

## 1.1 ProMinent® Beta b 4 & 5 Metering Pumps

### 1.1.1 ProMinent® Beta

The Beta range represents a new generation of ProMinent® solenoid diaphragm Metering Pumps. These micro-processor controlled pumps set new standards of operating safety and versatility: power surge compensation, wide-ranging power-supply adaptability, triple LED operating-status display and flexible control options, including external contact, volt-free ON/OFF control, and external frequency adjustment via volt-free contacts make these pumps ideal for the water treatment industry.

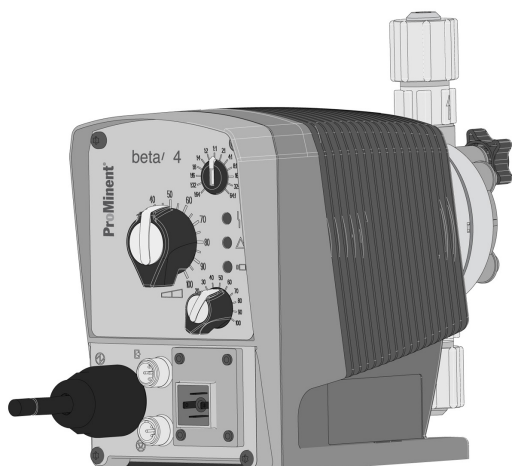
The 10 settings used to adjust dosing-frequency, along with “external”, “stop” and “test” settings are selected using a multi-function knob. Dosing heads are specifically designed in materials which withstand the chemicals used in this field: acids, alkalis, disinfectants, flocculation additives. In “test” mode, the pump operates at maximum frequency.

On release, the spring-loaded button returns to “stop”. Variable stroke length adjustment enables precise selection of dosing capacity.

These settings options result in accurate dosing, and precise reproducibility of the required frequency. High frequencies ensure thorough blending of chemicals. A longer stroke length and correct installation ensures reliable dosing of highly viscous liquids. Self-deaerating dosing heads are available for gaseous chemicals. To complete the safety package we offer an optional dual-setting level switch to monitor chemical levels in containers. The hard-wearing drive systems for these solenoid diaphragm pumps meet the usual ProMinent® high standards of quality. The housing is made from glass-fibre reinforced PPE and carries IP 65 protection.

Foot and injection valves and 7m tube pack are included as standard, (PP/PVC only). This universal pump offers an excellent cost of ownership ratio.

- Capacity range 0.74 - 32 l/h, 2 - 25 bar
- Continuous stroke length adjustment from 0 - 100 % (recommended 30-100%)
- Supplied in PP, PVC, Acrylic/PVC, PVDF, PTFE, stainless steel
- Patented coarse/fine, manual bleeding on PP, PVC and PVT Acrylic/PVC versions
- Self-deaerating dosing head type in PP and Plexi/PVC
- HV liquid end for highly viscous media
- 10-setting stroke frequency adjustment from 10 - 100 %
- External control via volt-free contacts
- External contact input with pulse control as standard 1:64 to 64:1
- Connector for dual-setting level switch
- 3 LED display for operation, warning and fault indication
- Wide range power supply 100-230 volt 50/60 Hz
- Milliamp input option 4-20 mA



