

# "V" series Metering Pumps

# Data Sheet



## Configuration Code

- Wall mounted
- Microprocessor technology
- Stroke speed adjustment
- Manual venting PVDF pump head
- All liquid ends (pump head, injection valve, foot filter) ....PVDF
- Enclosure .....PPO
- Environment temperature..... 10-45°C (55-113°F)
- Chemical temperature..... 0-50°C (32-122°F)
- Transportation and storage temperature ..... -10-50°C (14-122°F)
- Installation class .....II
- Pollution level .....2
- Audible noise.....70.4db(A)  
.....67.4db(A) silenced mod.  
.....66.4db(A) ultra-silenced mod.
- Protection degree .....IP65 (% working RU: 85%  
T<=40°C; 70% T=50°C - without condensing water)

MODEL		
CODE	MODEL	FUNCTION
CO	"VCO"	Constant pump with stroke speed (frequency) adjustment and a divider mode to reduce by 10 times the pump capacity.
CL	"VCL"	Constant pump with level control, stroke speed (frequency) adjustment and a divider mode to reduce by 10 times the pump capacity.
OG	"VCOG"	Constant pump with stroke speed (frequency) adjustment and a divider mode to reduce by 10 times the pump capacity. Double measurement scale (24h): 0-300 gr/day or 0-3000 gr/day.
LG	"VCLG"	Constant pump with level control, stroke speed (frequency) adjustment and a divider mode to reduce by 10 times the pump capacity. Double measurement scale (24h): 0-300 gr/day or 0-3000 gr/day.

CAPACITIES				
	V Models		Hoses	Pump head
<b>2001</b>	1 l/h at 20 bar	0.26 GPH at 290 PSI	4 x 8	J
<b>1802</b>	2 l/h at 18 bar	0.52 GPH at 261 PSI	4 x 8	K
<b>1804</b>	4 l/h at 18 bar	1.05 GPH at 261 PSI	4 x 8	K
<b>1502</b>	2 l/h at 15 bar	0.52 GPH at 217 PSI	4 x 6	K
<b>1504</b>	4 l/h at 15 bar	1.05 GPH at 217 PSI	4 x 6	K
<b>1505</b>	5 l/h at 15 bar	1.32 GPH at 217 PSI	4 x 6	K
<b>1004</b>	4 l/h at 10 bar	1.05 GPH at 145 PSI	4 x 6	K
<b>1005</b>	5 l/h at 10 bar	1.32 GPH at 145 PSI	4 x 6	K
<b>1010</b>	10 l/h at 10 bar	2.64 GPH at 145 PSI	4 x 6	K
<b>0706</b>	6 l/h at 7 bar	1.58 GPH at 101 PSI	4 x 6	K
<b>0510</b>	10 l/h at 5 bar	2.64 GPH at 72 PSI	4 x 6	K
<b>0512</b>	12 l/h at 5 bar	3.17 GPH at 72 PSI	4 x 6	K
<b>0501</b>	1 l/h at 5 bar	0.26 GPH at 72 PSI	4 x 6	J
<b>0408</b>	8 l/h at 4 bar	2.11 GPH at 58 PSI	4 x 6	K
<b>0310</b>	10 l/h at 3 bar	2.64 GPH at 43 PSI	4 x 6	K
<b>0217</b>	17 l/h at 2 bar	4.49 GPH at 29 PSI	6 x 8	K
<b>0116</b>	16 l/h at 1 bar	4.22 GPH at 14 PSI	6 x 8	K

Model **V** **CO** **2001** **4** **00** **00**

LIQUID ENDS								
	HEAD	ORINGS	VALVES		DIAPHRAGM	HOSES		VISCOSITY
			Body	Balls		Delivery	Suction	Max CPS
<b>1</b>	PVDF	FKM B	PVDF	Ceramic	PTFE	PE	PVC	100
<b>3</b>	PVDF	EPDM	PVDF	Ceramic	PTFE	PE	PVC	100
<b>4*</b>	PVDF	FKM B	PVDF	Ceramic	PTFE	PE	PVC	100
<b>5*</b>	PVDF	EPDM	PVDF	Ceramic	PTFE	PE	PVC	100
<b>V</b>	PP	FKM B	PP	Ceramic	PTFE	PVDF	PVC	100
<b>D</b>	PP	EPDM	PP	Ceramic	PTFE	PVDF	PVC	100
<b>W</b>	PP	Nytrile	PP	Ceramic	PTFE	PVDF	PVC	100

\* Use for capacities up to 1 l/h.

