

GENERAL

ALIAMAG The AMF900 Series is a flange type electromagnetic flowmeter ideal for conductive liquids. It comes in sizes from 10A to 2000 mm. AMF900 is widely used for sewage, industrial waste, chemical, solvent, food & beverage, pulp & paper and many other industrial fluid. AMF900 Series electromagnetic flowmeter could be used in compact or remote model with AMC Series converter of electromagnetic flowmeter.

FEATURES

- ❑ Various liner and electrode satisfy most industrial applications
- ❑ Flow Velocity range: 0-12 m/s, precise in low flow applications
- ❑ It comes any flanges such as, ANSI, DIN, JIS etc.
- ❑ Excellent for high pressure application
- ❑ Protection class: IP68 available; sensor submersible
- ❑ FEP Liner is suitable for vacuum tube
- ❑ High accuracy of +/-0.4% value of reading (or +/-0.2% value of reading)
- ❑ With Forward / Reverse flowrate measurement function
- ❑ It has electrode cleaning function

STANDARD SPECIFICATION

- | | | | |
|--------------------|--|-------------------------|--|
| ● Size | : 10A, 10, 15, 20, 25, 32, 40, 50, 65, 80, 100, 125, 150, 200, 250, 300, 350, 400, 450, 500, 600, 700, 800, 900, 1000, 1200, 1400, 1600, 1800, 2000 mm | ● Electrode & Grounding | : Stainless Steel 316L : Hastelloy B : Hastelloy C : Titanium : Tantalum : Platinum : Tungsten Carbide |
| ● Measuring Range | : Velocity 0-0.25 m/s Min. 0-12 m/s Max. | ● Grounding Electrode | : DN10A / 10: use Grounding Ring * 1 pc : DN15-2000: 3 Electrodes |
| ● Material | Measuring Tube : Stainless Steel 304 Flange : Carbon Steel (Standard) : Stainless Steel 304 (Option) : Stainless Steel 316, 316L (Option) Coil Housing : Carbon Steel (Standard) : Stainless Steel 304 (Option) : Stainless Steel 316, 316L (Option) | ● Process Connection | : Flange |
| ● Liner | : Polyurethane (25-400 mm) : Neoprene (100-2000 mm) : FEP (10A-300 mm) : PTFE (25-2000 mm) : PFA (10A-300 mm) | ● Flange Type | : JIS 10K / JIS 20K / JIS 40K ANSI 150# / ANSI 300# / ANSI 600# DIN PN10 / PN16 / PN25 / PN40 |
| ● Protection Class | : Junction box IP67, Body IP68 : IP68 (Submersible) | ● Grounding Resistance | : Must be less than 10 Ω |
| ● Conductivity | : More than 5 μS/cm | ● Accuracy | : +/-0.4% of reading (Velocity ≥ 0.5 m/s) : +/-0.0025 m/s (Velocity < 0.5 m/s) : +/-0.2% of reading (Suitable for AMC3200 / 3200E converter) |
| ● Explosion Proof | : Ex d ia [ia] q IIC T6 (with AMC3200, AMC3200DF only) | ● Temperature | : -20~70 °C (Polyurethane, PU) : -20~70 °C (Neoprene) : -40~120 °C (PTFE 1"-10", FEP/PFA 3/8"-12") : -40~140 °C (PTFE 1"-6", FEP/PFA 3/8"-12") : -40~180 °C (PFA 3/8"-12") |
| ● Cable Entry | Standard: M20 Option: 1/2" NPTF | ● Ambient Temperature | : -25~60 °C |
| | | ● Max. Pressure | : 350 kgf/cm ² |