# 1.1 ProMinent® Beta b 4 & 5 Metering Pumps

## 1.1.2 Technical Data

pump type	Max. Pump Capacity at Maximum Back Pressure			Max. Pump Capacity at Medium Back Pressure			Stroke Freq	Connector Sizes Outer R̄ x Inner R̄	Suction Lift**	Delivery Weight PP, NP PC, TT	SS
	bar	l/h	ml/stroke	bar	l/h	ml/stroke					
BT4b 1000	10	0.74	0.069	5.0	0.82	0.076	180	6 x 4	6.0**	2.9	3.6
BT4b 0700 ***	7	0.8	0.074	3.5	0.8	0.074	180	6 x 4	6.0**	2.9	3.6
BT4b 0400 ***	4	0.84	0.078	2.0	0.84	0.078	180	6 x 4	6.0**	2.9	3.6
BT4b 2001	20	0.96	0.089	10.0	1.5	0.13	180	6 x 3	6.0**	3.1	3.9
BT4b 1601	16	1.1	0.10	8.0	1.4	0.13	180	6 x 4	6.0**	3.1	3.9
BT4b 1001 ***	10	1.3	0.12	5.0	1.5	0.14	180	6 x 4	6.0**	3.1	3.9
BT4b 0701 ***	7	1.4	0.13	3.5	1.5	0.14	180	6 x 4	6.0**	3.3	4.4
BT4b 0401 ***	4	1.5	0.14	2.0	2.0	0.18	180	6 x 4	6.0**	2.9	3.6
BT4b 2002	20	1.7	0.16	2.8	0.26	0.13	180	6 x 3	6.0**	2.9	3.6
BT4b 1602	16	2.2	0.20	8.0	2.5	0.24	180	6 x 4	6.0**	2.9	3.6
BT4b 1002 ***	10	2.4	0.22	5.0	2.8	0.26	180	6 x 4	6.0**	3.1	3.9
BT4b 0702 ***	7	2.6	0.24	3.5	3.1	0.29	180	6 x 4	6.0**	3.1	3.9
BT4b 0402 ***	4	2.8	0.26	2.0	3.9	0.36	180	6 x 4	3.0**	3.1	3.9
BT4b 1604	16	3.6	0.33	8.0	4.3	0.40	180	6 x 4	2.0**	3.3	4.4
BT4b 1004 ***	10	3.9	0.36	5.0	4.7	0.44	180	6 x 4	5.0**	2.9	3.6
BT4b 0704 ***	7	4.2	0.39	3.5	5.1	0.47	180	6 x 4	5.0**	2.9	3.6
BT4b 0404 ***	4	4.5	0.42	2.0	5.6	0.52	180	6 x 4	5.0**	2.9	3.6
BT4b 0708	7	7.1	0.66	3.5	8.4	0.78	180	8 x 5	6.0**	3.1	3.9
BT4b 0408 ***	4	8.3	0.77	2.0	10.0	0.93	180	8 x 5	4.0**	3.1	3.9
BT4b 0413	4	12.3	1.14	2.0	14.2	1.31	180	8 x 5	3.0**	2.9	3.6
BT4b 0220	2	19.0	1.76	1.0	20.9	1.94	180	12 x 9	2.0**	2.9	3.6
BT5b 2504	25	2.9	0.27	12.5	3.7	0.34	180	8 x 4	4.0**	3.1	3.9
BT5b 1008	10	6.8	0.63	5.0	8.3	0.76	180	8 x 5	3.0**	3.3	4.4
BT5b 0713	7	11.0	1.02	3.5	13.1	1.21	180	8 x 5	3.0**	4.5	5.3
BT5b 0420	4	17.1	1.58	2.0	19.1	1.77	180	12 x 9	3.0**	4.7	5.8
BT5b 0232	2	32.0	2.96	1.0	36.2	3.35	180	12 x 9	2.0**	5.1	6.6

### Beta b® Metering Pumps with self-bleeding dosing head \*

BT4b 1601	16	0.59	0.055	8.0	0.80	0.072	180	6 x 4	1.8**	2.9	-
BT4b 1001	10	0.72	0.067	5.0	0.60	0.08	180	6 x 4	2.1**	2.9	-
BT4b 0701	7	0.84	0.078	3.5	1.12	0.10	180	6 x 4	2.7**	3.1	-
BT4b 0401	4	0.90	0.083	2.0	1.2	0.11	180	6 x 4	2.0**	3.1	-
BT4b 2002	20	0.78	0.07	10.0	1.8	0.17	180	6 x 3	2.0**	3.1	-
BT4b 1602	16	1.4	0.13	8.0	1.74	0.174	180	6 x 4	2.0**	3.3	-
BT4b 1002	10	1.7	0.16	5.0	2.0	0.072	180	6 x 4	1.8**	2.9	-
BT4b 0702	7	1.8	0.17	3.5	2.2	0.20	180	6 x 4	2.1**	2.9	-
BT4b 0402	4	2.1	0.19	2.0	2.5	0.23	180	6 x 4	2.7**	3.1	-
BT4b 1604	16	2.7	0.25	8.0	3.6	0.33	180	6 x 4	2.0**	3.1	-
BT4b 1004	10	3.3	0.30	5.0	3.9	0.36	180	6 x 4	2.0**	3.1	-
BT4b 0704	7	3.6	0.33	3.5	4.0	0.37	180	6 x 4	2.0**	3.3	-
BT4b 0404	4	3.9	0.36	2.0	4.2	0.39	180	6 x 4	1.8**	2.9	-
BT4b 0708	7	6.6	0.61	3.5	7.5	0.69	180	8 x 5	2.1**	2.9	-
BT4b 0408	4	7.5	0.64	2.0	8.1	0.77	180	8 x 5	2.7**	3.1	-
BT4b 0413	4	10.8	1.0	2.0	12.6	1.17	180	8 x 5	2.0**	3.1	-
BT4b 0220	2	16.2	1.50	1.0	18.0	1.67	180	12 x 9	2.0**	3.3	-
BT5b 1008	10	6.3	0.58	5.0	7.5	0.69	180	8 x 5	3.0**	4.5	-
BT5b 0713	7	10.5	0.97	3.5	12.3	1.14	180	8 x 5	2.5**	4.5	-
BT5b 0420	4	15.6	1.44	2.0	17.4	1.61	180	12 x 9	2.5**	4.7	-

