



At Flotech Performance Systems we have drawn upon over 30 years' experience in additive injection to develop the most advanced additive injection manifold to date - the FLOBLOCK.

**FLOBLOCK** seamlessly integrates check valve, needle valve, flowmeter, solenoid valve and filter in a single manifold measuring under 23cm in length.

**FLOBLOCK** is compatible with all mainstream load computers, additive controllers, PLC's and Terminal Automation Systems.

## **Applications Include;**

Marker Dyes DNA Markers Performance Additives Static Dissipators Stenching & Denaturing Agents





## **Benefits**

The unique design of the **FLOBLOCK** incorporates features which combined make it **the most efficient and reliable injector on the market**.

- Integrated flow control value allows fine tuning of additive flow and facilitates calibration under true process conditions for more accurate injection rates and reduced additive wastage.
- Integral filter prevents contamination entering the meter or the solenoid.
- Inbuilt non-return valve prevents additive contamination caused by reverse flow.
- One-piece stainless construction & static seals ensures robust, leak-free performance.
- **Common bolting pattern and inlet / outlet positions** allow direct replacement of most common injectors (adaptors are available where bolting patterns differ).
- Optional dual pulse flowmeter provides pulse redundancy to prevent unwanted shutdowns.
- Optional stainless-steel gears and PTFE seals ensure performance across a diverse range of chemicals and additives.

**FLOBLOCK is held in stock in all derivatives and supported by an extensive spares inventory and expert technical support** by our UK facility.

Using the **FLOCAL calibration kit** (available separately), **FLOBLOCK** can be quickly, safely and accurately calibrated.

Based upon a product flow rate of 2400 LPM, the **Standard Flow Injector is suitable for 100-3000 ppm** (typical shot size of 20-200cc). The **Low Flow Injector is suitable for 20-600 ppm** (typical shot size of 10-40cc).



## **Modelling Code**

| Flow Ra | Flow Rate |                                    |   |        |           |                  |          |            |             |              |                      |  |
|---------|-----------|------------------------------------|---|--------|-----------|------------------|----------|------------|-------------|--------------|----------------------|--|
| FLO-S   | Stan      | Standard Flow - (740 pulses/Litre) |   |        |           |                  |          |            |             |              |                      |  |
| FLO-L   | Low       | Flow                               | w - (1480 pulses/Litre)   |        |           |                  |          |            |             |              |                      |  |
|         | Μοι       | untin                              | ng & Installation Kit   |        |           |                  |          |            |             |              |                      |  |
|         | 0         | Т                                  | Not Required  |        |           |                  |          |            |             |              |                      |  |
|         | 1         |                                    | Mounting Kit (Stand off's & Bolts Only)   |        |           |                  |          |            |             |              |                      |  |
|         | 2         |                                    | Mounting & Installation Kit (2 x Hawke M20 Exe/Exd Glands (501/423), Stand off's, Bolts)    |        |           |                  |          |            |             |              |                      |  |
|         | 3         |                                    | Mounting & Installation Kit (2 x Hawke M20 Exd Potted Glands (ICG 623), Stand off's, Bolts) |        |           |                  |          |            |             |              |                      |  |
|         |           |                                    |   |        |           |                  |          |            |             |              |                      |  |
|         |           |                                    | FIOW IV   |        | e         |                  |          |            |             |              |                      |  |
|         |           | _                                  | <u> </u>  |        | lico      |                  |          |            |             |              |                      |  |
|         |           |                                    |   |        | lise      |                  |          |            |             |              |                      |  |
|         |           |                                    |   | Flow M | leter Gea | ar Materia       | al       |            |             |              |                      |  |
|         |           |                                    |   | R      | Ryton     |                  |          |            |             |              |                      |  |
|         |           |                                    |   | S      | Stainles  | ss Steel         |          |            |             |              |                      |  |
|         |           |                                    |   |        | Soleno    | id Seat <u>N</u> | laterial |            |             |              |                      |  |
|         |           |                                    |   |        | 1         | lsolast          |          |            |             |              |                      |  |
|         |           |                                    |   |        | Р         | PTFE             |          |            |             |              |                      |  |
|         |           |                                    |   |        | <u> </u>  | Contro           | Solenoid |            | a and Ta    | moorature    |                      |  |
|         |           |                                    |   |        |           | 1                | 230 VA   | C = 50Hz = | T3 - Fym    |              |                      |  |
|         |           |                                    |   |        |           | 2                | 230 VA   | C 50Hz -   | T5 - Exm    |              |                      |  |
|         |           |                                    |   |        |           | 3                | 230 VA   | C 50Hz -   | T6 - Exd    | - ALCON      |                      |  |
|         |           |                                    |   |        |           | 4                | 115 VA   | C 50Hz -   | T3 - Exm    | - ASCO       |                      |  |
|         |           |                                    |   |        |           | 5                | 115 VA   | C 50Hz -   | T5 - Exm    | - ALCON      |                      |  |
|         |           |                                    |   |        |           | 6                | 115 VA   | C 50Hz -   | T6 - Exd    | - ALCON      |                      |  |
|         |           |                                    |   |        |           | X                | Other (ı | upon requ  | uest)       |              |                      |  |
|         |           |                                    |   |        |           |                  | Blockin  | a Colono   | id Volto    | as and To    |                      |  |
|         |           |                                    |   |        |           |                  |          | Not Pe     |             | ige and Te   |                      |  |
|         |           |                                    |   |        |           |                  | 1        |            | e specifica | ation as Co  | ntrol Solenoid       |  |
|         |           |                                    |   |        |           |                  | x        | Other (    | upon requ   |              |                      |  |
|         |           |                                    |   |        |           |                  | <u> </u> |            | aponioqu    |              |                      |  |
|         |           |                                    |   |        |           |                  |          | Isolatio   | on & Flush  | hing Optio   | ns                   |  |
|         |           |                                    |   |        |           |                  |          | 0          | Not Rec     | quired       |                      |  |
|         |           |                                    |   |        |           |                  |          | 1          | Inlet &     | Outlet Isola |                      |  |
|         |           |                                    |   |        |           |                  |          |            | iniet &     | Outlet Isola | ation c/w 1/4 QRC    |  |
|         |           |                                    |   |        |           |                  |          |            | Approv      | vals         |                      |  |
|         |           |                                    |   |        |           |                  |          |            | Α           | ATEX / C     | E                    |  |
|         |           |                                    |   |        |           |                  |          |            | <u> </u>    | IECEx        |                      |  |
|         |           |                                    |   |        |           |                  |          |            | F           | FM           |                      |  |
|         |           |                                    |   |        |           |                  |          |            | C           | CSA          |                      |  |
|         |           |                                    |   |        |           |                  |          |            |             | Cable Le     | engths               |  |
|         |           |                                    |   |        |           |                  |          |            |             | 2            | 2 Meter Flying Leads |  |
|         |           |                                    |   |        |           |                  |          |            |             | 5            | 5 Meter Flying Leads |  |
| FLO-S   | 1         |                                    | S   | R      |           | 2                | 0        | 0          | A           | 2            | Default Code         |  |

