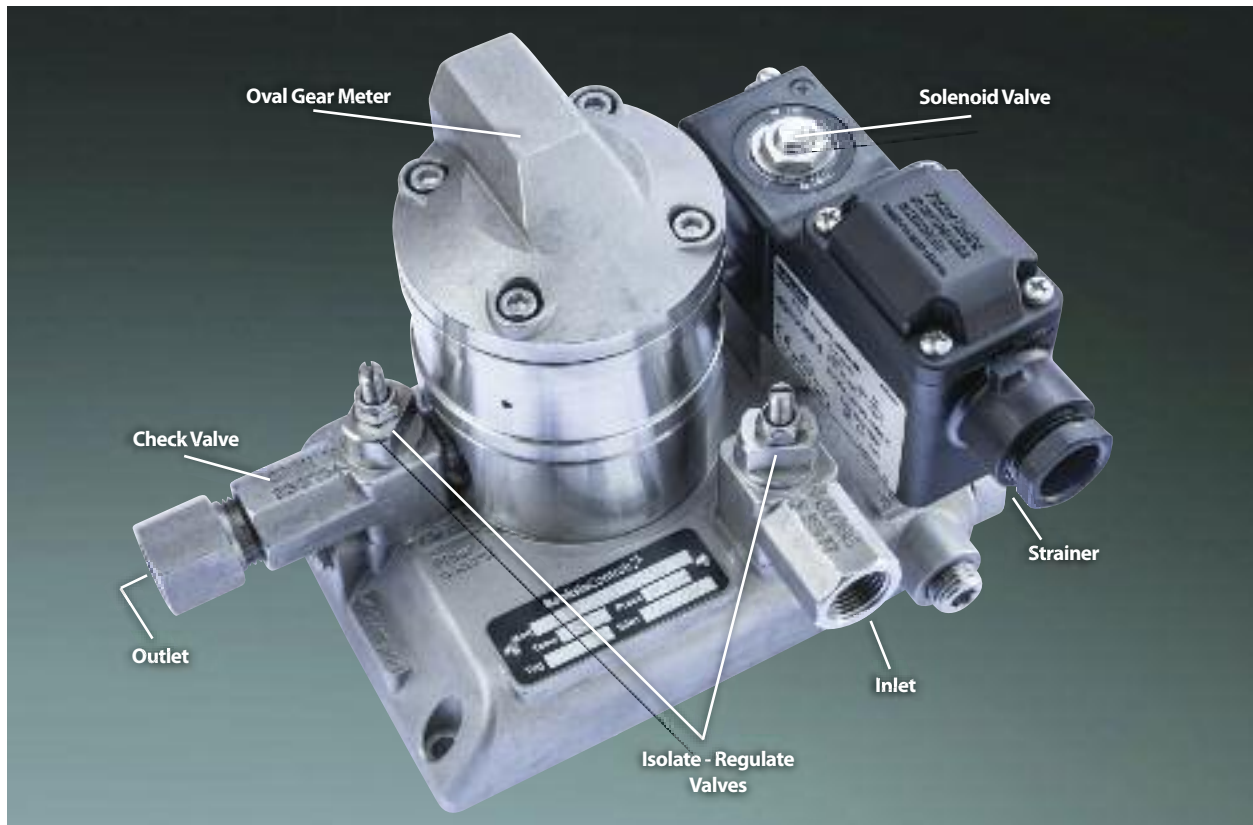


AIM Block (Additive Injection Manifold)

**BanksiaControls** 

## AIM Block (Additive Injection Manifold)



**Additive Injection Manifold (AIM)** block is a compact all stainless steel manifold assembly complete with isolating, flow regulating & check valves, a fine mesh strainer, solenoid valve & a precision oval gear flowmeter. AIM injects small amounts of modifying additives & performance enhancing agents into fuels & base products. These include lubricants, dyes, colourings, denaturants, detergents, odorizing, anti-freeze, anti-corrosion, anti-static, anti-detonating, anti-icing, anti-foaming and emulsifiers.

