

KILLARK®

LED SOLUTIONS

Harsh and Hazardous Products

www.hubbell-killark.com



Harsh & Hazardous



SECTION L

KILLARK






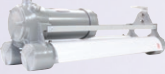



















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LIGHTING INDEX

PRODUCT	PAGE NO.	Type 4 (or 4X or IP66)	Class I, Div. 2 / Zone 2	Class I, Zone 2 Ex nR	Class II / III Div. 1	Class II / III Div. 2	Class I, Div. 1 C, D / Zone 1	Class I, Div. 1 A, B, C, D / Zone 1	IECEX Zone 1	ATEX Zone 1	IECEX Zone 2	ATEX Zone 2
 LAL Series 2-7		X	X		X	X					X	X
 LALFP Series 8-13												
 LZ2NL/LZ2SL 14-15		X	X		X	X						
 HLLX 16-17		X	X		X	X						
 MBL Series 19-23		X	X		X	X						
 VM1L Series 24-29		X	X		X	X						
 VM2L & VM4L Series 30-36		X	X		X	X				X	X	
 EML Series 37-39		X	X		X	X	X					
 EZL Series 40-42		X	X		X	X	X					
 EAC/EACH Series 43												
 KFL Series 45-46		X	X		X	X				X	X	
 KFLC Series 47		X	X		X	X						
 KFLH Series 48-49		X	X		X	X					X	X
 KFL2H Series 50-51		X	X		X	X					X	X
 KF1L Series 52-53		X	X		X	X	X		X	X	X	X
 KWPL Series 54-55												
 NEBS Series 57-59												
 EBS Series 60-65		X	X		X	X	X					
 VSL SERIES 66-70		X	X			X						
 DVL Series 71		X			X	X						
 Fixture Hangers 72-75												
 Floodlight Mounts 76												
 MCX Cable Glands 77-80												



LAL/LALxE/LALC SERIES

KILLARK

LOW PROFILE LINEAR ALUMINUM LED • EXCLUSIVE DESIGN FEATURES

High temperature rated silicone gasketing provides Type 4X & IP66 sealing.



Diffused



Clear

2 Lens Choices:

- Clear for maximum lumens
- Diffused for glare control

Looping Terminal Blocks under Wiring Access Plate(s).



Optional Through Wiring

2 Access Plates for feed through wiring



Battery

E5, E13 and E26 models include internal Emergency battery systems to 50°C suitability

Surge

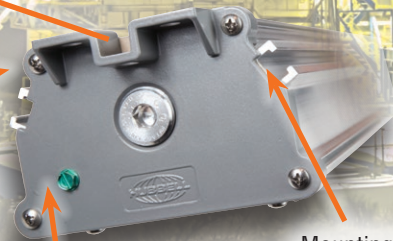
Standard with internal 20kA/10kA Supplemental Surge Protection

Endcaps standard with 1 x 3/4" hub. 1/2" NPT and M20 available.



Shown with LAL-SB Height adjustable Swivel Brackets

End Caps include feet for direct ceiling mounting and safety cable connection



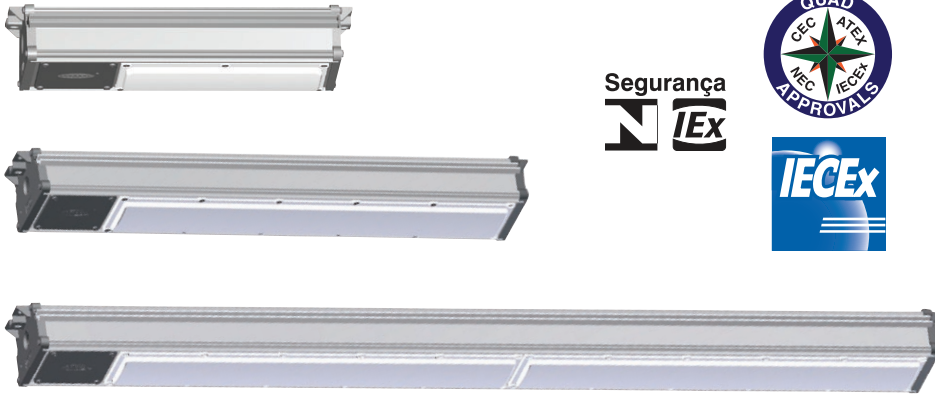
Mounting Slots on back and at 45°

Earth

External Earth Ground for IECEx requirement



LINEAR LED TECHNOLOGY



LINEAR^{LITE}® *

* marca registrada MEXICO

FEATURES-SPECIFICATIONS

Applications

Linear LED Luminaires are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, and Type 3, 4X, IP66 areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX & INMETRO.

Typical applications include land based oil rigs, offshore oil platforms, dockside installations, chemical and petrochemical processing facilities, sewage treatment plants, garages, storage facilities, tunnels, and grain/food facilities.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- IEC suffix Zone 2/21 to IEC 60079-0, 60079-15, 60079-31 Standards
- Enclosed and gasketed
- Type 3, 4X
- IP66

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

Materials

- Housing – one piece natural finish \leq .1% copper-free aluminum extrusion
- Endcaps & wiring – Access covers are copper-free (\leq .4%) aluminum with gray baked powder epoxy-polyester finish, electrostatically applied for complete uniform corrosion resistance.
- External screws are 316 stainless steel
- Lens – Impact resistant polycarbonate lens available in diffuse or clear

LAL & LALxE Product Features

- LALxE models have “built-in” battery backup for 90 or 180 minute emergency exit
- Shallow design minimizes profile in work areas with low ceiling heights
- Diffuse Lens Standard to minimize glare; Clear Lens available
- Polycarbonate Single Lens 18W to 60W; Double Lens model 80W & 120W
- Slot Back Design allows multiple mounting access points across length – slots can also be used with 5/16” or 8mm bolts & nuts, 3 housing slots, 1 center back and 2 at 45°.
- Variety of mounting options including swivel brackets, wall, ceiling brackets, or beam clamps
- End Caps each have 2 mounting feet built-in plus a safety strap attachment point

Class I, Div. 2, Groups A, B, C, D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
AEx nAll, Ex nAll
Wet Locations
Type 4X
IP66
Marine Rated (US only)

Certified - File LR11713

IECEX Rated
Zone 2 and Zone 21 areas
Ex nA IIC T6 to T3, Gc
Ex tb IIC T95°C Db
Tamb -50°C < Tz < +65°C, IP66

IECEX Certificate
QPS 15.0010

ATEX Certificate
CML 15ATEX4081X (nA)
&
CML15ATEX3082X (tb)

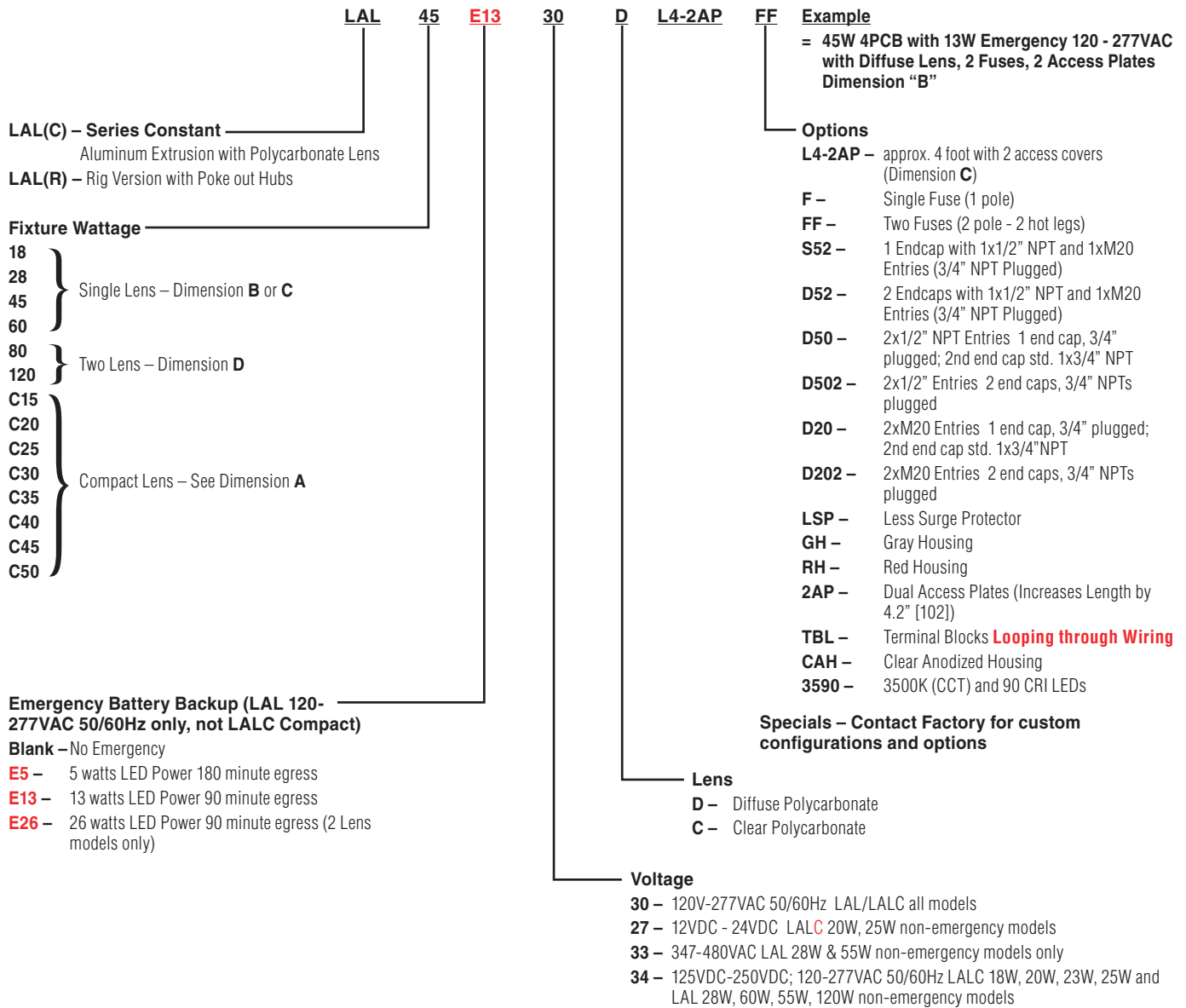
- Standard unit End Caps each have single a 3/4” NPT hub, and fixture is furnished with one 3/4” close-up plug and two 3/4” to 1/2” reducers – provides out of the box 1/2” dead-end to 3/4” feed-through flexibility. Metric openings are available.
- Standard LALs have one wiring Access Plate for easy access to driver leads.

LED Features and Standards

- Many Midpower LEDs blend light to simulate fluorescent tubes
- Chromaticity outputs: standard – 5000K 70 CRI
3590 option – 3550K 90 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 65°C (see tables). **-20°C to 50°C Ambient suitability for Emergency models.**
- Instant On – Including after power interruption
- World Voltage 120 - 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant



CATALOG LOGIC



Energy Savings

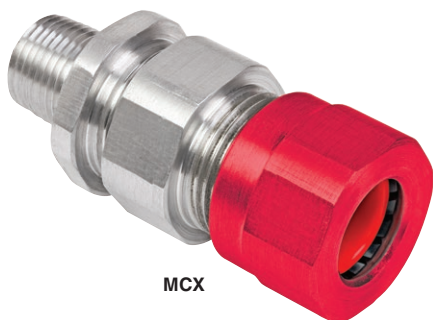
LED VS FLUORESCENT WATTAGE & DELIVERED LUMENS						
CATALOG NUMBER	LUMENS	L/W	FLUORESCENT		LUMENS	L/W
LAL1830C	2479	138	40W	1x40W BX	2471	63
LAL2830C	3624	129	55W	1x55W BX	3766	65
LAL4530C	5515	122	56W	2x28T5	4676	71
			64W	2x32T8	4772	80
LAL6030C	7709	128	108W	2x54T5HO	8088	67
			120W	2x60T12HO	6965	56
LAL8030C	11032	138	162W	3x54T5HO	11619	65



ORDERING INFORMATION

ORDERING INFORMATION AND AMBIENT SUITABILITY							C1D2 ABCD/ ZONE 2 IIC, IIB, IIA			C1D2 GRPS. EFG SIMULTANEOUS			C2D1 GRPS. EFG			IEC ZONE 2			IEC ZONE 21				
CATALOG NUMBER W/ DIFFUSE LENS	WEIGHT LBS./KG	WATTS STD. POWER	LENGTH STYLE - INCHES (MM)	VOLTAGE	AMPS	DELIVERED LUMENS Diffuse/ Clear	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C		
LAL1830D	17.9 / 8.1	18	B-32.6 (828)	120-277VAC	0.15 - 0.06	2272 / 2479	T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4		
LAL1830D-L4-2AP	21.9 / 9.9		C-51 (1295)				T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4		
LAL18E1330D-L4-2AP	31.9 / 14.5		C-51 (1295)				T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4		
LAL2830D	17.9 / 8.1	28	B-32.6 (828)		120-277VAC	0.23 - 0.10	3321 / 3624	T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4	
LAL2830D-L4-2AP	21.9 / 9.9		C-51 (1295)					T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4	T4	
LAL28E1330D-L4-2AP	31.9 / 14.5		C-51 (1295)					T6	T5	-	T4A	T4A	T4A	T4A	T4A	T4A	T6	T5	T5	T4	T4	T4	
LAL4530D	17.9 / 8.1	45	B-32.6 (828)			120-277VAC	0.38 - 0.16	5054 / 5515	T6	T5	-	T4A	T4A	T4A	T4A	T4A	T4A	T6	T5	T5	T4	T4	T4
LAL4530D-L4-2AP	21.9 / 9.9		C-51 (1295)						T6	T5	-	T4A	T4A	T4A	T4A	T4A	T4A	T6	T5	T5	T4	T4	T4
LAL45E1330D-L4-2AP	31.9 / 14.5		C-51 (1295)						T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL6030D	18.9 / 8.6	60	B-32.6 (828)				120-277VAC	0.50 - 0.22	7064 / 7709	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4
LAL6030D-L4-2AP	22.9 / 10.4		C-51 (1295)	T6						T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL60E1330D-L4-2AP	32.9 / 14.9		C-51 (1295)	T6						T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL8030D	34.5 / 15.6	80	D-57.9 (1471)	120-277VAC				0.67 - 0.29	10110 / 11032	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4
LAL80E1330D	44.5 / 20.2		D-57.9 (1471)		T6					T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL80E2630D	54.5 / 24.7		D-57.9 (1471)		T6					T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL12030D	36.5 / 16.6	120	D-57.9 (1471)		120-277VAC			1.00 - 0.43	15090 / 16467	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4
LAL120E1330D	46.5 / 21.1		D-57.9 (1471)			T6				T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LAL120E2630D	56.5 / 25.6		D-57.9 (1471)			T6				T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	T4	-
LALC1527D	12.03 / 4.49	15	A-18.73 (476)			12-24VDC		1.3-0.6	1503 / 1640	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4
LALC1530D						120-277VAC	0.15-0.06	T5		T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-
LALC1534D						120-250VDC	0.2-0.1	T5		T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-
LALC2027D		20	A-18.73 (476)			12-24VDC	1.7-0.8	2337 / 2550	T5	T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-
LALC2030D				120-277VAC		0.17-0.08	T5		T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-	
LALC2034D				120-250VDC		0.2-0.1	T5		T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-	
LALC2527D		25	A-18.73 (476)	12-24VDC		2.1-1.0	3019 / 3294	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-	
LALC2530D				120-277VAC	0.18-0.08	T5		T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-		
LALC2534D				120-250VDC	0.2-0.1	T5		T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-		
LALC3030D		30	A-18.73 (476)	120-277VAC	0.26-0.11	2726 / 2974	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-		
LALC3530D	35	A-18.73 (476)	120-277VAC	0.30-0.13	3261 / 3558	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	T4	-			
LALC4030D	40	A-18.73 (476)	120-277VAC	0.34-0.15	4152 / 4530	T5	T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-			
LALC4530D	45	A-18.73 (476)	120-277VAC	0.38-0.17	5136 / 5604	T5	T5	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	T4	-			
LALC5030D	50	A-18.73 (476)	120-277VAC	0.42-0.18	6039 / 6590	T5	-	-	T4A	-	-	T4A	-	-	T5	-	-	T4	-	-			

CABLE GLAND ORDERING OPTIONS

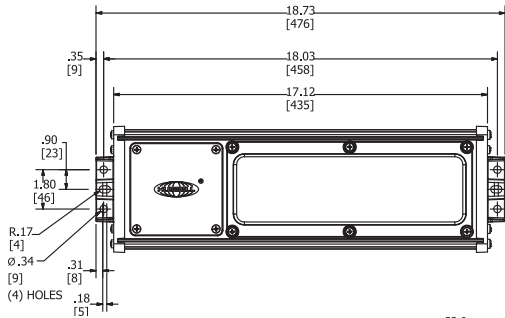


CATALOG NUMBER	ENTRY THREAD SIZE (NPT)	CABLE ACCEPTANCE DETAILS	
		DIAMETER 'C'	
		MIN.	MAX.
MCX1B	1/2"	0.51" (13.0)	0.63" (16.0)
MCX1C	1/2"	0.60" (15.2)	0.82" (20.8)
MCX2	3/4"	0.73" (18.5)	1.03" (26.2)

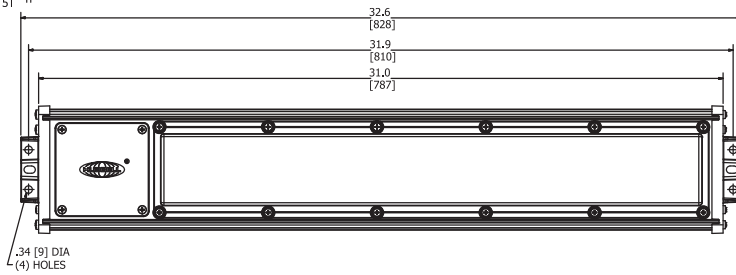
For entire series, please see page 77



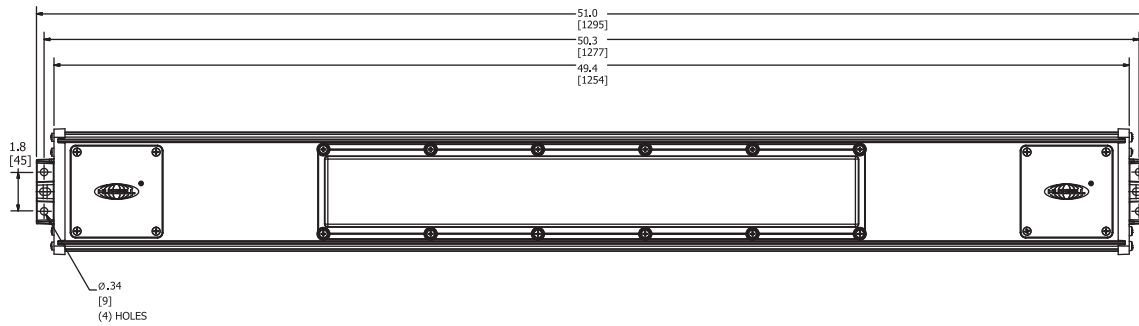
DIMENSIONS AND ACCESSORIES



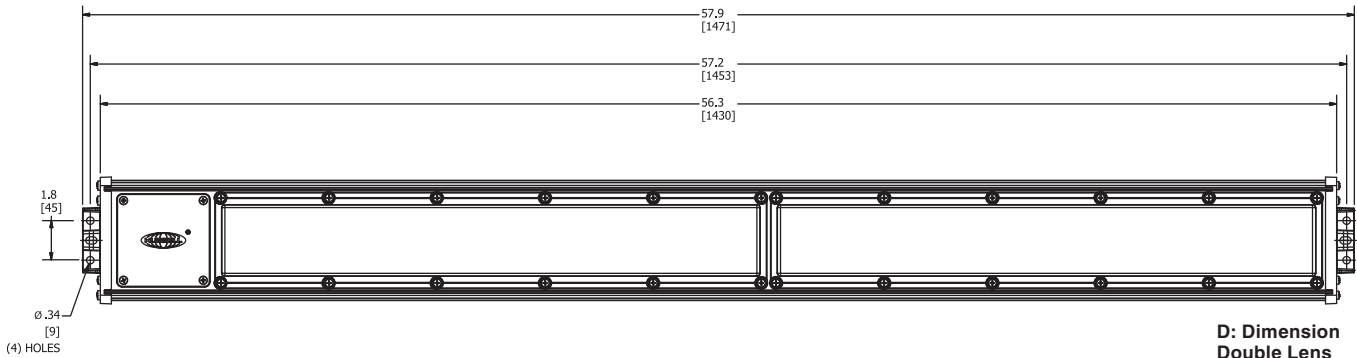
A: Dimensions for LALC



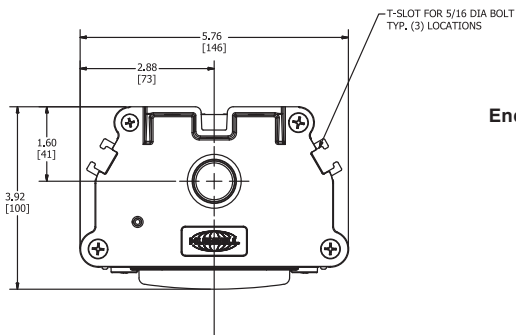
B: Dimension for Single Lens



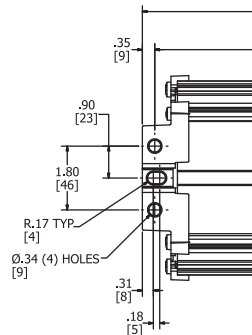
C: Dimension Single Lens with approx. 4 foot length and 2 access covers



