

2.6 ProMinent® Hydro Hydraulic Diaphragm Metering Pumps

2.6.2 Technical Data Hydro/ 2 & Hydro/ 3

	Type HP2aH				With motor 1500 rpm at 50 Hz				With motor 1800 rpm at 60 Hz			
	Delivery rate at max. back pressure		Max. stroke rate		Delivery rate at max. back pressure		Max. stroke rate		Suction height	Perm. admiss. pressure suction side	Connection on suction/ pressure side	Shipping weight
	bar	l/h	ml/stroke	strokes/min	psi	l/h / gph	min	mWC	bar	G-DN	kg	
100003*	100	3	0.8	60	1,450	3.6/1.0	72	3.0	5	Rp 1/4	31	
100006*	100	6	0.8	125	1,450	7.0/1.8	150	3.0	5	Rp 1/4	31	
100007*	100	7	0.8	150	1,450	8.0/2.1	180	3.0	5	Rp 1/4	31	
100009*	100	9	0.8	187	1,450	11.0/2.9	224	3.0	5	Rp 1/4	31	
100010*	100	10	0.8	212	–	–	–	3.0	5	Rp 1/4	31	
064007	64	7	2.0	60	928	8.4/2.2	72	3.0	5	G 3/4-10	31	
064015	64	15	2.0	125	928	18.0/4.8	150	3.0	5	G 3/4-10	31	
064018	64	18	2.0	150	928	21.0/5.5	180	3.0	5	G 3/4-10	31	
064022	64	22	2.0	187	928	26.0/6.9	224	3.0	5	G 3/4-10	31	
064025	64	25	2.0	212	–	–	–	3.0	5	G 3/4-10	31	
025019	25	19	5.3	60	362	23.0/6.	172	3.0	5	G 3/4-10**	31	
025040	25	40	5.3	125	362	48.0/12.7	150	3.0	5	G 3/4-10**	31	
025048	25	48	5.3	150	362	58.0/15.3	180	3.0	5	G 3/4-10**	31	
025060	25	60	5.3	187	362	72.0/19.0	224	3.0	5	G 3/4-10**	31	
025068	25	68	5.3	212	–	–	–	3.0	5	G 3/4-10**	31	

Material version PVDF max. 25 bar.

* Material version SST/HCT with double ball valve, valve connection on suction/pressure side with internal thread Rp 1/4 and external, thread G 3/4-DN 10

** HV version for G1-DN 15 designed as standard

Material in contact with media

Material	Liquid End	Suction/Discharge connector	Seals/ball seat	Valve Balls
SST	stainless steel no. 1.4571/1.4404	stainless steel no. 1.4581	PTFE/ZrO2	stainless steel
PVT	PVDF (Polyvinylidenfluoride)	PVDF (Polyvinylidenfluoride)	PTFE/PTFE	ceramic
HCT	Hast. C	Hast. C	PTFE/Hast. C	ceramic

	Type HP3aH				With motor 1500 rpm at 50 Hz				With motor 1800 rpm at 60 Hz			
	Delivery rate at max. back pressure		Max. stroke rate		Delivery rate at max. back pressure		Max. stroke rate		Suction height	Perm. admiss. pressure suction side	Connection on suction/ pressure side	Shipping weight
	bar	l/h	stroke	min	psi	l/h / gph	min	mWC	bar	G-DN	kg	
100010*	100	10	2.8	60	1,450	12.0/3.2	72	3.0	5	Rp 3/8-10	41	
100021*	100	21	2.8	125	1,450	25.0/6.6	150	3.0	5	Rp 3/8-10	41	
100025*	100	25	2.8	150	1,450	30.0/7.9	180	3.0	5	Rp 3/8-10	41	
100041*	100	41	2.8	187	1,450	37.0/9.8	224	3.0	5	Rp 3/8-10	41	
100035*	100	35	2.8	212	–	–	–	3.0	5	Rp 3/8-10	41	
064019	64	19	5.3	60	928	23.0/6.1	72	3.0	5	G 3/4-10**	41	
064040	64	40	5.3	125	928	48.0/12.7	150	3.0	5	G 3/4-10**	41	
064048	64	48	5.3	150	928	58.0/15.3	180	3.0	5	G 3/4-10**	41	
064060	64	60	5.3	187	928	72.0/19.0	224	3.0	5	G 3/4-10**	41	
064068	64	68	5.3	212	–	–	–	3.0	5	G 3/4-10**	41	
025048	25	48	13.4	60	362	58.0/15.3	172	3.0	5	G 1-15***	41	
025100	25	100	13.4	125	362	120.0/31.7	150	3.0	5	G 1-15***	41	
025120	25	120	13.4	150	362	144.0/38.0	180	3.0	5	G 1-15***	41	
025150	25	150	13.4	187	362	180.0/47.6	224	3.0	5	G 1-15***	41	
025170	25	170	13.4	212	–	–	–	3.0	5	G 1-15***	41	

Material version PVDF max. 25 bar.