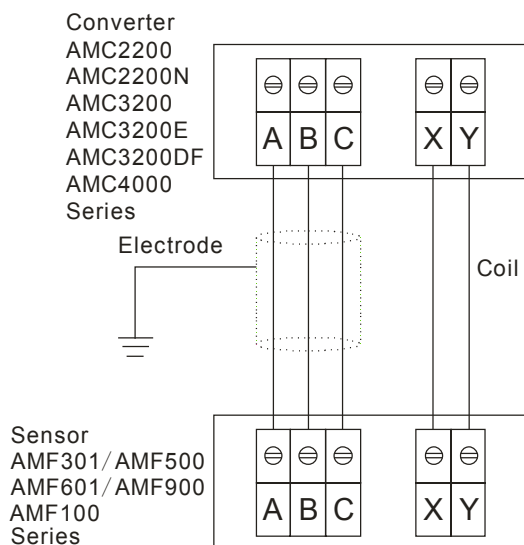


FLOW RANGE

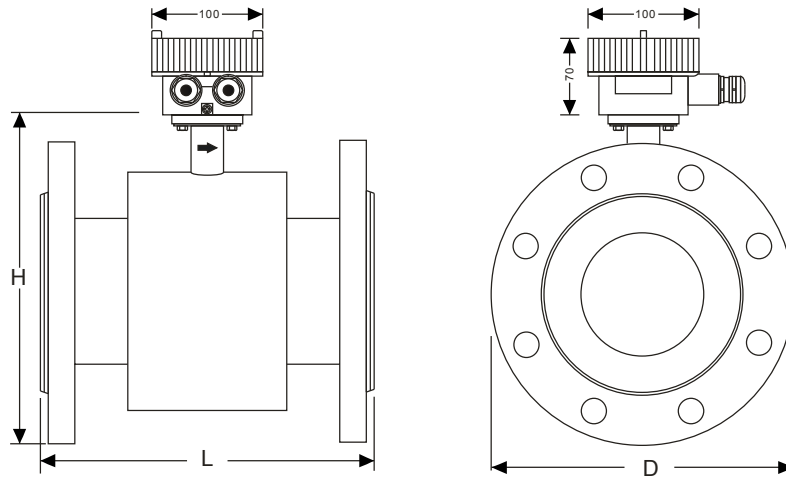
Unit: m³/hr

| Normal Size | | Flow Range & Velocity Table | | | | | | |
|-------------|--------|---|---------|---------|---------|---------|----------|------------------|
| mm | Inch | Min. 0-0.25 m/s | 1.0 m/s | 2.0 m/s | 3.0 m/s | 5.0 m/s | 10.0 m/s | Max. 0-12 m/s |
| 10A | 3/8"A | Applicable to 25-500 L/hr and accuracy +/-0.2~0.4% of reading (Depends on converter type) | | | | | | |
| 10 | 3/8" | 0 to 0.071 | 0.28 | 0.57 | 0.85 | 1.41 | 2.83 | 0 to 3.39 |
| 15 | 1/2" | 0 to 0.16 | 0.64 | 1.27 | 1.91 | 3.18 | 6.36 | 0 to 7.63 |
| 20 | 3/4" | 0 to 0.28 | 1.13 | 2.26 | 3.39 | 5.65 | 11.3 | 0 to 13.6 |
| 25 | 1" | 0 to 0.44 | 1.77 | 3.53 | 5.30 | 8.84 | 17.7 | 0 to 21.2 |
| 32 | 1-1/4" | 0 to 0.72 | 2.90 | 5.79 | 8.69 | 14.5 | 29.0 | 0 to 34.7 |
| 40 | 1-1/2" | 0 to 1.13 | 4.52 | 9.05 | 13.6 | 22.6 | 45.2 | 0 to 54.3 |
| 50 | 2" | 0 to 1.77 | 7.07 | 14.1 | 21.2 | 35.3 | 70.7 | 0 to 84.8 |
| 65 | 2-1/2" | 0 to 2.99 | 11.9 | 23.9 | 35.8 | 59.7 | 119 | 0 to 143 |
| 80 | 3" | 0 to 4.52 | 18.1 | 36.2 | 54.3 | 90.5 | 181 | 0 to 217 |
| 100 | 4" | 0 to 7.07 | 28.3 | 56.5 | 84.8 | 141.4 | 283 | 0 to 339 |
| 125 | 5" | 0 to 11.0 | 44.2 | 88.4 | 133 | 220.9 | 442 | 0 to 530 |
| 150 | 6" | 0 to 15.9 | 63.6 | 127 | 191 | 318.1 | 636 | 0 to 763 |
| 200 | 8" | 0 to 28.3 | 113 | 226 | 339 | 565.5 | 1131 | 0 to 1357 |
| 250 | 10" | 0 to 44.2 | 177 | 353 | 530 | 883.6 | 1767 | 0 to 2121 |
| 300 | 12" | 0 to 63.6 | 254 | 509 | 763 | 1272 | 2545 | 0 to 3054 |
| 350 | 14" | 0 to 86.6 | 346 | 693 | 1039 | 1732 | 3464 | 0 to 4156 |
| 400 | 16" | 0 to 113 | 452 | 905 | 1357 | 2262 | 4524 | 0 to 5429 |
| 450 | 18" | 0 to 143 | 573 | 1145 | 1718 | 2863 | 5725 | 0 to 6871 |
| 500 | 20" | 0 to 177 | 707 | 1414 | 2121 | 3534 | 7068 | 0 to 8482 |
| 600 | 24" | 0 to 254 | 1018 | 2036 | 3054 | 5089 | 10179 | 0 to 12214 |
| 700 | 28" | 0 to 346 | 1385 | 2771 | 4156 | 6927 | 13854 | 0 to 16625 |
| 800 | 32" | 0 to 452 | 1810 | 3619 | 5429 | 9048 | 18095 | 0 to 21714 |
| 900 | 36" | 0 to 573 | 2290 | 4580 | 6871 | 11451 | 22902 | 0 to 27482 |
| 1000 | 40" | 0 to 707 | 2827 | 5655 | 8482 | 14137 | 28274 | 0 to 33928 |
| 1200 | 48" | 0 to 1018 | 4071 | 8143 | 12214 | 20357 | 40714 | 0 to 48857 |
| 1400 | 56" | 0 to 1385 | 5542 | 11083 | 16625 | 27708 | 55417 | 0 to 66500 |
| 1600 | 64" | 0 to 1810 | 7238 | 14476 | 21714 | 36190 | 72381 | 0 to 86857 |
| 1800 | 72" | 0 to 2290 | 9161 | 18321 | 27482 | 45803 | 91607 | 0 to 109928 |
| 2000 | 80" | 0 to 2827 | 11309 | 22619 | 33928 | 56547 | 113095 | 0 to 135714 |