Beta® pumps with liquid ends for highly viscous media have 10-20 % less metering capacity and are not self-priming.

G 3/4-DN connector with d16-DN10 nozzle union.

\* The values given in the capacity data tables are guaranteed minimum values, using medium hardness water at room temperature. Bypass bleed size 6x4 all sizes.

\*\* Suction lift readings when liquid end and suction tubing are full, or for self-degassing liquid end when the suction tubing contains air.

\*\*\* Reduced pressure 4, 7 and 10 bar pump types are available for specialised applications, e.g. for use in swimming pool systems.

\*\*\*\* 6 mm inner diameter in stainless steel version.

# 1.1 ProMinent® Beta b 4 & 5 Metering Pumps

## 1.1.3 Identity Code & Pricing for Beta b 4 & 5

### BT4b Beta version b

<b>BT4b</b> 1000,1601, 1602, 1604	PP	<b>BT5b</b> 1008, 0713, 0420	PP
also 2001* 1001, 0701, 0401	PV	also 2504*	PV
2002* 1002, 0702, 0402	NP		NP
1004, 0704, 0404	TT	<i>Note: 2504*, 2002*, 2001* only NP &amp; SS</i>	TT
	SS		SS
<b>BT4b</b> 0708, 0413, 0220	PP	<b>BT5b</b> 0232	PP
also 0408	PV		PV
	NP		NP
	TT		TT
	SS		SS

### Liquid End Materials / Seals \*\*\* Note: not all stocked \*\*\* 1004 ONLY available in NPT \*\*\*

- PPE** Polypropylene/EPDM
- PPB** Polypropylene/Viton (FPM-B) *not stocked FPM-B = Fluorine Rubber*
- NPE** Plexiglass/EPDM *not stocked*
- NPB** Plexiglass/Viton
- PVT** PVDF/PTFE, for L/E type 2 *not 0232* & type 4 *only 1004/1604, 0708/1008, 0413/0713, 0220/420*
- TTT** PTFE/PTFE
- SST** Stainless Steel 1.4571/PTFE

### Liquid End Version

- 0** Non bleed, no valve springs, *ONLY for TT, SS and type 0232 PVT & PPE*
- 1** Non bleed, with valve springs, *ONLY for TT, SS and type 0232*
- 2** Bleed function, no valve springs for PP, NP, & PVT only - *not type 0232 EXCEPT NPB2*
- 3** Bleed function, with valve springs for PP, NP, & PVT only - *not type 0232*
- 4** Version for highly viscous media, *Beta 4 only PVT type 1604, 0708, 0413, 0220*
- 9** Self bleed, (SEK) *for PP, NP only all sizes EXCEPT type 1000 and 0232*

### Design

- 0** Housing RAL 5003, Hood RAL 2003

### Hydraulic Connections

- 0** Standard according to technical data

### Logo

- 0** With ProMinent Logo

### Power Supply

- U** 100 - 230 V, ±10%, 50/60 Hz
- M** 12-24 V DC (only BT4b) with 2 m open-ended cable **ONLY**
- N** 24 V DC with 2 m open-ended cable **ONLY**

