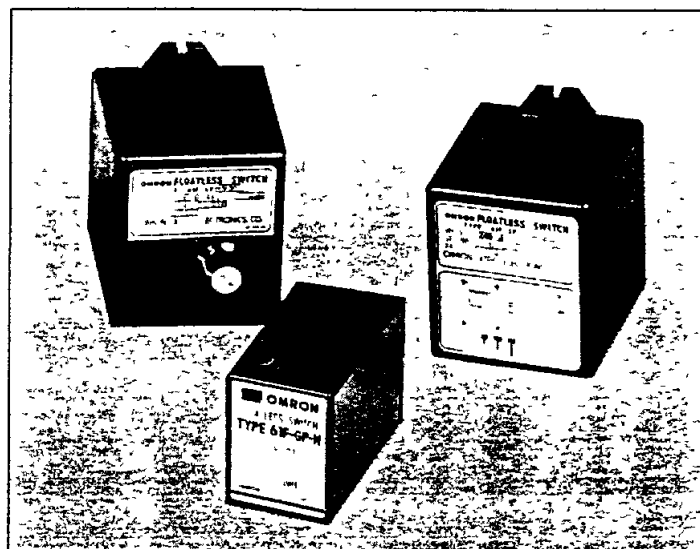


Conductive Liquid Level,
Thermistor Protection and
Ice Bank Controller.

FEATURES

- Direct AC operation
- Fully surge protected
- Simple plug-in connection and DIN rail mounting
- Comprehensive range of accessories
- Extraordinarily low cost
- AOTC approved for boiler control



AVAILABLE TYPES

General purpose	61FGP
High sensitivity	61FGPH
Adjustable sensitivity	61FGP-V50
Reverse Acting	61FGPY
Miniature	61FGPN2

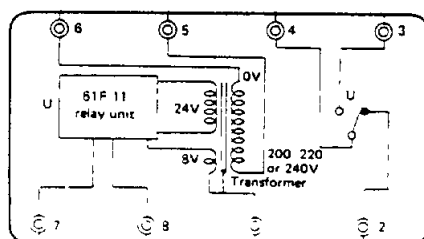
103-265/6/7
& 103-752/3/4
& 330-978

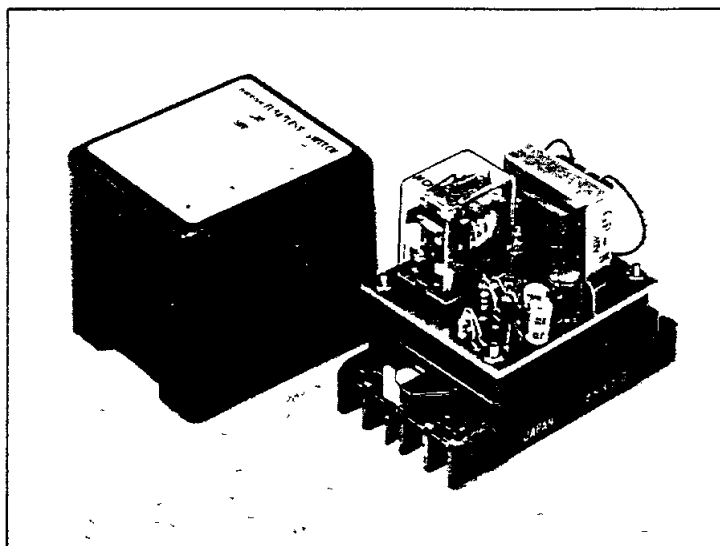
SPECIFICATIONS

CHARACTERISTICS

Type	61FGP 61FGPN2 61FGPR	61FGPH	61FGPV50
Rated voltage	24V, 110V, 230V, 415V AC 50/60Hz		
Operating voltage range	85 to 110% rated voltage		
Interelectrode voltage (secondary voltage of transformer)	8VAC	24VAC	24VAC
Power consumption	3 2VA max		
Operate resistance	4K Ω	70K Ω	0 - 50K Ω adjustable
Release resistance	15K Ω max	300K Ω max	300K Ω max
Response time	Operate 80msec max Release 160msec max		
Length of cable	1000M max	50M max	50M max
Control output	5A 230VAC single changeover relay		
Insulation resistance	100M Ω min @ 500VDC		
Dielectric strength	1500VAC 50/60Hz 1 min		
Ambient temperature	- 10 to + 55°C		
Humidity	85% RH max		
Service life	Mechanical 5,000,000 operations min Electrical 500,000 operations min		