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

### Features/Benefits

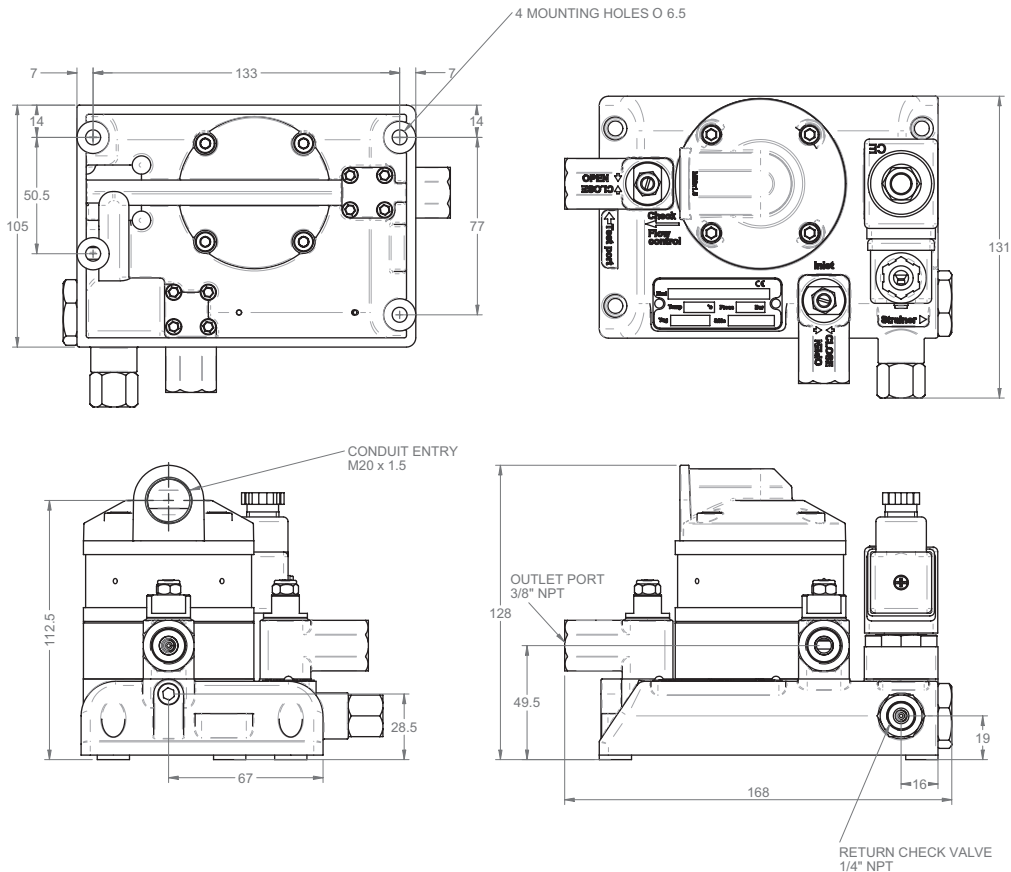
- Compact Stainless steel design with stainless gears
- All valve assemblies & the meter are detachable
- Modular process connections (directional)
- High accuracy & repeatability ( $\pm 0.5\%$  or better)
- Simple to install, easy to service in situ
- ATEX/IECEx approved Explosionproof Electrics
- Quadrature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

## Specifications

Model Prefix	AIM004 (1/8")	AIM006 (1/4")	AIM008 (3/8")
Nominal size ( inches )	4mm (1/8")	6mm (1/4")	8mm (3/8")
Process connections	3/8" NPT elbows, 3 X 90° orientation positions		
*Flow range - LPH	0.5 ~ 36	2 ~ 100	15 ~ 550
- GPH	0.13 ~ 9.5	0.5 ~ 27	4 ~ 145
Accuracy @ 3cp	+/-0.05% of rate, or +/-0.5% over flow range stated		
Repeatability	typically +/-0.03% of reading		
Temperature range	-20°C ~ +120°C ( -4°F ~ +250°F ), refer factory for lower temperature		
Maximum Static pressure	30 bar (440 PSI)		
Maximum operating pressure	bar (PSI)		
DC Solenoid Coils	7 (100)		
AC Solenoid Coils	20 (295)		
<b>Electrical - for pulse meters ( see below for optional outputs )</b>			
Output pulse resolution	pulses / litre ( pulses / US gallon ) - nominal		
Hall effect	2800 (10600)	1050 (3975)	710 (2690)
Quadrature Hall option	2800 (10600)	1050 (3975)	710 (2690)
HR-High Resolution Hall option	11200 (42400)	4200 (15900)	N/A
Hall effect output (NPN)	3 wire open collector, 5~24Vdc max., 20mA max.		
Optional outputs	4~20mA, quadrature pulse		
<b>Physical</b>			
Protection class	IP66/67 (NEMA4X); optional Exd I / IIB T4/T6,		
"Overall dimensions	Refer Below		

\* Maximum flow is to be reduced as viscosity increases, see flow de-rating guide. Max. Recommended pressure drop is 100Kpa (15 psi).

## Overall Dimensions



## Model Coding



AIM004 = 11200 PPL, AIM006 = 4200 PPL

AIM004	0.01~1.0 L/min ( 0.002~0.27 GPM )
AIM006	0.03~1.66 L/min ( 0.008~0.444 GPM )
AIM008	0.25~10 L/min ( 0.07~2.65 GPM )
<b>AIM materials</b>	
S	*meter, all valves & strainer 316SS, manifold block 303SS <i>*solenoid valve has a ruby seat to cover all applications</i>
<b>O-ring materials</b>	
1	Viton ( standard )
3	Chem-Kit, comprises Teflon & Perfluoroelastomer (Kalrez-Kemraz) O-rings
<b>Meter protection approval</b>	
0	No approval
1	IEC / ATEX
<b>Cable entry for meter</b>	
1	M20 x 1.5mm
2	1/2" NPT
<b>Solenoid valve voltage</b>	
- 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
<b>Solenoid valve approval</b>	
0	No approval
1	IECEX / ATEX
<b>Solenoid valve orifice</b>	
3	3mm Ø ( DC coil - 7 bar, AC coil - 10 bar max. differential pressure )
5	5mm Ø ( DC coil - 3.5 bar, AC coil - 8.5 bar max. differential pressure )
<b>Integral options</b>	
0	No options
2	Quadrapulse pulse output
HR	High resolution Hall Effect output

Model No. example

AIM006 S 1 1 2 - 3 1 3 0

