

B-KON Flashers have proven their reliability through years of use on communication towers, smoke stacks, cooling towers, tall buildings, bridges and utility towers. The highest quality components are encapsulated in a rugged plastic housing with a molded-in heat transfer plate. The flash rate, ratio, and fail-safe design meet FAA regulations. Zero voltage switching can increase lamp life up to ten times. The FS155-30RF & FS165-30RF include superior RF filtering circuitry for use in high RF installations; including AM hot towers.

For more information see:

Appendix B, page 165, Figure 4 for dimensional drawing. Appendix C, page 171, Figure 30 for connection diagram.

#### Operation

FS Series - Flasher (OFF First) FA Series - Flashers & Aux. Modules

Upon application of input voltage, the T2 OFF time begins. At the end of the OFF time, the T1 ON time begins and the load energizes. At the end of T1, T2 begins and the load de-energizes. This cycle repeats until voltage is removed. Reset: Removing input voltage resets the output and the sequence to T2.

#### **Features:**

- Zero voltage switching up to 10 times longer lamp life
- No RFI caused by contacts closing
- High inrush capability up to 200A
- RF model for AM hot towers & other high RF installations
- Auxiliary units for synchronous flashing or constant line loading

Approvals: (FS155 & FA155 models only)

#### **Auxiliary Products:**

• 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)

#### **Available Models:**

FA155 FS155-30RF FA155-2 FS155-30T FA165 FS165-30T FA165-2

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

#### Order Table:

Input	Wattage	<u>Inrush</u>	Description	Part Number
120VAC	2500W	200A	For High RF Radiation locations including AM Hot Towers	FS155-30RF
120VAC	2500W	200A	Standard Flasher	FS155-30T
230VAC	5000W	200A	For High RF Radiation locations including AM Hot Towers	FS165-30RF
230VAC	5000W	200A	Standard Flasher	FS165-30T
120VAC	2500W	200A	Auxiliary unit for synchronous operating of additional beacons	FA155-2
120VAC	3000W	300A	Auxiliary unit with optical isolation between input and load contacts	FA155-3
230VAC	5000W	200A	Auxiliary unit for sychronous operating of additional beacons	FA165-2
120VAC	2500W	200A	Auxiliary unit to provide constant line loading	FA155
230VAC	5000W	200A	Auxiliary unit to provide constant line loading	FA165

#### Specifications

Operation	Single & multiple beacon flashing with
	auxiliary modules
Flash Rate (FS Series Only)	30 ±10 FPM
ON/OFF Ratio (FS Series Only)	50 - 67% ON time; 33 - 50% OFF time
Voltage	120 or 230VAC ±20%
AC Line Frequency	50/60Hz
Output Rating (Zero Voltage Switching)	2500W @ 120VAC; 5000W @ 230VAC
Inrush Current	200A peak for 1 cycle of AC line
Mounting*	Surface mount with one #10 (M5 x 0.8) screw
Dimensions	2 x 2 x 1.51 in. (50.8 x 50.8 x 38.4 mm)
Termination	0.25 in. (6.35 mm) male quick connect terminals
Circuitry	Encapsulated
Operating / Storage Temperature	-40° to 65°C / -40° to 85°C
Humidity	95% relative, non-condensing
Weight	$\approx 3.9 \text{ oz } (111 \text{ g})$

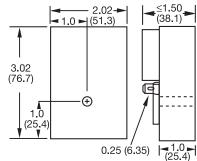
<sup>\*</sup> Note: Must be mounted to metal surface using the included heat sink compound. The maximum mounting surface temperature is 90°C.

## Appendix B - Dimensional Drawings

#### FIGURE 1 ≤ 1.21 (30.7)0.75 2.00 (19)(50.8)2.00 (50.8)0.25 (6.35) DIA. 0.25 (6.35)

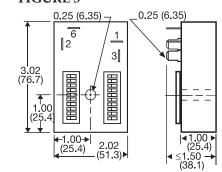
CT; ESD5; ESDR; FS100; FS200; FS300; KRD3; KRD9; KRDB; KRDI; KRDM; KRDR; KRDS; KRPD; KRPS; KSD1; KSD2; KSD3; KSD4; KSDB; KSDR; KSDS; KSDU; KSPD; KSPS; KSPU; KVM; T2D; TA; TAC1; TAC4; TDU; TDUB; TDUI; TDUS; TL; TMV8000; TS1; TS2; TS4; TS6; TSB; TSD1; TSD2; TSD3; TSD4; TSD6; TSD7; TSDB; TSDR; TSDS; TSS; TSU2000

#### FIGURE 2



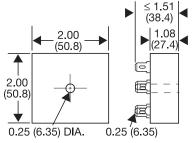
HLV; HRD3; HRD9; HRDB; HRDI; HRDM; HRDR; HRDS; HRID; HRIS; HRIU; HRPD; HRPS; HRPU; HRV; RS