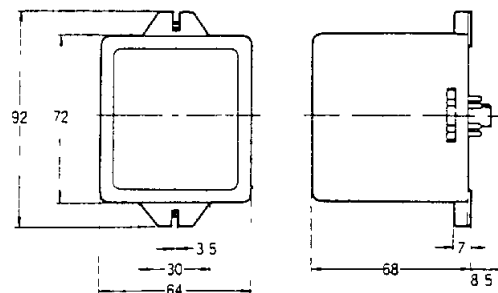
INTERNAL CONNECTIONS



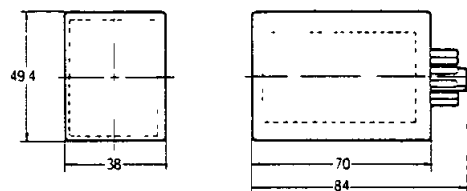


DIMENSIONS

61F-GP



61F-GP-N2



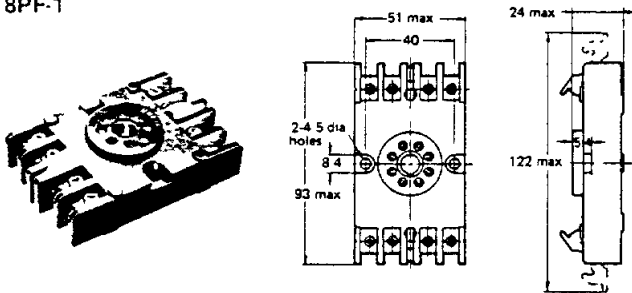
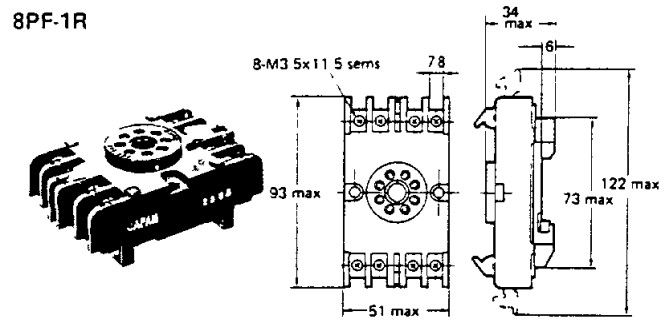
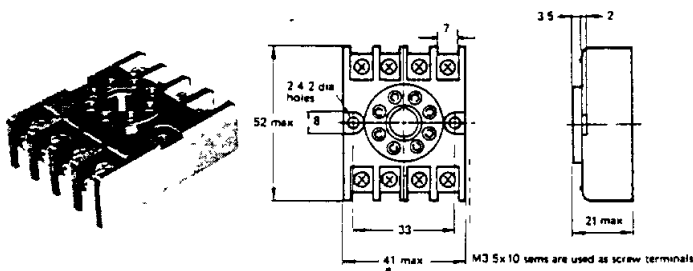
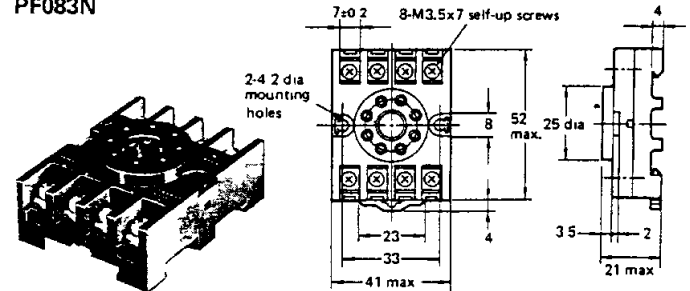
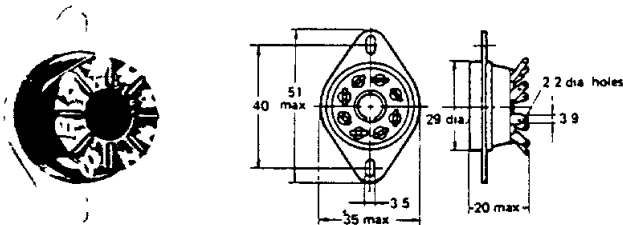
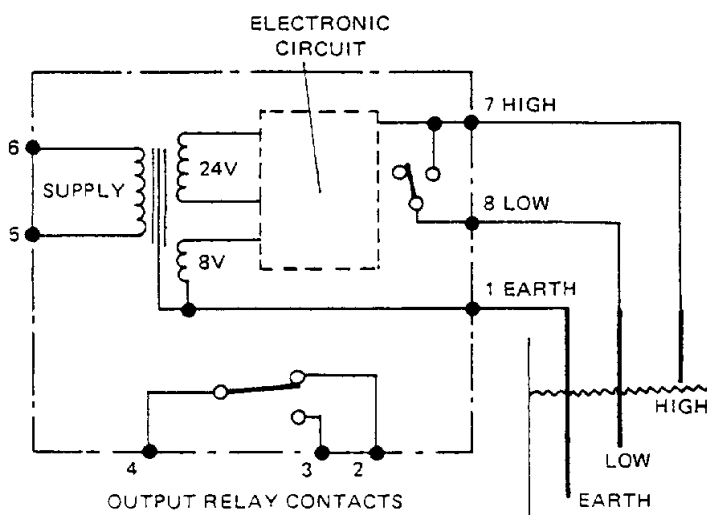
ACCESSORIES

