

SEAL LEAKAGE

SINGLE & DUAL CHANNEL | SFF SERIES



Single Channel

Dual Channel

- ◆ Monitors Submersible Pump Seals for Leakage
- ◆ Works with Pumps using Resistance Sensing Leakage Detection
- ◆ Single or Dual Channel for Monitoring 1 or 2 Pumps
- ◆ Two Adjustable Sensitivity Ranges
- ◆ Full Status Indication on Top of Unit for Easy Troubleshooting
- ◆ Low-Profile Adjustment Knob
- ◆ Flange Enclosure for Door-Mounting
- ◆ 8 Pin Back-Mounted Socket Provided with Relay



with appropriate socket



Better. By Design.

800.238.7474

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SALES@MACROMATIC.COM

SFF Series Seal Leakage Relays are designed to monitor the shaft seals of submersible pumps for leakage. These products utilize a flange-enclosure designed to be mounted on an inner door and used with back-mounted sockets. Everything needed for setup, use and troubleshooting is on the top of the unit: LED status indication and low-profile sensitivity adjustment knob.

Two output configurations are offered: an 8 pin SPDT single channel relay and an 8 pin dual channel relay (with 2 SPNO contacts) to monitor two pumps. Probes are pulsed with a DC voltage to prevent electroplating issues.

Operation: Two wires from the relay are connected to a resistance-sensing probe in the pump seal cavity and the grounded motor housing or across two probes to monitor for seal leakage using a low-voltage DC signal. If the seal starts to leak, contaminating fluid enters the seal cavity. This lowers the resistance between the internal probe and the common connection. When the resistance drops below the user-adjustable sensitivity set-point of the relay, the output relay energizes and the LED turns Red ON. The relay output can be used to give an alarm indication of a leaking seal.

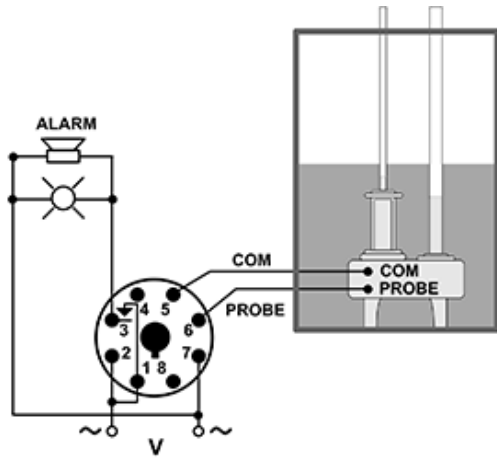
CONFIGURATION	CONTROL VOLTAGE	SENSITIVITY RANGE	CATALOG NUMBER	WIRING/ SOCKET
SINGLE CHANNEL 8 Pin SPDT	24V AC	4.7K to 100K Ω 1K to 250K Ω	SFF024A100 SFF024A250	8 Pin Octal SRP-M08G ■ COM PROBE DIAGRAM 234
	24V AC/DC	4.7K to 100K Ω 1K to 250K Ω	SFFAD7A100 SFFAD7A250	
	120V AC	4.7K to 100K Ω 1K to 250K Ω	SFF120A100 SFF120A250	
	240V AC	4.7K to 100K Ω 1K to 250K Ω	SFF240A100 SFF240A250	
DUAL CHANNEL 8 Pin (2) SPNO	24V AC	4.7K to 100K Ω 1K to 250K Ω	SFF024C100 SFF024C250	8 Pin Octal SRP-M08G ■ PB 1 PB 2 COM DIAGRAM 235
	24V AC/DC	4.7K to 100K Ω 1K to 250K Ω	SFFAD7C100 SFFAD7C250	
	120V AC	4.7K to 100K Ω 1K to 250K Ω	SFF120C100 SFF120C250	
	240V AC	4.7K to 100K Ω 1K to 250K Ω	SFF240C100 SFF240C250	

■ 8 Pin Back-Mounted Socket Provided with Relay

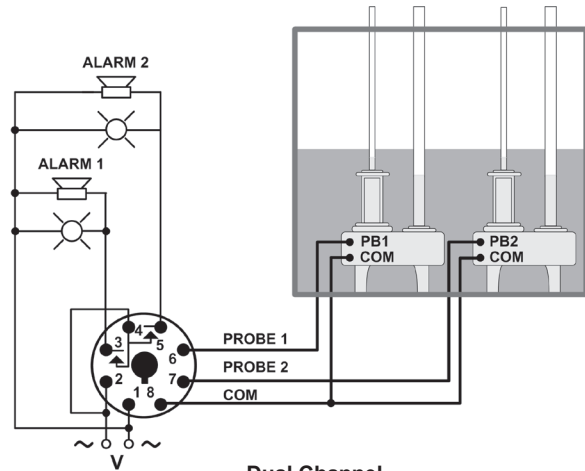
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APPLICATION DATA



Single Channel



Dual Channel

Voltage Tolerance:

AC Operation: +10/-15% of nominal at 50/60 Hz.

Load (Burden):

3 VA

Probe Voltage:

5V DC Pulsed

Response Time:

Pick-up: 1 Second

Drop-out: 1 Second

LED Indicator:

Green ON with input voltage applied; Red ON when seal leak detected and relay energized

Temperature:

Operating: -28° to 65°C (-18° to 149°F)

Storage: -40° to 85°C (-40° to 185°F)

Output Contacts:

Single Channel Relays:

10A @ 240V AC / 7A @ 28V DC, 1/4HP @ 120V AC (N.O.)

Dual Channel Relays:

(2) 5A @ 240V AC / 5A @ 28V DC, 1/4HP @ 120V AC (N.O.)

Life:

Mechanical: 10,000,000 operations

Full Load: 100,000 operations

Mounting:

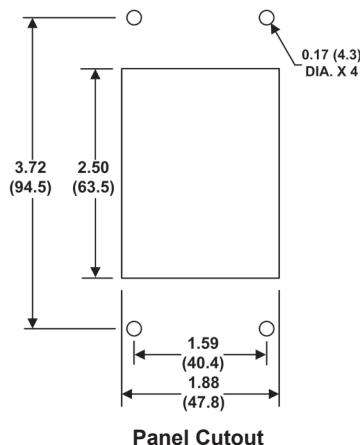
For mounting on an inner door, use 8 Pin Back-Mounted Socket (IDEC SR6P-M08G which is provided with the relay). For panel-mounting, use industry-standard 8 Pin Octal socket (Macromatic 70169-D or equivalent).

Approvals:

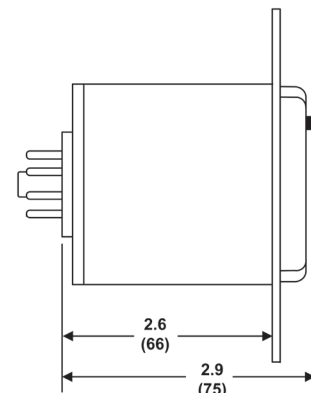
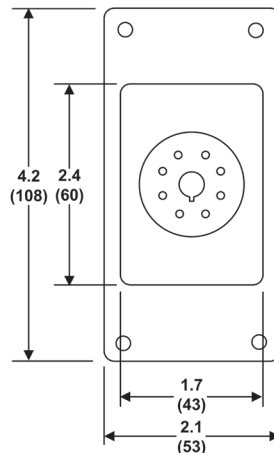


with
appropriate
socket

DIMENSIONS



Panel Cutout



All Dimensions in Inches (Millimeters)