POWER SUPPLY	
<b>00</b>	230 VAC Schuko plug
<b>05</b>	230 VAC Australian plug
<b>01</b>	230 VAC without plug
<b>03</b>	115 VAC US plug
<b>04</b>	24 VAC without plug
<b>05</b>	12 VDC *
<b>07</b>	24 VDC

\* On some models only.



ISO 9001:2008  
ISO 14001:2004  
OHSAS 18001:2007



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Specifications subject to change without notice.  
EN R1-07-13

## Technical features

INFORMATION					
MODEL	Strokes speed		Power consumption at max flow (230 VAC)	Power consumption at max flow (115 VAC)	Weight
	min	max			
2001	18	180	16	13	2,2 KG (4.85 LBS)
1802	18	180	16	13	
1804	18	180	22	15	
1502	18	180	16	11	
1504	18	180	16	13	
1505	18	180	22	15	
1004	18	180	16	11	
1005	18	180	16	13	
1010	18	180	22	15	
0706	18	180	16	11	
0510	18	180	16	13	
0512	18	180	22	15	
0501	18	180	16	11	
0408	18	180	16	11	
0310	18	180	16	11	
0217	18	180	22	15	
0116	18	180	16	13	

CAPACITY							
MODEL	FLOW				cc per STROKE	Maximum pressure	
	min cc/h	max l/h	Min GPH	Max GPH		bar	PSI
1802	60	2	0,02	0,53	0,19	18	261
1804	120	4	0,03	1,1	0,37	18	261
1502	60	2	0,02	0,5	0,19	15	217
1504	120	4	0,03	1,1	0,37	15	217
1505	150	5	0,04	1,3	0,46	15	217
1004	120	4	0,03	1,1	0,37	10	145
1005	150	5	0,04	1,3	0,46	10	145
1010	300	10	0,08	2,6	0,93	10	145
0706	180	6	0,05	1,6	0,56	7	101
0510	300	10	0,08	2,6	0,93	5	72
0512	360	12	0,1	3,2	1,11	5	72
0501	30	1	0,01	0,3	0,09	5	72
0408	240	8	0,06	2,1	0,74	4	58
0310	300	10	0,08	2,64	0,93	3	43
0217	510	17	0,13	4,49	1,57	2	29
0116	480	16	0,13	4,2	1,48	1	14

FUSE		
MODEL	230 VAC	115 VAC
2001	1	500
1802	1	500
1804	1.25	630
1502	800	400
1504	1	500
1505	1.25	630
1004	800	400
1005	1	500
1010	1.25	630
0706	800	400
0510	1	500
0512	1.25	630
0501	800	400
0408	800	400
0310	800	400
0217	1.25	630
0116	1	500