D: Dimension Double Lens



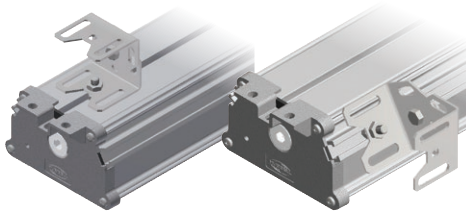
End Views





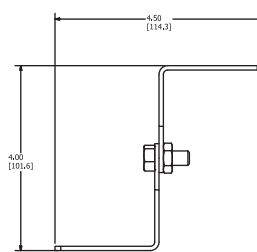
ACCESSORIES AND REPLACEMENT PARTS

ACCESSORIES AND REPLACEMENT PARTS	
LAL-SB	Swivel Bracket Set w/ Adjustable Height; includes 5/16" bolts/nuts/lock-washers for attachment to LAL(C) "slots"; can also be attached to end cap mounting feet with FBO bolts.
LZCB	Ceiling Bracket Set with Stainless Steel Bolts to attach to LAL(C) "slots"
LZWB	Wall Bracket Set with Stainless Steel Bolts to attach to LAL(C) "slots"
LAL-BC	Steel/malleable Iron with Zinc electroplate for corrosion resistance; includes Stainless Steel Bolts to attach to LAL(C) "slots"
LAL-EB	Eyebolt Set with Stainless Steel Bolts to attach to LAL(C) "slots"
VMSC10	10' Stainless Steel Safety Cable with loop grip
LALG	Stainless Guard for 1 LAL Lens, order two for 2 lens models
LALCG	LALC Stainless Guard
LAL-LENSCLR	Single Clear Lens with Gasket for LAL Series
LAL-LENSDIF	Single Diffuse Lens with Gasket for LAL Series
LALC-LENSCLR	Single Clear Lens with Gasket for LALC Series
LALC-LENSDIF	Single Diffuse Lens with Gasket for LALC Series
LAL-RIG-CB	Rig Mounting Style Ceiling Bracket
LAL-RIG-WB	Rig Mounting Style Wall Bracket
RIG-LALC	Rig End Caps for LALC

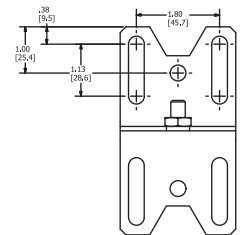
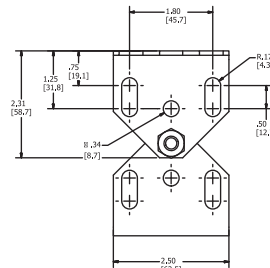


LAL-SB on Center Slot

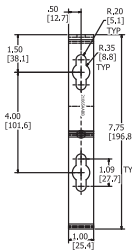
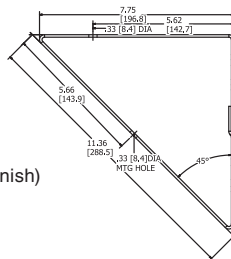
LAL-SB on 45° Slot



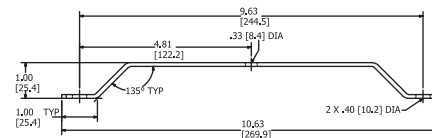
LAL-SB Dimensions – extended shown



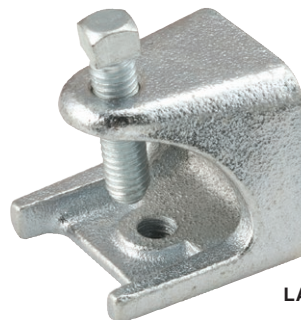
Wall Bracket Set
Part Number LZWB
Stainless Steel (natural finish)



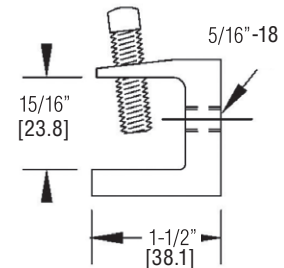
Ceiling Bracket Set
Part Number LZCB
Stainless Steel (natural finish)



VMSC10 Safety Cable



LAL-BC Beam Clamp





LALFP SERIES

KILLARK

LALFP

Linear LED Food Processing Fixture

- Maintenance free long-lasting LEDs

- NSF Certified with Impact Resistant polycarbonate lens

- All exterior stainless steel hardware

- Large wiring access for ease of installation

- Extremely durable copper-free aluminum mounting feet & access plate with anodized aluminum housing

- 90 or 180 minute emergency with Self-diagnostics in accordance with NFPA 101® Life Safety Code



LINEAR LED TECHNOLOGY



Approved

LINEAR^{ITE}® *

* marca registrada MEXICO

FEATURES-SPECIFICATIONS

Applications

Linear LED Luminaires are designed for food processing installations where moisture, corrosion and vibration may be present, and Type 3, 4X, IP66/IP67. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC.

Typical applications include non-food zones, splash zones, hazardous food processing areas, high and low ambient areas, and hose-down zones.

NSF (National Sanitation Foundation) approved for "Food Handling" areas, typically requiring non-glass lighting.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66/IP67

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

Materials

- Housing – one piece clear anodized $\leq .1\%$ copper-free aluminum extrusion
- Endcaps & wiring – Access covers are copper-free ($\leq .4\%$) aluminum with natural finish.
- External screws are 316 stainless steel
- Lens – Impact resistant polycarbonate lens available in diffuse or clear

LALFP & LALFPxiE Product Features

- LALFPxiE models have "built-in" battery backup for 90 or 180 minute battery backup
- Shallow design minimizes profile in work areas with low ceiling heights
- Diffuse Lens Standard to minimize glare; Clear Lens available
- Polycarbonate Single Lens L1 & L3; Double Lens model L5
- Variety of mounting options including swivel brackets, wall, ceiling brackets, or beam clamps
- End Caps each have 2 mounting feet built-in plus a safety strap attachment point
- Standard unit End Caps each have single a 3/4" NPT hub, and fixture is furnished with one 3/4" close-up plug and two 3/4" to 1/2" reducers – provides out of the box 1/2" dead-end to 3/4" feed-through flexibility. Metric openings are available.
- Standard LALFPs have one wiring Access Plate for easy access to terminal block.

Class I, Div. 2, Groups A, B, C, D
 Class I, Zone 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 AEx nAll, Ex nAll

Wet Locations
 Type 4X
 IP66/IP67
 Marine Rated (US only)
 ABS Type Approval
 NSF Food Handling

Certified - File LR11713

IECEx Rated
 Zone 2 and Zone 21 areas
 Ex nA IIC T6 to T3, Gc
 Ex tb IIC T95°C Db
 Tamb -50°C < Tz < +65°C, IP66

IECEx Certificate
 QPS 15.0010

ATEX Certificate
 CML 15ATEX4081X (nA)
 &
 CML15ATEX3082X (tb)

Electronics Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs a 1 minute test once a month and an alternating 30-60 minute test once every 6 months. LED indicator provides visible fault detection and charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

LED Features and Standards

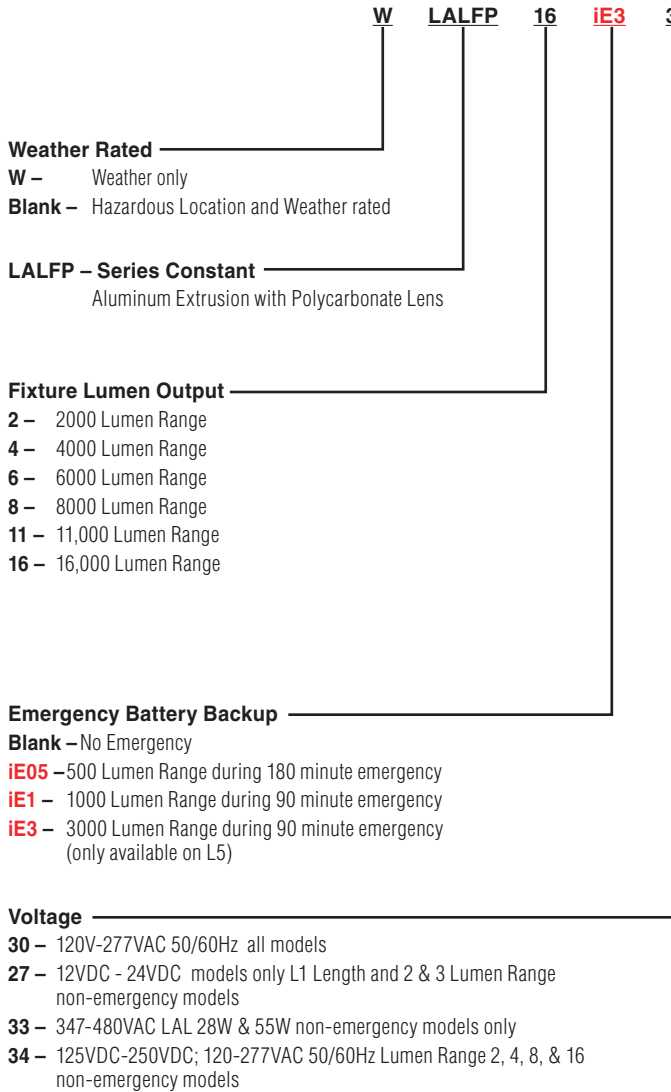
- Many Midpower LEDs blend light to simulate fluorescent tubes
- Chromaticity outputs: standard – 5000K 70 CRI
3590 option – 3550K 90 CRI
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 65°C (see tables). -20°C to 50°C Ambient suitability for Emergency models.
- Instant On – Including after power interruption
- World Voltage 120 - 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

INTELLIGENT EMERGENCY SERVICE CODES

INDICATOR STATUS SIGNAL	DESCRIPTION OF STATUS SIGNAL
0.5s ON and 0.5s OFF	Battery disconnected.
2.5s ON and 2.5s OFF	LED load disconnected.
4.5s ON and 0.5s OFF	Driver in self-diagnostic mode.
1.5s ON and 3.5s OFF	Battery needs to be replaced.
0.5s ON and 4.5s OFF	Damaged driver. Replace
ON	Normal/Charging.
OFF (LED Load ON)	Discharging / Emergency Operation



CATALOG LOGIC



Example

= Weather only rated, 16,000 Lumen output with 3,000 Lumen output during 90 minute emergency operation, 120-277 VAC, approximately 5 foot length Diffuse Lens, 2 fuses

Options

- F – Single Fuse (1 pole)
- FF – Two Fuses (2 pole - 2 hot legs)
- S52 – 1 Endcap with 1x1/2" NPT and 1xM20 Entries (3/4" NPT Plugged)
- D52 – 2 Endcaps with 1x1/2" NPT and 1xM20 Entries (3/4" NPT Plugged)
- D50 – 2x1/2" NPT Entries 1 end cap, 3/4" plugged; 2nd end cap std. 1x3/4" NPT
- D502 – 2x1/2" Entries 2 end caps, 3/4" NPTs plugged
- D20 – 2xM20 Entries 1 end cap, 3/4" plugged; 2nd end cap std. 1x3/4" NPT
- D202 – 2xM20 Entries 2 end caps, 3/4" NPTs plugged
- LSP – Less Surge Protector
- GH – Gray Housing
- RH – Red Housing
- TBL – Terminal Blocks **Looping through Wiring**
- NAP – No Access Plate (only available on L1)

Specials – Contact Factory for custom configurations and options

Lens

- D – Diffuse Polycarbonate
- C – Clear Polycarbonate

Length

- L1 – Approximately 1 foot (2, 4, 6 Lumen Outputs)
- L3 – Approximately 3 feet (2, 4, 6, 8 Lumen Outputs)
- L5 – Approximately 5 feet (11, 16 Lumen Outputs)

Energy Savings

LED VS FLUORESCENT WATTAGE & DELIVERED LUMENS						
CATALOG NUMBER	LUMENS	L/W	FLUORESCENT		LUMENS	L/W
LALFP230L3C	2479	138	40W	1x40W BX	2471	63
LALFP430L3C	3624	129	55W	1x55W BX	3766	65
LALFP630L1C	5515	122	64W	2x32T8	4772	80
LALFP830L3C	7709	128	120W	2x60T12HO	6965	56
LALFP1130L5C	11032	138	162W	3x54T5HO	11619	65

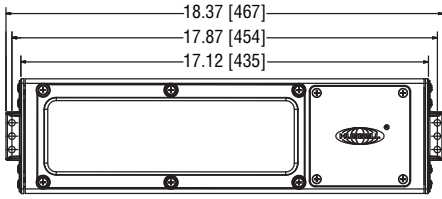


ORDERING INFORMATION

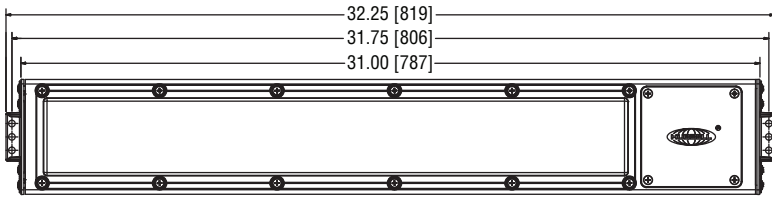
ORDERING INFORMATION AND AMBIENT SUITABILITY							C1D2 A, B, C, D/ ZONE 2 IIC, IIB, IIA			C1D2 E, F, G SIMULTANEOUS			C2D1 E, F, G			IEC ZONE 2			IEC ZONE 21			
CATALOG NUMBER	WEIGHT LBS./KG	WATTS	LENGTH IN / MM	VOLTAGE	AMPS	LUMENS DIFFUSE/ CLEAR	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	55°C	65°C	40°C	65°C		
LALFP230L1D	12.03 / 4.49	15	18.73 / 476	120/277 VAC 50/60 Hz	0.15-0.06	1503 / 1640	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	-		
LALFP230L3D	17.90 / 8.1	18	32.6 / 828		0.15 - 0.06	2272 / 2479	T6	T6	T6	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4		
LALFP230L4D	12.90 / 9.9		51 / 1295		0.30-0.13	3261 / 3558	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T4	-	T4	-		
LALFP430L1D	12.03 / 4.49	35	18.73 / 476		0.23 - 0.10	3321 / 3624	T6	T6	T5	T4A	T4A	T4A	T4A	T4A	T4A	T6	T6	T5	T4	T4		
LALFP430L3D	17.90 / 8.1	28	32.6 / 828		0.38-0.17	5136 / 5604	T5	T4A	-	T4A	T4A	-	T4A	T4A	-	T5	T5	-	T4	-		
LALFP430L4D	12.90 / 9.9		51 / 1295		0.38 - 0.16	5054 / 5515	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	T5	T4	T4		
LALFP630L1D	12.03 / 4.49	45	18.73 / 476		0.50 - 0.22	7064 / 7709	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	-		
LALFP630L3D	17.90 / 8.1	45	32.6 / 828		0.67 - 0.29	10110 / 11032	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	-		
LALFP630L4D	12.90 / 9.9		51 / 1295		1.00 - 0.43	15090 / 16467	T6	T5	-	T4A	T4A	-	T4A	T4A	-	T6	T5	-	T4	-		
LALFP830L3D	17.90 / 8.1	60	32.6 / 828																			
LALFP830L4D	12.90 / 9.9		51 / 1295																			
LALFP1130L5D	36.50 / 16.6	80	57.9 / 1471																			
LALFP1630L5D	36.50 / 16.6	120	57.9 / 1471																			
WLALFP230L1D	12.03 / 4.49	15	18.73 / 476		120/277 VAC 50/60 Hz	0.15-0.06	1503 / 1640															
WLALFP230L3D	17.90 / 8.1	18	32.6 / 828			0.15 - 0.06	2272 / 2479															
WLALFP230L4D	12.90 / 9.9		51 / 1295			0.30-0.13	3261 / 3558															
WLALFP430L1D	12.03 / 4.49	35	18.73 / 476	0.23 - 0.10		3321 / 3624																
WLALFP430L3D	17.90 / 8.1	28	32.6 / 828	0.38-0.17		5136 / 5604																
WLALFP430L4D	12.90 / 9.9		51 / 1295	0.38 - 0.16		5054 / 5515																
WLALFP630L1D	12.03 / 4.49	45	18.73 / 476	0.50 - 0.22		7064 / 7709																
WLALFP630L3D	17.90 / 8.1	45	32.6 / 828	0.67 - 0.29		10110 / 11032																
WLALFP630L4D	12.90 / 9.9		51 / 1295	1.00 - 0.43		15090 / 16467																
WLALFP830L3D	17.90 / 8.1	60	32.6 / 828																			
WLALFP830L4D	12.90 / 9.9		51 / 1295																			
WLALFP1130L5D	36.50 / 16.6	80	57.9 / 1471																			
WLALFP1630L5D	36.50 / 16.6	120	57.9 / 1471																			



