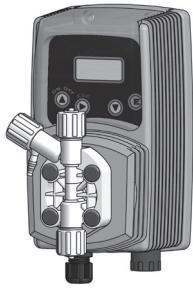


# "VMS" series Metering Pumps

## Data Sheet



- Wall mounted, with display
- Microprocessor technology
- Manual venting PVDF pump head
- All liquid ends (pump head, injection valve, foot filter) are in PVDF

Power supply:.....230 VAC (190-265 VAC) - 50/60 Hz  
 .....115 VAC (90-135 VAC) - 50/60 Hz  
 .....24 VAC (20-32 VAC) - 50/60 Hz  
 .....24 VDC (20-32 VDC)  
 .....12 VDC (10-16 VDC)

Pump Strokes .....0-180

Environment Temperature: .....0-45°C (32-113°F)

Chemical Temperature: .....0-50°C (32-122°F)

Packaging and Transporting Temperature: .....-10-50°C

Installation Class: .....II

Pollution Level: .....2

Audible Noise: .....70,4 db(A)

Protection Degree Rating: .....IP65 (% working RU: 85% T<=40°C; 70% T=50°C - without condensing water)

Max altitude: .....2000 m

VMS all models 12VDC equipped with 1Ω magnet then fuse is 5A T, with 3.5Ω magnet then fuse is 1,25A T  
 VMS all models 24VDC equipped with 1Ω magnet then fuse is 6.3A T, with 3.5Ω magnet then fuse is 2A

## Configuration Code

| MODEL |          |                                                                                                                                                                          |
|-------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CODE  | MODEL    | FUNCTION                                                                                                                                                                 |
| MF    | "VMS MF" | Digital multifunction pump (Constant, Divide, Multiply, PPM, Batch, Volt, mA, %, ml/q, timer), with level control. Recovery fault mode, work-pause mode and upkeep mode. |
| PH    | "VMS PH" | Proportional pump driven by internal built-in pH meter (0-14pH) and level control, supplied without probe. Also available with mA output (0/4 - 20 mA).                  |
| PO    | "VMS PO" | Proportional dosing pump with level control, driven by internal built-in pH or Redox (ORP) meter (electrode not included)..                                              |

| CAPACITIES |                  |                     |       |           |
|------------|------------------|---------------------|-------|-----------|
| VMS Models |                  |                     | Hoses | Pump head |
| 2001       | 1 l/h at 20 bar  | 0.26 GPH at 290 PSI | 4 x 8 | J         |
| 1802       | 2 l/h at 18 bar  | 0.52 GPH at 261 PSI | 4 x 8 | K         |
| 1804       | 4 l/h at 18 bar  | 1.05 GPH at 261 PSI | 4 x 8 | K         |
| 1502       | 2 l/h at 15 bar  | 0.52 GPH at 217 PSI | 4 x 6 | K         |
| 1504       | 4 l/h at 15 bar  | 1.05 GPH at 217 PSI | 4 x 6 | K         |
| 1505       | 5 l/h at 15 bar  | 1.32 GPH at 217 PSI | 4 x 6 | K         |
| 1004       | 4 l/h at 10 bar  | 1.05 GPH at 145 PSI | 4 x 6 | K         |
| 1005       | 5 l/h at 10 bar  | 1.32 GPH at 145 PSI | 4 x 6 | K         |
| 1010       | 10 l/h at 10 bar | 2.64 GPH at 145 PSI | 4 x 6 | K         |
| 0706       | 6 l/h at 7 bar   | 1.58 GPH at 101 PSI | 4 x 6 | K         |
| 0510       | 10 l/h at 5 bar  | 2.64 GPH at 72 PSI  | 4 x 6 | K         |
| 0512       | 12 l/h at 5 bar  | 3.17 GPH at 72 PSI  | 4 x 6 | K         |
| 0501       | 1 l/h at 5 bar   | 0.26 GPH at 72 PSI  | 4 x 6 | J         |
| 0408       | 8 l/h at 4 bar   | 2.11 GPH at 58 PSI  | 4 x 6 | K         |
| 0310       | 10l/h at 3 bar   | 2.64 GPH at 43 PSI  | 4 x 6 | K         |
| 0215       | 15/h at 2 bar    | 3.96 GPH at 29 PSI  | 6 x 8 | K         |
| 0116       | 16l/h at 1 bar   | 4.22 GPH at 14 PSI  | 6 x 8 | K         |