ELECTRODE HOLDERS

Type	Dimensions	Features
TRIPLE ELECTRODE SET PS31		- Holder plus 3 electrodes 1 metre length stainless steel 0.5 in. BSP thread. - Supplied with protective terminal cover
TRIPLE ELECTRODE HOLDER PS3		- Holder only 1 metre length electrodes type: SS1 - Connectors for extending > 1 metre type: FO3-02 - Separators to prevent electrodes short circuit type: FO3-14-3P
FIVE ELECTRODE HOLDER PS5		- Holder only 1 metre length electrodes type: SS1 - Connectors for extending > 1 metre type: FO3-02 - Separators to prevent electrodes short circuit type: FO3-14-3P
SINGLE ELECTRODE HOLDER BF-1		- Holder only 1 metre length electrodes type: SS1 - Connectors for extending > 1 metre type: FO3-02 - Separators to prevent electrodes short circuit type: FO3-14-3P
SINGLE HIGH PRESSURE ELECTRODE HOLDER BS-1	Pressures up to 20 Kg/cm² Temperatures up to 250°C	- Holder only 1 metre length electrodes type: SS1 - Connectors for extending > 1 metre type: FO3-02 - Separators to prevent electrodes short circuit type: FO3-14-3P

• SOCKETS

Controller	Screw terminal surface	Screw terminal DIN rail	Solder Chassis
61FGP 61FGPH 61FGPV50 61FGPY	8PF-1	8PF 1R	PL08
61FGPN2	PF083	PF083N	

