

# proense® Pump Seal Failure Relay



**PSFR-1C-120A**

## Pump Seal Failure Relay

### 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.

### Features

- Monitors submersible pump seals for leakage
- 8-pin, SPDT, single channel for monitoring one pump
- Adjustable sensitivity ranges (4.7K, 20K, 47K, 100K)
- Uses industry-standard 8-pin octal sockets

When the resistance drops below the user-adjustable sensitivity setpoint of the relay, the output relay energizes and the LED turns ON. 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.

### Agency Approvals

- cURus, File number E191059
- CE, EN60947-1, EN60947-5-1
- RoHS



(with appropriate socket  
70169-D)

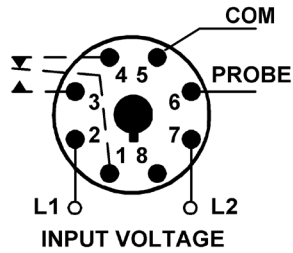
ProSense Pump Seal Failure Relay					
Part Number	Description	Pcs/Pkg	Wt (lb)	Price	Use With
<b>PSFR-1C-120A</b>	Pump seal failure relay, monitors shaft seals of submersible pumps. Single channel, adjustable sensitivity range from 4.7K, 20K, 47K, 100K, LED failure indication, one 10A single-pole double-throw output contacts, 8-pin octal base, 9 VDC probe voltage.	1	0.4	\$52.00	70169-D or 750-2C-SKT
<b>70169-D</b>	Relay socket, 10A at 600 V rated, 8-pin octal configuration. Can be mounted on 35mm DIN rail or directly mounted to the panel.	1	0.1	\$3.50	-----
<b>750-2C-SKT</b>	Relay socket, 5A at 600 V rated, 8-pin octal configuration. Can be mounted on 35mm DIN rail or directly mounted to the panel.	1	0.1	\$4.25	-----

Technical Specifications	
	<b>PSFR-1C-120A</b>
<b>Voltage Tolerances</b>	120 VAC 50/60Hz (+10%/-15%)
<b>Output Contacts</b>	10A at 240 VAC/30 VDC Max
<b>Life (Resistive Load)</b>	Mechanical: 10,000,000 operations; Electrical: 100,000 operations
<b>Probe Voltage</b>	9 VDC
<b>Response Time</b>	Pick-up: 10ms; Drop-out: 10ms
<b>Power Consumption</b>	2 VA
<b>Temperature</b>	-28 to 65°C (-18 to 149°F)
<b>Mounting</b>	8-pin octal socket
<b>Indicator LED</b>	Red ON when seal leak detected and relay energized
<b>Output Contacts</b>	10A at 240 VAC/7A at 30 VDC Max
<b>Insulation Voltage</b>	2,000 volts
<b>Approvals</b>	cURus (E191059), CE, RoHS, (cULus when used with socket 70169-D)

