

proense® Pump Seal Failure Relay



PSFR-1C-120A-TL



PSFR-2C-120A-TL

PSFR Series

This relay is designed to monitor the shaft seals of submersible pumps. A resistive-measuring probe is installed in the pump seal cavity provided by pump manufacturer. If the seal starts to leak, contaminating fluid enters the seal cavity provided by pump manufacturer, lowering the resistance between the internal probe and the common connection.

When the resistance drops below the user-adjustable sensitivity setpoint of the relay, the output relay energizes and the LED turns Green. The LED turns Red for alarm state. The relay output can be used to give an alarm indication of a leaking seal. The relay will automatically reset when the fault condition clears.

Features

- Monitors submersible pump seals for leakage
- 8-pin, SPDT, single channel for monitoring one pump
- Adjustable sensitivity ranges (4.7K Ω to 100K Ω)
- Uses industry-standard 8-pin octal sockets

Agency Approvals

- cURus, File number E191059
- UL Listed, File number E191059
- CE



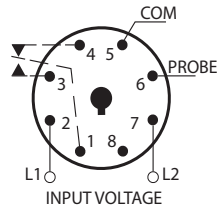
Pump Seal Failure Relays						
Part Number	Price	Description	Pcs/Pkg	Wt (lb)	Use With	
PSFR-1C-120A-TL	\$49.00	ProSense pump seal failure relay, socket mount, 120VAC coil voltage, SPDT, 10A contact rating, 8-pin configuration, LED indicator(s), single channel for (1) pump monitoring. Relay becomes UL listed when used with 70169-D relay socket.	1	0.4	70169-D or 750-2C-SKT	
PSFR-2C-120A-TL	\$59.00	ProSense pump seal failure relay, socket mount, 120VAC coil voltage, SPST, N.O., 5A contact rating, 8-pin configuration, LED indicator(s), dual channel for (2) pump monitoring. Relay becomes UL listed when used with 70169-D relay socket.	1	0.4	70169-D or 750-2C-SKT	
70169-D	\$4.00	Relay socket, works with all phase monitor relays, 10A at 600VAC rated, 8-pin octal configuration. Can be mounted on 35mm DIN rail or directly mounted to the panel.	1	0.1	-----	
750-2C-SKT	\$4.25	Relay socket, works with all phase monitor relays, 5A at 600VAC rated, 8-pin octal configuration. Can be mounted on 35mm DIN rail or directly mounted to the panel.	1	0.1	-----	

Technical Specifications		
	PSFR-1C-120A-TL	PSFR-2C-120A-TL
Voltage Tolerance	120VAC (+10% / -15%) at 50/60Hz	
Output Contacts	SPDT: 10A @ 240V AC / 7A @ 28V DC, 1/4HP @ 120V AC (N.O.)	SPST: 5A @ 240V AC / 5A @ 28V DC, 1/4HP @ 120V AC (N.O.)
Life (Resistive Load)	Mechanical: 10,000,000 operations; Electrical: 100,000 operations	
Probe Voltage	5VDC Pulsed	
Response Time	Pick-up: 1s; Drop-out: 1s	
Power Consumption	3VA	
Temperature	Operating: -28° to 65°C (-18 to 149°F) Storage: -40° to 85°C (-40° to 185°F)	
Mounting	8-pin octal socket	
Indicator LED	Green ON with input voltage applied; Red ON when seal leak detected and relay energized	
Output Contacts	10A at 240VAC / 7A at 28VDC Max	5A at 240VAC / 5A at 28VDC Max
Approvals	cURus, (E191059), CE, (cULus when used with socket 70169-D)	