Type
Dimensions
8PF-1

Type
Dimensions
8PF-1R

PF083

PF083N

PL08

■ APPLICATIONS
• CONDUCTIVE LIQUID LEVEL CONTROL


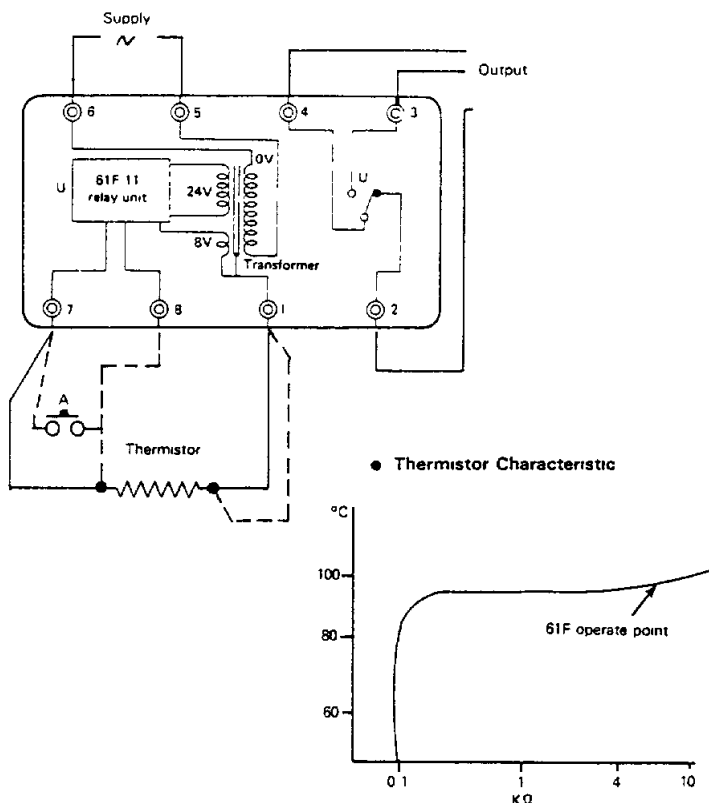
61FGP
61FGPN2
61FGPH
61FGPV50

- Pump contactor connected to output relay contacts
- Water level rises to HIGH electrode.
- Output relay operates ceasing pump supply.
- Drainage commences until water level reaches below LOW electrode.
- Output relay resets and pumping recommences.
- Fails safe on filling.

61FGPY

- As above except relay operation reversed.
- Fails safe on emptying

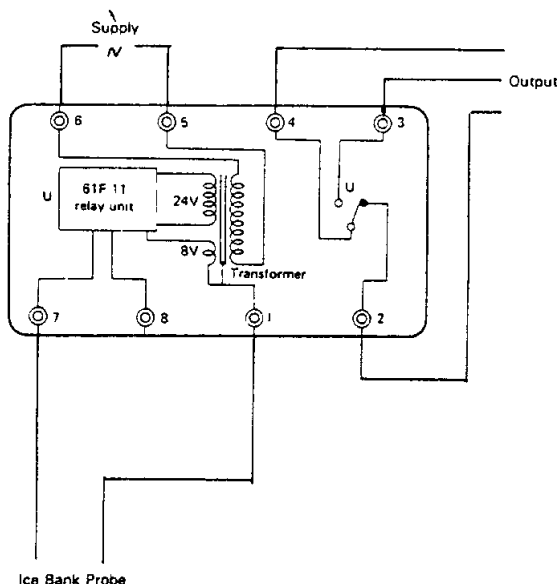
● THERMISTOR PROTECTION RELAY



61FGP
61FGPN2

- Positive temperature coefficient thermistor resistance increases with temperature rise
- With power supplied to 61F output relay is energised thus providing supply switched to motor contactor.
- When thermistor senses coil temperature $>100^{\circ}\text{C}$ the resistance rise causes output relay to reset
- On reset power is removed from motor contactor
- Alternative connection dotted line allows operation only after A is impulsed. Reset thus not automatic
- At temperature $>100^{\circ}\text{C}$ output relay resets and remains in this condition until 61F power supply removed.

● ICE BANK CONTROL



61FGP
61FGPN2

- The specific resistance of ice is far greater than water.
- Whilst water is present between two appropriate electrodes the 61F output relay is energised.
- Refrigerant is circulating through system via pump connected to output relay
- As water changes to ice interelectrode resistance between probes increases
- Once $>15\text{K}\Omega$ interelectrode resistance is achieved output relay resets and pump motor is de-energised.
- As ice returns to water and interelectrode resistance reduces so 61F re-energises and cycle recommences.

IMO PRECISION CONTROLS

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