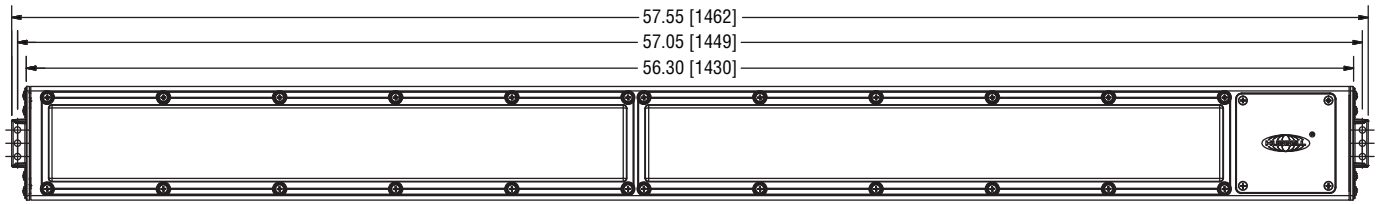
DIMENSIONS



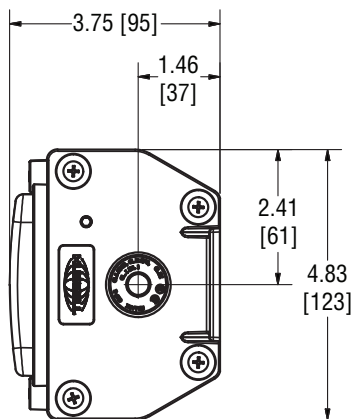
LALFP-L1 Single Access Panel



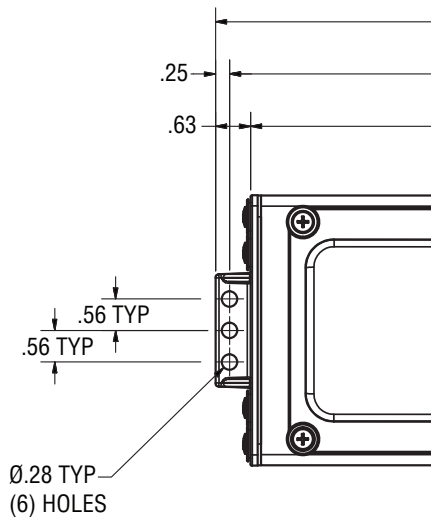
LALFP-L3 Single Access Panel



LALFP-L5 Single Access Panel



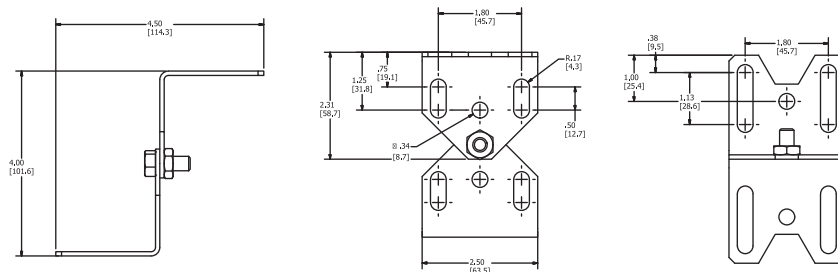
End View





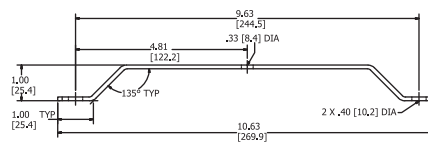
ACCESSORIES AND REPLACEMENT PARTS

ACCESSORIES AND REPLACEMENT PARTS	
LAL-SB	Swivel Bracket Set w/ Adjustable Height; includes 5/16" bolts/nuts/lock-washers for attachment to LAL(C) "slots"; can also be attached to end cap mounting feet with FBO bolts.
LZCB	Ceiling Bracket Set with Stainless Steel Bolts
LZWB	Wall Bracket Set with Stainless Steel Bol
LAL-BC	Steel/malleable Iron with Zinc electroplate for corrosion resistance; includes Stainless Steel Bolts to attach to LAL(C) "slots"
LAL-EB	Eyebolt Set with Stainless Steel Bolts
VMSC10	10' Stainless Steel Safety Cable with loop grip
LALG	Stainless Guard for 1 LAL Lens, order two for 2 lens models
LALCG	LALC Stainless Guard
LAL-LENSCLR	Single Clear Lens with Gasket for L3 & L5 Lengths
LAL-LENSDIF	Single Diffuse Lens with Gasket for L3 & L5 Lengths
LALC-LENSCLR	Single Clear Lens with Gasket for L1 Length
LALC-LENSDIF	Single Diffuse Lens with Gasket for L1 Length

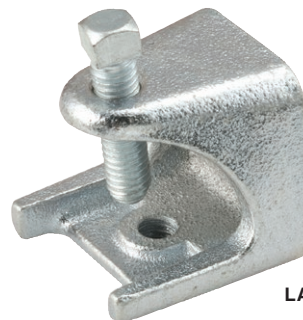


LAL-SB Dimensions – extended shown

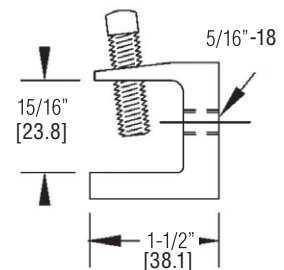
Ceiling Bracket Set
Part Number LZCB
Stainless Steel (natural finish)



VMSC10 Safety Cable



LAL-BC Beam Clamp



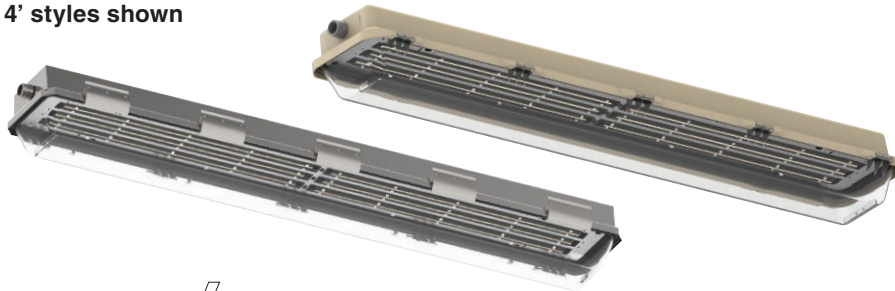


LZ2NL/LZ2SL SERIES

KILLARK

LZ LED INTRODUCTION & LOGIC

4' styles shown



Class I, Div. 2, Groups A, B, C, D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups F, G
AEx nAII, Ex nAII
Wet Locations
Type 4X, IP66

Certified - File LR11713

ABS Type Approval (L32NL, L32SL)
NSF Food Handling (LZ2NL)

LINEAR^{lite}® *

* marca registrada MEXICO

FEATURES-SPECIFICATIONS

Applications

Linear LED Luminaires are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, and Type 3, 4X IP66 areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC.

ABS (American Bureau of Shipping) type approval for use on decks, vessels, platforms, barges, ships and boats. Also suitable for docks and marinas.

NSF (National Sanitation Foundation) approved for "Food Handling" areas, typically requiring non-glass lighting.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages, storage facilities, tunnels, and grain/food facilities.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X, IP66

Materials

- Housing – one piece fiberglass reinforced polyester or 316 Stainless Steel
- Lens – Clear Lexan® impact resistant polycarbonate lens (Lexan is a registered trademark of SABIC)
- Two 3/4" NTP hubs – one at each end (includes one 3/4" close-up plug and two 3/4"x1/2" reducers for maximum user flexibility – LZ2NL hubs aluminum; LZ2SL hubs 316 Stainless Steel)

LED Features and Standards

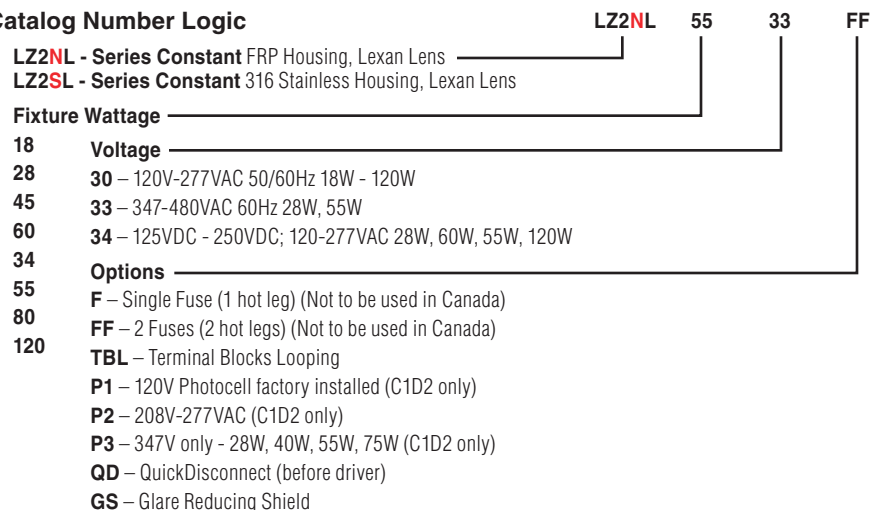
Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Many Midpower LEDs blend light to simulate fluorescent tube
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens

- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C up to 120W
- Instant On – Including after power interruption
- World Voltage 120 - 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

LED VS FLUORESCENT WATTAGE & DELIVERED LUMENS						
LED WATT	LUMENS	L/W	FLUORESCENT	LUMENS	L/W	
18W	2557	150	40W 1x40W BX	2471	63	
28W	3775	144	55W 1x55W BX	3766	65	
34W	5075	149	56W 2x28T5	4676	71	
45W	5562	137	64W 2x32T8	4772	80	
55W	7577	144	108W 2x54T5HO	8088	67	
60W	7618	132	120W 2x60T12HO	6965	56	
80W	11140	137	162 3x54T5HO	11619	65	

Catalog Number Logic

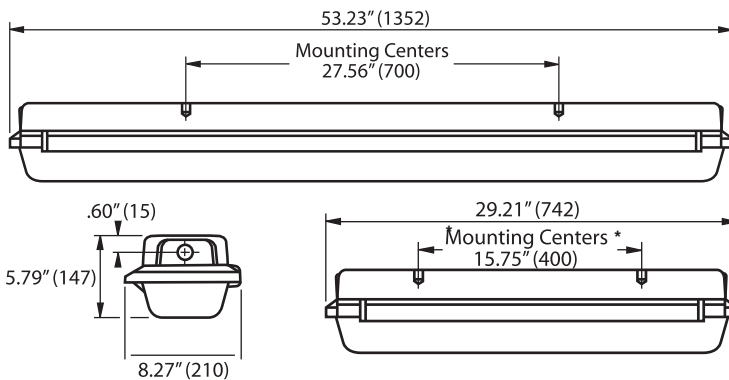




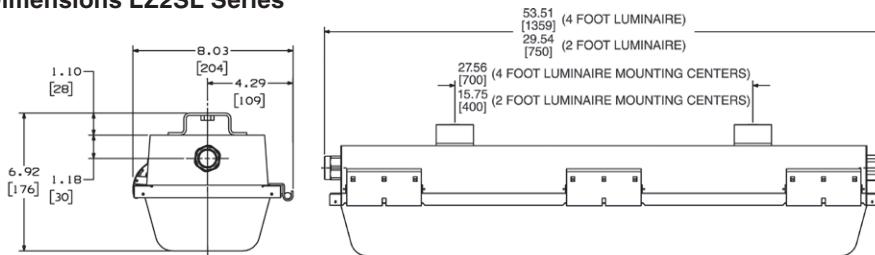
LZ SERIES – ORDERING INFORMATION & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY									C1D2		C2D1 LZ2 NL GRPS. FG LZ2 SL GRPS. FFG		C1Z2 AEx nA Ex nA	
CATALOG NUMBER			WEIGHT LBS/KG	WATTS	LENGTH	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C
FIBERGLASS	WEIGHT LBS/KG	STAINLESS												
LZ2NL1830	12/5.4	LZ2SL1830	13/5.9	18	2'	120-277VAC	0.15 - 0.06	2557	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL2830	12/5.4	LZ2SL2830	13/5.9	28	2'	120-277VAC	0.23 - 0.10	3775	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL4530	12/5.4	LZ2SL4530	13/5.9	45	2'	120-277VAC	0.38 - 0.16	5562	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL6030	14/6.4	LZ2SL6030	15/6.8	60	2'	120-277VAC	0.50 - 0.22	7618	T4A	-	≤ 135°C	-	T4	-
LZ2NL3430	23/10.4	LZ2SL3430	24/10.9	34	4'	120-277VAC	0.28 - 0.12	5075	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL5530	23/10.4	LZ2SL5530	24/10.9	55	4'	120-277VAC	0.46 - 0.20	7577	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL8030	23/10.4	LZ2SL8030	24/10.9	80	4'	120-277VAC	0.67 - 0.29	11140	T5	T4A	≤ 135°C	≤ 135°C	T5	T4
LZ2NL12030	25/11.3	LZ2SL12030	26/11.8	120	4'	120-277VAC	1.00 - 0.43	16010	T4A	-	≤ 135°C	-	T4	-

Dimensions LZ2NL Series



Dimensions LZ2SL Series



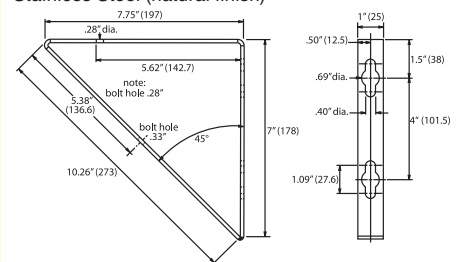
REPLACEMENT PARTS:	
LZ2N4LENS	4' Lens only LZ2NL/LZ2SL
LZ2N2LENS	2' Lens only LZ2NL/LZ2SL
LZ2N4BAR	4' Locking Bar only LZ2NL
LZ2N2BAR	2' Locking Bar only LZ2NL
LZ2S-LATCH	Latch and Spring LZ2SL

*Mounting Centers are 1/4-20" tapped for user all thread rod or below accessories.

Mounting Accessories

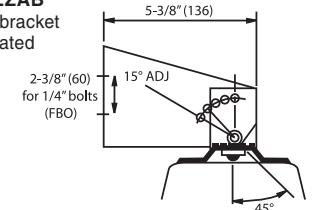
Wall Bracket Set

Part Number LZWB
Stainless Steel (natural finish)



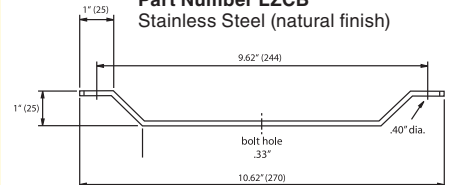
Adjustable Wall Bracket Set

Part Number LZAB
Stainless Steel bracket with ceramic coated pivot bolt



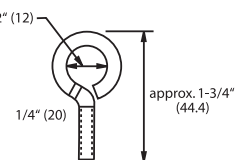
Ceiling Bracket Set

Part Number LZCB
Stainless Steel (natural finish)



Eyebolt Set

Part Number LZEB
Stainless Steel bolt with lockwasher & nut (natural finish)



Suspension Chains (2 required)

Part Number HFX-SC

36" length plated steel chain with snap link ends
For use with LZEB



LED FIXTURES



LINEAR^{lite}® *

* marca registrada MEXICO

FEATURES-SPECIFICATIONS

Applications

HLLX Series LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water and snow can be expected. They can also be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible ducts as defined by the NEC.

Typical applications include classified areas such as inside paint spray booths, paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

LED Features and Standards

- UL Listed and labeled for use inside paint spray booths and rooms
- Construction is strong lightweight corrosion resistant copper-free aluminum alloy, less than 4/10 of 1%
- Energy Savings – High efficiency LED chips
- All external hardware is corrosion resistant 316 stainless steel to provide maintenance free long life

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- UL factory sealed construction (no external seals required). Saves installation time and cost
- Extruded aluminum reflectors are easily removable for cleaning. White baked enamel finish
- Optional 316 stainless steel wire guard for added protection
- Threaded O-Ring gasketed covers provide easy access to driver and wiring compartment
- Suitable for use in both indoor and outdoor wet locations
- Many Midpower LEDs blend light to simulate fluorescent tubes
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI

Class I, Div. 1 & 2, Groups C,D
Class I, Zones 1 & 2, Groups IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III, Div. 1 & 2
Type 3, 4X, 7(C,D) 9(E,F,G)
Suitable for wet locations
Suitable for paint spray booths

UL LISTED - File E12976 and E89665 (Marine)

SP Certified - File LR11713

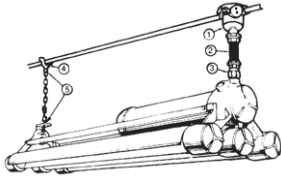
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Instant On – Including after power interruption
- World Voltage 120-277VAC 50/60Hz

Compliances

- **UL-8750 for LED lighting**
- **UL-844, Electric Lighting Fixtures for use in Hazardous Locations**
- **UL Marine Type Electric Lighting Fixtures**
- **CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations**
- **Type 3, 4X, 7(C,D), 9 (E,F,G)**

Catalog Number	Logic	HLLX	22	304	00	Options
Constant for HLLX Series						Options F – Single Fuse (1 pole) (Not to be used in Canada) FF – Two Fuses (2 pole) (Not to be used in Canada) LSP – Less Surge Protector
Lumen Outputs						
4 – 4000 lumens	11 – 11,000 lumens					
6 – 6000 lumens	15 – 15,000 lumens					
7 – 7000 lumens	22 – 22,000 lumens					
Voltage						Length 2 – 2 foot (Lumen outputs 4-11) 4 – 4 foot (Lumen outputs 15-22)
27 – 12-24VDC	33 – 347-480VAC 50/60 Hz					
30 – 120-277V 50/60 Hz	34 – 120-250VDC					

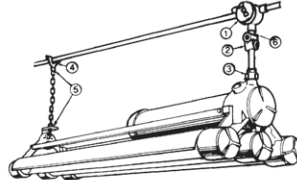
ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D1		C2D1	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C
HLLX4272	32.00 / 14.52	24	12-24VDC	2.0 - 4.0	3829	T6	T6	T4A	T4A
HLLX4302			120-277VAC	0.2 - 0.09					
HLLX4342			108-250VDC	0.2 - 0.1					
HLLX6272	32.00 / 14.52	35	12-24VDC	2.91 - 5.83	5756	T6	T6	T4A	T4A
HLLX6302			120-277VAC	0.29 - 0.67					
HLLX6342			108-250VDC	0.29 - 0.14					
HLLX7302	32.00 / 14.52	55	120-277VAC	0.44 - 1.02	7644	T6	T6	T4A	T4A
HLLX7342			108-250VDC	0.44 - 0.21					
HLLX11302	32.00 / 14.52	85	120-277VAC	0.71 - 1.64	10830	T6	T6	T4A	T4A
HLLX11342			108-250VDC	0.71 - 1.48					
HLLX15304	50.00 / 22.6	110	120-277VAC	0.92 - 0.40	15288	T6	T6	T4A	T4A
HLLX15344			108-250VDC	1.02 - 0.44					
HLLX22304		50.00 / 22.6	170	120-277VAC	1.38 - 3.18	22540	T6	T6	T4A
HLLX22344	108-250VDC			1.57 - 0.68					



Flexible mounting provides free swing and impact protection.

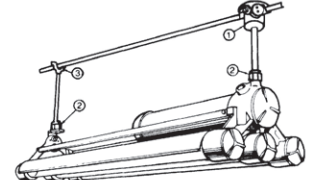
1. Splice Box/Fixture Hanger (HXB)
2. Flexible Pendant Hanger (EKJ)
3. Union (GUM)
4. Rigid Support Saddle Bracket (KFHS)
5. Support Hook (KEFHM)

Note: Chain furnished by others.



1. Splice Box/Fixture Hanger (XFH)
2. Swivel Hanger (KESD)
3. Union (GUM)
4. Rigid Support Saddle Bracket (KFHS)
5. Support Hook (KEFHM)
6. 3/4" Rigid Threaded Nipple

Note: Chain furnished by others.



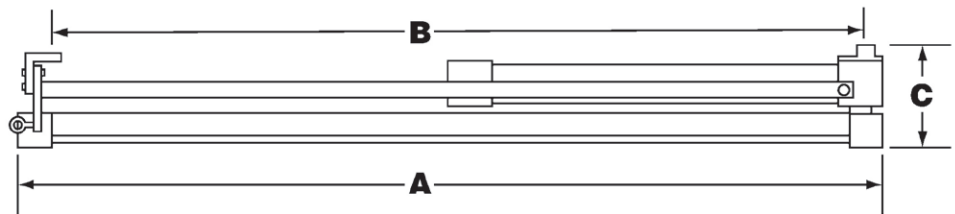
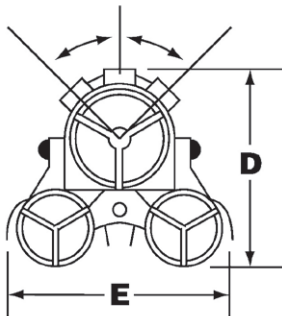
Rigid mounted

1. Splice Box/Fixture Hanger (HXB)
2. Union (GUM)
3. Rigid Support Saddle Bracket (KFHS)

For wall mounting, use securely fastened 3/4" pipe 6" or less in length. Floor flange (furnished by others) recommended for dummy end as well as chain or cable providing vertical strain relief from above fixture. Chain furnished by others.