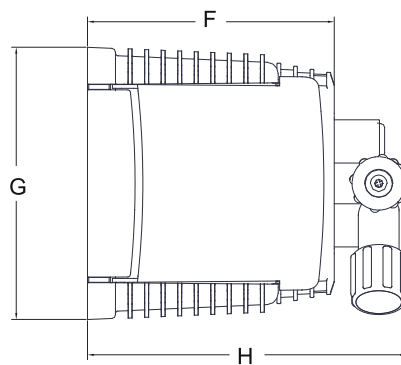
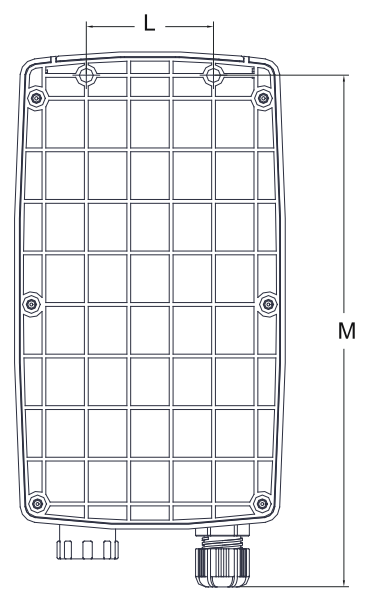
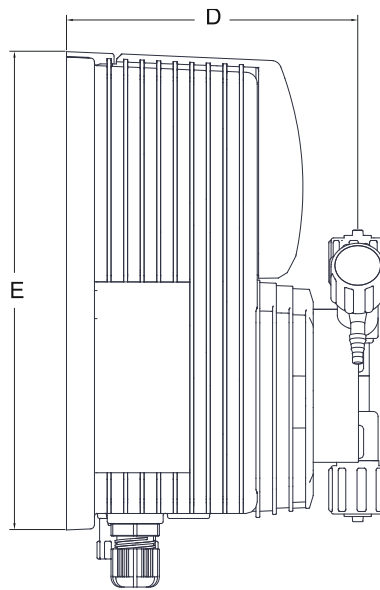
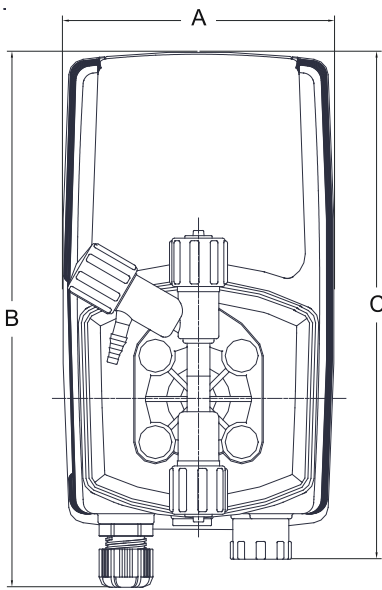
QUANTITY	PACKAGE CONTENT
n. 1	Assembly kit
n. 1	5 X 20 delayed fuse
n. 1	Level probe with axial foot filter (PVDF) (level probe not in CO model)
n. 1	0,3 Bar injection valve (PVDF)
m 2	Delivery hose
m 2	Suction hose
m 2	Discharge hose
n.1	Operating manual

POWER SUPPLY
230 VAC (190÷265 VAC)
115 VAC (90÷135 VAC)
24 VAC (20÷32 VAC)
12 VDC (10÷16 VDC)

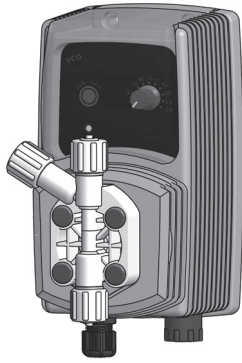
## Dimension

mm [inches]

DIMENSIONS		
	mm	inches
A	106.96	4.21
B	210.44	8.28
C	199.44	7.85
D	114.50	4.50
E	187.96	7.40
F	97.00	3.81
G	106.96	4.21
H	125.47	4.93
L	50.00	1.96
M	201.00	7.91



# "VA" Self Venting series Metering Pumps Data Sheet



- Wall mounted
- Microprocessor technology
- Stroke speed adjustment
- Self venting PVDF pump head
- All liquid ends (pump head, injection valve, foot filter) .... PVDF
- Enclosure ..... PPO
- Environment temperature..... 10-45°C (55-113°F)
- Chemical temperature..... 0-50°C (32-122°F)
- Transportation and storage temperature ..... -10-50°C (14-122°F)
- Installation class ..... II
- Audible noise..... 70.4db(A)
- ..... 67.4db(A) silenced mod.
- ..... 66.4db(A) ultra-silenced mod.
- Protection degree ..... IP65 (% working RU: 85% T<=40°C; 70% T=50°C - without condensing water)



## Configuration Code

MODEL		
CODE	MODEL	FUNCTION
AO	"VA CO"	Constant pump with stroke speed (frequency) adjustment and a divider mode to reduce by 10 times the pump capacity.
AL	"VA CL"	Constant pump with level control, stroke speed (frequency) adjustment and a divider mode to reduce by 10 times the pump capacity.