## **Technical Specifications**

| General                         |   |  |  |  |  |  |  |
|---------------------------------|---|--|--|--|--|--|--|
| Mounting                        | 2 off M8  |  |  |  |  |  |  |
| Manifold Connections            | 3/8" NPTF   |  |  |  |  |  |  |
| Sensor Thread                   | 1/2" x 13 S.A.E. female threads   |  |  |  |  |  |  |
| Assembled Weight                | 7 kg  |  |  |  |  |  |  |
| Dimensions                      | 229mm W x 63.5mm H x 51mm D   |  |  |  |  |  |  |
| Max Design Pressure             | 27 Bar / 400 PSI  |  |  |  |  |  |  |
| Temperature Range               | -20 Deg C to +50 Deg C  |  |  |  |  |  |  |
| Protection Level                | ATEX II 2 Gb / FM Class1 Div1 Group C&D   |  |  |  |  |  |  |
| Flow Data                       |   |  |  |  |  |  |  |
| Nominal K-Factor                | 740 pulses/litre (Standard Flow Variant) - 1480 pulses/litre (Low Flow Variant) |  |  |  |  |  |  |
| Meter Accuracy                  | 0.50%   |  |  |  |  |  |  |
| Repeatability                   | 0.25%   |  |  |  |  |  |  |
| Max Flow Rate                   | 12 litres/min   |  |  |  |  |  |  |
| Min Shot Size                   | 10cc (low flow)   |  |  |  |  |  |  |
| Materials                       |   |  |  |  |  |  |  |
| Manifold                        | Stainless Steel 303   |  |  |  |  |  |  |
| Meter Gears                     | Ryton $\ensuremath{\mathbb{R}}$ (PPS) (S/Steel 316 available as an option)      |  |  |  |  |  |  |
| Flowmeter Cap                   | Stainless Steel   |  |  |  |  |  |  |
| Solenoid Seals                  | Isolast or PTFE   |  |  |  |  |  |  |
| Solenoid Body                   | Stainless Steel, AISI 304   |  |  |  |  |  |  |
| Sensor Body                     | Aluminium   |  |  |  |  |  |  |
| Filter                          | Strengthened Sintered Steel, 80 mesh, 180 μm                                    |  |  |  |  |  |  |
| Electrical                      |   |  |  |  |  |  |  |
| Solenoid Coil Power Requirement | 8.6 Watts @ 230 Volt AC / 17.1 Watts @ 120 Volt AC                              |  |  |  |  |  |  |
| Solenoid Voltage                | 230 VAC 16W 50Hz or 115 VAC 22W 50Hz (C/F for 12 VDC or 24 VDC options)         |  |  |  |  |  |  |
| Sensor Type                     | Magnetoresistive, Omni-polar, Solid State, Sinking                              |  |  |  |  |  |  |
| Sensor Power                    | 5 - 25 VDC, 11 mA maximum   |  |  |  |  |  |  |
| Sensor Output                   | Sink, 20 mA Maximum   |  |  |  |  |  |  |





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