Model V MF 2001 4 00 00

| LIQUID ENDS |      |         |        |         |           |          |         |           |
|-------------|------|---------|--------|---------|-----------|----------|---------|-----------|
|             | HEAD | ORINGS  | VALVES |         | DIAPHRAGM | HOSES    |         | VISCOSITY |
|             |      |         | Body   | Balls   |           | Delivery | Suction |           |
| 1           | PVDF | FKM B   | PVDF   | Ceramic | PTFE      | PE       | PVC     | 100       |
| 2           | PVDF | EPDM    | PVDF   | Ceramic | PTFE      | PE       | PVC     | 100       |
| 4*          | PVDF | FKM B   | PVDF   | Ceramic | PTFE      | PE       | PVC     | 100       |
| 5*          | PVDF | EPDM    | PVDF   | Ceramic | PTFE      | PE       | PVC     | 100       |
| V           | PP   | FKM B   | PP     | Ceramic | PTFE      | PVDF     | PVC     | 100       |
| D           | PP   | EPDM    | PP     | Ceramic | PTFE      | PVDF     | PVC     | 100       |
| W           | PP   | Nytrile | PP     | Ceramic | PTFE      | PVDF     | PVC     | 100       |

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

| POWER SUPPLY |                         |
|--------------|-------------------------|
| 00           | 230 VAC Schuko plug     |
| 05           | 230 VAC australian plug |
| 01           | 230 VAC without plug    |
| 03           | 115 VAC US plug         |
| 04           | 24 VAC without plug     |
| 05           | 12 VDC *                |
| 07           | 24 VDC                  |

\* On some models only.

# "VMS" series Metering Pumps

## Data Sheet

### Technical features

| INFORMATION |               |     |                                         |                                         |                      |
|-------------|---------------|-----|-----------------------------------------|-----------------------------------------|----------------------|
| MODEL       | Strokes speed |     | Power consumption at max flow (230 VAC) | Power consumption at max flow (115 VAC) | Weight               |
|             | min           | max |                                         |                                         |                      |
| 2001        | 1             | 180 | 16                                      | 13                                      | 2,2 KG<br>(4.85 LBS) |
| 1802        | 1             | 180 | 16                                      | 13                                      |                      |
| 1804        | 1             | 180 | 22                                      | 15                                      |                      |
| 1502        | 1             | 180 | 16                                      | 11                                      |                      |
| 1504        | 1             | 180 | 16                                      | 13                                      |                      |
| 1505        | 1             | 180 | 22                                      | 15                                      |                      |
| 1004        | 1             | 180 | 16                                      | 11                                      |                      |
| 1005        | 1             | 180 | 16                                      | 13                                      |                      |
| 1010        | 1             | 180 | 22                                      | 15                                      |                      |
| 0706        | 1             | 180 | 16                                      | 11                                      |                      |
| 0510        | 1             | 180 | 16                                      | 13                                      |                      |
| 0512        | 1             | 180 | 22                                      | 15                                      |                      |
| 0501        | 1             | 180 | 16                                      | 11                                      |                      |
| 0408        | 1             | 180 | 16                                      | 11                                      |                      |
| 0310        | 1             | 180 | 16                                      | 11                                      |                      |
| 0215        | 1             | 180 | 16                                      | 13                                      |                      |
| 0116        | 1             | 180 | 16                                      | 13                                      |                      |