### Cable & Plug

- C** 2m Australian
- 1** 2m Open ended Cable for 12-24V pumps **ONLY**

### Relay

- 0** No Relay
- 1** Fault indicating relay (N/C) (changeover relay) **Preferred**
- 3** Fault indicating relay (N/O) (changeover relay)
- 4** As for 1 + pacing relay (1 input each)
- 5** As for 3 + pacing relay (1 input each)

### Accessories

- 0** No accessories
- 1** Tube FV & IV - **NOT for PTFE, SS or HV**

### Electronic Locking

- 0** No lock
- 1** With electronic lock

### Control Variant

- 0** Standard
- A** Milliamp

### Pause

- 0** Standard

### Options on Request

- 0** Standard

### Prepack Option

- P\*** See options -

### Prepacks = P\*

**P0** - includes 5m of delivery and 2m suction tube

**P2** - includes 5m of delivery and 2m suction tube  
a 2m Control Cable if required.

**P5** - as P2 but with 5m control Cable

**PX** - as P2 but with 10m control Cable

**Note:** 2504, 2001, 2002, 1601, 1602, 1605 pumps are supplied with 5.0m PTFE tube (in appropriate size) and fittings to suit, other tube is available on request.

BT4b1601PPE 2 0 0 0 U C 0 1 0 0 0 0 P0

# 1.1 ProMinent® Beta b 4 & 5 Metering Pumps

## 1.1.4 Technical Data & Identity Code for Beta b 4 & 5 – CAN Bus ONLY

pump type	Max. Pump Capacity at Maximum Back Pressure			Max. Pump Capacity at Medium Back Pressure			Stroke Freq	Connector Sizes Outer R̄ x Inner R̄	Suction Lift**	Delivery Weight PP, NP PC, TT	SS	
	bar	l/h	ml/ stroke	bar	l/h	ml/ stroke						strokes/ min.
Beta												
BT4a 1000***	10	0.74	0.07	5	0.82	0.08	180	6 x 4	6.0**	2.9	3.6	
BT4a 1601***	16	1.1	0.10	8	1.4	0.13	180	6 x 4	6.0**	2.9	3.6	
BT4a 1602***	16	2.1	0.19	8	2.5	0.24	180	6 x 4	6.0**	2.9	3.6	
BT4a 1005***	10	4.4	0.41	5	5.0	0.46	180	8 x 5****	6.0**	3.1	3.9	
BT4a 0708***	7	7.1	0.66	3.5	8.4	0.78	180	8 x 5	6.0**	3.1	3.9	
BT4a 0413	4	12.3	1.14	2	14.2	1.31	180	8 x 5	3.0**	3.1	3.9	
BT4a 0220	2	19.0	1.76	1	20.9	1.94	180	12 x 9	2.0**	3.3	4.4	
BT5a 1605	16	4.1	0.38	8	4.9	0.45	180	8 x 5****	6.0**	4.5	5.3	
BT5a 1008	10	6.8	0.63	5	8.3	0.76	180	8 x 5	6.0**	4.5	5.3	
BT5a 0713	7	11.0	1.02	3.5	13.1	1.21	180	8 x 5	4.0**	4.5	5.3	
BT5a 0420	4	17.1	1.58	2	19.1	1.77	180	12 x 9	3.0**	4.7	5.8	
BT5a 0232	2	32.0	2.96	1	36.2	3.35	180	12 x 9	2.0**	5.1	6.6	
<b>Beta a® Metering Pumps with self-bleeding dosing head *</b>												
BT4a 1601	16	0.59	0.06	8	0.78	0.07	180	6 x 4	1.8**	2.9	–	
BT4a 1602	16	1.4	0.13	8	1.7	0.16	180	6 x 4	2.1**	2.9	–	
BT4a 1005	10	3.6	0.33	5	4.0	0.37	180	8 x 5	2.7**	3.1	–	
BT4a 0708	7	6.6	0.61	3.5	7.5	0.69	180	8 x 5	2.0**	3.1	–	
BT4a 0413	4	10.8	1.00	2	12.6	1.17	180	8 x 5	2.0**	3.1	–	
BT4a 0220	2	16.2	1.50	1	18.0	1.67	180	12 x 9	2.0**	3.3	–	
BT5a 1605	16	3.3	0.31	8	3.8	0.35	180	8 x 5	3.0**	4.5	–	
BT5a 1008	10	6.3	0.58	5	7.5	0.69	180	8 x 5	3.0**	4.5	–	
BT5a 0713	7	10.5	0.97	3.5	12.3	1.14	180	8 x 5	2.5**	4.5	–	
BT5a 0420	4	15.6	1.44	2	17.4	1.61	180	12 x 9	2.5**	4.7	–	

