

# Mono-Block™ III

The industry's most widely used additive injector



# Our Latest Generation Additive Injector

The Mono-Block III is the building block for both smart and remotely controlled injector solutions.

The Mono-Block III is the latest generation of the Mono-Block Series of additive injectors—the industry's most widely used additive injector, installed at more than 75,000 loading racks, pipelines, chemical storage and distribution facilities, and aviation fuel delivery facilities around the world.

The Mono-Block III is designed to work seamlessly with Guidant's Fusion4 smart injector controllers (MSC-A and SSC-A), as well as latest-generation loading presets and terminal automation systems, such as Guidant's FuelFACS suite of software. The compact assembly features a solid block, stainless steel design.

#### **Features**

- · 304 stainless steel block
- 3/8-inch female National Pipe Taper (FNPT) inlet and outlet ports
- Outlet tapered plug-style isolation valves with 180° operation
- Two different types of Mono-Block models for standard flow and low flow
- Valve cover plates with seal wire screws for added security
- Oval gear meter cavity machined into the block for precise measurements
- Strainer basket positioned perpendicular to flow in the face of the block
- Explosion-proof solenoid machined into the block
- · Explosion-proof Hall-effect meter sensor
- An integral stainless steel ball check valve, machined and polished for optimum sealing at discharge ports to protect against reverse flow
- Optional calibration kit P/N 30-00-002

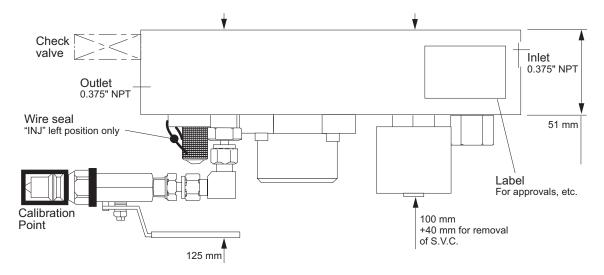
#### **Benefits**

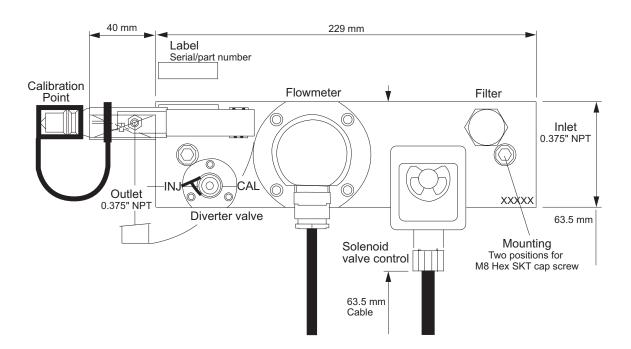
- Operational security with tamper-proof features
- Proven reliability, more than 75,000 Mono-Block legacy injectors installed worldwide
- · Proven ease of maintenance and calibration
- Extremely accurate treat-rate optimization when used with a smart controller





### **General Arrangement**





# **Technical Specifications**

Flow					
	Standard Flow	Low Flow			
Nominal K-Factor	760 pulses per liter (P/L) 1460 P/L				
Meter Accuracy	0.50%	0.50%			
Meter Repeatability	0.25%	0.25%			
Max Flow Rate Note: The specified maximum flow rate is based on 50 cSt hydrocarbon liquid.	11.0 liters per minute (l/min)	1.0 l/min			
Min Flow Rate	1.0 l/min	0.1 l/min			
Max Pressure	235 pound-force per square inch (psi) (16 bar)	235 psi (16 Bar)			
Max Viscosity	300 centistokes (cSt)				
Environmental					
Temperature	-20 to 65 °C (-4 to 150 °F)				
Approvals	IECEx and ATEX Zone 2				
Materials					
Manifold	304 stainless steel				
Meter Gears	538 Ryton polyphenylene sulfide (PPS)				
Sensor	Aluminum				
Solenoid Seals	Isolast/polytetrafluoroethylene (PTFE)				
Electrical					
Solenoid Voltage	120/240 volts alternating current (VAC) 17.18	.6 watts (W); 50/60 hertz (Hz)			
Sensor Type	Solid-state, bipolar magnetic gated, open-collector output				
Sensor Power	5 to 25 volts direct current (VDC), 20 milliampere (mA) maximum				
Open Collector Output	5 to 25 VDC, 100 mA maximum (unsourced)				
Mechanical					
Manifold Components	Diverter valve, inlet strainer, outlet check va	alve, quick-release coupling (QRC) for calibration port			
Manifold Connections	3/8-inch FNPT				
Weight					
Bare Mono-Block III Unmounted	Approximately 5 kilograms (kg) (11 pounds (lbs))				
Options					
Meter Gears	303 stainless steel				
Calibration	Mono-Block Calibration Kit (part number 30-00-002)				
Inlet and Outlet Isolation Valve	3/8-inch male NPT connection to Mono-Block, 1/2-inch ball valve, 316 stainless steel				
Blocking Solenoid	Same as control solenoid				
Flushing Options	Quick release coupling, 1/2-inch NPT, 303 stainless steel				

