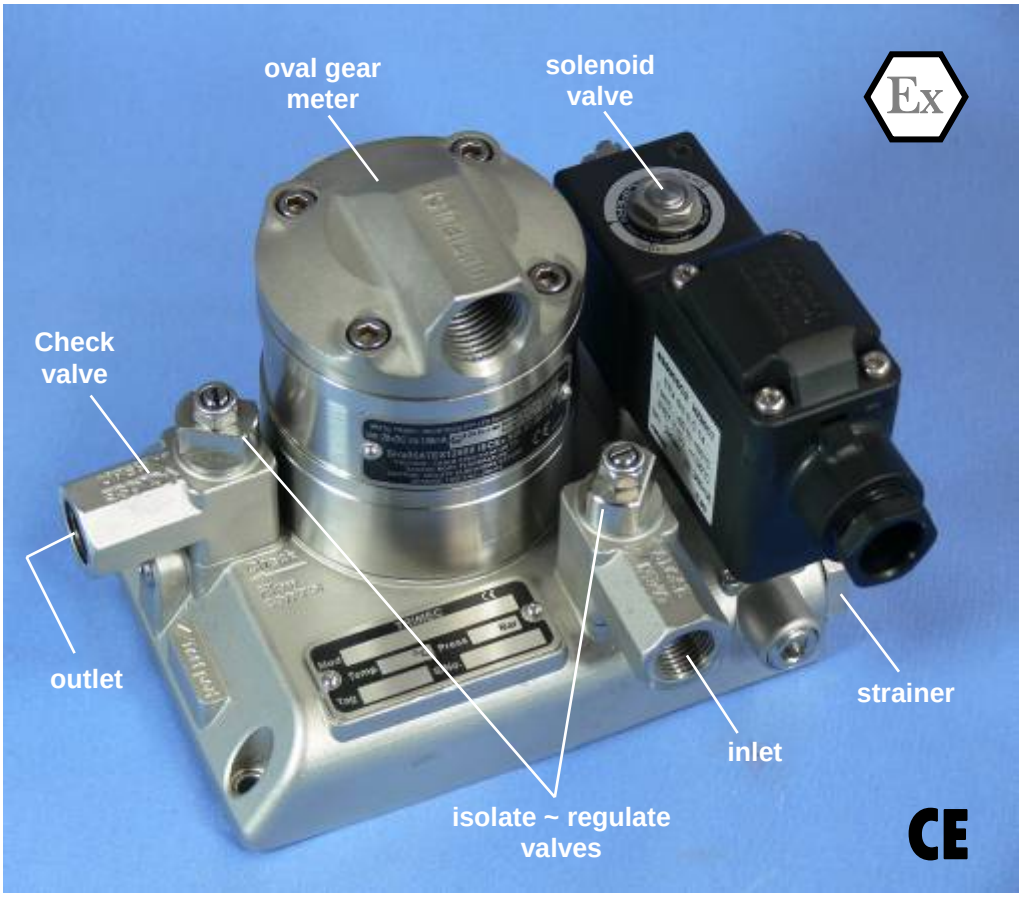
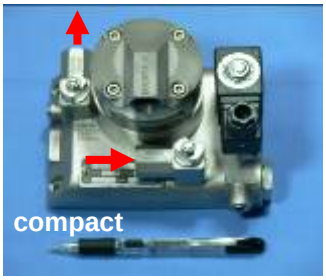
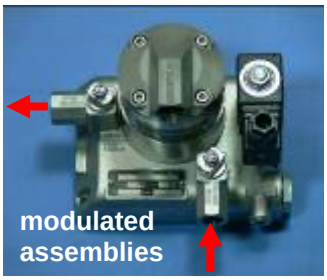
AIM block (Additive Injection Manifold)







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 at 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** *(+/-0.5% & better)*
- **Simple to install, easy to service in situ**
- **ATEX / IECEx approved Explosionproof electrics**
- **Quadrature pulse output option**
- *see also Multipulse & Maxipulse data sheets for other size meters for Gasolene, Diesel fuel, Ethanol blends & Bio-fuels.*

Applications include :

AIM accurately injects small amounts 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.