| CAPACITY |          |         |         |               |                  |     |
|----------|----------|---------|---------|---------------|------------------|-----|
| MODEL    | FLOW     |         |         | cc per STROKE | Maximum pressure |     |
|          | min cc/h | max l/h | Max GPH |               | bar              | PSI |
| 2001     | 0.09     | 1       | 0.26    | 0.09          | 20               | 290 |
| 1802     | 0.19     | 2       | 0.53    | 0.19          | 18               | 261 |
| 1804     | 0.37     | 4       | 1.06    | 0.37          | 18               | 261 |
| 1502     | 0.19     | 2       | 0.53    | 0.19          | 15               | 217 |
| 1504     | 0.37     | 4       | 1.06    | 0.37          | 15               | 217 |
| 1505     | 0.46     | 5       | 1.32    | 0.46          | 15               | 217 |
| 1004     | 0.37     | 4       | 1.06    | 0.37          | 10               | 145 |
| 1005     | 0.46     | 5       | 1.32    | 0.46          | 10               | 145 |
| 1010     | 0.93     | 10      | 2.64    | 0.93          | 10               | 145 |
| 0706     | 0.56     | 6       | 1.58    | 0.56          | 7                | 101 |
| 0510     | 0.93     | 10      | 2.64    | 0.93          | 5                | 72  |
| 0512     | 1.11     | 12      | 3.17    | 1.11          | 5                | 72  |
| 0501     | 0.09     | 1       | 0.26    | 0.09          | 5                | 72  |
| 0408     | 0.74     | 8       | 2.11    | 0.74          | 4                | 58  |
| 0310     | 0.93     | 10      | 2.64    | 0.93          | 3                | 43  |
| 0215     | 1.39     | 15      | 3.96    | 1.39          | 2                | 29  |
| 0116     | 1.48     | 16      | 4.23    | 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     |
| 0215  | 1.25    | 630     |
| 0116  | 1       | 500     |

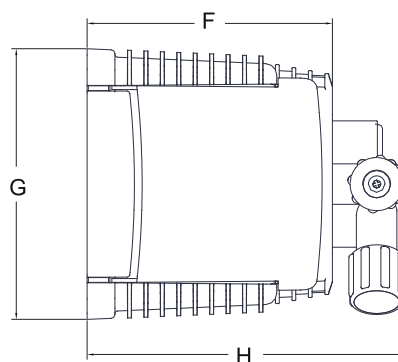
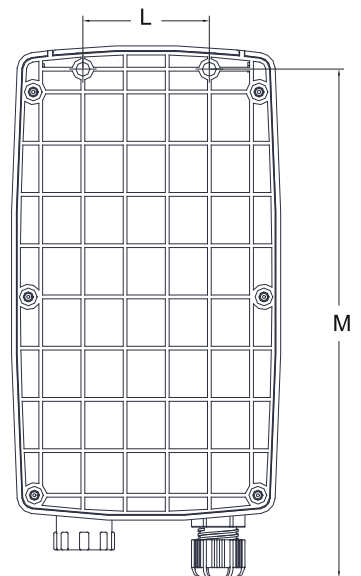
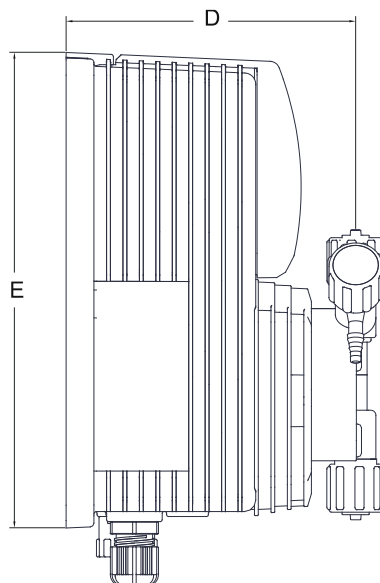
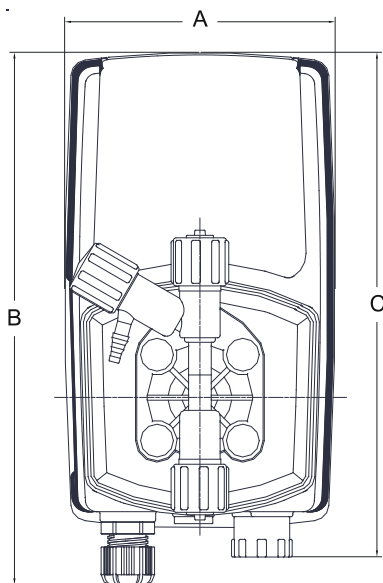
| QUANTITY | PACKAGE CONTENT                                                         |
|----------|-------------------------------------------------------------------------|
| n. 1     | Assembly kit                                                            |
| n. 1     | 5 X 20 delayed fuse                                                     |
| 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                                                          |
| m 2,5    | Input signal cable                                                      |
| 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