* Material version SST/HCT with double ball valve, valve connection on suction/pressure side, with internal thread Rp 3/8 and external, thread G 3/4-DN 10

** HV version for G1-DN 15 designed as standard

*** HV version for G1 1/4"-DN 20 connection

Material	Liquid End	Suction/Discharge connector	Seals/ball seat	Valve Balls
SST	stainless steel no. 1.4571/1.4404	stainless steel no. 1.4581	PTFE/ZrO2	stainless steel
PVT	PVDF (Polyvinylidenfluoride)	PVDF (Polyvinylidenfluoride)	PTFE/PTFE	ceramic
HCT	Hast. C	Hast. C	PTFE/Hast. C	ceramic



2.6

ProMinent® Hydro Hydraulic Diaphragm Metering Pumps

2.6.3

Identity Code Ordering System For Hydro/ 2 - SINGLE HEAD

HP2a Hydro/ 2

H Main power end

Pump type:

100003	100 bar, 3 litre
100006	100 bar, 6 litre
100007	100 bar, 7 litre
100009	100 bar, 9 litre
100010	100 bar, 10 litre

PVT Liquid End Maximum 25 Bar

Pump type:

064007	64 bar, 7 litre
064015	64 bar, 15 litre
064018	64 bar, 18 litre
064022	64 bar, 22 litre
064025	64 bar, 25 litre

Pump type:

025019	25 bar, 19 litre
025040	25 bar, 40 litre
025048	25 bar, 48 litre
025060	25 bar, 60 litre
025068	25 bar, 68 litre

Liquid end material:

PV	PVDF
SS	Stainless steel
HC	Hastalloy C

Seal material:

T	PTFE seal
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Positive displacement element:

0	Standard multi-layer diaphragm with rupture protection signal
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Liquid end version:

0	No valve springs
1	With valve springs
D	Double ball valve (only for SST & HCT 100003-100010)
H	HV-Version (only for SST version 025019-025060)

Hydraulic connector:

0	Standard threaded connector	SEE NOTE IN BOX BELOW
E	With DIN ISO flange	
F	With ANSI flange	

Version:

0	With ProMinent® logo
1	Without ProMinent® logo

Power supply:

S	3 ph. 230 V/400 V 50/60 Hz, 0.37kW
L	3 ph. 230 V/400 V 50 Hz (EExe, EExde) } See Enclosure Rating
P	3 ph. 230 V/400 V 60 Hz (EExe, EExde) } See Enclosure Rating
R	3ph, variable speed motor 4 pol. 230/400 V
V (0)	var. speed motor with integral speed control 230/1/50
V (2)	var. speed motor with integral speed control Exd

Enclosure rating:

0	IP 55
1	Exe motor version (ATEX-T3)
2	Exde motor version (ATEX-T4)

Stroke sensor:

0	No stroke sensor (standard)
1	Stroke sensor for explosion-proof applications

Stroke length adjustment:

0	Manual (standard)
1	With stroke positioning motor, 230V/50/60Hz
2	With stroke positioning motor, 115V/60Hz
B	With stroke control motor, 4...20 mA 230 V/50/60Hz
D	With stroke control motor, 4...20 mA 115 V/50/60Hz

Hydraulic oil:

0	Standard
1	Food products grade
2	Temp. < 10 °C

Note: For pumps 100003 to 100010 the connection size is 1/4" BSPF

Connection Sizes for PVDF

P0 064007 - 064015 - 064018 - 064022 - 064025
025019 - 025040 - 025048 - 025060 - 025068
1/2" Male BSPT PVDF adaptor

for SS

064007 - 064015 - 064018 - 064022 - 064025
025019 - 025040 - 025048 - 025060 - 025068
3/8" Female BSP insert and union nut

HP2a H 025060 SS T 0 0 0 0 S 0 0 0 0



2.6 ProMinent® Hydro Hydraulic Diaphragm Metering Pumps

2.6.4 Identity Code Ordering System For Hydro/ 2 - DOUBLE HEAD

HP2a Hydro/ 2 **NOTE: Capacities shown are per Head**

D Main power end, duplexed

Pump type:		Pump type:		Pump type:	
100003	100 bar, 3 litre	064007	64 bar, 7 litre	025019	25 bar, 19 litre x 2
100006	100 bar, 6 litre	064015	64 bar, 15 litre	025040	25 bar, 40 litre x 2
100007	100 bar, 7 litre	064018	64 bar, 18 litre	025048	25 bar, 48 litre x 2
100009	100 bar, 9 litre	064022	64 bar, 22 litre	025060	25 bar, 60 litre x 2
100010	100 bar, 10 litre	064025	64 bar, 25 litre	025068	25 bar, 68 litre x 2