P.E.D. 97/23/EC
Patents applicable

FLAMMABLE LIQUID

Quality Endorsed Company

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TRIMEC INDUSTRIES

Specifications

Model prefix :	AIM004	AIM006	AIM008
Process connections	*3/8"NPT elbows, 3 x 90°* orientation positions		
Flow range - *litres / min*	0.01 ~ 1.0	0.03 ~ 1.66	0.25 ~ 10
(US gal./min)	*(0.002 ~ 0.27)*	*(0.008 ~ 0.44)*	*(0.07 ~ 2.65)*
Accuracy @ 3cp	±0.5% o.r.		
Repeatability	typically ± 0.25%		
Temperature range			
non Exd installations	-20ºC ~ +100ºC *(-4ºF ~ +212ºF)*		
Exd installations	-20ºC ~ +65ºC *(-4ºF ~ +150ºF)*		
Maximum pressure			
6~110Vdc solenoid coils	10 bar *(147 PSIG)*		
108~240Vac solenoid coils	20 bar *(290 PSIG)*		
Protection class			
Flowmeter	IP66/67 (NEMA4X), Exd IIB T6		
Solenoid valve	IP66/67 (NEMA4X), EEx dm IIC T4		
Strainer element	75 micron *(200 mesh)* minimum		
Electrical			
Output pulse resolution	pulses / litre *(pulses / US gallon)* - nominal		
Reed switch	2890 *(10940)*	2100 *(7950)*	355 *(1345)*
Hall effect	2890 *(10940)*	2100 *(7950)*	710 *(2690)*
** Reed switch output	30Vdc x 200mA max.		
Hall effect output (NPN)	3 wire open collector, 5~24Vdc max., 20mA max.		
Optional			
Quadrature pulse output	dual Hall Effect phased outputs		

** Max. flow is to be reduced as viscosity increases, max. press. drop 100Kpa. (15 psi)*

*** Maximum thermal shock 10ºC (50ºF) / min. applies to the reed switch*

Model coding

AIM004	0.01 ~ 1.0 L/min	*(0.002 ~ 0.27 GPM)*
AIM006	0.03 ~ 1.66 L/min	*(0.008 ~ 0.44 GPM)*
AIM008	0.25 ~ 10 L/min	*(0.07 ~ 2.65 GPM)*

AIM materials

S	*meter, all valves & strainer 316SS, manifold block 303SS

** solenoid valve has a ruby seat to cover all applications*

O-ring material

1	Viton *(standard)*
2	Ethylene Propylene Rubber *(EPR)*
3	Teflon encapsulated viton
4	Buna-N *(Nitrile)*

Meter protection approval

0	No appoval
1	IEC / ATEX

Cable entry for meter

1	M20 x 1.5mm
2	1/2" NPT

Solenoid valve voltage

0	12Vdc - *max. 7 bar (100psi)*
1	24Vdc - *max. 7 bar (100psi)*
2	110Vac - *max. 20 bar (300psi)*
3	220Vac - *max. 20 bar (300psi)*
9	Customer nominated

Solenoid valve approval

0	No appoval
1	IEC / ATEX

Model No. Example

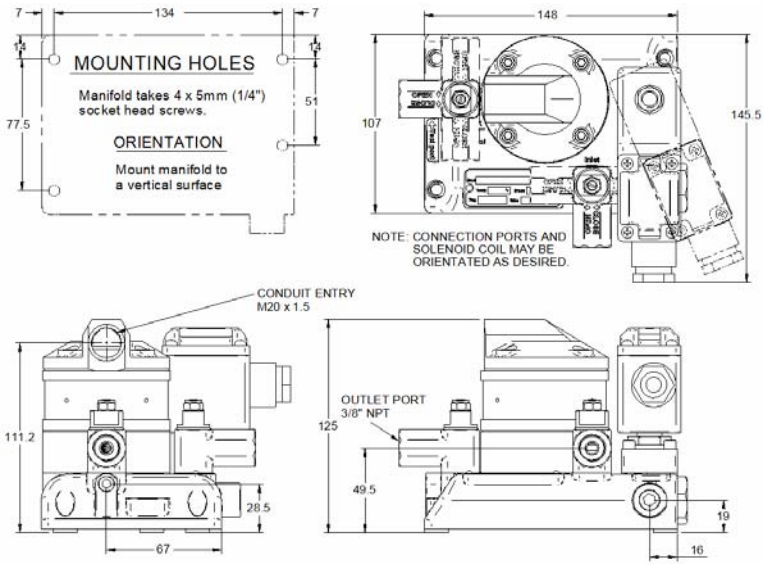
MG006	**S**	**5**	**1**	**5**	**1**	-	**2**	**R2**

Integral options

	0	No options
return to drum prime valve	**1**	**290kpa (43psig) relief valve
2 NPN open collector phased outputs	**2**	Quadrature pulse output
	3	Quadrature output + relief valve

***used for re-priming system when additives are being pumped from 200L drums*

Overall dimensions



products include : ***Trimec small, medium & large capacity meters for gasoline, diesel fuel, ethanol, bio-fuels & bio-fuels blends***

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