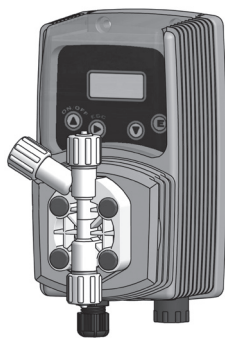
mm [inches]

| 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   |



# "VMSA" Self Venting series Metering Pumps

## Data Sheet



- Wall mounted, with display
- Microprocessor technology
- 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
- Pollution level ..... 2
- Audible noise..... 70.4db(A)
- Protection degree ..... IP65 (% working RU: 85% T<=40°C; 70% T=50°C - without condensing water)



## Configuration Code

| MODEL |           |                                                                                                                                                                   |
|-------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CODE  | MODEL     | FUNCTION                                                                                                                                                          |
| AF    | "VMSA MF" | Digital multifunction pump (Constant, Divide, Multiply, PPM, Batch, Volt, mA, %, ml/q), with level control. Recovery fault mode, work-pause mode and upkeep mode. |
| AO    | "VMSA PO" | Proportional pump driven by internal built-in pH meter (0-14pH) and level control, supplied without probe. Also available with mA output (0/4 - 20 mA).           |
| AN    | "VMSA EN" | Pump with weekly timer, microprocessor, digital controls, LCD display, level probe and electrovalve control.                                                      |

| CAPACITIES |                   |                     |       |           |
|------------|-------------------|---------------------|-------|-----------|
| V Models   |                   |                     | Hoses | Pump head |
| 1802       | 2 l/h at 18 bar   | 0.52 GPH at 261 PSI | 4 x 8 | KA        |
| 1503       | 3 l/h at 15 bar   | 0.79 GPH at 217 PSI | 4 x 6 | KA        |
| 1501       | 1 l/h at 10 bar   | 0.26 GPH at 217 PSI | 4 x 6 | KA        |
| 103,4      | 3,4 l/h at 10 bar | 0.89 GPH at 145 PSI | 4 x 6 | KA        |
| 1007       | 7 l/h at 10 bar   | 1.84 GPH at 145 PSI | 4 x 6 | KA        |
| 1002       | 2 l/h at 10 bar   | 0.52 GPH at 145 PSI | 4 x 6 | KA        |
| 0704       | 4 l/h at 7 bar    | 1.05 GPH at 101 PSI | 4 x 6 | KA        |
| 057,5      | 7,5 l/h at 5 bar  | 1.98 GPH at 72 PSI  | 4 x 6 | KA        |
| 0509       | 9 l/h at 5 bar    | 2.37 GPH at 72 PSI  | 4 x 6 | KA        |
| 045,5      | 5,5 l/h at 4 bar  | 1.45 GPH at 58 PSI  | 4 x 6 | KA        |
| 0307       | 7 l/h at 3 bar    | 1.84 GPH at 43 PSI  | 4 x 6 | KA        |
| 0212       | 12 l/h at 2 bar   | 3.2 GPH at 29 PSI   | 6 x 8 | KA        |
| 0113,5     | 13,5 l/h at 1 bar | 3.56 GPH at 14 PSI  | 6 x 8 | KA        |

Model V **AN** **1802** **4** **00** **00**

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

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

| POWER SUPPLY |                         |
|--------------|-------------------------|
| 00           | 230 VAC Schuko plug     |
| 05           | 230 VAC Australian plug |
| 01           | 230 VAC without plug    |
| 03           | 115 VAC US plug         |
| 04           | 24 VAC without plug     |
| 05           | 12 VDC *                |
| 07           | 24 VDC                  |

\* On some models only.

