											PP, NP, PV, TT	SS
	psi	gph | l/h	ml/stroke	psi	gph | l/h	ml/stroke	Strokes/min	inch	ft | m WC	W	lb | kg	lb | kg
Metering pumps with non-self-bleeding dosing head												
BT4b 1000 **	145	0.2 | 0.74	0.07	73	0.22 | 0.82	0.08	180	1/4 x 3/16	20 | 6.0	7.2	6.4 | 2.9	7.9 | 3.6
BT4b 1601 **	232	0.29 | 1.1	0.10	116	0.37 | 1.4	0.13	180	1/4 x 3/16	20 | 6.0	9.6	6.4 | 2.9	7.9 | 3.6
BT4b 1602 **	232	0.58 | 2.2	0.20	116	0.66 | 2.5	0.24	180	1/4 x 3/16	20 | 6.0	11.2	6.4 | 2.9	7.9 | 3.6
BT4b 0708 **	102	1.88 | 7.1	0.66	51	2.22 | 8.4	0.78	180	1/2 x 3/8	13 | 4.0	15.2	6.8 | 3.1	8.6 | 3.9
BT4b 0220	29	5.02 | 19.0	1.76	15	5.52 | 20.9	1.94	180	1/2 x 3/8	7 | 2.0	15.2	7.3 | 3.3	9.7 | 4.4
BT4b 0413	58	3.25 | 12.3	1.14	29	3.75 | 14.2	1.31	180	1/2 x 3/8	10 | 3.0	15.2	6.8 | 3.1	8.6 | 3.9
BT4b 1604 **	232	0.95 | 3.6	0.33	116	1.14 | 4.3	0.40	180	1/4 x 3/16	16 | 5.0	15.2	6.8 | 3.1	8.6 | 3.9
BT5b 0232	29	8.45 | 32	2.96	15	9.56 | 36.2	3.35	180	1/2 x 3/8	7 | 2.0	19.2	11.2 | 5.1	14.5 | 6.6
BT5b 0420	58	4.52 | 17.1	1.58	29	5.05 | 19.1	1.77	180	1/2 x 3/8	10 | 3.0	19.2	10.4 | 4.7	12.8 | 5.8
BT5b 0713	102	2.91 | 11	1.02	51	3.46 | 13.1	1.21	180	1/2 x 3/8	10 | 3.0	19.2	9.9 | 4.5	11.7 | 5.3
BT5b 1008	145	1.8 | 6.8	0.63	73	2.19 | 8.3	0.76	180	1/2 x 3/8	10 | 3.0	19.2	9.9 | 4.5	11.7 | 5.3
BT5b 2504	363 ***	0.77 | 2.9	0.27	145	1.32 | 5.0	0.46	180	8 x 4 mm ****	13 | 4.0	19.2	9.9 | 4.5	11.7 | 5.3
Metering pumps with self-degassing dosing head (dosing head design 7)												
BT4b 1602 **	145	0.37 | 1.4	0.13	116	0.45 | 1.7	0.16	180	1/4 x 3/16	6 | 1.8	11.2	6.4 | 2.9	-
BT4b 1604 **	145	0.71 | 2.7	0.25	116	0.95 | 3.6	0.33	180	1/4 x 3/16	6 | 1.8	15.2	6.8 | 3.1	-
BT4b 0220	29	4.28 | 16.2	1.50	15	4.76 | 18.0	1.67	180	1/2 x 3/8	7 | 2.0	15.2	7.3 | 3.3	-
BT4b 0413	58	2.85 | 10.8	1.00	29	3.33 | 12.6	1.17	180	1/2 x 3/8	6 | 1.8	15.2	6.8 | 3.1	-
BT4b 0708 **	102	1.74 | 6.6	0.61	51	1.98 | 7.5	0.69	180	1/2 x 3/8	6 | 1.8	15.2	6.8 | 3.1	-
BT5b 0713	102	2.77 | 10.5	0.97	51	3.25 | 12.3	1.14	180	1/2 x 3/8	6 | 1.8	19.2	9.9 | 4.5	-
BT5b 0420	58	4.12 | 15.6	1.44	29	4.6 | 17.4	1.61	180	1/2 x 3/8	6 | 1.8	19.2	10.4 | 4.7	-
BT5b 1008	145	1.66 | 6.3	0.58	73	1.98 | 7.5	0.69	180	1/2 x 3/8	6 | 1.8	19.2	9.9 | 4.5	-

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

** 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. More detailed information is available upon request.

*** 363 psi variant only available with dosing head material NP or SS

**** With stainless steel design, 6 mm connector width.

beta b metering pumps with dosing heads for higher-viscosity media have a 10 – 20 % lower capacity and are not self-priming with all feed chemicals. G 3/4-DN 10 connector with d 16-DN 10 hose nozzle.

All data calculated with water at 68 °F (20 °C).

Metering reproducibility: ± 2% when used according to the operating instructions.

Permissible ambient temperature 14 … 113 °F (–10 °C to +45 °C).

Degree of protection: IP 66, insulation class F

Scope of supply
Metering pump with mains cable, connector kit for hose/tube connector as per table.

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