**Beta® pumps with liquid ends for highly viscous media have 10-20 % less metering capacity and are not self-priming. G 3/4-DN connector with d16-DN10 nozzle union.**

\* The values given in the capacity data tables are guaranteed minimum values, using medium hardness water at room temperature. Bypass bleed size 6x4 all sizes.

\*\* Suction lift readings when liquid end and suction tubing are full, or for self-degassing liquid end when the suction tubing contains air.

\*\*\* Reduced pressure 4, 7 and 10 bar pump types are available for specialised applications, e.g. for use in swimming pool systems. Further information on request.

\*\*\*\* 6 mm inner diameter in stainless steel version.

## Materials on each Model in Contact with Chemicals

	Dosing head	Suction/pressure connector	Seals	Balls
PPE	Polypropylene	Polypropylene	EPDM	ceramic
PPB	Polypropylene	Polypropylene	FPM (Viton®)	ceramic
PCE	PVC	PVC	EPDM	ceramic
PCB	PVC	PVC	FPM (Viton®)	ceramic
NPE	Acrylic	PVC	EPDM	ceramic
NPB	Acrylic	PVC	FPM (Viton®)	ceramic
PVT	PVDF	PVDF	PTFE	ceramic
TTT	PTFE with carbon	PTFE with carbon	PTFE	ceramic
SST	stainless steel no. 1.4404	stainless steel no. 1.4404	PTFE	ceramic

Self-degassing version available in PP and NP only. Supplied with Hastelloy valve springs, PVDF valve core.

Dosing diaphragm with PTFE-coating.

Viton® is a registered trademark of DuPont Dow Elastomers.

Reproducible dosing accuracy ±2 % under correct conditions (see operating instructions).

Ambient temperature -10 °C to +45 °C.

Mean power consumption: Type 1000-0220: 17 W Type 1605-0232: 22 W

Type of enclosure: IP 65, insulation class F

**Metering Pumps supplied with mains power cable (2 m) and plug, hose/pipe connector set as tables.**

# 1.1 ProMinent® Beta b 4 & 5 Metering Pumps

## 1.1.5 Identity Code & Pricing Schedule for Beta b 4 & 5—CAN Bus ONLY

### BT4a Beta version a

<b>BT4a 1000, 1601, 1602,</b> also 0700, 0400 1001, 0701, 0401 1002, 0702, 0402	PPE PVT NPB TTT SST	<b>BT5a 1605, 1008, 0713, 0420</b>	PPE PVT NPB TTT SST
<b>BT4a 1005, 0708, 0413, 0220</b> also 0405, 0705 0408	PPE PVT NPB TTT SST	<b>BT5a 0232</b>	PPE PVT NPB TTT SST

### Liquid End Materials / Seals \*\*\* Note: not all stocked \*\*\*

<b>PPE</b>	Polypropylene/EPDM
<b>PPB</b>	Polypropylene/Viton (FPM-B) <i>not stocked</i> FPM-B = Fluorine Rubber
<b>NPE</b>	Plexiglass/EPDM <i>not stocked</i>
<b>NPB</b>	Plexiglass/Viton
<b>PVT</b>	PVDF/PTFE, for L/E type 2 <i>not 0232</i> & type 4 <i>only 1005/1605, 0708/1008, 0413/0713, 0220/420</i>
<b>TTT</b>	PTFE/PTFE
<b>SST</b>	Stainless Steel 1.4404/PTFE

