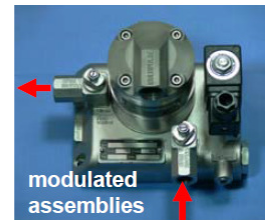


AIM Block (Additive Injection Manifold)

AIM block is a compact all stainless steel manifold assembly with isolating, flow regulating & check valves, a fine mesh strainer, solenoid valve & a precision oval gear flowmeter. Inlet & outlet elbows can be arranged in three orientations providing installation flexibility. All assemblies shown are modular to the manifold & may be quickly changed in-situ.

AIM block will work with any controller or TAS system, serving as a composite slave assembly for the accurate blending of fuel additives to fuels loading facilities, stationary & mobile transfer units within the petroleum industry worldwide.



Features / Benefits

- Compact stainless steel design with stainless gears,
- All valve assemblies & the meter are detachable,
- Modular process connections (directional),
- High accuracy & repeatability ($\pm 0.5\%$ & better),
- Simple to install, easy to service in situ,
- ATEX / IECEx approved explosionproof electrics,
- Quadrature pulse output option,

see also MG data sheets for other size meters for gasoline, diesel fuel, ethanol blends & bio-fuels.

Applications include:

AIM accurately injects small amount of modifying additives to base product. Additives include lead replacements, dyes & markers, denaturants, detergents, odorizing, antifreeze, anti-corrosion, anti-detonating, anti-static, anti-icing, anti-foaming, emulsifiers and performance enhancing agents.

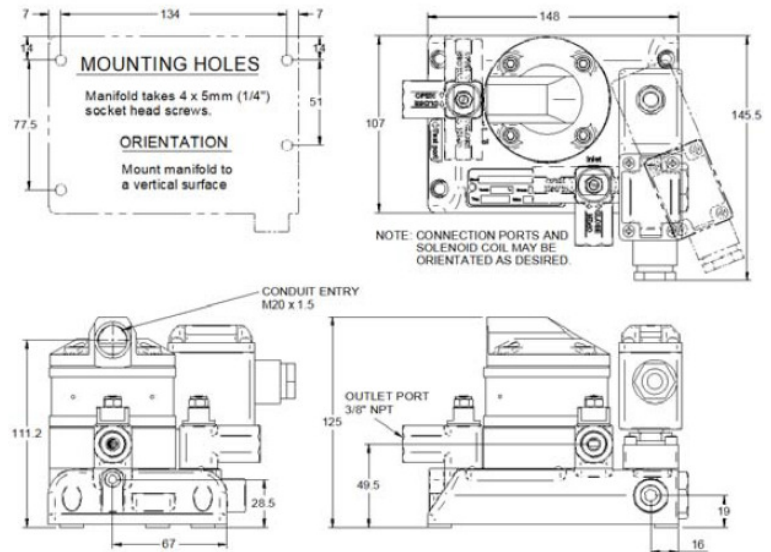
Specifications

Model prefix	AIM004	AIM006	AIM008
Process connections	3/8" NPT elbows, 3 x 90° orientation positions		
Flow range litres/hour	1 - 36	2 - 100	15 - 550
US gal/hour	0.26 - 9.5	0.5 - 27	4 - 145
Accuracy @ 3cp	± 0.5% of rate		
Repeatability	typically ± 0.25%		
Temperature range			
non Exd installations	-20°C ~ + 100°C (-4°F ~ + 212°F)		
Exd installations	-20°C ~ + 65°C (-4°F ~ + 150°F)		
Maximum pressure			
Max. static pressure	30 bar (440 psi)		
6-11 0Vdc solenoid coils	3mm orifice = 7bar,	5mm orifice = 3.5bar	
1 08-240Vdc solenoid coils	3mm orifice = 1 0bar,	5mm orifice = 8.5bar	
Protection class			
Flowmeter	IP66/67 (NEMA4X), Exd IIB T6		
Solenoid valve	IP66/67 (NEMA4X), EEx dn IIC T4		
Strainer element	75 micron (200mesh) minimum		
Electrical			
Output pulse resolution	pulses / litre (pulses / US gallon) - nominal		
Reed Switch	2890 (1 0940)	2100 (7950)	355 (1 345)
Hall Effect	2890 (1 0940)	2100 (7950)	710 (2690)
High resolution Hall Effect	11 220 (42470)	4200 (1 5900)	-
**Reed Switch output	30Vdc x 200mA max.		
Hall Effect output	3 wire open collector, 5~24Vdc max., 20mA max.		
Optional			
High resolution output	high resolution Hall Effect output (see above)		
Quadrature pulse output	dual Hall Effect phased outputs		

* Maximum flow is to be reduced as viscosity increases, max. pressure drop 1 00Kpa.

** Maximum thermal shock 1 0°C (50 F)/min applies to the Reed Switch.

Overall dimensions



Ordering information

Meter size

AIM004	1 - 36 l/hr
AIM006	2 - 100 l/hr
AIM008	15 - 550 l/hr

Manifold, meter & valve material

S	316L Stainless Steel (+65°C max.) (IECEX / ATEX approved)
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Seal material

1	1	Viton (standard)
3	1	Chem-Kit, comprises Teflon & Perfluoroelastomer (Kalrez-Kemraz)

Cable entries

1	M20 x 1.5mm
2	1 / 2" NPT

Solenoid valve voltage

-	1	1	24Vdc x 9W coil (max. operating press. 7bar) IECEX/ATEX approved
-	2	1	110~11 5Vac / 60Hz x 8 W coil (max. operating press. 2.0bar) IECEX/ATEX approved
-	3	1	220~230Vac / 50Hz x 8 W coil (max. operating press. 20bar) IECEX/ATEX approved

Solenoid valve orifice

3	3mm Ø (DC=7bar, AC=1 0bar max. differential pressure)
5	5mm Ø (DC=3.5bar, AC=8.5bar max. differential pressure)

Model No. Example

AIM006	S	1	1	2	-	3	1	3	0
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Integral options

	0	No options
AIM004=1 1200 PPL, AIM006=4200 PPL	HR	High resolution Hall Effect output



DSAIM - 1703

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