CAPACITIES				
	VA Models		Hoses	Pump head
<b>1802</b>	2 l/h at 18 bar	0.52 GPH at 261 PSI	4 x 8	KA
<b>1503</b>	3 l/h at 15 bar	0.79 GPH at 217 PSI	4 x 6	KA
<b>1501</b>	1 l/h at 10 bar	0.26 GPH at 217 PSI	4 x 6	KA
<b>103,4</b>	3,4 l/h at 10 bar	0.89 GPH at 145 PSI	4 x 6	KA
<b>1007</b>	7 l/h at 10 bar	1.84 GPH at 145 PSI	4 x 6	KA
<b>1002</b>	2 l/h at 10 bar	0.52 GPH at 145 PSI	4 x 6	KA
<b>100,5</b>	0,5 l/h at 10 bar	0.1 GPH at 145 PSI	4 x 6	JA
<b>0704</b>	4 l/h at 7 bar	1.05 GPH at 101 PSI	4 x 6	KA
<b>057,5</b>	7,5 l/h at 5 bar	1.98 GPH at 72 PSI	4 x 6	KA
<b>0509</b>	9 l/h at 5 bar	2,37 GPH at 72 PSI	4 x 6	KA
<b>045,5</b>	5,5 l/h at 4 bar	1.45 GPH at 58 PSI	4 x 6	KA
<b>0307</b>	7 l/h at 3 bar	1.84 GPH at 43 PSI	4 x 6	KA
<b>0213</b>	13 l/h at 2 bar	3.43 GPH at 29 PSI	6 x 8	KA
<b>0113,5</b>	13,5 l/h at 1 bar	3.56 GPH at 14 PSI	6 x 8	KA

Model V **AO** **1802** **4** **00** **00**

POWER SUPPLY	
<b>00</b>	230 VAC Schuko plug
<b>05</b>	230 VAC australian plug
<b>01</b>	230 VAC without plug
<b>03</b>	115 VAC US plug
<b>04</b>	24 VAC without plug
<b>05</b>	12 VDC *
<b>07</b>	24 VDC

\* On some models only.

LIQUID ENDS								
	HEAD	ORINGS	VALVES		DIAPHRAGM	HOSES		VISCOSITY Max CPS
			Body	Balls		Delivery	Suction	
<b>1</b>	PVDF	FKM B	PVDF	Ceramic	PTFE	PE	PVC	100
<b>3</b>	PVDF	EPDM	PVDF	Ceramic	PTFE	PE	PVC	100
<b>4*</b>	PVDF	FKM B	PVDF	Ceramic	PTFE	PE	PVC	100
<b>5*</b>	PVDF	EPDM	PVDF	Ceramic	PTFE	PE	PVC	100
<b>V</b>	PP	FKM B	PP	Ceramic	PTFE	PVDF	PVC	100
<b>D</b>	PP	EPDM	PP	Ceramic	PTFE	PVDF	PVC	100
<b>W</b>	PP	Nytrile	PP	Ceramic	PTFE	PVDF	PVC	100

\* Use for capacities up to 1 l/h.



ISO 9001:2008  
ISO 14001:2004  
OHSAS 18001:2007



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EN R1-03-16

# "VA" Self Venting series Metering Pumps Data Sheet

## Technical features

INFORMATION					
Models	Strokes speed		Power consumption at max flow (230 VAC)	Power consumption at max flow (115 VAC)	Weight
	min	max			
1802	18	180	22 Watt	15 Watt	2,2 KG (4.85 LBS)
1503	18	180	22 Watt	15 Watt	
1501	18	180	16 Watt	11 Watt	
103,4	18	180	16 Watt	13 Watt	
1007	18	180	22 Watt	15 Watt	
1002	18	180	16 Watt	11 Watt	
100,5	18	180	16 Watt	11 Watt	
0704	18	180	16 Watt	11 Watt	
057,5	18	180	16 Watt	13 Watt	
0509	18	180	22 Watt	15 Watt	
045,5	18	180	16 Watt	11 Watt	
0307	18	180	16 Watt	11 Watt	
0213	18	180	22 Watt	15 Watt	
0113,5	18	180	16 Watt	13 Watt	

