### **GOTEC**

# **EMS 10 Miniature Piston Pump**

Solenoid Operated, Flow to 20 L/H (5.68 GPH) Pressure to 1.3 Bar (18.9 PSI)

### **DESCRIPTION**

Models EMS 10 and EMS 10-BD oscillating piston pumps are an economical solution for low volume liquid pumping applications where small size is a critical factor. All material in contact with fluid media is stainless steel or plastic

The pump is self priming.

### **SPECIFICATIONS**

#### **GENERAL**

**Pump Materials-**

Piston: 431 stainless steel Springs: 316 stainless steel

Body & Connectors: POM plastic (Hostaform)

Duckbill Valves: NBR

Maximum Pressure- EMS 10: 1 bar (14.5 PSI)

EMS 10-BD: 1.3 bar (18.9 PSI)

Maximum Flow- EMS 10: 10 L/H (2.64 GPH)

EMS 10-BD: 20 L/H (5.68 GPH)

Suction Height- EMS 10: 3 meters (9.84 ft)

EMS 10-BD: 1 meter (3.28 ft)

Viscosity Range- 1...600mm<sup>2</sup>/s Particle Tolerance- 100 mesh

Supply Voltage- 12, 24, 110, 230VAC, diode rectified

Frequency- 50/60 Hz

DC Operation: Optional model PD-106 DC driver board Weight- 95 g (0.2lb)

Electrical Connections- Male DIN Spade (3 x 6.3 mm x .08 mm),

ISO/DIN 43650 form B, or 130 mm flying leads Coil Insulation- class F, class H on request, Class 1

Power Consumption- 18 W

Operating Factor- 100% continuous @ 68°F

Operating Ambient Temperature-1 to 50°C (33.8 to 122°F)

Noise Level- Dry Running ~45dbA, open flow ~32dbA, max pressure ~30dbA

Optional Mounting-Integral Heat Sink w/2ea 1/8" Holes 3/4" on center (see drawing)

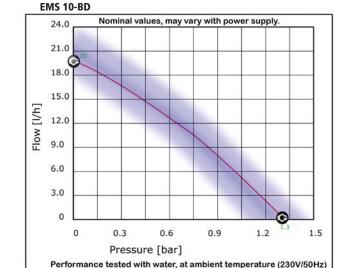
### **FLOW CURVES**

**EMS 10** 

Nominal values, may vary with power supply. 12.0 10.5 9.0 7.5 Flow [I/h] 6.0 4.5 3.0 1.5 0 0.25 0.50 0.75 1.0

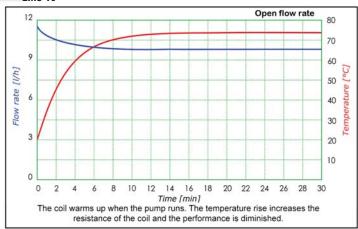
Performance tested with water, at ambient temperature (230V/50Hz)

Pressure [bar]

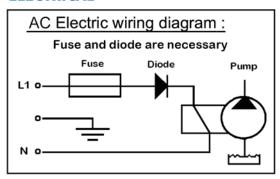


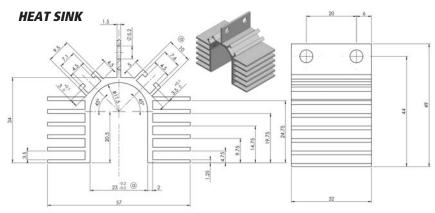
# EFFECT OF COIL TEMPERATURE RISE ON FLOW RATE

### EMS 10

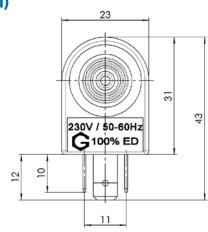


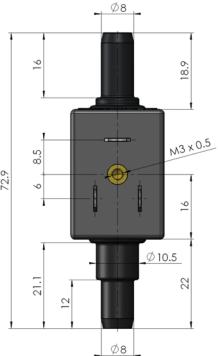
### **ELECTRICAL**





## **DIMENSIONS (MM)**





## **ORDERING INFORMATION**

ABC EXAMPLE: EMS10-24VL

A	B	C
Model	Voltage	Elect. Connection
EMS10 EMS10-BD	24V=24V 110V=110V 12V=12V 230V=230V	S=Spade L=Flying Leads, 130 mm

Options					
Model	Description		Model	Description	
Model PD-106	DC driver board, 9-35 VDC in, 9-35V pulsed DC out		106628	Heat Sink	
Model 1N5406	Diode				