MOUNTING HARDWARE			
CATALOG NUMBER	HUB SIZE	LENGTH	DESCRIPTION
HXB-12 HXB-22	1/2" 3/4"	— —	HXB SERIES Splice Box/ 3/4" Fixture Hanger
EKJ-24	3/4"	4	EKJ SERIES Flexible Pendant Hanger
EKJ-26	3/4"	6	
EKJ-28	3/4"	8	
EKJ-210	3/4"	10	
EKJ-212	3/4"	12	
EKJ-215	3/4"	15	
EKJ-218	3/4"	18	
GUM-2	3/4"		GU SERIES Male Union

MOUNTING HARDWARE		
CATALOG NUMBER	HUB SIZE	DESCRIPTION
XFH-22	3/4"	XFH SERIES Splice box/fixture hanger
KESD-75	3/4"	KESD SERIES Swivel Hanger 15° swivel drop from center and full 360° free swing
KFHS-5075	3/4"	KFHS SERIES Rigid support saddle bracket for fluorescent fixtures (dummy end) Will support 350 lbs. and straddle Max. 1-1/4" conduit
KEFHM-75	3/4"	KEFHM SERIES Safety support hook with 3/4" male end For dummy end of fixture Will support 200 lbs. screw closed 3/8" jaw opening
HFX-SC	—	HFX SERIES Safety chain (36" length plated steel), standard on 4-tube fixture



HLLX DIMENSIONS								
HLLX MODEL	CONDUIT SIZE	DIMENSIONS					NET WEIGHT	
		A	B	C	D	E		
Nominal 2'	2 Tubes	3/4-14 NPT	28-15/16" (735)	24-3/8" (619)	9-3/32" (231)	9-3/32" (231)	11" (279)	36.0 Lbs.
Nominal 4'	2 Tubes	3/4-14 NPT	52-13/16" (1367)	48-3/8" (1229)	9-3/32" (231)	9-3/32" (231)	11" (279)	47.7 Lbs.



LOWBAY & Highbay Lighting

KILLARK





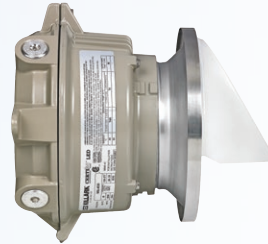
COMPACT SIZE – INTRODUCTION & LOGIC



Luminaire w/Glass Refractor and Guard



Luminaire w/Flat Lens



Wall Mount w/VZRF8PR Pathway Reflector

Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC,IIB,IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 Marine Rated (US only)
 Type 3, 4X

Certified - File LR11713

CERTILITE® LED

FEATURES-SPECIFICATIONS Applications

CERTILITE® MBL LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC.

Typical applications can low ceiling areas in manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting; UL 1598A
- UL Marine type lighting fixtures
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X

Materials

- Housing, splice box and guards (MBAG, VMAG) corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Reflectors - Polyester reinforced fiberglass

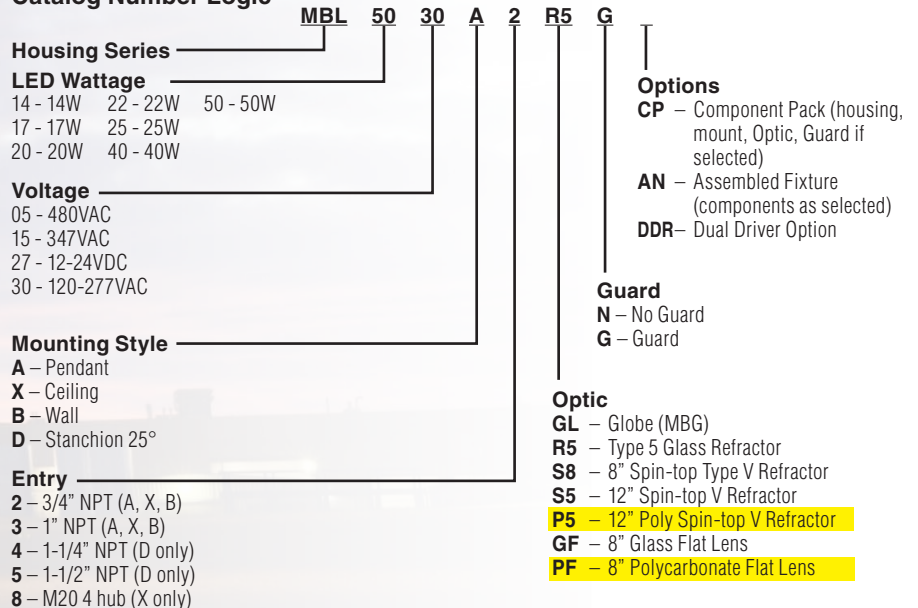
LED Luminaire Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Compact in Size with Traditional Industrial Appearance and Suitability
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, and spin-top refractors
- Optional Mounting arrangements including Pendant, Wall, Ceiling, and Stanchion
- MBL LED Housings can be retrofitted to existing MB splice boxes; upgrade from Fluorescent or HID

- Energy Savings – Less than 50 Watts of Power
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering - Chromaticity 5000°K (CCT); 70 CRI
- Ambient suitability -40°C to 40°C (to 55°C for 14W to 22W)
- Instant on – Including after power interruption
- “World Voltage” 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Catalog Number Logic





COMPACT SIZE – ORDERING INFORMATION



PENDANT



CEILING



WALL



STANCHION

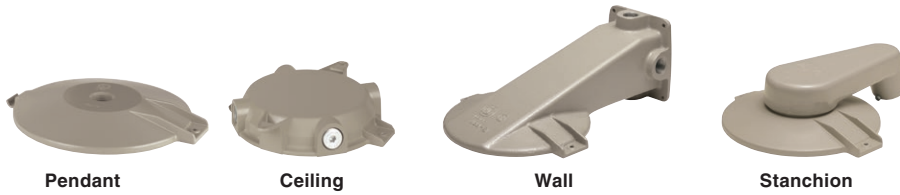


ORDERING INFORMATION

MBL SERIES PENDANT WITH OPTIC AND GUARD							
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	8" SPIN-TOP POLYCARBONATE FLAT LENS	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
14	3/4"	120-277VAC	MBL1430A2GLG	MBL1430A2PFN	MBL1430A2R5G	MBL1430A2S8G	MBL1430A2S5G
17	3/4"	120-277VAC	MBL1730A2GLG	MBL1730A2PFN	MBL1730A2R5G	MBL1730A2S8G	MBL1730A2S5G
20	3/4"	120-277VAC	MBL2030A2GLG	MBL2030A2PFN	MBL2030A2R5G	MBL2030A2S8G	MBL2030A2S5G
22	3/4"	120-277VAC	MBL2230A2GLG	MBL2230A2PFN	MBL2230A2R5G	MBL2230A2S8G	MBL2230A2S5G
25	3/4"	120-277VAC	MBL2530A2GLG	MBL2530A2PFN	MBL2530A2R5G	MBL2530A2S8G	MBL2530A2S5G
40	3/4"	120-277VAC	MBL4030A2GLG	-	MBL4030A2R5G	MBL4030A2S8G	MBL4030A2S5G
50	3/4"	120-277VAC	MBL5030A2GLG	-	MBL5030A2R5G	MBL5030A2S8G	MBL5030A2S5G
MBL SERIES CEILING WITH OPTIC AND GUARD							
14	3/4"	120-277VAC	MBL1430X2GLG	MBL1430X2PFN	MBL1430X2R5G	MBL1430X2S8G	MBL1430X2S5G
17	3/4"	120-277VAC	MBL1730X2GLG	MBL1730X2PFN	MBL1730X2R5G	MBL1730X2S8G	MBL1730X2S5G
20	3/4"	120-277VAC	MBL2030X2GLG	MBL2030X2PFN	MBL2030X2R5G	MBL2030X2S8G	MBL2030X2S5G
22	3/4"	120-277VAC	MBL2230X2GLG	MBL2230X2PFN	MBL2230X2R5G	MBL2230X2S8G	MBL2230X2S5G
25	3/4"	120-277VAC	MBL2530X2GLG	MBL2530X2PFN	MBL2530X2R5G	MBL2530X2S8G	MBL2530X2S5G
40	3/4"	120-277VAC	MBL4030X2GLG	-	MBL4030X2R5G	MBL4030X2S8G	MBL4030X2S5G
50	3/4"	120-277VAC	MBL5030X2GLG	-	MBL5030X2R5G	MBL5030X2S8G	MBL5030X2S5G
MBL SERIES WALL WITH OPTIC AND GUARD							
14	3/4"	120-277VAC	MBL1430B2GLG	MBL1430B2PFN	MBL1430B2R5G	MBL1430B2S8G	MBL1430B2S5G
17	3/4"	120-277VAC	MBL1730B2GLG	MBL1730B2PFN	MBL1730B2R5G	MBL1730B2S8G	MBL1730B2S5G
20	3/4"	120-277VAC	MBL2030B2GLG	MBL2030B2PFN	MBL2030B2R5G	MBL2030B2S8G	MBL2030B2S5G
22	3/4"	120-277VAC	MBL2230B2GLG	MBL2230B2PFN	MBL2230B2R5G	MBL2230B2S8G	MBL2230B2S5G
25	3/4"	120-277VAC	MBL2530B2GLG	MBL2530B2PFN	MBL2530B2R5G	MBL2530B2S8G	MBL2530B2S5G
40	3/4"	120-277VAC	MBL4030B2GLG	-	MBL4030B2R5G	MBL4030B2S8G	MBL4030B2S5G
50	3/4"	120-277VAC	MBL5030B2GLG	-	MBL5030B2R5G	MBL5030B2S8G	MBL5030B2S5G
MBL SERIES 25° STANCHION WITH OPTIC AND GUARD							
14	1-1/4"	120-277VAC	MBL1430D4GLG	MBL1430D4PFN	MBL1430D4R5G	MBL1430D4S8G	MBL1430D4S5G
17	1-1/4"	120-277VAC	MBL1730D4GLG	MBL1730D4PFN	MBL1730D4R5G	MBL1730D4S8G	MBL1730D4S5G
20	1-1/4"	120-277VAC	MBL2030D4GLG	MBL2030D4PFN	MBL2030D4R5G	MBL2030D4S8G	MBL2030D4S5G
22	1-1/4"	120-277VAC	MBL2230D4GLG	MBL2230D4PFN	MBL2230D4R5G	MBL2230D4S8G	MBL2230D4S5G
25	1-1/4"	120-277VAC	MBL2530D4GLG	MBL2530D4PFN	MBL2530D4R5G	MBL2530D4S8G	MBL2530D4S5G
40	1-1/4"	120-277VAC	MBL4030D4GLG	-	MBL4030D4R5G	MBL4030D4S8G	MBL4030D4S5G
50	1-1/4"	120-277VAC	MBL5030D4GLG	-	MBL5030D4R5G	MBL5030D4S8G	MBL5030D4S5G



COMPACT SIZE – COMPONENTS



MB MOUNTING BRACKETS				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	WALL	STANCHION	
MBA-2	MBX-2	MBB-2	—	3/4"
MBA-3	MBX-3	MBB-3	—	1"
—	MBX-8	—	—	M20
—	—	—	MBD-4	1-1/4"
—	—	—	MBD-5	1-1/2"



Non-Glass Polycarbonate 8" Flat Lens or Spin-top



MBL LED OPTICS AND ACCESSORIES		
DESCRIPTION	OPTIC LOGIC	GUARD
Globe (glass)	MBG (GL)	MBAG
Reflector (all glass) Type V	VMR175 (R5)	VMAG17
Reflector (spin top) 8" Type V	VZRG1550 (S8)	VMRWG8
Reflector (spin top) 12" Type V	VZRG2550 (S5)	VMRWGS
8" Spin-top flat lens (glass) 14-24W	VZRGF8 (GF)	VZRF8GRD
8" Spin-top flat lens (polycarbonate) 14-24W	VZRPF8 (PF)	VZRF8GRD
Reflector polycarbonate (spin -top) 12" Type V	VZRP175 (P5)	VMRWGS
Pathway Reflector 14-24W	VZRF8PR	NA
Reflector for MBG Globe - DOME	VMPSD-17	NA
Reflector for MBG Globe - ANGLE	VMPA-17	NA
120VAC Photocell with FS Style Cover	VMFSPC1	NA
208-277VAC Photocell with FS Style Cover	VMFSPC2	NA
3-sided EXIT Accessory (use without guard)	VEXA100B	NA



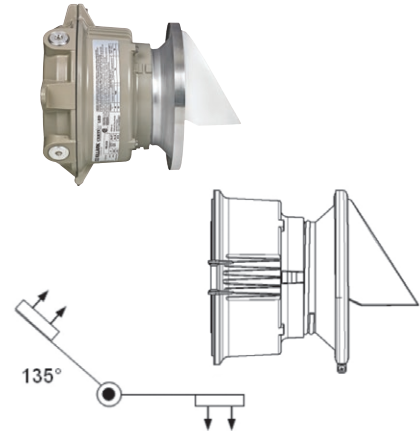
COMPACT SIZE – RATINGS, SPECIAL AIMING ANGLES

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2 OPTIC ONLY		ABCD W/ REFLECTOR		C2D1 OPTIC ONLY		EFG W/ REFLECTOR	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
MBL1427	10.00 / 4.54	14	12-24VDC	1.17-0.58	T5	T4A	T4	T3B	T4A	T4A	T4A	T4A
MBL1430			120-277VAC	0.12-0.05								
MBL1434			120-250VDC	0.12-0.04								
MBL1727		17	12-24VDC	1.42-0.71	T5	T5	T5	T5	T4	T4	T4	T4
MBL1730			120-277VAC	0.14-0.06								
MBL1734			120-250VDC	0.14-0.06								
MBL2027		20	12-24VDC	1.67-0.83	T5	T5	T5	T5	T4	T4	T4	T4
MBL2030			120-277VAC	0.17-0.07								
MBL2034			120-250VDC	0.17-0.06								
MBL2227		22	12-24VDC	1.83-0.92	T4A	T4	T4A	T4	T4	T4	T4	T4
MBL2230			120-277VAC	0.18-0.08								
MBL2234			120-250VDC	0.18-0.07								
MBL2527		25	12-24VDC	2.08-1.04	T5	T5	T5	T5	T4	T4	T4	T4
MBL2530			120-277VAC	0.21-0.09								
MBL2534	120-250VDC		0.21-0.08									
MBL4027	15.5 / 7.03	40	12-24VDC	3.33-1.67	T5	-	T5	-	T4	-	T4	-
MBL4030			120-277VAC	0.33-0.14								
MBL5027		50	12-24VDC	4.17-2.08	T5	-	T5	-	T4	-	T4	-
MBL5030			120-277VAC	0.42-0.18								

TYPICAL WEIGHTS (LBS.) W/STANDARD GLOBE AND GUARD - MBL SERIES				
14-25W	Pendant 14.96	Ceiling 15.96	Wall 19.30	Stanchion 16.83
40-50W	Pendant 20.96	Ceiling 21.69	Wall 25.30	Stanchion 22.83

DELIVERED LUMENS			
WATTS	MBL + MBG	MBL + VMR	MBL + VZRXF8
14	910	800	980
20	1785	1570	2009
22	1365	1201	1427
25	2485	2236	3186
40	3625	3821	-
50	5824	6139	-

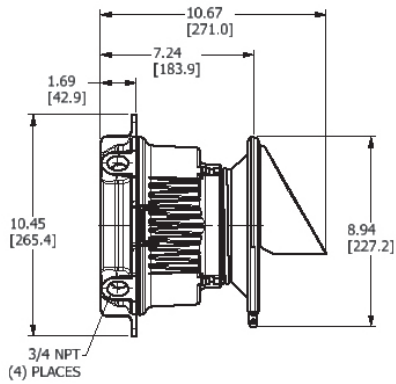
**Special Aiming Angles
Wall Mount MBL with Pathway Reflector**



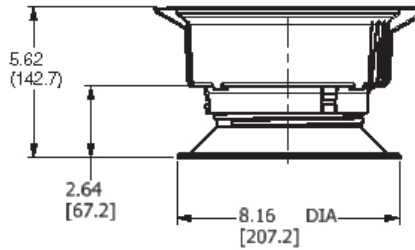
14W-25W MBL Housings with 8" Flat Spin-Top Lens may be aimed from 135° to 0° with or without the VZRF8PF Pathway Reflector. Pathway Reflector must NOT be aimed upwards in a Class II (Dust) environment, or where any contaminant may be collected. Applications include tunnels, lighting dark spots around ceiling piping or pathways near handrails.



