



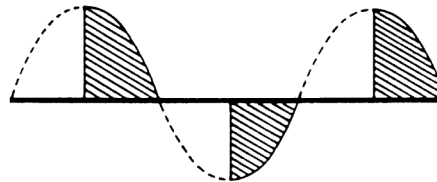
The PHS Series is an ideal method of changing lamp intensity, varying the speed of a fan/motor, or controlling the temperature of a heater. The effective output voltage is adjusted with an accessory external potentiometer suitable for line voltage applications.

For more information see:
Appendix B, page 165, Figure 4 for dimensional drawing.
Appendix C, page 172, Figure 40 for connection diagram.

Operation

Upon application of input voltage, effective output voltage can be varied by changing the external resistance value. As the external resistance increases, the effective output voltage decreases. The inverse is also true.

Typical Output Waveform



Features:

- External adjustment - 230VAC rated potentiometer
 - 120 or 230VAC input voltages available
 - Up to 20A steady state - 200A inrush
 - Single hole surface mounting
- Approvals:

Auxiliary Products:

- **Versa-knob:** P/N: P0700-7
- **Quick connect to screw adaptor:** P/N: P1015-18
- **Female quick connect:** P/N: P1015-13 (AWG 10/12)
P/N: P1015-64 (AWG 14/16)
P/N: P1015-14 (AWG 18/22)
- **Potentiometers:** P/N: P1004-174 (100kΩ 1W)
P/N: P1004-175 (200kΩ 2W)

Available Models:

PHS120A10	PHS230A10
PHS120A20	PHS230A20
PHS120A6	PHS230A6
PHS230A1	

If desired part number is not listed, please call us to see if it is technically possible to build.

Order Table:

PHS	X	X
	Input Voltage	Rating
	-120A - 120VAC	-1 - 1A
	-230A - 230VAC	-6 - 6A
		-10 - 10A
		-20 - 20A

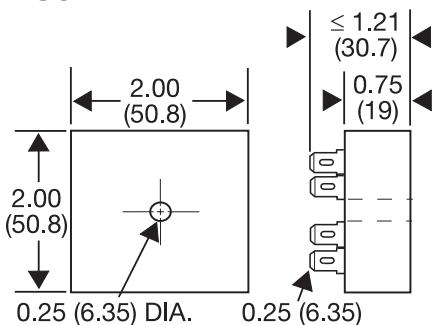
Specifications

Output	Variable voltage phase angle control	Mechanical	Surface mount with one #10 (M5 x 0.8) screw
Type		Mounting *	2 x 2 x 1.51 in. (50.8 x 50.8 x 38.4 mm)
Rating	Steady State (at 100% On)	Dimensions	0.25 in. (6.35 mm) male quick connect terminals
	1A	Termination	
	6A	Environmental	
	10A	Operating / Storage Temperature	-20° to 60°C / -40° to 85°C
	20A	Humidity	95% relative, non-condensing
Minimum Load Current	100mA	Weight	1A: ≅ 2.4 oz (68 g) 6, 10, & 20A: ≅ 3.9 oz (111 g)
Voltage Drop	≅ 2.0V at rated current	External Adjustment Potentiometer	
Input		120VAC	100KΩ rated at 1W
Voltage	120 or 230VAC	230VAC	200KΩ rated at 2W
Tolerance	±20%		Must have insulation resistance suitable for line voltage applications.
AC Line Frequency	50/60Hz		
Protection			
Dielectric Breakdown	≥ 2000V RMS terminals to mounting surface		
Insulation Resistance	≥ 100MΩ		

*Units rated ≥ 6A must be bolted to a metal surface using the included heat sink compound. The maximum mounting surface temperature is 90°C. Inrush: Non-repetitive for 16ms.