CAPACITY						
Model	FLOW			cc per STROKE	Maximum pressure	
	min cc/h	max l/h	Max GPH		bar	PSI
1802	205,2	2	0,53	0,19	18	261
1503	302,4	3	0,79	0,28	18	217
1501	97,2	1	0,3	0,09	15	217
103,4	334,8	3,4	0,9	0,31	10	145
1007	702	7	1,8	0,65	10	145
1002	205,2	2	0,5	0,19	10	145
100,5	54	0,5	0,1	0,05	10	145
0704	399,6	4	1,1	0,37	7	101
057,5	745,2	7,5	2	0,69	5	72
0509	896,4	9	2,4	0,83	5	72
045,5	550,8	5,5	1,5	0,51	4	58
0307	702	7	1,8	0,65	3	43
0213	1296	13	3,4	1,2	2	29
0113,5	1350	13,5	3,6	1,25	1	14

QUANTITY	PACKAGE CONTENT
n. 1	Assembly kit
n. 1	5 X 20 delayed fuse
n. 1	Level probe with axial foot filter (PVDF) (level probe not in CO model)
n. 1	0,3 Bar injection valve (PVDF)
m 2	Delivery hose
m 2	Suction hose
m 2	Discharge hose
n.1	Operating manual

POWER SUPPLY
230 VAC (190-265 VAC)
115 VAC (90-135 VAC)
24 VAC (20-32 VAC)
12 VDC (10-16 VDC)

FUSE		
MODEL	230 VAC	115 VAC
1802	1.25 A	1.25 A
1503	1.25 A	1.25 A
1501	800 mA	800 mA
103,4	1 A	1 A
1007	1.25 A	1.25 A
1002	800 mA	800 mA
100,5	800 mA	800 mA
0704	800 mA	800 mA
057,5	1 A	1 A
0509	1.25 A	1.25 A
045,5	800 mA	800 mA
0307	800 mA	800 mA
0213	1.25 A	1.25 A
0113,5	1 A	1 A

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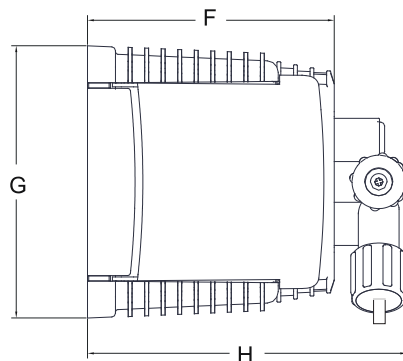
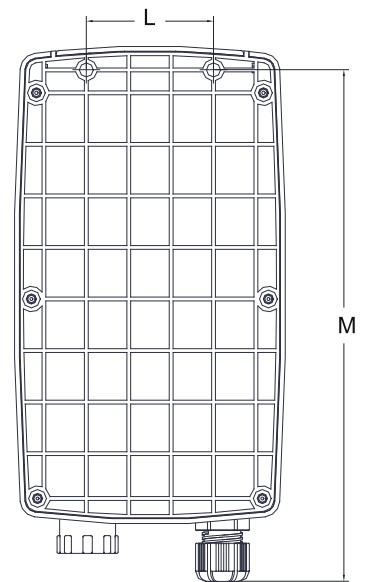
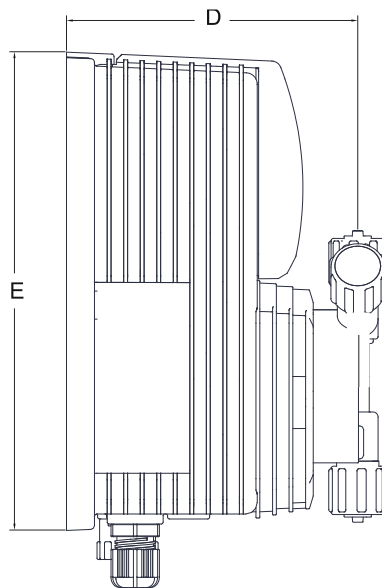
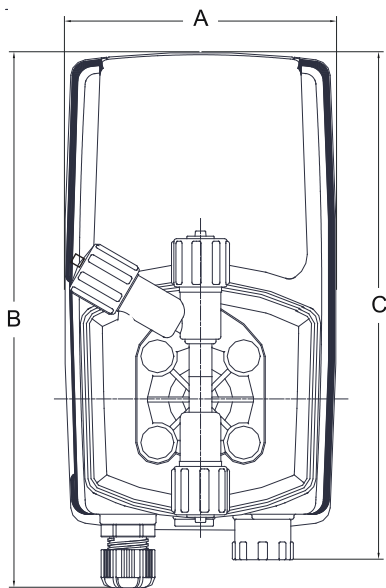
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EN R1-03-16