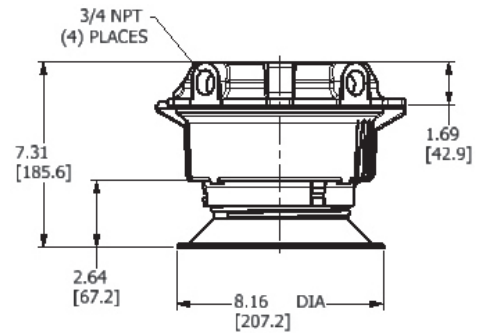
COMPACT SIZE – DIMENSIONS & WEIGHTS



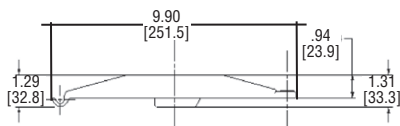
MBL Flat Lens, Pathway Reflector Wall Mount



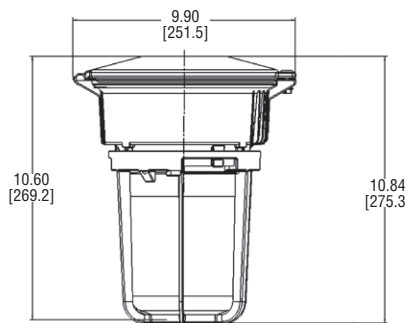
MBL Tank with Flat Lens



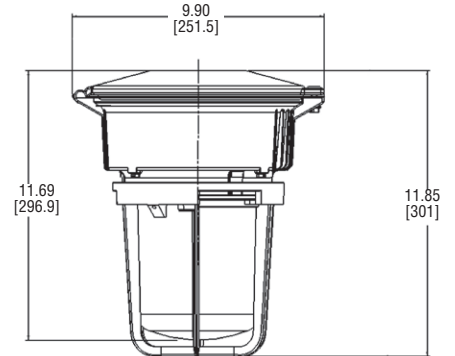
MBL Flat Lens Ceiling Mount



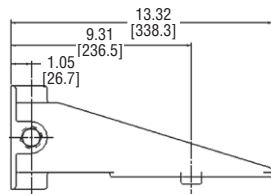
MBA Pendant



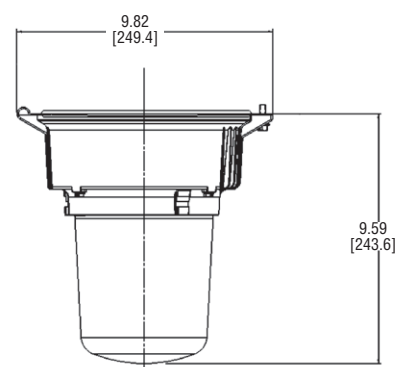
MBL Pendant, Globe, Guard



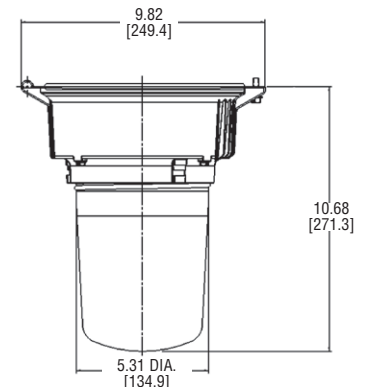
MBL Pendant, Refractor, Guard



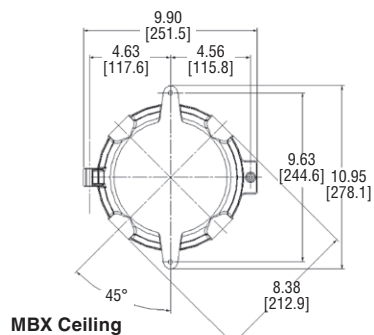
MBB Wall Mount



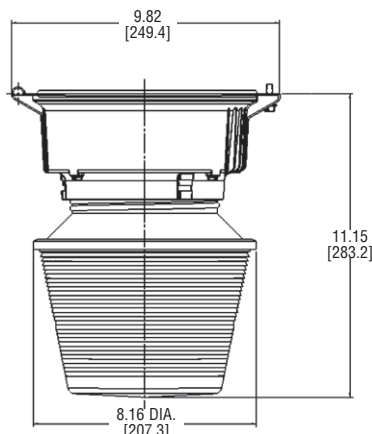
MBL & MBG Globe Only



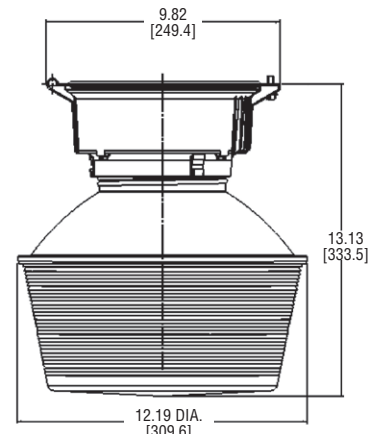
MBL & VMR Refractor



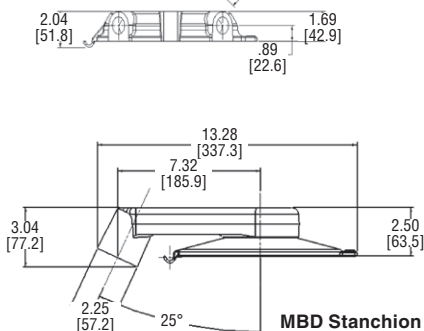
MBX Ceiling



MBL & 8" Type V Spin-top



MBL & 12" Type V Spin-top



MBD Stanchion



REDUCED PROFILE – INTRODUCTION



Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC,IIB,IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III
 Suitable for wet locations
 Marine Rated (US only)
 Type 3, 4X

Certified - File LR11713

CERTILite[®]V LED

FEATURES-SPECIFICATIONS

Applications

CertiLite[®]V VM1L LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow, or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X

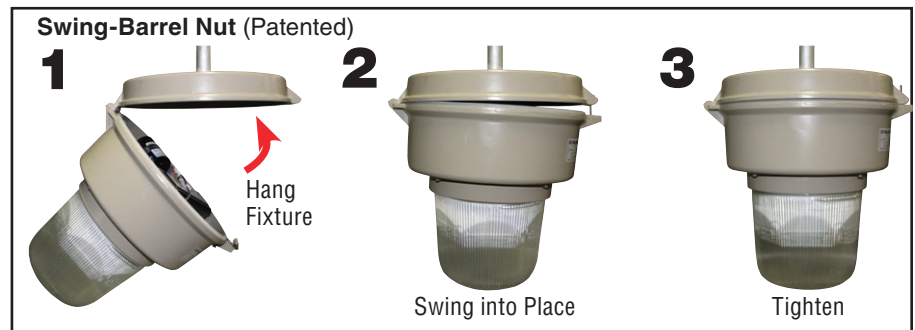
Materials

- Housing, splice box and cast guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Reflectors - Polyester reinforced fiberglass

LED Luminaire Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Reduced profile with Traditional Industrial Appearance and Suitability
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, and spin-top refractors
- Swing-Barrel Nut patented tank mounting system
- Optional Mounting arrangements including Pendant, Wall, Ceiling, Stanchion and others
- VM1L LED Housings can be retrofitted to existing VM splice boxes; upgrade from HID sources
- Energy Savings – less than 55 Watts of Power
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000°K (CCT); 70 CRI
- Ambient suitability -40°C to 55°C
- Instant on – including after power interruption
- “World Voltage” 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- Dual Driver Option (DDR) – For additional energy savings, half of the fixture can be turned off



Polycarbonate 12"
Spin-top
Refractor VZRG2550



Photo controls – Class I Div. 2 / N4X areas

Available as Field or Factory Installed to save energy when light not required.



Earthquake Tab –

Built-in attachment point for safety cables.

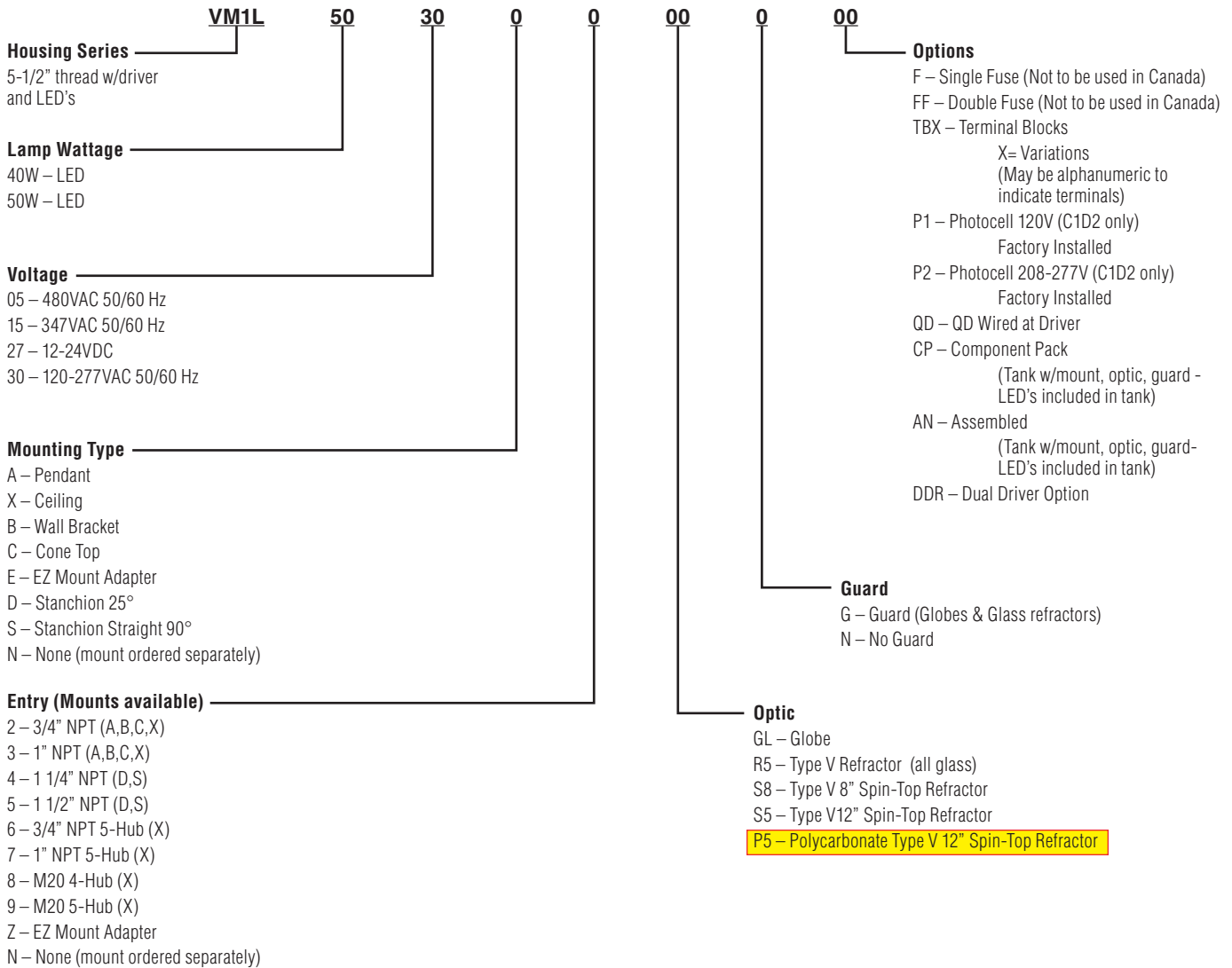
Safety: Secures fixture to structure in case of conduit failure.



REDUCED PROFILE – CATALOG LOGIC

CERTILITE[®]V LED

CertiLite[®]V LED Catalog Number Logic





REDUCED PROFILE – ORDERING INFORMATION



PENDANT

CEILING

WALL

CONE

ORDERING INFORMATION

VM1L SERIES PENDANT WITH OPTIC AND GUARD						
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	3/4"	120-277VAC	VM1L4030A2GLG	VM1L4030A2R5G	VM1L4030A2S8G	VM1L4030A2S5G
50	3/4"	120-277VAC	VM1L5030A2GLG	VM1L5030A2R5G	VM1L5030A2S8G	VM1L5030A2S5G

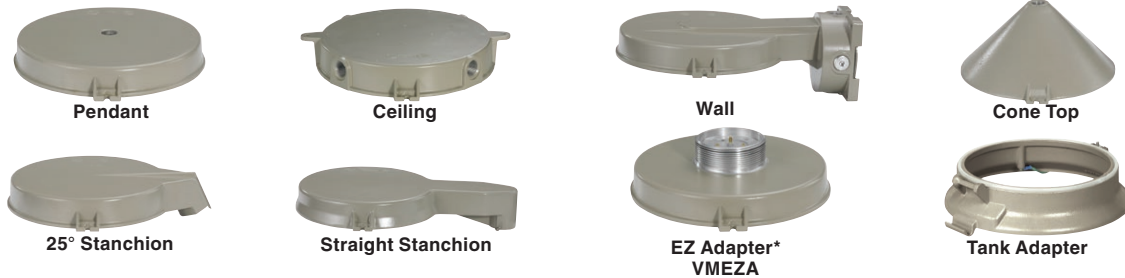
VM1L SERIES CEILING WITH OPTIC AND GUARD						
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	3/4"	120-277VAC	VM1L4030X2GLG	VM1L4030X2R5G	VM1L4030X2S8G	VM1L4030X2S5G
50	3/4"	120-277VAC	VM1L5030X2GLG	VM1L5030X2R5G	VM1L5030X2S8G	VM1L5030X2S5G

VM1L SERIES WALL WITH OPTIC AND GUARD						
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	3/4"	120-277VAC	VM1L4030B2GLG	VM1L4030B2R5G	VM1L4030B2S8G	VM1L4030B2S5G
50	3/4"	120-277VAC	VM1L5030B2GLG	VM1L5030B2R5G	VM1L5030B2S8G	VM1L5030B2S5G

VM1L SERIES CONE WITH OPTIC AND GUARD						
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD	TYPE V GLASS REFRACTOR & GUARD	8" SPIN-TOP TYPE V REFRACTOR & GUARD	12" SPIN-TOP TYPE V REFRACTOR & GUARD
40	3/4"	120-277VAC	VM1L4030C2GLG	VM1L4030C2R5G	VM1L4030C2S8G	VM1L4030C2S5G
50	3/4"	120-277VAC	VM1L5030C2GLG	VM1L5030C2R5G	VM1L5030C2S8G	VM1L5030C2S5G



REDUCED PROFILE – COMPONENTS



CERTILITE® V VM MOUNTING SPLICE BOXES							
HUB SIZE	CATALOG NUMBER						
	PENDANT	CEILING 4 HUB	CEILING 5 HUB	WALL	CONE TOP	25 DEGREE STANCHION	90 DEGREE STANCHION
3/4"	VMA2B	VMX2B	VMX6B	VMB2B	VMC2B	—	—
1"	VMA3B	VMX3B	VMX7B	VMB3B	VMC3B	—	—
1-1/4"	—	—	—	—	—	VMD4B	VMS4B
1-1/2"	—	—	—	—	—	VMD5B	VMS5B
M-20	—	VMX8B**	VMX9B**	VMB8B**	—	—	—

* VMEZA is used between a driver tank and an EZ mount-ordered separately.

** Furnished with non-metallic plugs. Also available: VMB10B wall 4xM25 hubs, and VMB810B 2xM20 side hubs and 2xM25 top/bottom

VM1L LED OPTICS AND ACCESSORIES		
DESCRIPTION	OPTIC LOGIC	GUARD
Globe (glass)	VMG17 (GL)	VMAG17
Refractor (all glass) Type V	VMR175 (R5)	VMAG17
Refractor (spin top) 8" Type V	VZRG1550 (S8)	VMRWG8
Refractor (spin top) 12" Type V	VZRG2550 (S5)	VMRWGS
Refractor polycarbonate (spin-top) 12" Type V	VZRP175 (P5)	VMRWGS
DOME REFLECTOR (Polyester reinforced fiberglass)	VMPSD40	NA
ANGLE REFLECTOR (Polyester reinforced fiberglass)	VMPA40	NA
120VAC Photocell with FS Style Cover	VMFSPC1	NA
208-277VAC Photocell with FS Style Cover	VMFSPC2	NA
3-sided EXIT Accessory (use without guard)	VEXA100B	NA
Tank adapter to Crouse-Hinds® VM Series mounts*	VMCHVM	NA

OPTICS



VMG17



VMR175



VZRG1550



VZRG2550

ACCESSORIES



VMAG17



VMRWG8[Ⓢ]
VMRWGS[Ⓢ]



VMPSD40



VMPA40



VMFSPC1



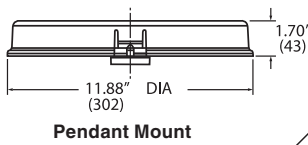
VEXA100B

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2		C2D1		
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	VMG15 LUMENS	VMR175 LUMENS	40°C	55°C	40°C	55°C
VM1L4005	15.50 / 7.03	40	480 VAC	0.09	5267	5060	T6	T5	T4 (EFG)	
VM1L4015			347 VAC	0.13						
VM1L4027			12-24VDC	3.33-1.67						
VM1L4030			120-277VAC	0.36-0.16						
VM1L5005	50	50	480 VAC	0.10	6162	6427	T5	T4A	T4 (EFG)	
VM1L5015			347 VAC	0.14						
VM1L5027			12-24VDC	4.17-2.08						
VM1L5030			120-277VAC	0.43-0.18						

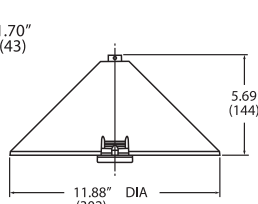
TYPICAL WEIGHTS (LBS.) W/ STANDARD GLOBE AND GUARD - VM1L SERIES			
Pendant	23.00	Ceiling	24.10
Wall	27.50	Stanchion	23.90



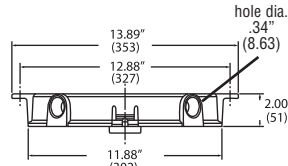
REDUCED PROFILE – DIMENSIONS & WEIGHTS



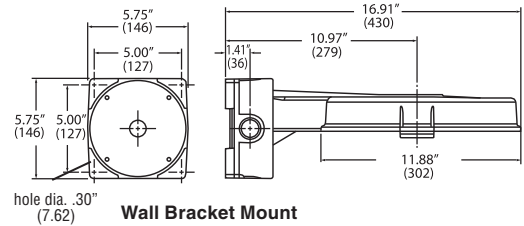
Pendant Mount



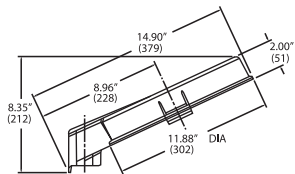
Cone Mount



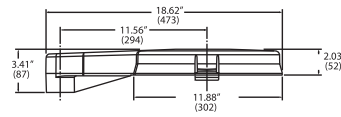
Ceiling Mount



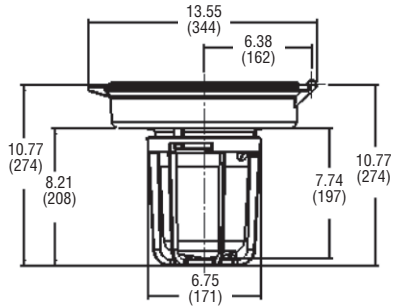
Wall Bracket Mount



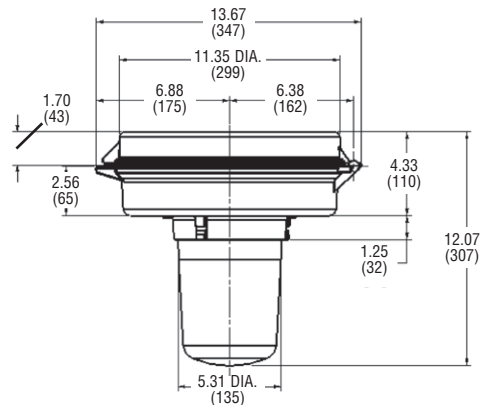
Stanchion (25°) Mount



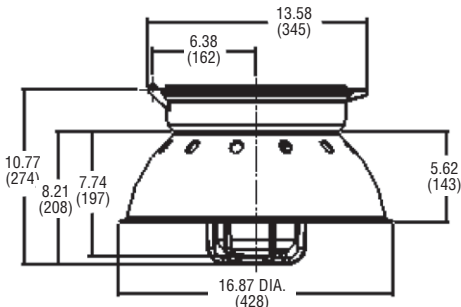
Stanchion (0°) Mount



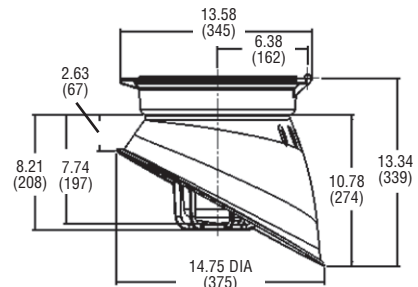
VM1L Tank Globe & Guard



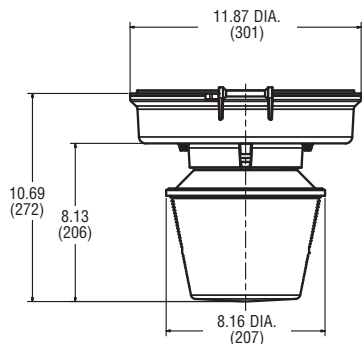
VM1L Tank w/Pendant Mount & Globe



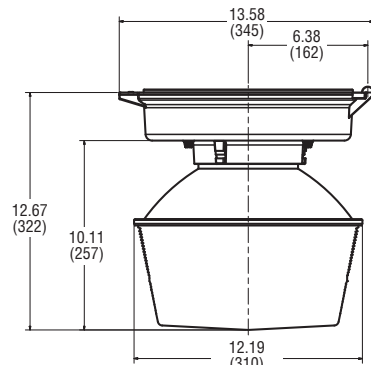
VM1L Tank with Dome Refractor



VM1L Tank with Angle Refractor



VM1L Tank with 8" Spin-top Refractor

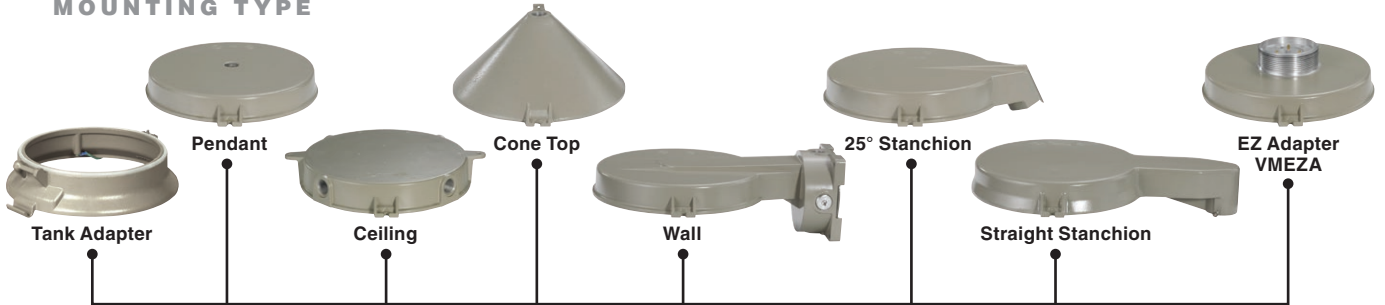


VM1L Tank with 12" Spin-top Refractor



HOUSING FIXTURE ASSEMBLY GUIDE

MOUNTING TYPE



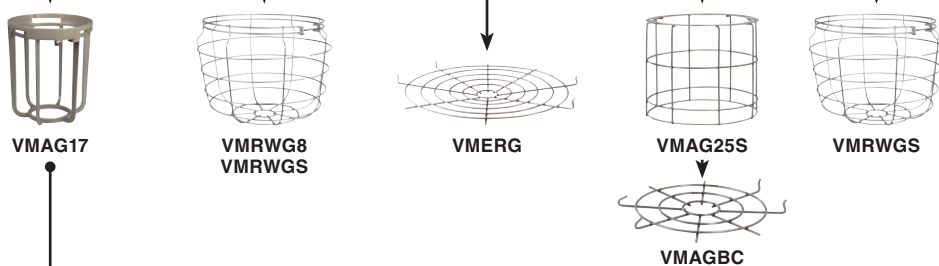
TANK



OPTIC



GUARD



REFLECTOR





VM2&4LB, VM2&4LC SERIES

KILLARK

HIGH WATTAGE – INTRODUCTION



VM2LB with Globe/
Guard



VM4LB with Globe/
Guard



VM4LC with Flat Lens



Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
Suitable for wet locations
Type 3, 4X
IP66
Marine Rated (US only)

CSPI US Certified - File LR11713

IECEX Rated Models (VM4L with IEx suffix)
Ex nA IIC T4, Gc / Ex tb IIIC T83°C Db
Tamp -40°C ≤Ta≤+65°C, IP66

IECEX Certificate
QPS 15.0006

INMETRO Certificate
IEx 16.0137

ATEX Certificate
CML 15ATEX4101X(nA)
&
CML 15ATEX3102X(tb)

Contact Factory for other certification details



Consult website
for current list of
approved luminaires

- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- Dual Driver Option (DDR) – For additional energy savings, half of the fixture can be turned off.
- Two LED internal heat sink styles
 - » Bulb VM2LB/VM4LB
 - » Concave VM2LC/VM4LC

CERTILITE V LED

FEATURES-SPECIFICATIONS

Applications

CERTILITE® V VM4L LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX/ATEX & INMETRO.