WIRING DIAGRAM



➤ DIMENSIONS



| Size (mm) | Sensor Tube Pressure kgf/cm ² | Liner Material | | | | Dimensions (mm) | | | Weight kg | |
|--------------|---|----------------|----------|--------------|------|-----------------|------|------|--------------|-----|
| | | FEP / PFA | Neoprene | Polyurethane | PTFE | L | D | H | | |
| 10A | 40 | ⊙ | | | | 120 | 90 | 145 | 3.5 | |
| 10 | | ⊙ | | | | 120 | | | 3.5 | |
| 15 | | ⊙ | | | | 150 | 95 | 155 | 3.5 | |
| 20 | | ⊙ | | | | | 105 | 160 | 4.5 | |
| 25 | | ⊙ | | ⊙ | ⊙ | | 115 | 166 | 4.5 | |
| 32 | | ⊙ | | ⊙ | ⊙ | | 140 | 180 | 6.5 | |
| 40 | | ⊙ | | ⊙ | ⊙ | | 150 | 190 | 7.0 | |
| 50 | | ⊙ | | ⊙ | ⊙ | 200 | 165 | 201 | 9.5 | |
| 65 | | ⊙ | | ⊙ | ⊙ | | 185 | 220 | 12 | |
| 80 | | ⊙ | | ⊙ | ⊙ | | 200 | 235 | 15 | |
| 100 | | 16 | ⊙ | ⊙ | ⊙ | ⊙ | 250 | 220 | 254 | 17 |
| 125 | ⊙ | | ⊙ | ⊙ | ⊙ | 250 | | 284 | 21 | |
| 150 | ⊙ | | ⊙ | ⊙ | ⊙ | 300 | 285 | 314 | 28 | |
| 200 | 10 | ⊙ | ⊙ | ⊙ | ⊙ | 350 | 340 | 369 | 36 | |
| 250 | | ⊙ | ⊙ | ⊙ | ⊙ | 400 | 395 | 430 | 49 | |
| 300 | | ⊙ | ⊙ | ⊙ | ⊙ | 450 | 445 | 480 | 61 | |
| 350 | | | ⊙ | ⊙ | ⊙ | | 505 | 540 | 79 | |
| 400 | | | ⊙ | ⊙ | ⊙ | 500 | 565 | 600 | 99 | |
| 450 | | | ⊙ | | ⊙ | 600 | 615 | 640 | 121 | |
| 500 | | | ⊙ | | ⊙ | | 670 | 700 | 143 | |
| 600 | | | ⊙ | | ⊙ | | 780 | 800 | 187 | |
| 700 | | | | ⊙ | | ⊙ | 700 | 895 | 910 | 260 |
| 800 | | | | ⊙ | | ⊙ | 800 | 1015 | 1020 | 342 |
| 900 | | | | ⊙ | | ⊙ | 900 | 1115 | 1120 | 420 |
| 1000 | | | ⊙ | | ⊙ | 1000 | 1230 | 1230 | 503 | |
| 1200 | 6 | | ⊙ | | ⊙ | 1200 | 1405 | 1405 | 666 | |
| 1400 | | | ⊙ | | ⊙ | 1400 | 1630 | 1630 | 1036 | |
| 1600 | | | ⊙ | | ⊙ | 1600 | 1830 | 1830 | 1333 | |
| 1800 | | | ⊙ | | ⊙ | 1800 | 2045 | 2045 | 1720 | |
| 2000 | | | ⊙ | | ⊙ | 2000 | 2265 | 2265 | 2190 | |