# "VA" Self Venting series Metering Pumps Data Sheet

## Dimension

mm [inches]

DIMENSIONS		
	mm	inches
A	106.96	4.21
B	210.44	8.28
C	199.44	7.85
D	114.50	4.50
E	187.96	7.40
F	97.00	3.81
G	106.96	4.21
H	125.47	4.93
L	50.00	1.96
M	201.00	7.91



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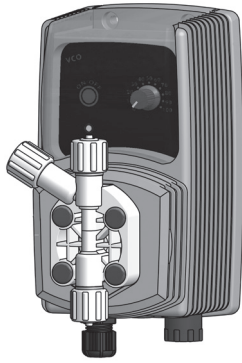
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EN R1-03-16

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- Microprocessor technology
- Stroke speed adjustment
- Self venting PVDF pump head
- All liquid ends (pump head, injection valve, foot filter) .... PVDF
- Enclosure ..... PPO
- Environment temperature..... 10-45°C (55-113°F)
- Chemical temperature..... 0-50°C (32-122°F)
- Transportation and storage temperature ..... -10-50°C (14-122°F)
- Installation class ..... II
- Audible noise..... 70.4db(A)
- ..... 67.4db(A) silenced mod.
- ..... 66.4db(A) ultra-silenced mod.
- Protection degree ..... IP65 (% working RU: 85% T<=40°C; 70% T=50°C - without condensing water)



## Configuration Code

MODEL		
CODE	MODEL	FUNCTION
AO	"VA CO"	Constant pump with stroke speed (frequency) adjustment and a divider mode to reduce by 10 times the pump capacity.
AL	"VA CL"	Constant pump with level control, stroke speed (frequency) adjustment and a divider mode to reduce by 10 times the pump capacity.

CAPACITIES				
	VA Models		Hoses	Pump head
<b>1802</b>	2 l/h at 18 bar	0.52 GPH at 261 PSI	4 x 8	KA
<b>1503</b>	3 l/h at 15 bar	0.79 GPH at 217 PSI	4 x 6	KA
<b>1501</b>	1 l/h at 10 bar	0.26 GPH at 217 PSI	4 x 6	KA
<b>103,4</b>	3,4 l/h at 10 bar	0.89 GPH at 145 PSI	4 x 6	KA
<b>1007</b>	7 l/h at 10 bar	1.84 GPH at 145 PSI	4 x 6	KA
<b>1002</b>	2 l/h at 10 bar	0.52 GPH at 145 PSI	4 x 6	KA
<b>100,5</b>	0,5 l/h at 10 bar	0.1 GPH at 145 PSI	4 x 6	JA
<b>0704</b>	4 l/h at 7 bar	1.05 GPH at 101 PSI	4 x 6	KA
<b>057,5</b>	7,5 l/h at 5 bar	1.98 GPH at 72 PSI	4 x 6	KA
<b>0509</b>	9 l/h at 5 bar	2,37 GPH at 72 PSI	4 x 6	KA
<b>045,5</b>	5,5 l/h at 4 bar	1.45 GPH at 58 PSI	4 x 6	KA
<b>0307</b>	7 l/h at 3 bar	1.84 GPH at 43 PSI	4 x 6	KA
<b>0113,5</b>	13,5 l/h at 1 bar	3.56 GPH at 14 PSI	6 x 8	KA