Typical applications include manufacturing plants, food processing, certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66 & Marine
- Self-testing per NFPA 101® Life Safety Code

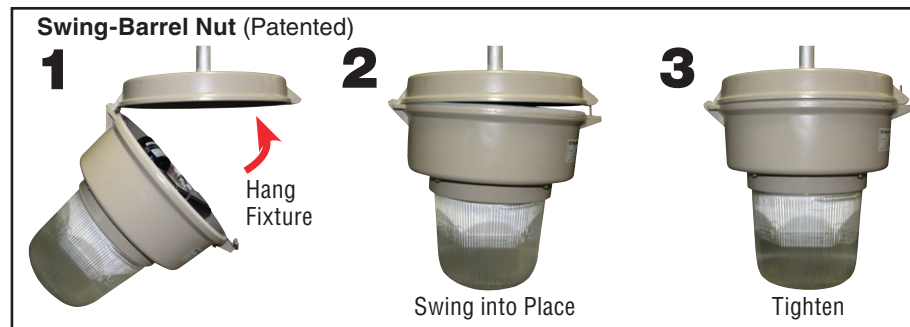
Materials

- Housing, splice box and cast guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – stainless steel
- Reflectors – Polyester reinforced fiber glass or aluminum

LED Luminaire Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Traditional Industrial Appearance, Suitability, and Photometric Performance
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, spin-top refractors and flat lens
- Swing-Barrel Nut patented tank mounting system
- Optional Mounting arrangements including Pendant, Wall, Ceiling, Stanchion and others
- VM4L LED Housings can be retrofitted to existing VM splice boxes; upgrade from HID sources
- **VM2Lx housing is 1.56" shallower for low ceilings**
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT range); approx. 70 CRI
- Energy Savings – less than 130 Watts of Power
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 65°C (see tables). **-20°C to 50°C Ambient suitability for Emergency models.**





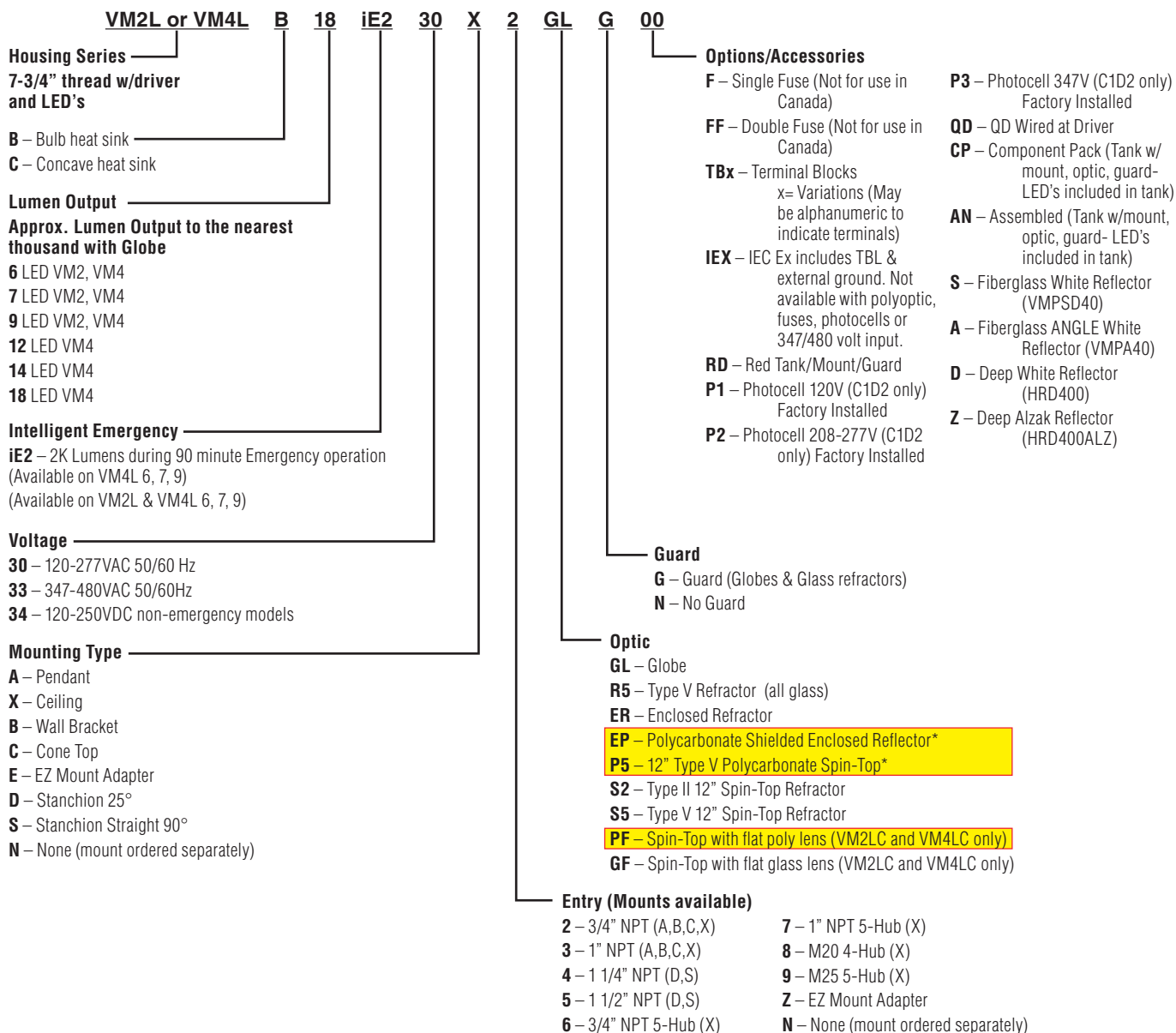
HIGH WATTAGE – CATALOG LOGIC

CERTILITE[®]V LED

Killark high efficiency LED Luminaires require NO external heat sink which adds weight and collects dust and other contaminants



CertiLite[®]V LED Catalog Number Logic



*Non-glass Group G Food Processing Suitability



VM2&4LB, VM2&4LC SERIES

KILLARK

HIGH WATTAGE – OPTICS AND ACCESSORIES

DELIVERED LUMENS								
CATALOG NUMBER	VMG25	VMR255	VMER40	VZRP175B	VZRG4020	VZRG4050	VZRPF12	VZRGF12
	GL	R5	ER	P5	S2	S5	PF	GF
VM4LB6(XX)(YY)N	6278	5915	4575	4692	4771	4879		
VM4LC6(XX)(YY)N	6223	5127	4645	4880	4989	4914	5570	5644
VM4LB7(XX)(YY)N	7437	6996	5589	5846	5968	5973		
VM4LC7(XX)(YY)N	7344	6026	5491	5757	5892	5830	6563	6679
VM4LB9(XX)(YY)N	9692	9084	7465	7928	8090	8078		
VM4LC9(XX)(YY)N	9453	7746	6973	7420	7671	7482	8492	8647
VM4LB12(XX)(YY)N	12750	12020	9804	10410	10550	9168		
VM4LC12(XX)(YY)N	12300	10380	9470	9969	10190	10030	11370	11570
VM4LB14(XX)(YY)N	14760	13810	11240	11890	12110	12010		
VM4LC14(XX)(YY)N	14120	11980	10910	11460	11810	11520	13080	13300
VM4LB18(XX)(YY)N	17710	16700	14080	14910	15050	15140		
VM4LC18(XX)(YY)N	17820	14530	13380	13970	14390	14190	15940	16270

(XX) = VOLTAGE
(YY) = MOUNT



VMG25



VMR255



VMER40



VZRP175B



VZRG4020



VZRG4050



VZRPF/VZRGF

TYPICAL WEIGHTS (LBS./KG) W/STANDARD GLOBE AND GUARD - VM4LB/C SERIES			
Pendant	Ceiling	Wall	Stanchion
33.4/15.2	33.0/15.0	37.9/17.2	34.3/15.6

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2			C2D1		
CATALOG NO.②	TYPICAL TANK ONLY WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS①	40°C	55°C	65°C	40°C	55°C	65°C
VM4L(Y)630	18.90 / 8.57	40	120-277 VAC	0.35-0.16	T4A	T4A	T4	EFG		
VM4L(Y)633		40	347-480VAC	0.12-0.09						
VM4L(Y)634		40	120-250VDC	0.33-0.16						
VM4L(Y)730		50	120-277 VAC	0.43-0.21	T4A	T4A	T4	EFG		
VM4L(Y)733		50	347-480VAC	0.15-0.12						
VM4L(Y)734		50	120-250VDC	0.42-0.20						
VM4L(Y)930		65	120-277 VAC	0.56-0.24	T4A	T4A	T4	EFG		
VM4L(Y)933		65	347-480VAC	0.19-0.14						
VM4L(Y)934		65	120-250VDC	0.54-0.26						
VM4L(Y)1230		90	120-277 VAC	0.77-0.33	T4A	T4	-	EFG	-	
VM4L(Y)1233		90	347-480VAC	0.27-0.19						
VM4L(Y)1234		90	120-250VDC	0.75-0.36						
VM4L(Y)1430		105	120-277 VAC	0.89-0.39	T4A	T4	-	EFG	-	
VM4L(Y)1433		105	347-480VAC	0.31-0.23						
VM4L(Y)14834		105	120-250VDC	0.88-0.42						
VM4L(Y)1830		130	120-277 VAC	1.10-0.46	T4A	T4	-	EFG	-	
VM4L(Y)1833		130	347-480 VAC	0.38-0.27						

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2			C2D1		
CATALOG NO.②	TYPICAL TANK ONLY WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS①	40°C	55°C	65°C	40°C	55°C	65°C
VM2L(Y)630	17.65 / 8.00	40	120-277 VAC	0.35-0.16	T4A	T4A	T4	EFG		
VM2L(Y)633		40	347-480VAC	0.12-0.09						
VM2L(Y)634		40	120-250VDC	0.33-0.16						
VM2L(Y)730		50	120-277 VAC	0.43-0.21	T4A	T4A	T4	EFG		
VM2L(Y)733		50	347-480VAC	0.15-0.12						
VM2L(Y)734		50	120-250VDC	0.42-0.20						
VM2L(Y)930		65	120-277 VAC	0.56-0.24	T4A	T4A	T4	EFG		
VM2L(Y)933		65	347-480VAC	0.19-0.14						
VM2L(Y)934		65	120-250VDC	0.54-0.26						

① For a given wattage current values are the same, regardless of tank type VM2LB/C or VM4LB/C.

② Replace (Y) with heat sink style B or C.



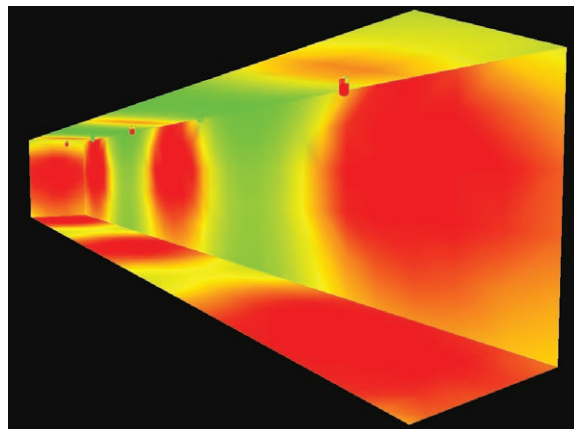
HIGH WATTAGE SELF-TESTING EMERGENCY

Electronics Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs a 1 minute test once a month and an alternating 30-60 minute test once every 6 months. LED indicator provides visible fault detection and charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

INDICATOR STATUS SIGNAL	DESCRIPTION OF STATUS SIGNAL
0.5s ON and 0.5s OFF	Battery disconnected.
2.5s ON and 2.5s OFF	LED load disconnected.
4.5s ON and 0.5s OFF	Driver in self-diagnostic mode.
1.5s ON and 3.5s OFF	Battery needs to be replaced.
0.5s ON and 4.5s OFF	Damaged driver. Replace
ON	Normal/Charging.
OFF (LED Load ON)	Discharging / Emergency Operation

LED Emergency Lighting Design



HIGH WATTAGE – COMPONENTS



CERTILITE® VM MOUNTING SPLICE BOXES							
HUB SIZE	CATALOG NUMBER						
	PENDANT	CEILING 4 HUB	CEILING 5 HUB	WALL	CONE TOP	25 DEGREE STANCHION	STRAIGHT STANCHION
3/4"	VMA2B	VMX2B	VMX6B	VMB2B	VMC2B	—	—
1"	VMA3B	VMX3B	VMX7B	VMB3B	VMC3B	—	—
1-1/4"	—	—	—	—	—	VMD4B	VMS4B
1-1/2"	—	—	—	—	—	VMD5B	VMS5B
M-20	—	VMX8B	VMX9B	VMB8B	—	—	—
M-25	—	—	—	VMB10B	—	—	—



VM2&4LB, VM2&4LC SERIES

KILLARK

HIGH WATTAGE – COMPONENTS & RATINGS



“EZ” Mount Adapter
For easy fixture relocation
or to repair fixture on
'bench top'.



VMEZA adapter is used
between a driver tank
and EZ mount ordered
separately.



Pendant



Ceiling



Wall Bracket



25° Stanchion

MOUNTING BOXES				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	BRACKET	STANCHION	
EZA2	EZX2	EZB3	—	3/4"
EZA3	EZX3	EZB3	—	1"
—	—	—	EZD4A	1-1/4" / 1/2"*

*1-1/2" furnished with 1-1/2"-1-1/4" reducer and extension.

Competitive Adapters

Designed to ease upgrading of other manufacturer's fixtures to KILLARK LEDs where removal of existing mounting screws and conduit would be difficult and time consuming.

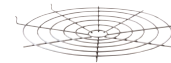
VM2L/VM4L LED OPTICS AND ACCESSORIES		
DESCRIPTION	OPTIC LOGIC	GUARD
Flat Lens (glass spin top) "C" tank only	VZRGF12 (GF)	VZRF12GRD
Flat Lens (polycarbonate spin top) "C" tank only	VZRPF12 (PF)	VZRF12GRD
Globe (glass)	VMG25 (GL)	VMAG25S
Reflector (all glass) Type V	VMR255 (R5)	VMAG25S
Enclosed Reflector	VMER40 (ER)	VMERG
Enclosed Reflector with polycarbonate Lens	VMEP40 (EP)	—
Reflector (polycarbonate spin top) 12" Type V	VZRP175B (P5)	VMRWGS
Reflector (glass spin top) 12" Type V	VZRG4050 (S5)	VMRWGS



VMAG25S



VMRWGS



VMERG



VMAGBC



VMPD40
Standard Dome, Fiberglass
White Reflector, Dia: 16"



VMPA40
30° Angle, Fiberglass
White Reflector, Dia:16"



HRD400
Deep Aluminum, White
Reflector, Dia: 21"



HRD400ALZ
Deep Aluminum, Anodized
Reflector, Dia: 21"

VM2L/VM4L LED REFLECTORS AND ACCESSORIES	
DOME REFLECTOR (Polyester reinforced fiberglass)	VMPD40
ANGLE REFLECTOR (Polyester reinforced fiberglass)	VMPA40
DEEP DOME REFLECTOR (White Painted Aluminum)	HRD400
DEEP DOME REFLECTOR (Anodized Aluminum)	HRD400ALZ
120VAC Photocell with FS Style Cover	VMFSPC1
208-277VAC Photocell with FS Style Cover	VMFSPC2
Bottom Closure for VMAG25S	VMAGBC
4-sided EXIT Accessory (use without guard)	VEXA400

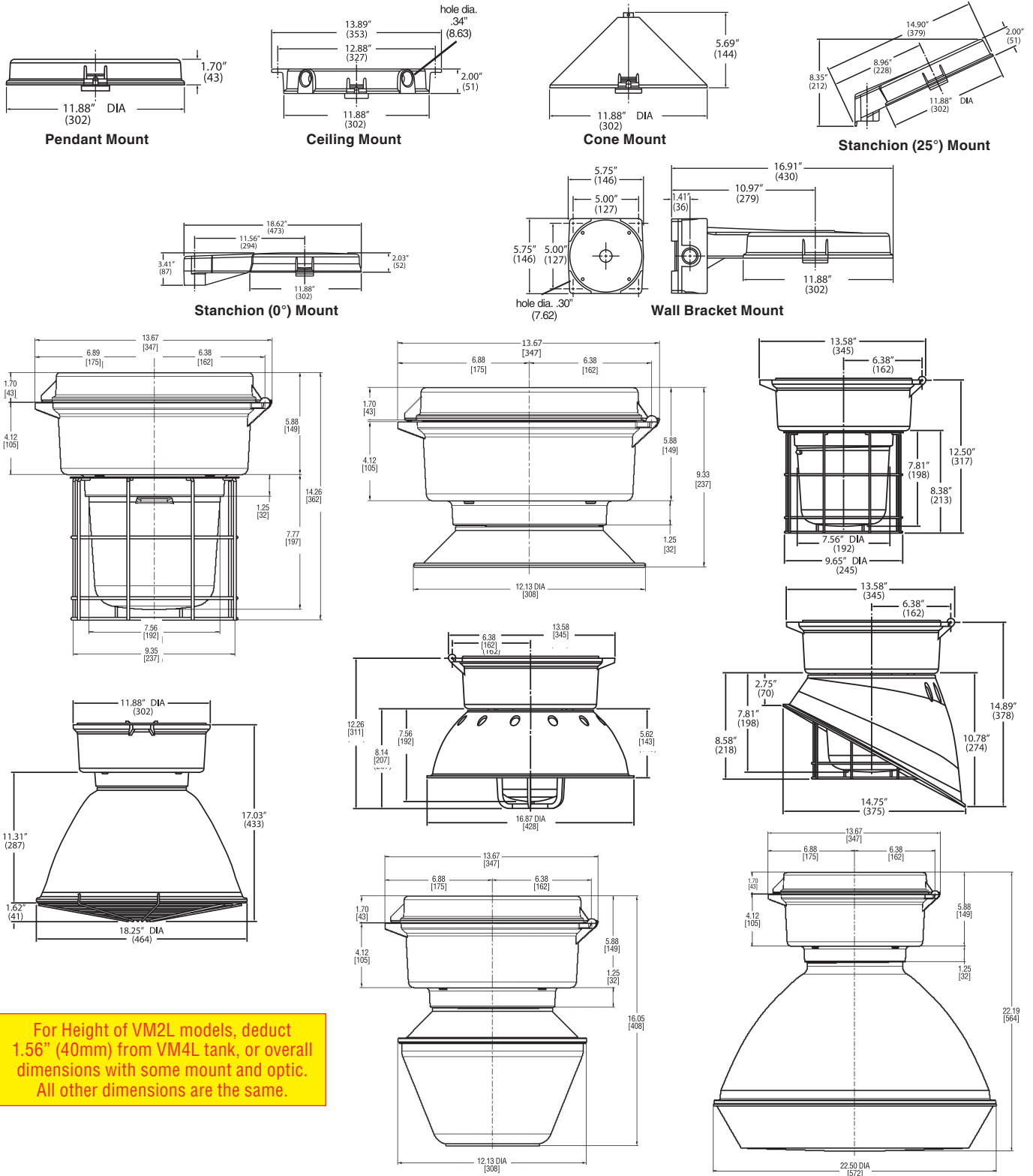


VEXA400
Fixture not included



VMFSPC

HIGH WATTAGE – DIMENSIONS & WEIGHTS



For Height of VM2L models, deduct 1.56" (40mm) from VM4L tank, or overall dimensions with some mount and optic. All other dimensions are the same.