Note 1: ⊙ Standard

Note 2: Weight & Dimension D & H only for DIN flange

Note 3: **The maximum process pressure** is depend on the lowest value of flange pressure and sensor tube pressure, or choose from the "option code -XX " in the selection on page 4.

MODEL SELECTION GUIDE

| AMF900 Series | | | | | | | | | | |
|---------------------------------------|----------|------|----|---|---|---|----|-----|---|--|
| Example: AMF900-P0100-CAE84-010-T1/16 | | | | | | | | | | |
| AMF900- | X | XXXX | -X | X | X | X | X- | XXX | -XX | Description |
| Liner | N | | | | | | | | | Chloroprene Rubber (Neoprene) (100-2000 mm, 4"-80") |
| | F | | | | | | | | | FEP (10A-300 mm, 3/8"A-12") |
| | P | | | | | | | | | PTFE (25-2000 mm, 1"-80") |
| | A | | | | | | | | | PFA (10A-300 mm, 3/8"A-12") |
| | O | | | | | | | | | Polyurethane (25-400 mm, 1"-16") |
| Size | 10A-2000 | | | | | | | | | 10A-2000 mm |
| Electrode Material | -S | | | | | | | | | Stainless Steel 316L |
| | -T | | | | | | | | | Titanium |
| | -B | | | | | | | | | Hastelloy B |
| | -C | | | | | | | | | Hastelloy C |
| | -A | | | | | | | | | Tantalum |
| | -P | | | | | | | | | Platinum (DN15-DN2000) |
| | -U | | | | | | | | | Tungsten Carbide |
| | -Z | | | | | | | | | Others |
| Process Connection | 1 | | | | | | | | | PN10 |
| | 2 | | | | | | | | | PN16 |
| | 3 | | | | | | | | | PN25 |
| | 4 | | | | | | | | | PN40 |
| | A | | | | | | | | | ANSI 150# |
| | B | | | | | | | | | ANSI 300# |
| | C | | | | | | | | | ANSI 600# |
| | J | | | | | | | | | JIS 10K |
| | K | | | | | | | | | JIS 20K |
| | L | | | | | | | | | JIS 40K |
| | Z | | | | | | | | | Others |
| Grounding | N | | | | | | | | | None |
| | E | | | | | | | | | Grounding Electrode (3 Electrodes); Note: see page #1 |
| | R | | | | | | | | | Grounding Ring (Stainless Steel 316) |
| | A | | | | | | | | | Grounding & Protection Ring (Stainless Steel 316) |
| Protection Class | 8 | | | | | | | | | Junction box IP67, Body IP68 |
| | 9 | | | | | | | | | IP68 (Submersible, Separate with Converter Only) |
| Flange & Housing | 0- | | | | | | | | | Carbon Steel (Standard) |
| | 4- | | | | | | | | | S.S. 304 Flange |
| | 6- | | | | | | | | | S.S. 316 Flange |
| | 8- | | | | | | | | | S.S. 304 Flange & Housing |
| | 9- | | | | | | | | | S.S. 316 Flange & Housing |
| Installation & Cable Length | NNN | | | | | | | | | Compact Version |
| | 005-300 | | | | | | | | | Remote Version, Cable 5-300 m |
| Option | -NN | | | | | | | | | None |
| | -XX | | | | | | | | | Max. Process Pressure (6 / 10 / 16 / 20 / 25 / 40 / 50 kgf/cm ²) |
| | -EX | | | | | | | | | Explosion Proof, Ex d ia [ia] q IIC T6 (with AMC3200, AMC3200DF only) |
| | -T1 | | | | | | | | | Max. Temp.: 121-140 °C |
| | -T2 | | | | | | | | | Max. Temp.: 141-180 °C |
| | -PT | | | | | | | | | Cable Entry 1/2" NPTF |
| | -CD | | | | | | | | | Electrode Cleaning Device (Only for 2 Electrodes (316L), Size ≥4") |
| -LR | | | | | | | | | Low-resistance coil (with AMC3200DF only) | |