Model V **AO** **1802** **4** **00** **00**

POWER SUPPLY	
<b>00</b>	230 VAC Schuko plug
<b>05</b>	230 VAC australian plug
<b>01</b>	230 VAC without plug
<b>03</b>	115 VAC US plug
<b>04</b>	24 VAC without plug
<b>05</b>	12 VDC *
<b>07</b>	24 VDC

\* On some models only.

LIQUID ENDS								
	HEAD	ORINGS	VALVES		DIAPHRAGM	HOSES		VISCOSITY Max CPS
			Body	Balls		Delivery	Suction	
<b>1</b>	PVDF	FKM B	PVDF	Ceramic	PTFE	PE	PVC	100
<b>3</b>	PVDF	EPDM	PVDF	Ceramic	PTFE	PE	PVC	100
<b>4*</b>	PVDF	FKM B	PVDF	Ceramic	PTFE	PE	PVC	100
<b>5*</b>	PVDF	EPDM	PVDF	Ceramic	PTFE	PE	PVC	100
<b>V</b>	PP	FKM B	PP	Ceramic	PTFE	PVDF	PVC	100
<b>D</b>	PP	EPDM	PP	Ceramic	PTFE	PVDF	PVC	100
<b>W</b>	PP	Nytrile	PP	Ceramic	PTFE	PVDF	PVC	100

\* Use for capacities up to 1 l/h.



ISO 9001:2008  
ISO 14001:2004  
OHSAS 18001:2007



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# "VA" Self Venting series Metering Pumps Data Sheet

## Technical features

INFORMATION					
Models	Strokes speed		Power consumption at max flow (230 VAC)	Power consumption at max flow (115 VAC)	Weight
	min	max			
1802	18	180	22 Watt	15 Watt	2,2 KG (4.85 LBS)
1503	18	180	22 Watt	15 Watt	
1501	18	180	16 Watt	11 Watt	
103,4	18	180	16 Watt	13 Watt	
1007	18	180	22 Watt	15 Watt	
1002	18	180	16 Watt	11 Watt	
100,5	18	180	16 Watt	11 Watt	
0704	18	180	16 Watt	11 Watt	
057,5	18	180	16 Watt	13 Watt	
0509	18	180	22 Watt	15 Watt	
045,5	18	180	16 Watt	11 Watt	
0307	18	180	16 Watt	11 Watt	
0113,5	18	180	16 Watt	13 Watt	

CAPACITY						
Model	FLOW			cc per STROKE	Maximum pressure	
	min cc/h	max l/h	Max GPH		bar	PSI
1802	205,2	2	0,53	0,19	18	261
1503	302,4	3	0,79	0,28	18	217
1501	97,2	1	0,3	0,09	15	217
103,4	334,8	3,4	0,9	0,31	10	145
1007	702	7	1,8	0,65	10	145
1002	205,2	2	0,5	0,19	10	145
100,5	54	0,5	0,1	0,05	10	145
0704	399,6	4	1,1	0,37	7	101
057,5	745,2	7,5	2	0,69	5	72
0509	896,4	9	2,4	0,83	5	72
045,5	550,8	5,5	1,5	0,51	4	58
0307	702	7	1,8	0,65	3	43
0113,5	1350	13,5	3,6	1,25	1	14

QUANTITY	PACKAGE CONTENT
n. 1	Assembly kit
n. 1	5 X 20 delayed fuse
n. 1	Level probe with axial foot filter (PVDF) (level probe not in CO model)
n. 1	0,3 Bar injection valve (PVDF)
m 2	Delivery hose
m 2	Suction hose
m 2	Discharge hose
n.1	Operating manual