Appendix B - Dimensional Drawings

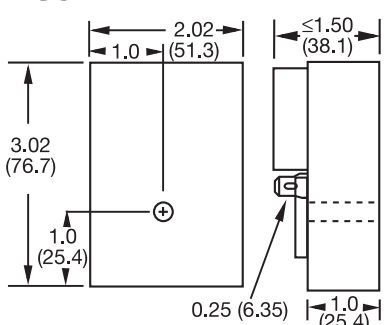
FIGURE 1



0.25 (6.35) DIA. 0.25 (6.35)

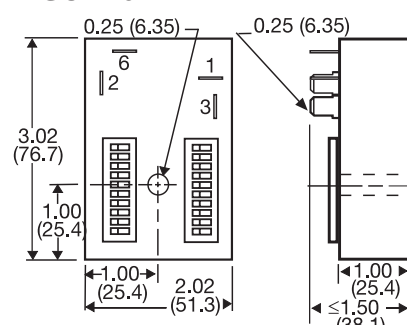
CT; ESD5; ESDR; FS100; FS200; FS300; KR3; KR9;
KRDB; KRDI; KRDM; KRDR; KRDS; KRPD; KRPS;
KSD1; KSD2; KSD3; KSD4; KSDB; KSDR; KSDS;
KSDU; KSPD; KSPS; KSPU; KVM; T2D; TA; TAC1;
TAC4; TDU; TDUB; TDUI; TDUS; TL; TMV8000;
TS1; TS2; TS4; TS6; TSB; TSD1; TSD2; TSD3; TSD4;
TSD6; TSD7; TSDB; TSDR; TSDB; TSS; TSU2000

FIGURE 2



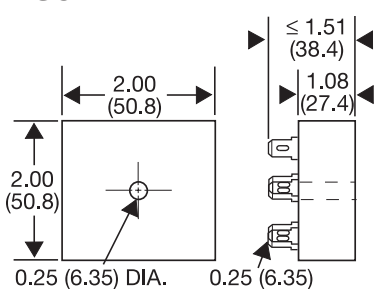
HLV; HRD3; HRD9; HRDB; HRDI;
HRDM; HRDR; HRDS; HRID; HRIS;
HRIU; HRPD; HRPS; HRPV; HRV; RS

FIGURE 3



HSPZ

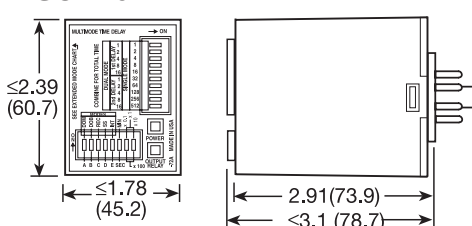
FIGURE 4



FA; FS; FSU1000*; NHPD; NHPS; NHPV;
NLF1*; NLF2*; PHS*; PTHF*; SIR1; SIR2;
SLR1*; SLR2*; TH1; TH2; THC; THD1;
THD2; THD3; THD4; THD7; THDB; THDM;
THDS; THS