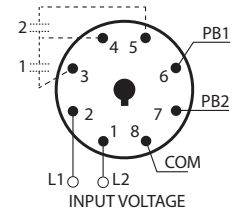
pro^{sense} Pump Seal Failure Relay

Wiring

PSFR-1C-120A-TL



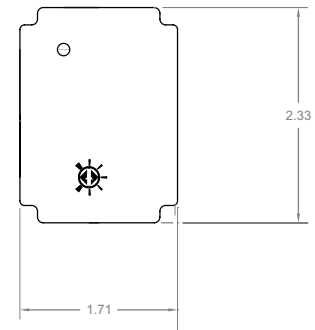
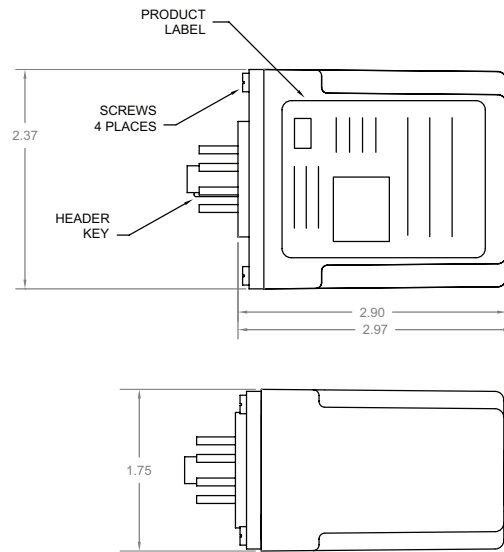
PSFR-2C-120A-TL



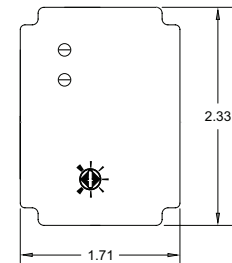
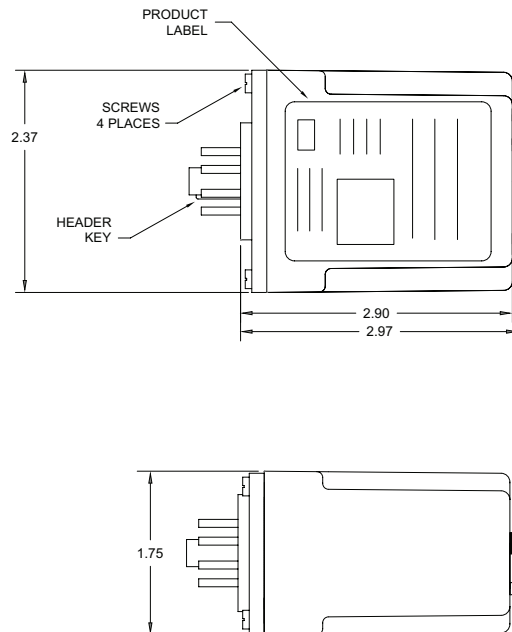
Dimensions

Inches

PSFR-1C-120A-TL Single Channel

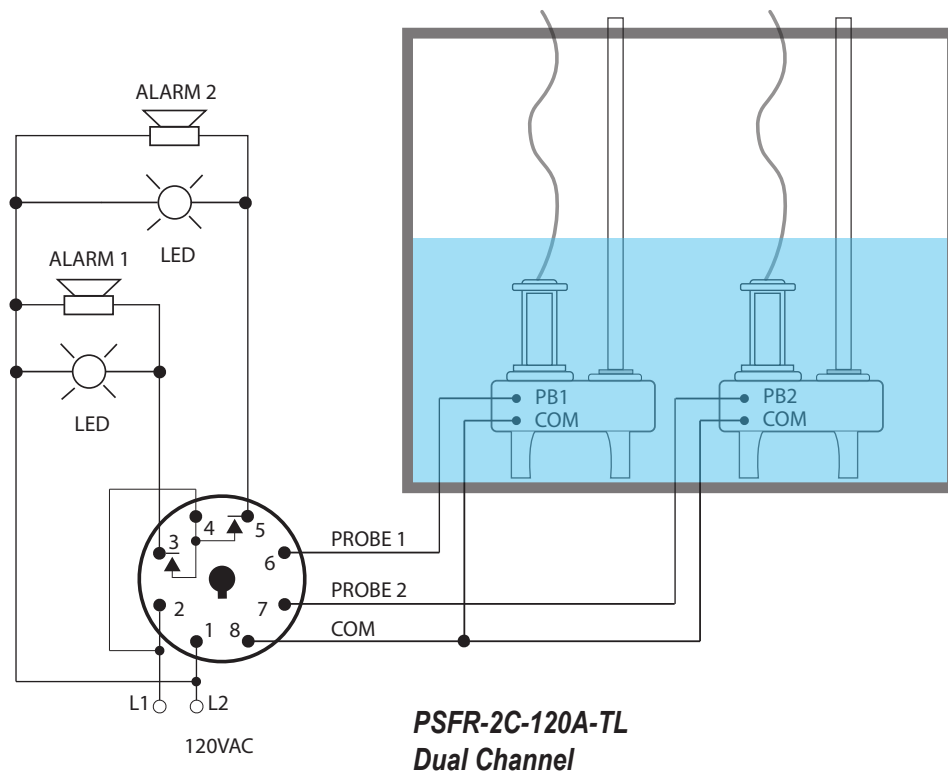
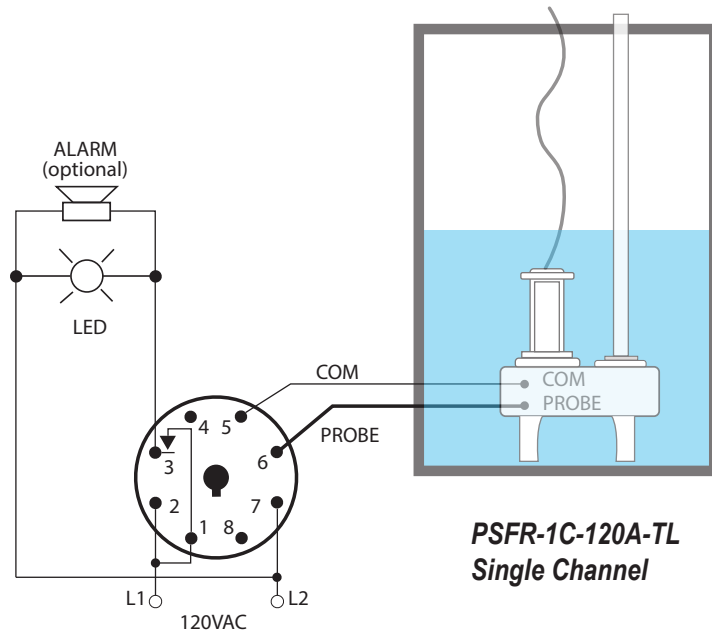