PVT Liquid End Maximum 25 Bar

Liquid end material:

PV	PVDF
SS	Stainless steel
HC	Hastalloy C

Seal material:

T	PTFE seal
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Positive displacement element:

0	Standard multi-layer diaphragm with rupture protection signal
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Liquid end version:

0	No valve springs
1	With valve springs
D	Double ball valve (only for SST & HCT 100003-100010)
H	HV-Version (only for SST version 025019-025060)

Hydraulic connector:

0	Standard threaded connector	SEE NOTE IN BOX BELOW
E	With DIN ISO flange	
F	With ANSI flange	

Version:

0	With ProMinent® logo
1	Without ProMinent® logo

Power supply:

S	3 ph. 230 V/400 V 50/60 Hz, 0.37kW	
L	3 ph. 230 V/400 V 50 Hz (EExe, EExde)	} See Enclosure Rating
P	3 ph. 230 V/400 V 60 Hz (EExe, EExde)	} See Enclosure Rating
R	3ph, variable speed motor 4 pol. 230/400 V	
V (0)	var. speed motor with integral speed control 230/1/50	
V (2)	var. speed motor with integral speed control Exd	

Enclosure rating:

0	IP 55
1	Exe motor version (ATEX-T3)
2	Exde motor version (ATEX-T4)

Stroke sensor:

0	No stroke sensor (standard)
1	Stroke sensor for explosion-proof applications

Stroke length adjustment:

0	Manual (standard)
1	With stroke positioning motor, 230V/50/60Hz
2	With stroke positioning motor, 115V/60Hz
B	With stroke control motor, 4...20 mA 230 V/50/60Hz
D	With stroke control motor, 4...20 mA 115 V/50/60Hz

Hydraulic oil:

0	Standard
1	Food products grade
2	Temp. < 10 °C

Note: For pumps 100003 to 100010 the connection size is 1/4" BSPF

Connection Sizes for PVDF

P0 - 064007 - 064015 - 064018 - 064022 - 064025
025019 - 025040 - 025048 - 025060 - 025068
1/2" Male BSPT PVDF adaptor

for SS

064007 - 064015 - 064018 - 064022 - 064025
025019 - 025040 - 025048 - 025060 - 025068
3/8" Female BSP insert and union nut

HP2a D 025060 SS T 0 0 0 0 S 0 0 0 0



2.6 ProMinent® Hydro Hydraulic Diaphragm Metering Pumps

2.6.10 Spare Parts Kits

The spare parts kits generally contain the consumable components for the liquid ends.

Supplied as standard for SST material version

- 1 x dosing diaphragm
- 2 x valve balls
- 1 x seal set

Supplied as standard for PVT material version

- 1 x dosing diaphragm
- 1 x suction connector set
- 1 x discharge connector set
- 1 x seal set

Spare parts kits Hydro/ 2

Applies to identity code:

Type 100010, 100009, 100007, 100006, 100003,
064025, 064022, 064018, 064015, 064007,

		Part No.
FMH 25 - DN 10	PVT	1005548
	SST	1005549
	SST (with 2 valve set)	1005550

Applies to identity code:

Type 025068, 025060, 025048, 025040, 025019

FMH 60 - DN 10	PVT	1005552
	SST	1005553
	SST (with 2 valve set)	1005554

Spare parts kits Hydro/ 3

Applies to identity code:

Type 100035, 100031, 100025, 100021, 100010, 064068,
064060, 064048, 064040, 064019

		Part No.
FMH 60 - DN 10	PVT	1005552
	SST	1005553
	SST (with 2 valve set)	1005554

Applies to identity code:

Type 025170, 025150, 025120, 025100, 025048

FMH 150 - DN 15	PVT	1005556
	SST	1005557
	SST (with 2 valve set)	1005558

Pump Diaphragms PTFE/SS - 1.4404

FMH 25 applies to identity code:

Type 100010, 100009, 100007, 100006, 100003,
064025, 064022, 064018, 064015, 064007,

	Part No.
	1005545

FMH 60 applies to identity code:

Type 025068, 025060, 025048, 025040, 025019, 100035, 100031, 100025, 064068,
100021, 100010, 064060, 064048, 064040, 064019

	1005546
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FMH 150 applies to identity code:

025150, 025120, 025100, 025048

	1005547
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Pump Diaphragms PTFE/Hastalloy C covered with PTFE

FMH 25 applies to identity code:

064025, 064022, 064018, 064015, 064007

	Part No.
	1006481

FMH 60 applies to identity code:

025068, 025060, 025048, 025040, 025019, 064068, 064060, 064048, 064040, 064019

	1006482
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FMH 150 applies to identity code:

025170, 025150, 025120, 025100, 025048

	1006483
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