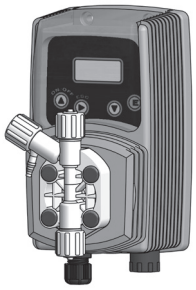
# "VMS" series Metering Pumps

# Data Sheet



- Wall mounted, with dispaly
- 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

| POWER SUPPLY | |
|---|---|
| 00 | 230 VAC Schuko plug |
| 0S | 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.

| LIQUID ENDS | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | HEAD | ORINGS | VALVES | | DIAPHRAGM | HOSES | | VISCOSITY |
| | | | Body | Balls | | Delivery | Suction | Max CPS |
| 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.

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# "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 (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) |

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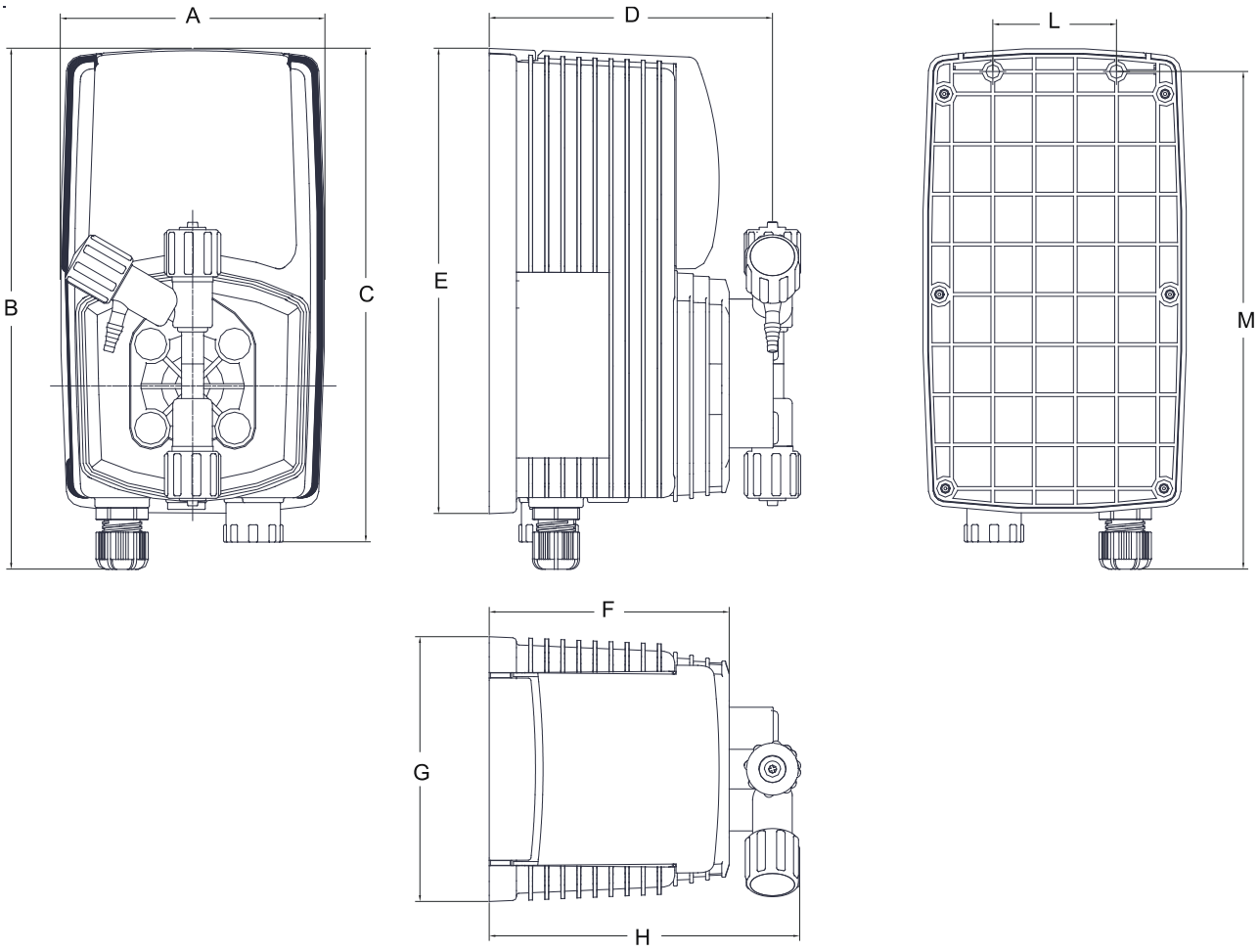
# Dimension

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 |

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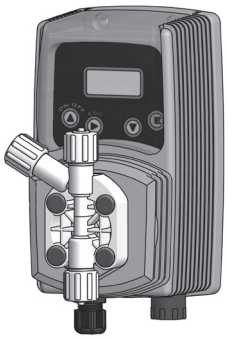
# "VMSA" Self Venting series Metering Pumps

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)

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## 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 |
| | | | Body | Balls | | Delivery | Suction | Max CPS |
| **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 |
| **0S** | 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.

