

BrightConnX™ ANSI C136.41 FLB Series Bases & Domes

ANSI C136.41 COMPATIBLE BASES AND DOMES FOR ROADWAY AND OUTDOOR LIGHTING

The BrightConnX™ FLB series base assembly provides a platform for a customer supplied PCBA providing photocell or other control functionality. The BrightConnX™ FLB base mates with the BrightConnX™ FLA series receptacle and utilizes twist lock technology to provide a secure, integrated power and signal interface solution for use in roadway and area lighting applications. The BrightConnX™ FLB series cover couples with the base to provide IP66 protection (per IEC 60529) for the mated photocell/control assembly. All base assembly components meet the UL94V-0 flammability rating, and the cover meets the UL94-5VA flammability rating.

- 0, 2 or 4 dimming contacts options
- RoHS Compliant
- Bases available in 76mm, 84mm diameter
- Domes available in 35mm, 50mm, 60mm, 75mm, 100mm & 130mm heights
- Domes available in Grey, Clear, Red, Black, White and Translucent colors



FEATURES

- 0, 2 or 4 dimming contacts options
- UL94V-0 rated engineering thermoplastic bases and UL94-5VA Polycarbonate domes
- RoHS compliant
- Vented and non-vented base options are available for moisture control
- Utilizes twist lock technology
- Integrated mating gaskets and O-rings on the bases

BENEFITS

- Supports power only, or power plus 1 or 2 sets of dimming and/or additional control functions
- Meets critical safety standards
- Meets environmental, health and safety requirement
- Venting allows air pressure equalization while preventing moisture ingress to the photocell assembly
- Provides securely latched power and signal interface
- Ensures IP66 rating performance to protect equipment from moisture ingress

TECHNICAL INFORMATION

MATERIAL

- Bases: Engineering thermoplastic, UL94V-0 flammability rated
- Domes: Polycarbonate, UL94V-5V flammability rated
- Mating Gasket: Self-adhesive EPDM/SILICONE foam rubber with self-adhesive, UL94V-0 flammability rating
- O-Ring: Silicone rubber, UL94V-0 flammability rating
- Dimming Contacts: Copper Alloy plated with Nickel overall, matte Tin on the tails and 0.76µm Gold in the mating area
- Power Contacts: Copper Alloy plated with Tin over Nickel

MECHANICAL PERFORMANCE

- Thermal Shock: 25 cycles between -40°C and +105°C, per EIA-364-32
- Mechanical Shock: 30G, ½ sine, 11ms, per EIA-364-27
- Humidity: Per EIA-364-31, Method IV, Cond. B, Omitting 7b
- Vibration With Load: 15A load, per EIA-364-28, Cond. I
- Salt Spray: 240 hrs, per EIA364-26
- Durability: 25 cycles, per EIA-364-09
- Operating Temperature Range: -40°C to 85°C
- Temperature Rise: 30°C max ΔT @ rated current, per EIA-364-70
- Ingress Protection Ratings: IP66 (with approved domes)
- Impact Rating: IK09/Top Side and IK07 (side)

ELECTRICAL CHARACTERISTICS

- Power Contact Voltage Rating: 600VAC/VDC
- Power Contact Current Rating: 15A max. per circuit @ 25°C
- Dimming Contact Current Rating: 1.5A max. per circuit @ 25°C, 30°C max. ΔT
- Dimming Contact Voltage Rating: 30VDC
- Contact Resistance LLCR: $\Delta 30m\Omega$ max.
- Insulation Resistance: 500M Ω min. @ 500VDC test voltage
- Dielectric Withstanding Voltage: 2500VAC

PACKAGING

- Box

SPECIFICATION

- Amphenol Specification: S6169C

ENVIRONMENTAL

- RoHS compliant per EU directive 2011/65/EU and amendments

APPROVALS & CERTIFICATION

- UL, Certification Number: E514916

TARGET MARKETS/APPLICATIONS



Roadway Lighting
Outdoor Lighting

PART NUMBER SELECTOR – BASES

	FLB	—	P	X	X	—	0X	X
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Series	
FLB	FLB Series ANSI C136.41

Part Description	
P	Base (Plug)

Base Diameter	
7	76.00mm
8	84.00mm

Number of Contacts	
0	3 Contacts (3 power, 0 Signal)
5	5 Contacts (3 Power, 2 Signal)
7	7 Contacts (3 Power, 4Signal)

Gasket Material		
76.00mm base diameter	00	EPDM
	01	SILICONE
84.00mm base diameter	00	SILICONE

Vent Options	
1	Non-vented
2	Vented

ENVIRONMENTAL CHARACTERISTICS

GASKET MATERIAL	IP RATING* (PER IEC 60529)	OPERATING TEMPERATURE
EPDM	IP53	–40°C to +65°C
SILICONE RUBBER	IP66	–40°C to +85°C

PART NUMBERS – BASES /EXAMPLES

Description	Part Numbers
FLB Base NEMA ANSI C136.41, 76mm, 3 Power, No Signal, Non-Vented	FLB–P70–001
FLB Base NEMA ANSI C136.41, 76mm, 3 Power, 2 Signal, Non-Vented	FLB–P75–001
FLB Base NEMA ANSI C136.41, 76mm, 3 Power, 4 Signal, Non-Vented	FLB–P77–001
FLB Base NEMA ANSI C136.41, 84mm, 3 Power, 4 Signal, Non-Vented	FLB–P87–001

PART NUMBER SELECTOR – DOMES

	FLB	—	C	XX	—	XX	X	—	001
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Series	
FLB	FLA Series ANSI C136.41

Part Description	
C	Cover (Dome)

Cover Diameter	
70	76.00mm
80	84.00mm

Height	
35	35mm
50	50mm
75	75mm
10	100mm
13	130mm

Color	
1	Grey
2	Clear
3	Red
4	Black
5	White
6	Translucent

Modifier	
001	001 = Standard

PART NUMBERS – DOMES/ EXAMPLES

Description	Part Numbers
FLB Dome, NEMA ANSI C136.41, 76mm, 35mm Height, Grey	FLB-C70-351-001
FLB Dome, NEMA ANSI C136.41, 76mm, 50mm Height, Grey	FLB-C70-501-001
FLB Dome, NEMA ANSI C136.41, 84MM, 100mm Height, Grey	FLB-C80-101-001