POWER SUPPLY
230 VAC (190-265 VAC)
115 VAC (90-135 VAC)
24 VAC (20-32 VAC)
12 VDC (10-16 VDC)

FUSE		
MODEL	230 VAC	115 VAC
1802	1.25 A	1.25 A
1503	1.25 A	1.25 A
1501	800 mA	800 mA
103,4	1 A	1 A
1007	1.25 A	1.25 A
1002	800 mA	800 mA
100,5	800 mA	800 mA
0704	800 mA	800 mA
057,5	1 A	1 A
0509	1.25 A	1.25 A
045,5	800 mA	800 mA
0307	800 mA	800 mA
0113,5	1 A	1 A

**EMEC**

ISO 9001:2008  
ISO 14001:2004  
OHSAS 18001:2007



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EN R1-03-16

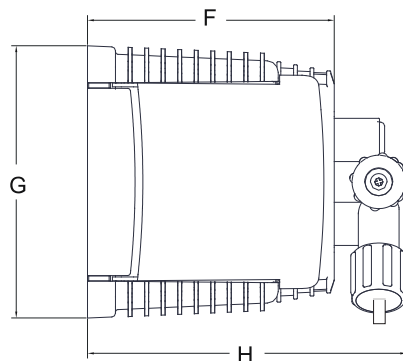
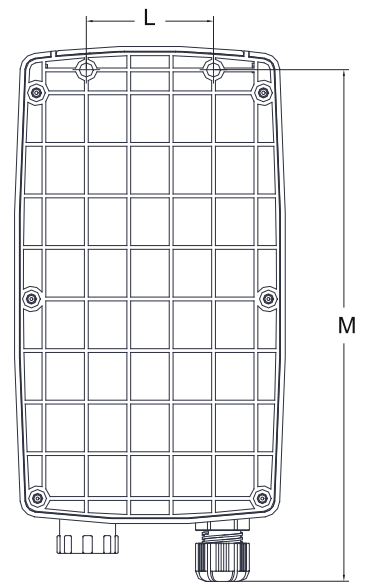
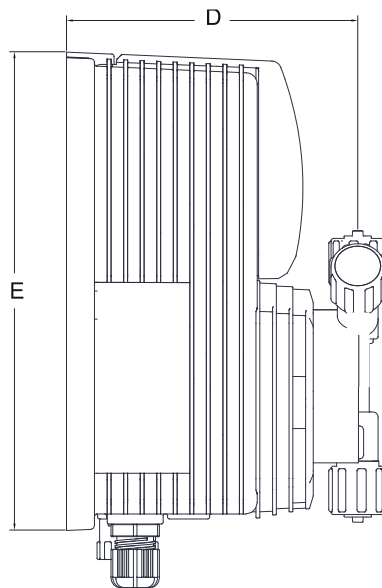
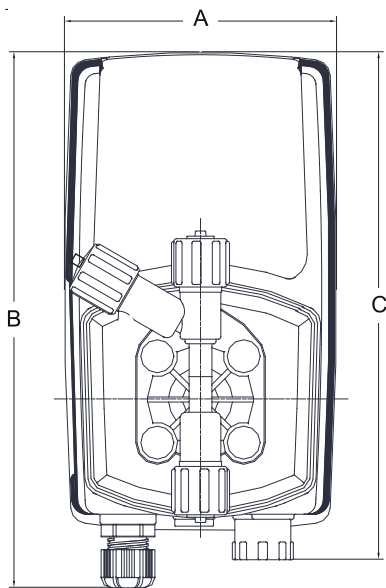


# "VA" Self Venting series Metering Pumps Data Sheet

## Dimension

mm [inches]

DIMENSIONS		
	mm	inches
A	106.96	4.21
B	210.44	8.28
C	199.44	7.85
D	114.50	4.50
E	187.96	7.40
F	97.00	3.81
G	106.96	4.21
H	125.47	4.93
L	50.00	1.96
M	201.00	7.91



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