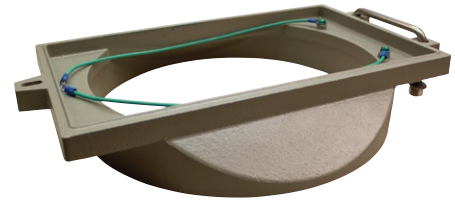
FIXTURE ADAPTERS



VMCHVM-DEEP



VMCHVM



VMGEH2

CERTIFIED LED

FEATURES-SPECIFICATIONS

Applications

The Killark VM adapters are designed to ease upgrading of other manufacturer's fixtures to KILLARK LEDs where removal of existing mounting screws and conduit would be difficult and time consuming.

Adapters are used with the Killark Fixture Housing, Globe, guard (if applicable) and the competitive fixture splicebox. The Killark fixtures when used with the Killark adapters and appropriate competitive adapter.

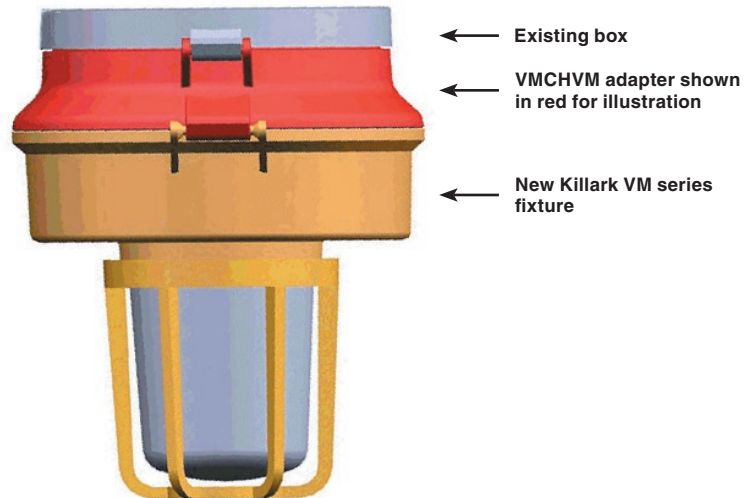
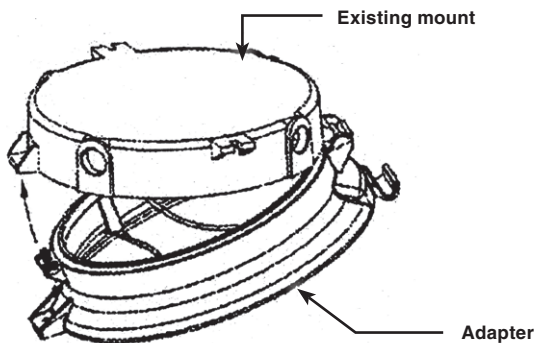
Features

- Fixture and competitive mount are certified together
- Baked powder epoxy/polyester finish, electrostatically applied to match the Killark VM tank
- All external hardware – Stainless Steel

Class I, Div. 2, Groups A, B, C, D
Class II, Div. 1, Groups E, F, G
Class III
Type 4X



VM SERIES COMPETITIVE ADAPTERS		
CATALOG NUMBER	DESCRIPTION	EXAMPLE OF MODEL UTILIZED OR REPLACED
VMCHVM	Tank adapter to Crouse-Hinds® VM Series mounts	VMV S2 C 050 R5
VMCHVM-DEEP	Tank adapter to CH (70's era wall mount with deep box)	VMV S2 TW 050 R5
VMM2LP	Tank adapter to Appleton® MERCMaster II mounts	LPCL 50 75 J
VMM3KP	Tank adapter to Appleton® MERCMaster III mounts	KPCL 50 75 J5 MT
VMHLDS	Tank adapter to Hazlux®3 mounts	DS015 H040-TGL-P2 E1 F
VMHPP2	Tank adapter mount to Holophane® Petrolux™	PETL 250HP 27 S25 CD
VMGEH2	Tank adapter H2 mount to GE® H2 Filtr-gard™	H2 4 05L 3C GG





EXPLOSION-PROOF – INTRODUCTION & LOGIC



- Class I, Div. 1 & 2, Groups C,D
- Class I, Zones 1 & 2, Groups IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III, Div. 1 & 2
- Suitable for wet locations
- Suitable for Paint Spray Booth
- Marine Rated (US only)
- Type 3, 4, 4X
- Factory Sealed

Certified - File LR11713

HOSTILE^{ITE} LED

FEATURES-SPECIFICATIONS Applications

HostileLite® EML LED Series fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow, or high ambients can be expected. They can be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible dusts as defined by the NEC.

Applications include classified areas such as paint manufacturing plants, ammunition facilities, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

Compliances

- UL-8750 for LED lighting
- UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL Marine Type Electric Lighting Fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- Type 3, 4, 4X, 7CD, 9EFG

Materials

- Housing, splice box and guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – Stainless Steel
- Reflectors are aluminum with white finish

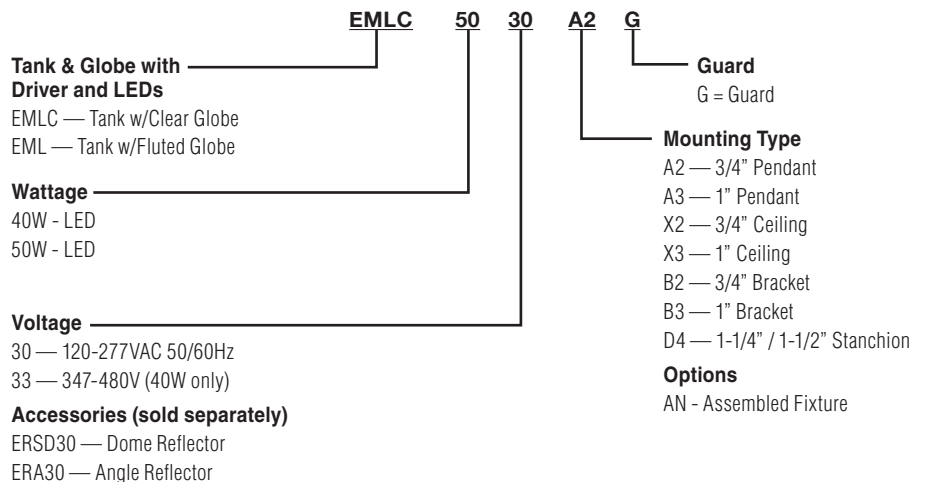
LED Luminaire Features and Standards

- Compact Explosion-proof with Traditional Industrial Appearance and Suitability
- Fluted or Exclusive Clear Globe; Dome or Angle Reflectors
- Optional Mounting arrangements including Pendant, Wall, Ceiling, and Stanchion
- EML LED Housings can be retrofitted to existing EZ splice boxes; upgrade from Incandescent, Fluorescent or HID
- Energy Savings – Less than 55 Watts of Power
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours

- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT range; approx. 70 CRI)
- Ambient suitability -40°C to 55°C
- Instant on – Including after power interruption
- “World Voltage” 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- Factory Sealed Construction – No external seal required, simply wire mouting cap and thread-in fixture to install

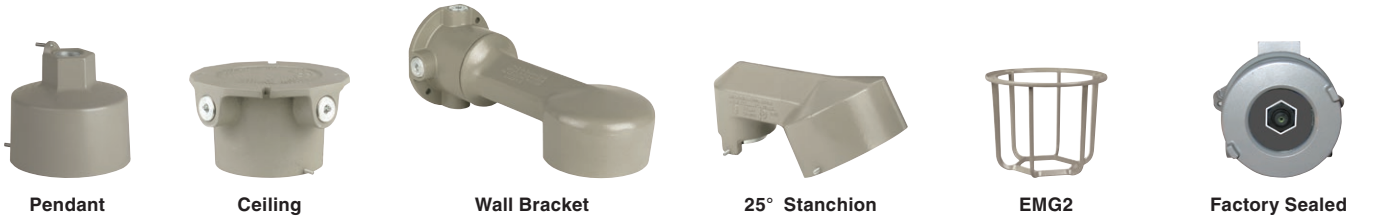
Suitable for Paint Spray Booth Applications

Catalog Number Logic





EXPLOSION-PROOF – COMPONENTS & RATINGS



Pendant

Ceiling

Wall Bracket

25° Stanchion

EMG2

Factory Sealed Photocell VMHKPC1

EZ MOUNTING BRACKETS				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	WALL	STANCHION	
EZA2	EZX2	EZB2	—	3/4"
EZA3	EZX3	EZB3	—	1"
—	—	—	EZD4*	1-1/4" / 1-1/2"*

* 1-1/2" furnished with 1-1/2" - 1-1/4" reducer

EML - EMLC LED ACCESSORIES	
DESCRIPTION	CATALOG NUMBER
Guard	EMG2
Dome Reflector	ERSD30
Angle Reflector	ERA30
CIDI C2D1 N4X Photocell 120VAC	VMHKPC1
CIDI C2D1 N4X Photocell 208-277VAC	VMHKPC2
Replacement Fluted Globe & Support	EMGS3
Replacement Clear Globe & Support	EMGS2
Adapter to old Killark "H" Series or Crouse Hinds®	EAC/EACH



ERSD30 Standard Dome

EMGS3
EMGS2

ERA30 Angle Dome

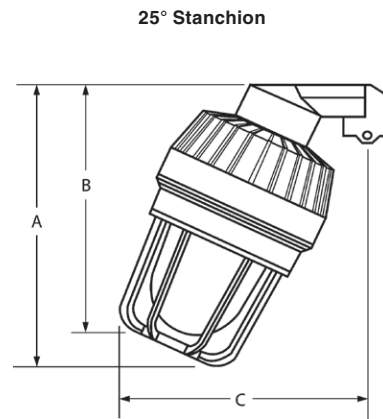
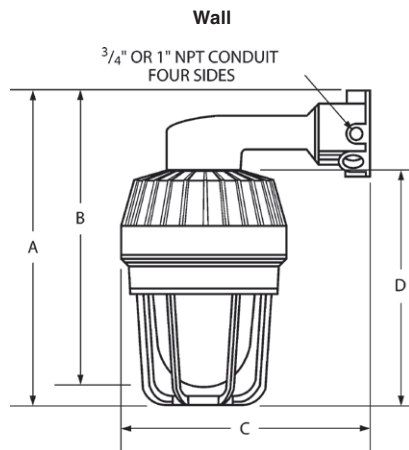
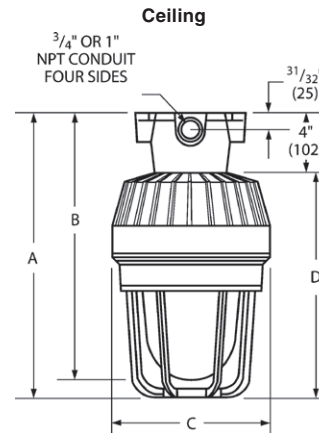
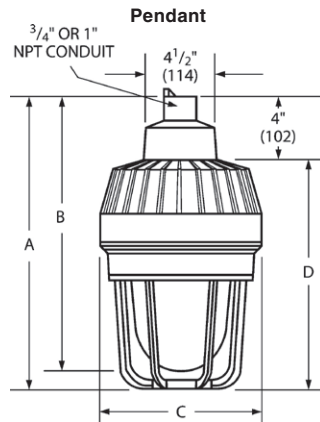
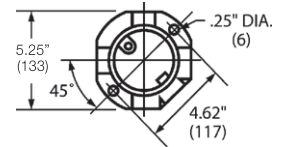
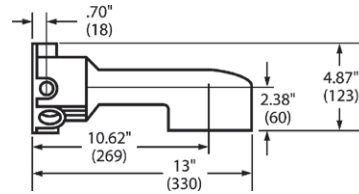
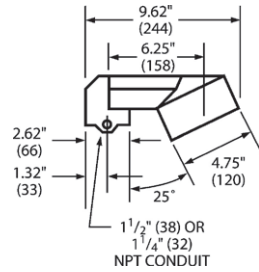
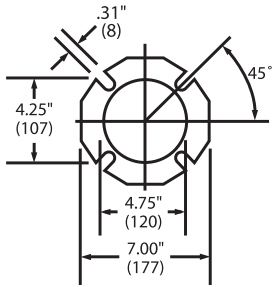
EAC/EACH

EML4530
EMLC4530

ORDERING INFORMATION AND AMBIENT SUITABILITY							C1D1/C1Z1		C2D1	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	EML FLUTTED LUMENS	EMLC CLEAR LUMENS	40°C	55°C	40°C	55°C
EML4030	26.00 / 11.79	40	120-277VAC	0.46-0.16	3479	3750	T6	T6	T4A (EFG)	T4 (EFG)
EML4033			347-480VAC	0.14-0.10						
EML5030		50	120-277VAC	0.43-0.18	5740	5741	T6	T6	T4A (EFG)	T4 (EFG)

TYPICAL WEIGHTS (LBS.) W/STANDARD GLOBE AND GUARD - EML (C) SERIES			
Pendant 29.33	Ceiling 31.79	Wall 33.25	Stanchion 30.94

EXPLOSION-PROOF – DIMENSIONS & WEIGHTS



EML(C) DIMENSIONS				
TYPE	A	B	C	D
PENDANT	15-15/16" (404)	15-1/16" (382)	8-13/16" (224)	11-15/16" (303)
CEILING	15-15/16" (404)	15-1/16" (382)	8-13/16" (224)	11-15/16" (303)
WALL	16-13/16" (426)	15-15/16" (404)	15" (379)	11-15/16" (303)
STANCHION	15-1/8" (384)	14" (356)	13-1/2" (343)	



EXPLOSION-PROOF – INTRODUCTION & LOGIC



- Class I, Div. 1 & 2, Groups C,D
- Class I, Zones 1 & 2, Groups IIB, IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III, Div. 1 & 2
- Suitable for wet locations
- Suitable for Paint Spray Booth
- Marine Rated (US only)
- Type 3, 4, 4X
- Factory Sealed

Certified - File LR11713

HOSTILELITE® LED

FEATURES-SPECIFICATIONS

Applications

HOSTILELITE® EZL Series high wattage LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or where high ambient temperatures can be expected. They can be used in locations made hazardous due to the presence of flammable or explosive gases, vapors and combustible dusts as defined by the NEC.

Typical applications include classified areas such as paint manufacturing plants, paint spray, oil and gas producing and refining plants, off-shore and dockside installations, tank farms, pipeline pumping stations and marine loading and fuel transfer terminals.

Compliances

- UL-8750 for LED lighting
- UL-844 Electric Lighting Fixtures for use in Hazardous Locations
- UL Marine Type Electric Lighting Fixtures
- CSA C22.2 no. 137-M1981 Electric Luminaires for use in Hazardous Locations
- Type 3, 4, 4X, 7CD, 9EFG

Materials

- Housing, splice box, and guards corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – Stainless Steel
- Reflectors are aluminum with white finish

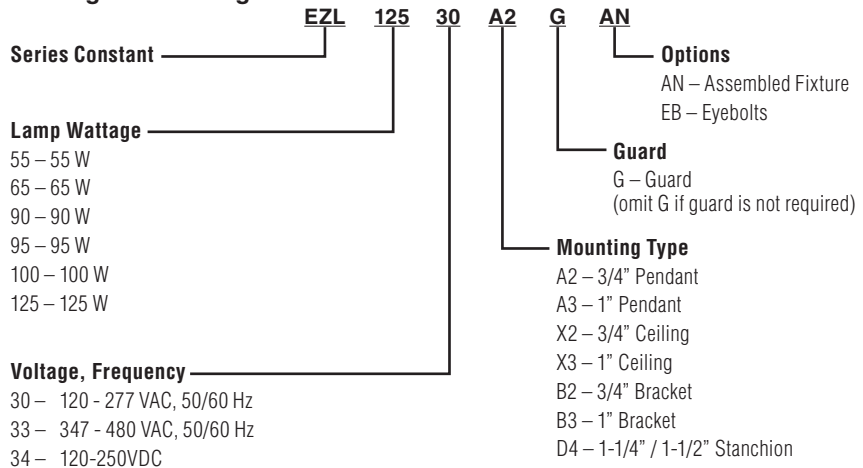
LED Luminaire Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Explosion-proof with Traditional Industrial Appearance and Suitability
- Mounting choice – Pendant, ceiling, 25° stanchion or 90° wall mount, all with “wireless” design that allows fast, easy fixture installation or removal for maintenance.
- Accessories – Available with or without guard, standard dome or angle reflector
- EZL LED Housings can be retrofitted to existing EZ splice boxes; upgrade from Incandescent, Fluorescent or HID
- Energy Savings – Less than 130 Watts of Power

- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT range; approx. 70 CRI)
- Ambient suitability -40°C to 55°C
- Instant on – Including after power interruption
- “World Voltage” 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- Factory Sealed Construction – No external seal required, simply wire mouting cap and thread-in fixture to install

Catalog Number Logic



LIGHTING

EZL SERIES



EXPLOSION PROOF – ORDERING INFORMATION, COMPONENTS & RATINGS



EZL SERIES PENDANT WITH OPTIC AND GUARD			
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD
55	3/4"	120-277VAC	EZL5530A2G
65	3/4"	120-277VAC	EZL6530A2G
90	3/4"	120-277VAC	EZL9030A2G
95	3/4"	120-277VAC	EZL9530A2G
100	3/4"	120-277VAC	EZL10030A2G
125	3/4"	120-277VAC	EZL12530A2G