PSFR-2C-120A-TL Dual Channel



proense® Pump Seal Failure Relay

Typical Installation



proense® 8-Pin Octal Socket



70169-D



750-2C-SKT

Features

- 600VAC (Plug-in 3-phase monitor relays require a 600VAC-rated socket when used with system voltages greater than 300VAC)
- Mounts on 35mm DIN rail
- Screw clamp wire termination

Agency Approvals

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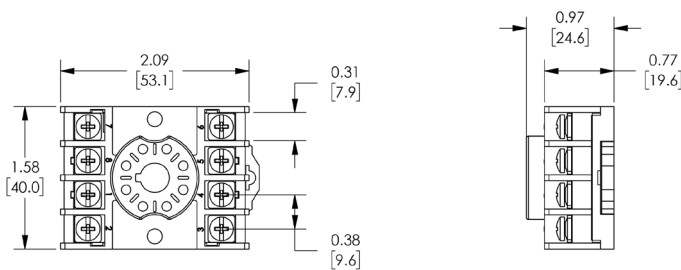
Octal Sockets for Motor Monitor Relays				
Part Number	Price	Description	Pcs/Pkg	Wt (lb)
70169-D	\$4.00	Relay socket, works with all phase monitor relays, 10A at 600V rated, 8-pin octal configuration. Can be mounted on 35mm DIN rail or directly mounted to the panel.	1	0.1
750-2C-SKT	\$4.25	Relay socket, works with all phase monitor relays, 5A at 600V rated, 8-pin octal configuration. Can be mounted on 35mm DIN rail or directly mounted to the panel.	1	0.1

Octal Sockets for Motor Monitor Relays						
Part Number	Voltage	Current	Screw Size	Wire Size (capacity)	Screw Torque	Screw Chassis Mounting Torque
70169-D	600V	10A	6-32	1 or 2, 12-22 AWG	12 lb-in	7 lb-in
750-2C-SKT	600V	5A	M3.5	1 -12 AWG / 1 -14 AWG	9 lb-in	7 lb-in

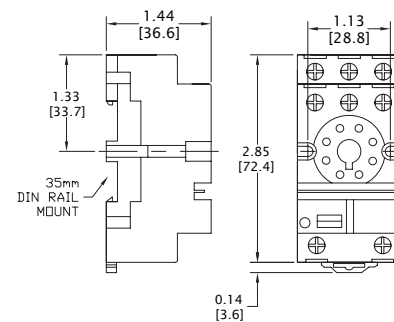
Dimensions

Inches [mm]

70169-D

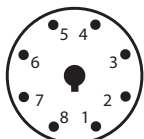


750-2C-SKT



Socket Pinouts

70169-D



750-2C-SKT