## **Identification Code**

CV 1-6	Model Key	Availability	
HELA01	Mono-Block Standard Flow (ATEX)	-	
HELA02	Mono-Block Low Flow (ATEX)		_
CV 7	Number of Injectors		
1	One		

CV 8	Mounting					
0	Not Requested					
1	Backplate Mounting Kit 1 (2 x standard M20 Ex d glands, standoffs, bolts)					
2	Backplate Mounting Kit 2 (2 x Hawke M20 Ex d glands, standoffs, bolts)					
3	Backplate Mounting Kit 3 (2 x standard M20 Ex e glands, standoffs, bolts)					
4	Backplate Mounting Kit 4 (2 x Hawke M20 Ex e glands, standoffs, bolts)					
А	Backplate Mounting Kit T6/4 A (2 x standard M20 Ex e glands, standoffs, bolts)					
В	Backplate Mounting Kit T6/4 B (2 x Hawke M20 Ex d glands, standoffs, bolts)					
CV 9	Standard Flow and Gear Material					
0	No Standard Flow Injector Selected					
А	Standard Flow - Ryton Gears - (760 P/L)					
В	Standard Flow - Stainless Steel Gears - (760 P/L)					
CV 10	Low Flow & Gear Material					
0	No Low Flow Injector Selected	С				
С	Low Flow - Ryton Gears - (1460 P/L)		d			
D	Low Flow - Stainless Steel Gears - (1460 P/L)		d			
CV 11	Solenoid - Seat Material					
1	Isolast (ATEX standard)					
2	PTFE		•			
CV 12	Control Solenoid - Voltage and Temperature Class					
1	230 VAC 50 Hz - T3 - Ex m - (ATEX Standard)	f	f			
2	230 VAC 50 Hz - T5 - Ex m	f	f			
3	230 VAC 50 Hz - T6 - Ex d	е	е			
4	110 VAC 50 Hz - T3 - Ex m	f	f			
5	110 VAC 50Hz - T5 - Ex m	f	f			
6	110 VAC 50 Hz - T6 - Ex d	е	е			
А	230 VAC 50 Hz - T4 - Ex d - IECEx	е	е			
В	110 VAC 50 Hz - T4 - Ex d - IECEx	е	е			
CV 13	Blocking Solenoid, Isolation, and Flushing Options					
0	Not Requested	•	•			
1	Isolation Valves - Inlet and Outlet	•	•			
2	Isolation Valves - Inlet and Outlet + Flushing Points 1/4-inch QRC	•	•			
4	Blocking Solenoid + Isolation Valves - Inlet and Outlet	•	•			
5	Blocking Solenoid + Isolation Valves - Inlet and Outlet + Flushing Points 1/4-inch QRC					
CV 14	Ex Approvals					
А	ATEX	j	j			
В	IECEX	k	k			
С	CCOE (India)	m	m			
CV 15	Cable Lengths					
0	No Option	n	n			
А	2 Meter Flying lead - Ex m (Solenoid and Sensor)	q	q			

#### Restrictions

W.1	Only Available with Selection		Not Available with Selection			
Value	cv		Selection	cv		Selection
С	9		A, B			
d				9		A, B
е				8		1, 2 ,3, 4
f				8		A, B
g				12		1, 4
h				12		1, 4
j	12		1, 2, 3, 4, 5, 6			
k	12		A, B, 1, 2 4, 5			
m	12		1, 2, 3, 4, 5, 6			
n	12		3, 6, A, B	8		1, 2, 3, 4, A, B
q	8		0, 1, 2, 3, 4			

#### **About Guidant**

As the undisputed leader in liquid and gas custody transfer solutions with the largest global install base, Guidant's legacy is built on more than 90 years of expertise, accuracy, reliability, and best-in-class technologies. We are a private company focused on the measurement solutions business, serving emerging and established energy markets across the globe.

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