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# "VMSA" 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 | | | |
| | Strokes hour | Strokes minute | | | |
| **1802** | 1 | 180 | 22 Watt | 15 Watt | 2,2 KG (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 STROKE | Maximum pressure | |
| | min cc/h | max l/h | Max 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 |

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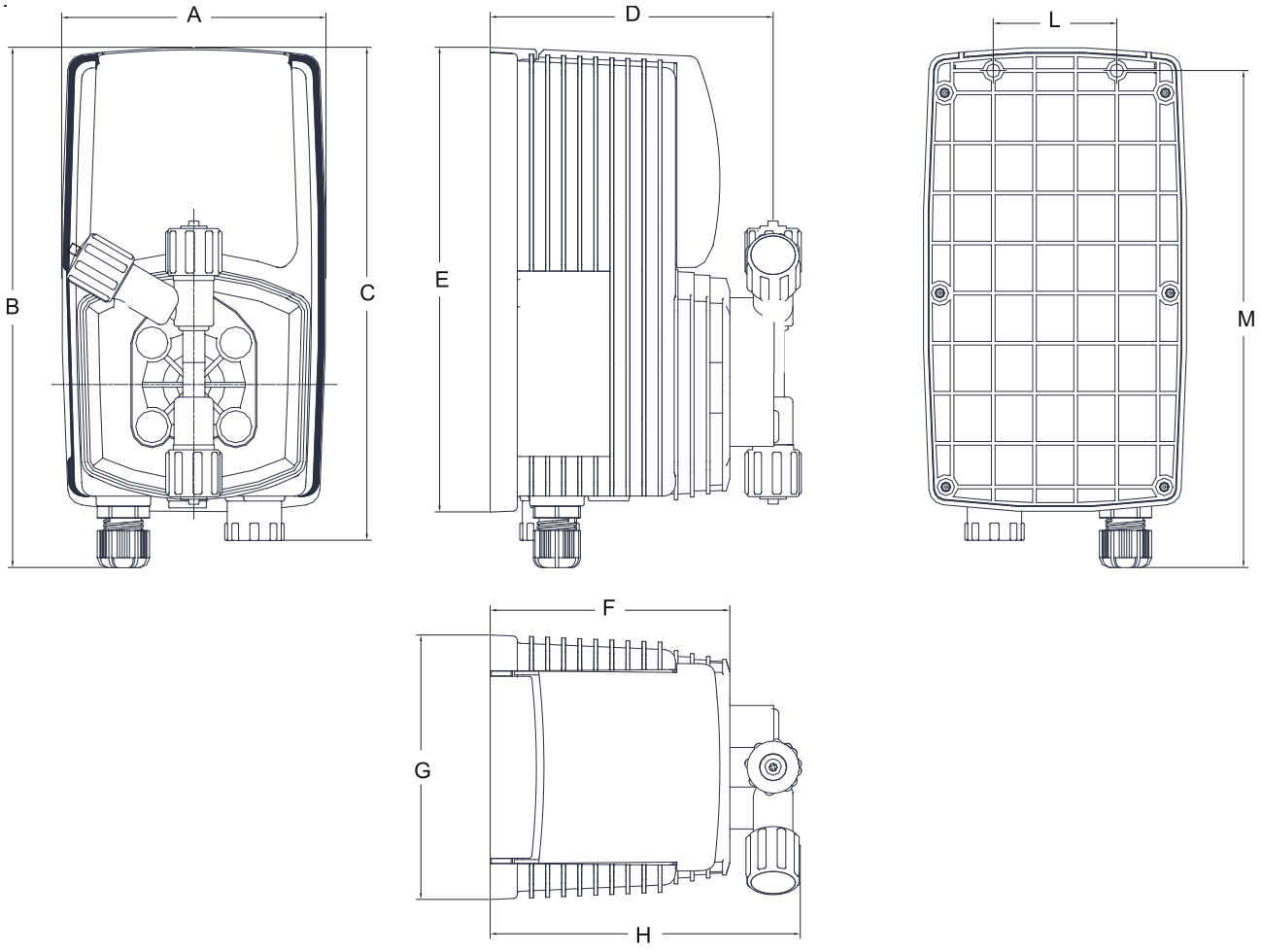
# "VMSA" Self Venting series
# Metering Pumps

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 |

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