#### FIGURE 3



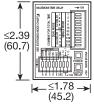
**HSPZ** 

#### FIGURE 4

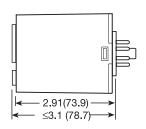


FA; FS; FSU1000\*; NHPD; NHPS; NHPU; NLF1\*; NLF2\*; PHS\*; PTHF\*; SIR1; SIR2; SLR1\*; SLR2\*; TH1; TH2; THC; THD1; THD2; THD3; THD4; THD7; THDB; THDM; THDS; THS

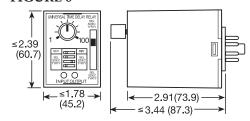
#### FIGURE 5



**TRDU** 

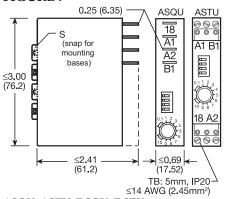


#### FIGURE 6



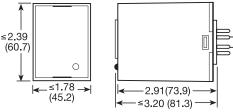
TRU

#### \*If unit is rated @ 1A, see Figure 1 FIGURE 7



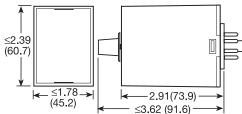
ASQU; ASTU; DSQU; DSTU

### FIGURE 8

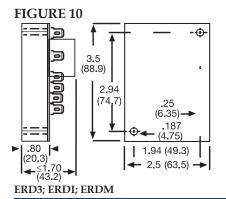


PLM; PLR; TDB; TDBH; TDBL; TDI; TDIH; TDIL; TDM; TDMB; TDMH; TDML; TDR; TDS; TDSH; TDSL

# FIGURE 9



FS500; PRLB; PRLM; PRLS; TRB; TRM; TRS



#### **FIGURE 11**

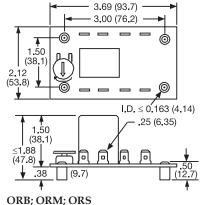
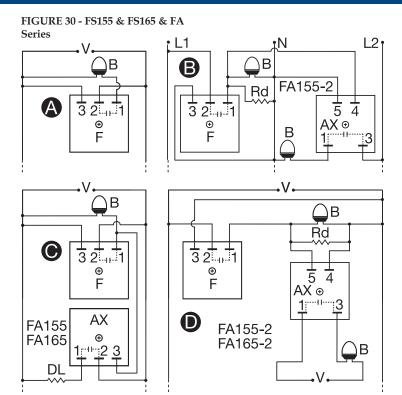


FIGURE 12 (38.1)(25.4).94 (23.88)0 .19 |+5+| (4.83) (12.70)

FS100; FS400

inches (millimeters)

# Appendix C - Connection Diagrams



F = Flasher (FS155-30T, FS155-30RF, FS165-30T, FS165-30RF)

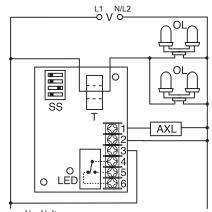
AX = Auxiliary Unit

B = Beacon

DL = Dummy Load for Constant Line Loading Rd =  $3.3 \text{ K}\Omega$  @ 5W for 120VAC

8.5 KΩ @ 5W for 230VAC

#### FIGURE 32 - SCR490D



V = Voltage

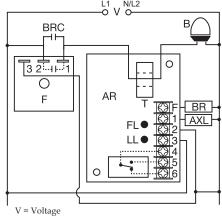
OL = Obstruction Lamps T = Toroid

SS = Selector Switch

AXL = Auxiliary Load/Alarm

Relay contacts are isolated.

#### FIGURE 31 - FB Series



B = Beacon F = Flasher

BRC = Flasher Bypass Relay Contacts

T = Toroid

AR = FB Alarm Relay

BR = Bypass Relay Coil

FL = Flasher Failure LED

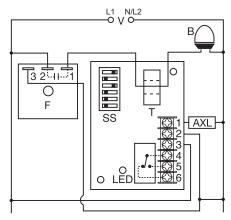
LL = Lamp Failure LED AXL = Lamp Alarm Relay Coil

NOTE: Flasher module may be located on either the

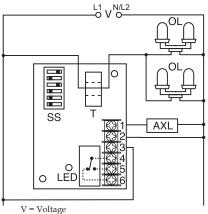
line or load side of the toroidal sensor.

#### FIGURE 33 - SCR Series

Beacon Connection Diagram



Obstruction Lamp Connection Diagram



B = Beacon Lamps

SS = Selector Switch

T = Toroid

F = Flasher

AXL = Auxiliary Load/Alarm OL = Obstruction Lamps

Relay contacts are isolated.