# prosense® Pump Seal Failure Relay

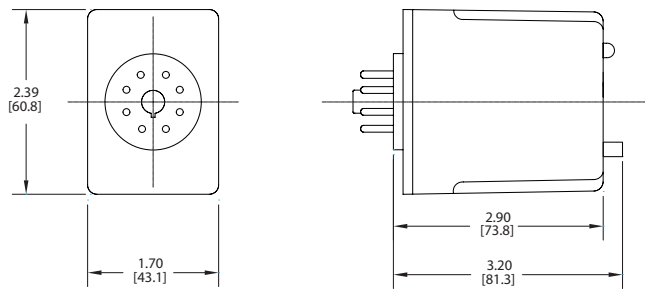
## Wiring

**PSFR-1C-120A**



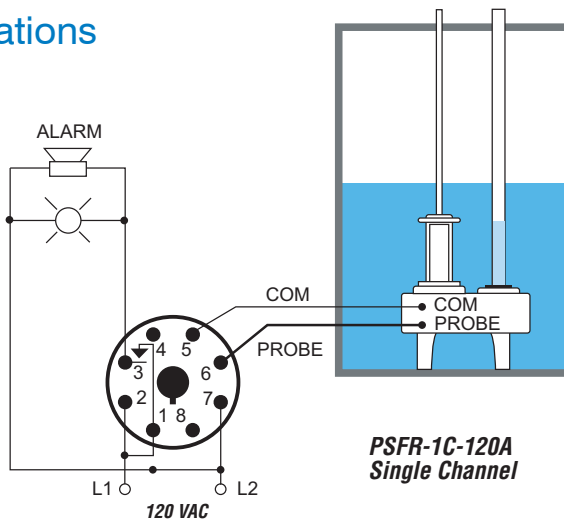
## Dimensions

**PSFR-1C-120A**



*All Dimensions in Inches  
(Millimeters)*

## Typical Installations



# 8-pin Octal Socket



70169-D



750-2C-SKT

## Features

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

## Agency Approvals

- cURus, File number E191059, E225080
- CE
- RoHS

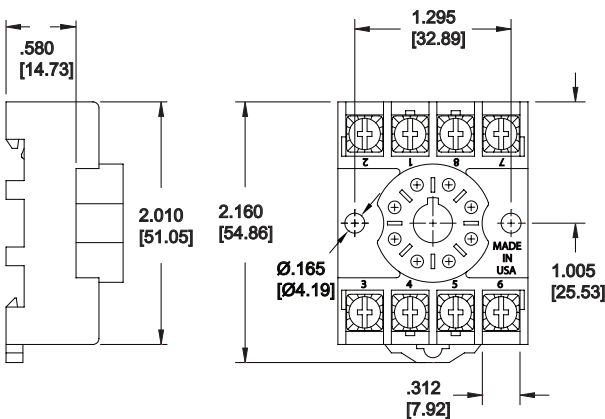


Octal Sockets for Motor Monitor Relays				
Part Number	Description	Pcs/Pkg	Wt (lb)	Price
70169-D	Relay socket, works with all phase monitor relays, 10A at 600 V rated, 8-pin octal configuration. Can be mounted on 35mm DIN rail or directly mounted to the panel.	1	0.1	\$3.50
750-2C-SKT	Relay socket, works with all phase monitor relays, 5A at 600 V rated, 8-pin octal configuration. Can be mounted on 35mm DIN rail or directly mounted to the panel.	1	0.1	\$4.25

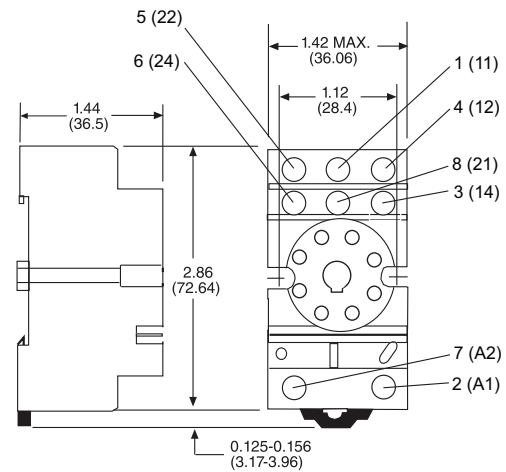
Technical Specifications						
Part Number	Voltage	Current	Screw Size	Screw wire size (capacity)	Screw wire torque	Screw chassis mounting torque
70169-D	600V	10A	6-32	1 or 2 #12-#22 AWB	6-7 Lb-in (12 Lb-in max)	7 Lb-in
750-2C-SKT	600V	5A	M3.5	(1) #12/ (2) #14 AWG	9 Lb-in	7Lb-in

## Dimensions

70169-D



750-2C-SKT

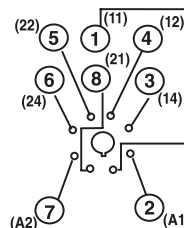


## Socket Pinouts

70169-D



750-2C-SKT



All Dimensions in Inches  
(Millimeters)