### Liquid End Version

<b>0</b>	Non bleed, no valve springs, <b>ONLY available for TT, SS and type 0232 PVT &amp; PPE</b>
<b>1</b>	Non bleed, with valve springs, <b>ONLY available for TT, SS and type 0232 ONLY EXCEPT NPB2</b>
<b>2</b>	Bleed function, no valve springs for PP & PVT - <b>NOT type 0232</b>
<b>3</b>	Bleed function, with valve springs for PP, NP, & PVT - <b>NOT type 0232</b>
<b>4</b>	Version for highly viscous media, <i>only PVT type 1005, 1605, 0708, 1008, 0413, 0713, 0220, 0420</i>
<b>9</b>	Self bleed, (SEK) <b>for PP, NP only - NOT available for types 1000 and 0232 PP = E NP =</b>

### Hydraulic Connections

<b>0</b>	Standard according to technical data
----------	--------------------------------------

### Design

<b>0</b>	With ProMinent Logo
----------	---------------------

### Power Supply

<b>A</b>	200 - 230 V, ±10%, 50/60 Hz ***** CAN Bus ONLY *****
<b>U</b>	100 - 230 V, ±10%, 50/60 Hz ***** CAN Bus ONLY *****

### Cable & Plug

<b>C</b>	2m Australian
<b>1</b>	2m Open ended Cable for 12-24V pumps <b>ONLY</b>

### Relay

<b>0</b>	No Relay
<b>1</b>	Fault indicating relay (N/C) (changeover relay) <b>Preferred</b>
<b>3</b>	Fault indicating relay (N/O) (changeover relay)
<b>4</b>	As for 1 + pacing relay (1 input each)
<b>5</b>	As for 3 + pacing relay (1 input each)

### Accessories

<b>0</b>	No accessories
<b>1</b>	Tube FV & IV - <b>NOT for PTFE, SS or HV</b>

### Electronic Locking

<b>0</b>	No lock
<b>1</b>	With lock: manual operation locked when external cable is plugged in.

### Options on request

<b>D</b>	CANopen for Dulcomarin® II
----------	----------------------------

<b>0 0</b>	no option
------------	-----------

### Prepack Option

<b>P*</b>	See
-----------	-----

### Prepacks = P\*

**P0** - includes 5m of delivery and 2m suction tube a CANbus cable, if specified.

**Note:** 1601, 1602, 1605 pumps are supplied with 5.0m PTFE tube, other tube is available on request.

BT4a1601PPE 2 0 0 A C 0 1 0 0 0 0 P0

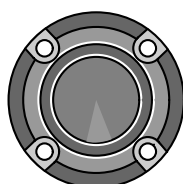
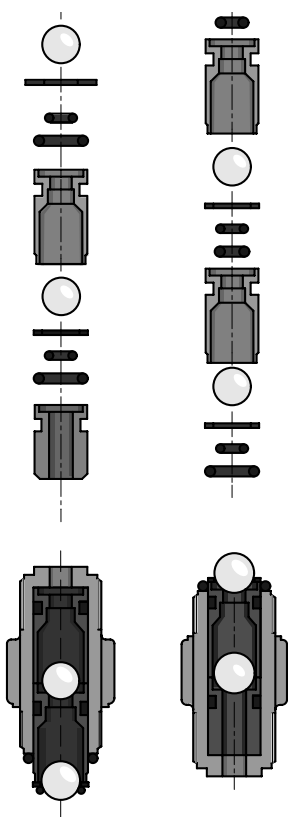
# 1.1 ProMinent® Beta b 4 & 5 Metering Pumps

## 1.1.6 Pricing Schedule for Beta 4b & 5b Spare Parts Sets

Replacement part sets for ProMinent® Beta, consisting of:

- 1 x dosing diaphragm
- 1 x suction valve
- 1 x discharge valve
- 1 x set seals
- 1 x connector set

