## **Micro-Dose**

# **Honeywell Enraf**





#### Precise ultra-low additive injection system.

This system is ideal for mercaptan injection into LPG and other ultra-low dosage applications that are difficult to accomplish with conventional additive injectors. System control with audit trail is provided by Honeywell Enraf's Blend Pak<sup>™</sup> 3000+ programmable control module (PCM) and the pump is powered by air pressure or nitrogen. A closed loop calibration system is provided for products like mercaptan that are non-desirable for atmospheric exposure.

#### **Features**

- Patented control algorithms to provide a true fuel/additive ratio comparison
- · Monitors complete injection process with 7 programmable alarms
- · Provides superior injection accuracy through cyclical injection
- Meter accuracy to 0.25%
- Easy to use non-venting calibrator
- 750 transactions stored internally with time, date, mercaptan injected and LPG loaded
- 4 security levels with authorization for 8 users. All parameter changes are stored in the security log
- Internal transaction log and security log storage capabilities enable true stand alone capability, to meet government requirements
- · Compatible with all major presets and terminal automation systems
- •. Smith AccuLoad<sup>™</sup>, Brooks IMS<sup>™</sup>, Gate City and Modbus protocol
- 75 user definable operational parameters programmed with Handheld IR Controller
- · All components compatible with process fluids associated with mercaptan use
- · Pneumatic or nitrogen powered stainless steel dual seal plunger pump
- Up to 2600 PSI delivery pressure

### **Technical specification**

Environmental	
Temperature	: -40 °F - 150 °F (-40°C - +40°C)
Humidity	: 5 to 95% without condensation.
Protection Class	: IP66
Approvals	: Explosion proof components rated for: Class I, Division 1, Groups C&D
	Class II, Groups E, F&G
Display	: 2 line by 14 character per line
	5 by 7 dot matrix character format
	Liquid crystal, backlit
Electrical	
Voltage	: 110 / 230 VAC 50/60 HZ or 12 / 24 VDC powered
Inputs	: AC or DC input for product pulses
Outputs	: AC permissive output
Alarm relay contacts	: Form "C"
Comms	: RS232, RS422 and RS485
Mechanical	
Mounting	: All equipment mounted on panel for easy installation
Panel size	: 24" x 22" (610mm x 559mm)
Accessories	

Hand-Held IR Controller (P/N 10-31052)

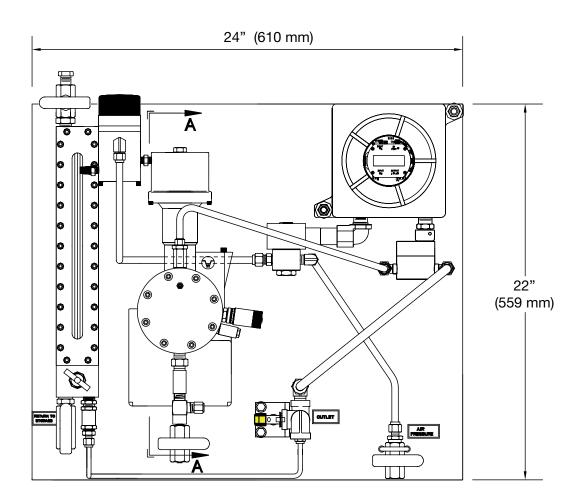
## Calibration

The Closed Loop Calibrator assures complete system integrity without atmospheric exposure of the product. Components include a high pressure clear glass indicator for volumetric measurement, pressure check valve on inlet connection for simulating load conditions due to system pressure, and a needle valve used for calibrator zeroing and draining. Calibration is quick and easy.

## **Identification Code**

Po	s 1,	2, 3	B Pr	Product family										
1	0	0		Mon	Mono-Block II Multi-Pak Family of injector blocks									
				Pos	os 4, 5 Type									
				3	1	Micr	Micro-Dose							
				9		Spec	Special							
						Pos	Pos 6 Operating Voltage							
						1	12	0 V/	C 50	0/60 Hz				
2 240 VAC 50/60 Hz							0/60 Hz							
						9	Sp	ecia	.1					
							Ро	s 7	Pur	np size				
							0	S	mall	size pump (for maximum flow range consult factory)				
							1 Large size pump (for maximum flow range consult factory)   2 Standard size pump (2.25 GHP max.)							
							9 Special							
								F	os 8	Controller				
									4 ∧	/IP 3000 Plus controller				
									_	3P 3000 Plus controller				
									9   S	Special				
1	0	0	_	3	1	1	2	Т	5	Typical identification code				
1		0	-							Your identification code				

#### **Dimensional drawing**



#### **For More Information**

To learn more about Honeywell Enraf's solutions, contact your Honeywell Enraf account manager or visit www.honeywellenraf.com.

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## **Honeywell Enraf**

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