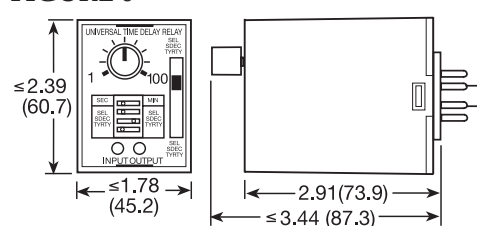
*If unit is rated @ 1A, see Figure 1

FIGURE 5



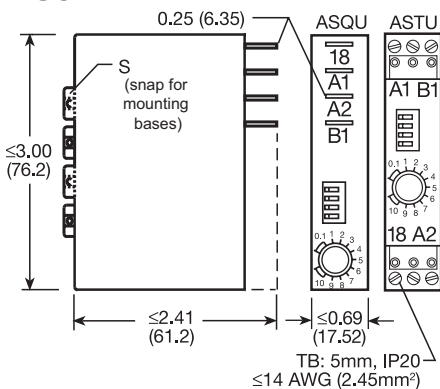
TRDU

FIGURE 6



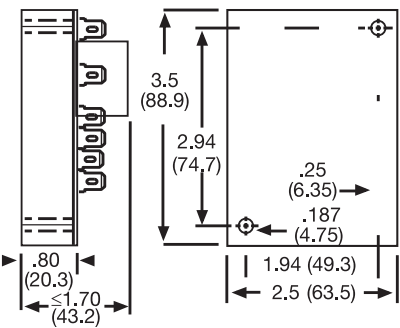
TRU

FIGURE 7



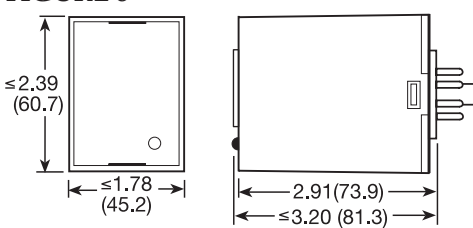
ASQU; ASTU; DSQU; DSTU

FIGURE 10



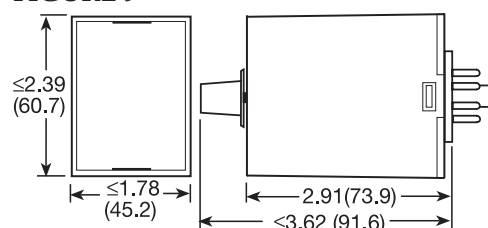
ERD3; ERDI; ERDM

FIGURE 8



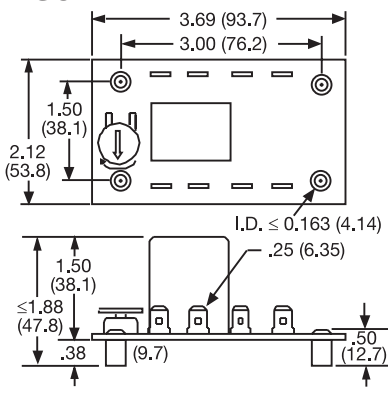
PLM; PLR; TDB; TDBH; TDBL; TDI; TDIH;
TDIL; TDM; TDMB; TDMH; TDML; TDR;
TDS; TDSH; TDSL

FIGURE 9



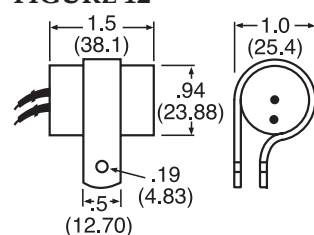
FS500; PRLB; PRM; PRLS; TRB; TRM; TRS

FIGURE 11



ORB; ORM; ORS

FIGURE 12

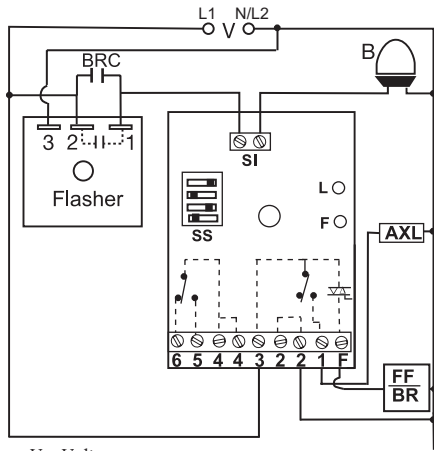


FS100; FS400

inches (millimeters)

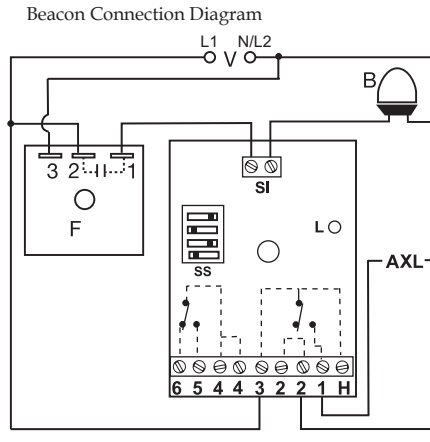
Appendix C - Connection Diagrams

FIGURE 34 - FB9L



V = Voltage
 B = LED Beacon
 SS = Selector Switch
 SI = Sensor Input
 L = Indicator
 F = Flasher Failure LED
 AXL = Auxiliary Load/Alarm
 FF = Flasher Failure/Bypass Relay
 BR = Bypass Relay Contacts

FIGURE 35 - SCR9L



V = Voltage
 B = Beacon Lamps
 SS = Selector Switch
 L = LED Indicator
 F = Flasher
 AXL = Auxiliary Load/Alarm
 OL = Obstruction Lamps
 SI = Sensor Input
 H = "3" Spare AC Hot Connection (2A max.)