# "VMSA" Self Venting series Metering Pumps

## Data Sheet

### Technical features

| INFORMATION |                 |                   |                                            |                                            |                      |
|-------------|-----------------|-------------------|--------------------------------------------|--------------------------------------------|----------------------|
| Models      | Strokes speed   |                   | Power consumption<br>at max flow (230 VAC) | Power consumption<br>at max flow (115 VAC) | Weight               |
|             | min             | max               |                                            |                                            |                      |
|             | Strokes<br>hour | Strokes<br>minute |                                            |                                            |                      |
| 1802        | 1               | 180               | 22 Watt                                    | 15 Watt                                    | 2,2 KG<br>(4.85 LBS) |
| 1503        | 1               | 180               | 22 Watt                                    | 15 Watt                                    |                      |
| 1501        | 1               | 180               | 16 Watt                                    | 11 Watt                                    |                      |
| 103,4       | 1               | 180               | 16 Watt                                    | 13 Watt                                    |                      |
| 1007        | 1               | 180               | 22 Watt                                    | 15 Watt                                    |                      |
| 1002        | 1               | 180               | 16 Watt                                    | 11 Watt                                    |                      |
| 0704        | 1               | 180               | 16 Watt                                    | 11 Watt                                    |                      |
| 057,5       | 1               | 180               | 16 Watt                                    | 13 Watt                                    |                      |
| 0509        | 1               | 180               | 22 Watt                                    | 15 Watt                                    |                      |
| 045,5       | 1               | 180               | 16 Watt                                    | 11 Watt                                    |                      |
| 0307        | 1               | 180               | 16 Watt                                    | 11 Watt                                    |                      |
| 0212        | 1               | 180               | 16 Watt                                    | 13 Watt                                    |                      |
| 0113,5      | 1               | 180               | 16 Watt                                    | 13 Watt                                    |                      |

| MORE INFORMATION ABOUT VMSA MODELS |             |            |            |                  |                     |     |
|------------------------------------|-------------|------------|------------|------------------|---------------------|-----|
| Model                              | FLOW        |            |            | cc per<br>STROKE | Maximum<br>pressure |     |
|                                    | min<br>cc/h | max<br>l/h | Max<br>GPH |                  | bar                 | PSI |
| 1802                               | 0.19        | 2          | 0.53       | 0.19             | 18                  | 261 |
| 1503                               | 0.28        | 3          | 0.79       | 0.28             | 18                  | 217 |
| 1501                               | 0.09        | 1          | 0.26       | 0.09             | 15                  | 217 |
| 103,4                              | 0.31        | 3.4        | 0.9        | 0.31             | 10                  | 145 |
| 1007                               | 0.65        | 7          | 1.85       | 0.65             | 10                  | 145 |
| 1002                               | 0.19        | 2          | 0.53       | 0.19             | 10                  | 145 |
| 0704                               | 0.37        | 4          | 1.06       | 0.37             | 7                   | 101 |
| 057,5                              | 0.69        | 7.5        | 1.98       | 0.69             | 5                   | 72  |
| 0509                               | 0.83        | 9          | 2.38       | 0.83             | 5                   | 72  |
| 045,5                              | 0.51        | 5.5        | 1.45       | 0.51             | 4                   | 58  |
| 0307                               | 0.65        | 7          | 1.85       | 0.65             | 3                   | 43  |
| 0212                               | 1.11        | 12         | 3.17       | 1.11             | 2                   | 29  |
| 0113,5                             | 1.25        | 13.5       | 3.57       | 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) |
| n. 1     | 0,3 Bar injection valve (PVDF)            |
| m 2      | Delivery hose                             |
| m 2      | Suction hose                              |
| m 2      | Discharge hose                            |
| m 2,5    | Input signal cable                        |
| 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  |
| 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  |
| 0212   | 1.25 A  | 1.25 A  |
| 0113,5 | 1 A     | 1 A     |

# "VMSA" 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   |