**Note:** Does not include valves for SS



pk\_1\_008

### Spare parts kits Beta®

		Part No.
Type 1000	PPT, NPT, PVT	<b>1023107</b>
also: 0700, 0400	TTT	<b>1001737</b>
	SST	<b>1001729</b>
Type 1601	PPT, NPT, PVT	<b>1023108</b>
also: 2001, 1001, 0701, 0401	TTT	<b>1001738</b>
	SST	<b>1001730</b>
Type 1602	PPT, NPT, PVT	<b>1023109</b>
also: 2002, 1002, 0702, 0402	TTT	<b>1001739</b>
	SST	<b>1001731</b>
Type 1604	PPT, NPT, PVT	<b>1035332</b>
also: 2504, 1004, 0704, 0404	PVT HV	<b>1035342</b>
	TTT	<b>1035330</b>
	SST	<b>1035331</b>
Type 0708	PPT, NPT, PVT	<b>1023111</b>
also: 1008, 0408	PVT HV	<b>1019067</b>
	TTT	<b>1001741</b>
	SST	<b>1001733</b>
Type 0413	PPT, NPT, PVT	<b>1023112</b>
also: 0713	PVT HV	<b>1019069</b>
	TTT	<b>1001742</b>
	SST	<b>1001734</b>
Type 0220	PPT, NPT, PVT	<b>1023113</b>
also: 0420	PVT HV	<b>1019070</b>
	TTT	<b>1001754</b>
	SST	<b>1001735</b>
Type 0232	PPT, NPT, PVT	<b>1023124</b>
	TTT	<b>1001755</b>
	SST	<b>1001736</b>

# 1.1 ProMinent® Beta b 4 & 5 Metering Pumps

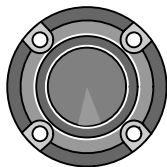
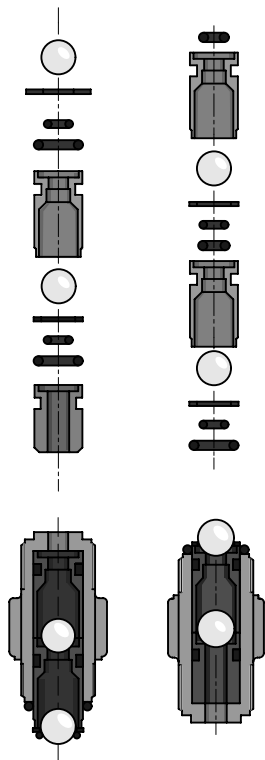
## 1.1.7 Pricing Schedule for Beta 4a & 5a Spare Parts Sets

Replacement part sets for ProMinent® Beta, consisting of:

- 1 x dosing diaphragm
- 1 x suction valve
- 1 x discharge valve
- 1 x set seals
- 1 x connector set

**Note:** Does not include valves for SS

**Note:** Gamma L Spare Parts Sets are the same as the Beta listed here.



pk\_1\_008

		Part No.
<b>BT4a/b 1000</b> also: 0700, 0400	PPE	1001644
	PPB	1001652
	PCE/NPE	1001713
	PCB/NPB	1001721
	PVT	1023107
	TTT	1001737
<b>BT4a/b 1601</b> also: 2001, 1001, 0701, 0401	SST	1001729
	PPE	1001645
	PPB	1001653
	PCE/NPE	1001714
	PCB/NPB	1001722
	PVT	1023108
<b>BT4a/b 1602</b> also: 2002, 1002, 0702, 0402	TTT	1001738
	SST	1001730
	PPE	1001646
	PPB	1001654
	PCE/NPE	1001715
	PCB/NPB	1001723
<b>BT4a/b 1604</b> also: 1004, 0704, 0404	PVT	1023109
	PVT/HV	1035342
	TTT	1001739
	SST	1001731
	PPE	1039989
	PPB	1039987
<b>BT4a 1005, &amp; BT5a 1605</b>	PCE/NPE	1039988
	PCB/NPB	1039986
	PVT	1035332
	TTT	1035330
	SST	1035331
	PPE	1001647
<b>BT4a/b 0708 &amp; BT5a/b 1008</b> also: 0408	PPB	1001655
	PCE/NPE	1001716
	PCB/NPB	1001724
	PVT	1023110
	PVT/HV	1019066
	TTT	1001740
<b>BT4a/b 0413 &amp; BT5a/b 0713</b>	SST	1001732
	PPE	1001648
	PPB	1001656
	PCE/NPE	1001717
	PCB/NPB	1001725
	PVT	1023111
<b>BT4a/b 0220 &amp; BT5a/b 0420</b>	PVT/HV	1019067
	TTT	1001741
	SST	1001733
	PPE	1001649
	PPB	1001657
	PCE/NPE	1001718
<b>BT5a/b 0232</b>	PCB/NPB	1001726
	PVT	1023112
	PVT/HV	1019069
	TTT	1001742
	SST	1001734
	PPE	1001650
	PPB	1001658
	PCE/NPE	1001719
	PCB/NPB	1001727
	PVT	1023113
	PVT/HV	1019070
	TTT	1001754
	SST	1001735
	PPE	1001651
	PPB	1001659
	PCE/NPE	1001720
	PCB/NPB	1001728
	PVT	1023124
	TTT	1001755
	SST	1001736