Obstruction Lamp Connection Diagram

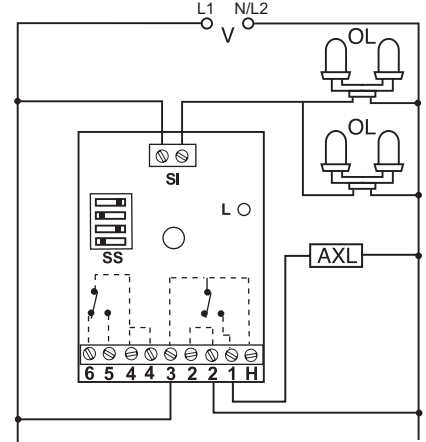
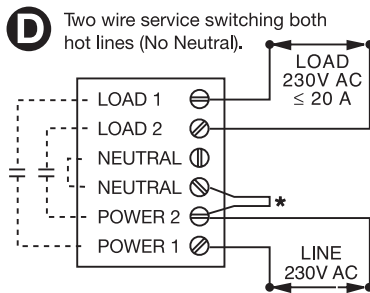
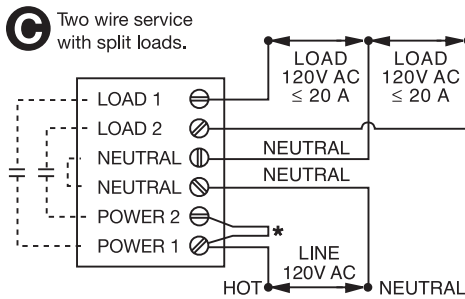
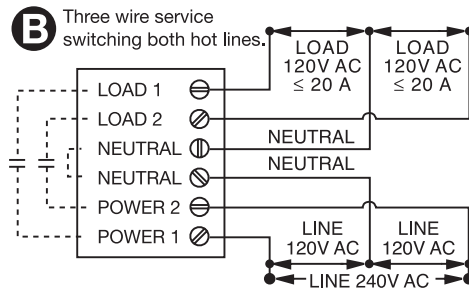
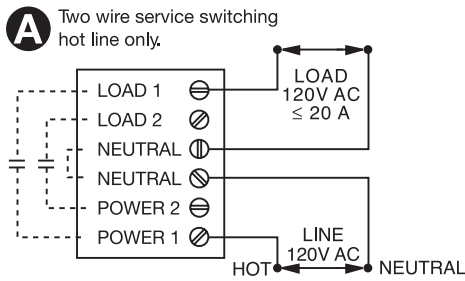
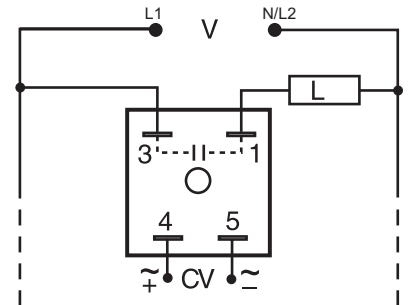


FIGURE 36 - PCR Series



* Customer Supplied Jumper - - - - Internal Connection

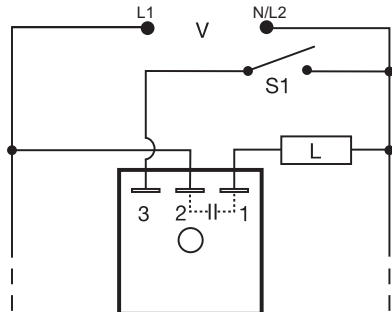
FIGURE 37 - SIR1/SIR2 Series



V = Voltage
 CV = Control Voltage
 R = Reset
 NC = Normally Closed Output
 NO = Normally Open Output
 —||— = Undefined time

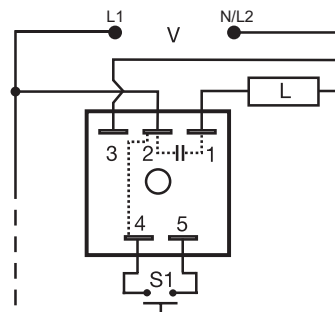
Load may be connected to terminal 3 or 1.
 Note: Normally open output is shown. Normally closed output is also available.

FIGURE 38 - SLR Series



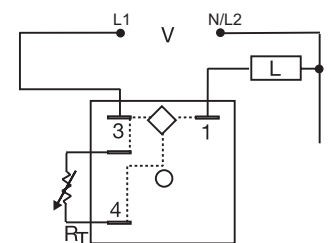
L = Load
 S1 = Initiate Switch
 Note: Normally open output is shown. Normally closed output is also available.

FIGURE 39 - NLF1/NLF2 Series



L = Load
 S1 = Control Switch
 Internal connections between terminals 2 & 4.

FIGURE 40 - PHS Series



Triac Output Device
 V = Voltage
 L = Load
 R_t = External Adjustment