# 1.1 ProMinent® Beta b 4 & 5 Metering Pumps

## 1.1.7 Spare Parts Sets

### Replacement part set: Beta with self-deaerating head

#### Replacement part sets for ProMinent® Beta with self-deaerating head, consisting of:

- 1 x dosing diaphragm
- 1 x suction valve
- 1 x discharge valve
- 1 x bleed valve complete
- 2 x valve balls
- 1 x set seals
- 1 x connector set

**Note:** Does not include valves for SS

#### Beta/GALA

sizes of NP & PP  
Liquid Ends These no's  
engraved on side of  
Dosing Head

70 x 10	=	1000
70 x 12.5	=	1601
70 x 16.5	=	1602
70 x 20	=	1604
90 x 23	=	1005/1605
90 x 29	=	0708/1008
90 x 37	=	0413/0713
90 x 44	=	0220/0420
110 x 59	=	0232

		Part No.
<b>BT4a/b 1601</b>	PPE9	1001756
also: 2001, 1001, 0701, 0401	PPB9	1001762
	NPE9	1001660
	NPB9	1001666
<b>BT4a/b 1602</b>	PPE9	1001757
also: 2002, 1002, 0702, 0402	PPB9	1001763
	NPE9	1001661
	NPB9	1001667
<b>BT4a 1604</b>	PPE9	1035339
also: 1004, 0704, 0404	PPB9	1035336
	NPE9	1035333
	NPB9	1035334
<b>BT4a 1005, &amp; BT5a 1605</b>	PPE9	1001758
	PPB9	1001764
	NPE9	1001662
	NPB9	1001668
<b>BT4a/b 0708 &amp; BT5a/b 1008</b>	PPE9	1001759
also: 0408	PPB9	1001765
	NPE9	1001663
	NPB9	1001669
<b>BT4a/b 0413 &amp; BT5a/b 0713</b>	PPE9	1001760
	PPB9	1001766
	NPE9	1001664
	NPB9	1001670
<b>BT4a/b 0220 &amp; BT5a/b 0420</b>	PPE9	1001761
	PPB9	1001767
	NPE9	1001665
	NPB9	1001671

### Replacement diaphragms for beta & Gamma L range

dia.	Model		
30.0	BT4a 1000	all materials	1000244
29.5	BT4a 1601	all materials	1000245
34.5	BT4a 1602	all materials	1000246
35.0	BT4b 1604 1004 & 2504	all materials	1034612
45.0	BT4a 1005 & BT5a 1605	all materials	1000247
45.5	BT4a 0708 & BT5a 1008	all materials	1000248
55.0	BT4a 0413 & BT5a 0713	all materials	1000249
76.0	BT4a 0220 & BT5a 0420	all materials	1000250
91.0	BT5a 0232	all materials	1000251

### Replacement O-ring kits for beta & Gamma L range

PPE2 1000, 1601, 1602, 1005, 1605	EPDM	1001775
0708, 0413, 1008, 0713, 0220, 0420, 0232	EPDM	1001776
NPB2 & PPB2 1000, 1601, 1602, 1005, 1605	Viton	1001773
0708, 0413, 1008, 0713, 0220, 0420, 0232	Viton	1001774
PPE9 1601, 1602, 1005, 1605	EPDM	1001674
0708, 0413, 1008, 0713, 0220, 0420, 0232	EPDM	1001675
NPB9 1601, 1602, 1005, 1605	Viton	1001672
0708, 0413, 1008, 0713, 0220, 0420, 0232	Viton	1001673