EZL SERIES CEILING WITH OPTIC AND GUARD			
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD
55	3/4"	120-277VAC	EZL5530X2G
65	3/4"	120-277VAC	EZL6530X2G
90	3/4"	120-277VAC	EZL9030X2G
95	3/4"	120-277VAC	EZL9530X2G
100	3/4"	120-277VAC	EZL10030X2G
125	3/4"	120-277VAC	EZL12530X2G

EZL SERIES WALL BRACKET WITH OPTIC AND GUARD			
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD
55	3/4"	120-277VAC	EZL5530B2G
65	3/4"	120-277VAC	EZL6530B2G
90	3/4"	120-277VAC	EZL9030B2G
95	3/4"	120-277VAC	EZL9530B2G
100	3/4"	120-277VAC	EZL10030B2G
125	3/4"	120-277VAC	EZL12530B2G



EZL SERIES STANCHION WITH OPTIC AND GUARD			
WATTS	HUB SIZE	VOLTAGE	GLOBE & GUARD
55	3/4"	120-277VAC	EZL5530D4G
65	3/4"	120-277VAC	EZL6530D4G
90	3/4"	120-277VAC	EZL9030D4G
95	3/4"	120-277VAC	EZL9530D4G
100	3/4"	120-277VAC	EZL10030D4G
125	3/4"	120-277VAC	EZL12530D4G



MOUNTING BOXES				
HUB SIZE	CATALOG NUMBER			
	PENDANT	CEILING	BRACKET	STANCHION
3/4"	EZA2	EZX2	EZB2	—
1"	EZA3	EZX3	EZB3	—
1-1/4"/1-1/2"	—	—	—	EZD4



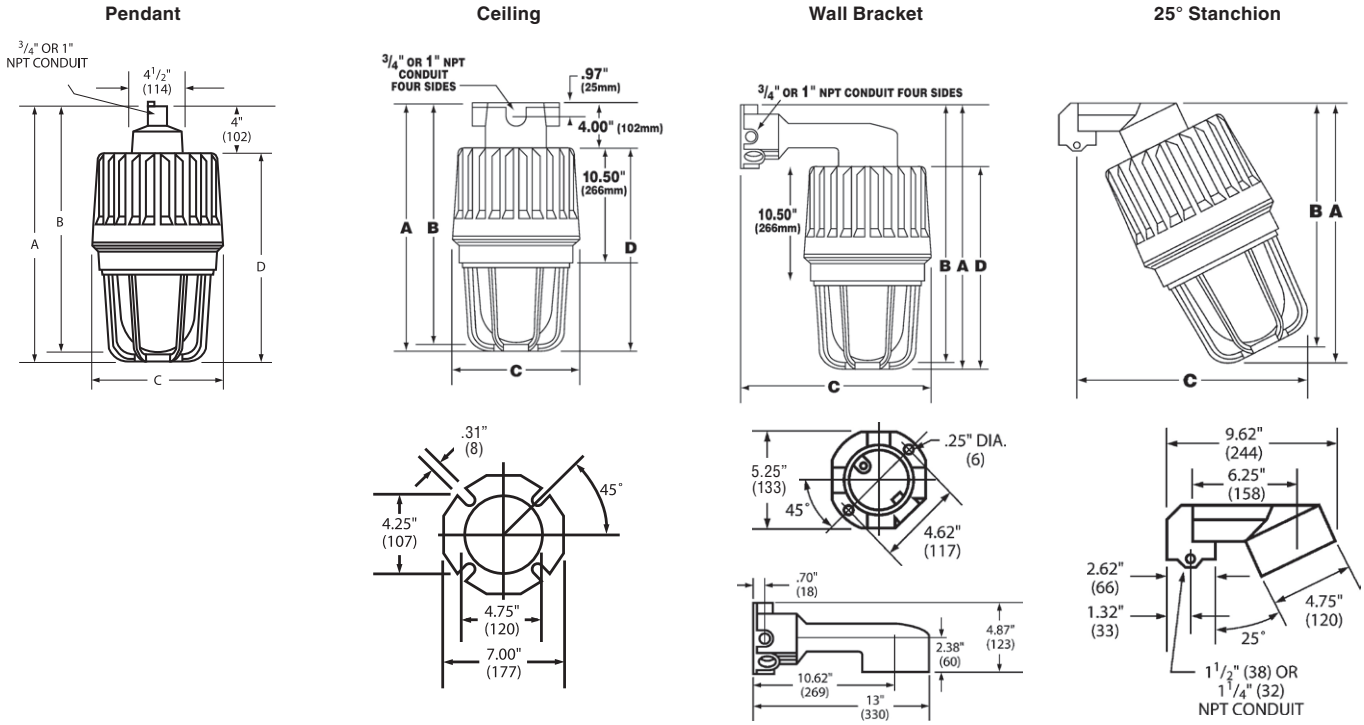
REFLECTORS	
CATALOG NUMBER	DESCRIPTION
VMPSD40	Standard dome. fiberglass reinforced polyester
VMPA40	30° Angle fiberglass reinforced polyester
HRD400	Deep dome. Aluminum with white finish
HRD400ALZ	Deep dome with specular anodized finish



ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D1/C1Z1		C2D1	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C
EZL5530	36 / 16.33	55	120-277VAC	0.46/0.20	5596	T6	T6	EFG	EFG
EZL6530		65	120-277VAC	0.54/0.23	6515	T6	T6	EFG	EFG
EZL9030		90	120-277VAC	0.75/0.32	7818	T6	T6	EFG	EFG
EZL9530		95	120-277VAC	0.79/0.34	9121	T6	T6	EFG	EFG
EZL10030		100	120-277VAC	0.83/0.36	10903	T6	XXX	EFG	XXX
EZL12530		125	120-277VAC	1.04/0.45	12720	T6	XXX	EFG	XXX

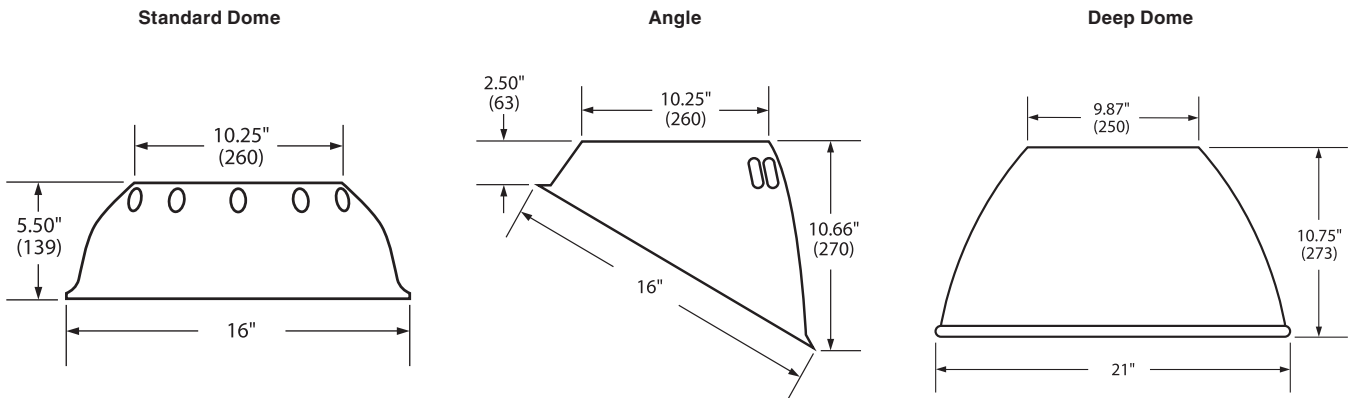


DIMENSIONS



MOUNTING DIMENSIONS														
PENDANT				CEILING				BRACKET				STANCHION		
A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
22" (558)	21-1/4" (539)	11-1/4" (285)	18" (457)	22" (558)	21-1/4" (539)	11-1/4" (285)	18" (457)	22-7/8" (580)	22-1/8" (561)	16-3/4" (425)	18" (457)	24-7/8" (631)	24" (609)	19-13/16" (503)

Reflector Dimensions





FIXTURE ADAPTERS



EAC/EACH



EZBA12

Class I, Div. 1 & 2, Group D
 Class I, Zones 1 & 2, Groups IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III



FEATURES-SPECIFICATIONS



Applications

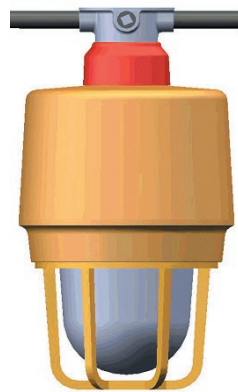
EAC Series adapters are designed to ease upgrading of existing Crouse-Hinds® “EV” series or existing Killark “H” series to Killark HOSTILELITE® EML or EZL series. Units are primarily designed to aid replacement of old ceiling or wall mount units where removal of the existing mounting box and conduit would be difficult or time consuming. Adapter & Killark fixtures rated Type 4.

Adapters are used with Fixture Housing, Globe, Globe Support assemblies. Complete fixture with mounting box is not required. Adapters are painted to match Killark beige fixture finish.

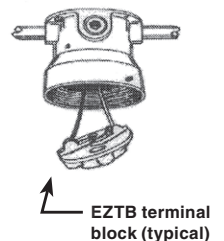
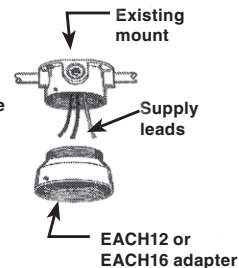
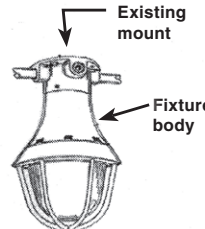
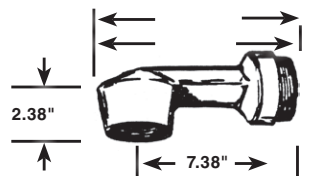
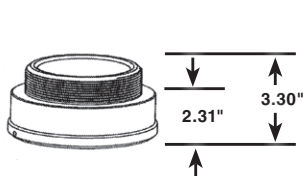
Features

- Setscrews permit secure adapter attachment into old mounting box and to new fixture
- Converted fixtures may be easily removed for service using the Killark EZ mounting system. Wire terminals are included in the adapter (EZTB Terminal Block)

EAC / EZBA FIXTURE ADAPTERS		
CATALOG NUMBER	DESCRIPTION	EXAMPLE OF MODEL UTILIZED OR REPLACED
EAC	Killark H series Ceiling or Wall	HXG-2-125 Fixture
EACH12	Crouse old style Ceiling Mount with lamp socket in adapter ring between fixture body and a GUF 12 pitch box	GUF box w/Set Screw
EZBA12	Crouse old style Wall Mount, old style Arm with integral lamp socket (socket in fixture in newer models) attached to GUF 12 pitch mounting box. EZBA12 includes arm	GUF box w/Set Screw
EACH16	Crouse newer style ceiling or wall fixtures w/lamp socket in fixture body; mounted to EV series 16 pitch threaded box; adapter fits in ceiling box or existing arm attached to wall fixture	EVA26/EV22 Box; EVBX240
EAAP-C2	Appleton Code-Master 2	CLC5075



- ← Existing box & conduit
- ← Adapter shown in red for illustration
- ← New Killark EML or EZL series fixture





FLOODLIGHTING

KILLARK





C1D2 FLOOD – INTRODUCTION & LOGIC



PETROBRIGHT® LED

FEATURES-SPECIFICATIONS

Applications

LED Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow, or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX/ATEX & INMETRO.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66
- IEX suffix Zone 2/21 to IEC 60079-0, 60079-15, 60079-31 Standards

Materials

- Body, end caps and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Thermal shock and impact resistant glass lens
- High temperature silicone gasketing
- Trunnion heavy gauge galvanized steel with painted finish



LED Flood Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Crisp White Light for Excellent Color Rendering - Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -50°C to 55°C up to 125W
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Class I, Div. 2, Groups A,B,C,D
 Class II, Div. 1&2, Groups EFG
 Class III
 Suitable for wet locations
 Marine Rated (US Only)
 Type 3, 4X
 IP66

CSA File LR11713

IEC Ex Rated model (w/IEX suffix)
 Zone 2 and Zone 21 areas
 Ex nA IIC T6...T3, Gc
 Ex tb IIC T160°C Db
 Tamb -50°C <Ta<+55°C, IP66

IECEX Certificate
 CSA 14.0002X

ATEX Certificate
 CML 14ATEX3087/4088

PATENTED LUMINAIRE DESIGN

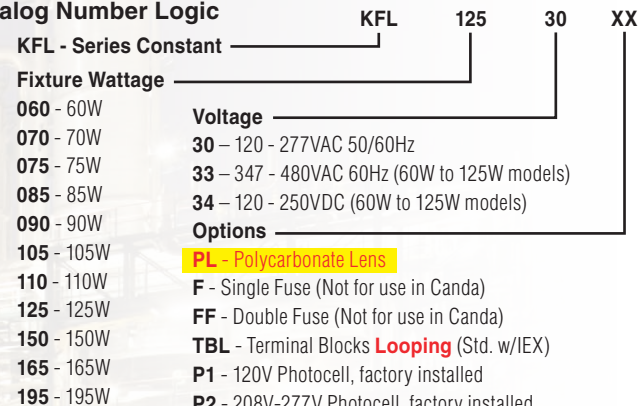


KFL with KFS-6 Slipfitter mount on 2" pipe

Dark Sky Visor
 KFL-DARK

IEX Units include Qty. 3 6mm terminals plus external ground as standard

Catalog Number Logic



PL - Polycarbonate Lens

- F - Single Fuse (Not for use in Canada)
- FF - Double Fuse (Not for use in Canada)
- TBL - Terminal Blocks **Looping** (Std. w/IEX)
- P1 - 120V Photocell, factory installed
- P2 - 208V-277V Photocell, factory installed
- P3 - 347V Photocell, factory installed

- D20 - 2x M20 entries
- D25 - 2x M25 entries
- D75 - 2 x 3/4" NPT

SY - 316 SS Yoke

IEX - IECEx & ATEX includes TBL and External Ground (to 125W)



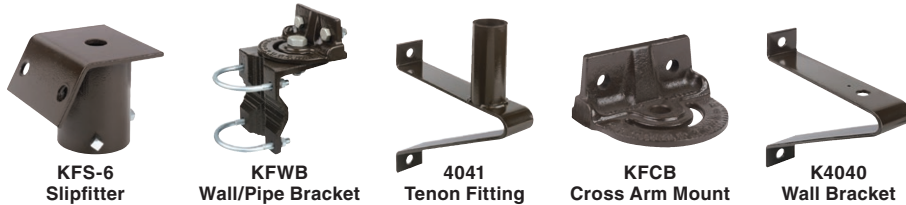
Consult website for current list of approved luminaires



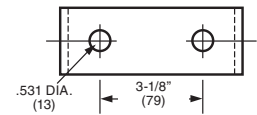
C1D2 FLOOD – ORDERING INFORMATION & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2		C1D2 SIMULTANEOUS		C2D1		IEC ZONE 2		IEC ZONE 21	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
KFL06030	30.00 / 13.61	60	120-277VAC	0.50-0.20	6111	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL07030		70	120-277VAC	0.60-0.30	9742	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL07530		75	120-277VAC	0.60-0.30	7454	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL08530		85	120-277VAC	0.70-0.30	10840	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL08533			347-480VAC	0.24-0.17											
KFL08534			120-250VDC	0.70-0.27											
KFL09030		90	120-277VAC	0.80-0.40	9023	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL09033			347-480VAC	0.28-0.23											
KFL09034			120-250VDC	0.80-0.36											
KFL10530		105	120-277VAC	0.90-0.40	10370	T4A	T4A	T3C	T3C	T3C (EFG)	T3C (EFG)	T4	T4	145	160
KFL10533			347-480VAC	0.31-0.23											
KFL10534			120-250VDC	0.90-0.36											
KFL11030		110	120-277VAC	0.90-0.40	13780	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL11033			347-480VAC	0.31-0.23											
KFL11034			120-250VDC	0.90-0.36											
KFL12530		125	120-277VAC	1.00-0.50	15340	T6	T5	T3C	T3C	T3C (EFG)	T3C (EFG)	T6	T5	145	160
KFL12533			347-480VAC	0.35-0.29											
KFL12534			120-250VDC	1.00-0.45											
KFL15030		150	120-277VAC	1.25-0.54	18550	T5	-	T3C	-	T3C (EFG)	-	T5	T5	160	160
KFL16530		165	120-277VAC	1.38-0.60	19220	T5	-	T3C	-	T3C (EFG)	-	T5	T4	160	160
KFL19530	195	120-277VAC	1.63-0.70	21940	T5	-	T3C	-	T3C (EFG)	-	T5	T4	160	160	

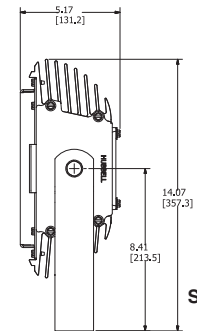
KFL MOUNTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe.
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting. Uses with KFS-6
KFLG	Wire Guard, 316 Stainless Steel (not used with KFL-DARK)
VMSC10	10' Stainless Steel Safety Cable with loop grip
KFL-DARK	Dark Sky Visor, White Painted Aluminum (not used with KFL)
KFL-DOOR	Replacement Door and Lens Assembly (for units w/o internal reflectors)
KFL-DOOR2	Replacement Internal Reflector and Lens Assembly



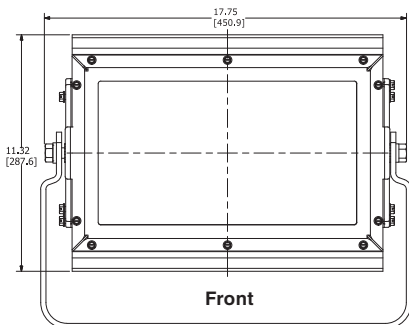
Dimensions



Trunnion Mounting Detail

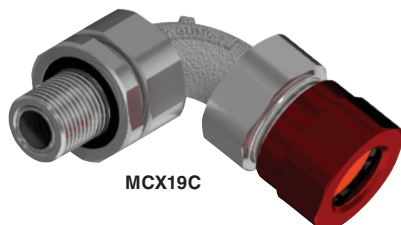


Side



Front

CABLE GLAND ORDERING OPTIONS



MCX19C

CATALOG #	ENTRY THREAD SIZE (NPT)	BEND	CABLE ACCEPTANCE DETAILS	
			DIAMETER 'C'	
			MIN.	MAX.
MCX19C	1/2"	90°	.60" (15.2)	.82" (20.8)
MCX29	3/4"	90°	.73" (18.5)	1.03" (26.2)

For entire series, please see page 77



COMPACT FLOOD – INTRODUCTION & LOGIC



Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
Type 4X

CSA US File LR11713

PETROBRIGHT® LED

FEATURES-SPECIFICATIONS

Applications

LED Compact Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC.

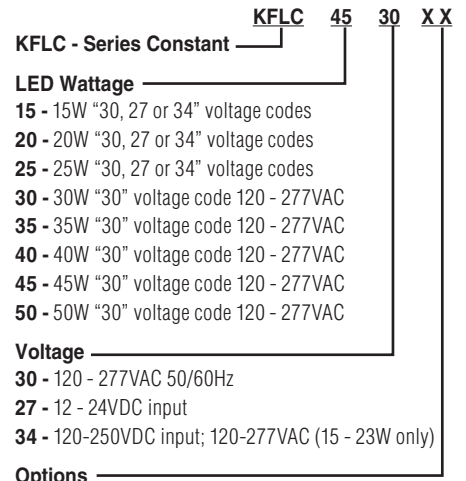
Typical applications include spot lighting or walkways in manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities

LED Flood Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

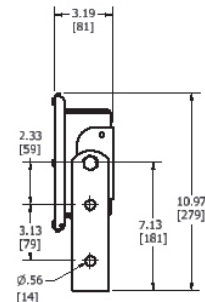
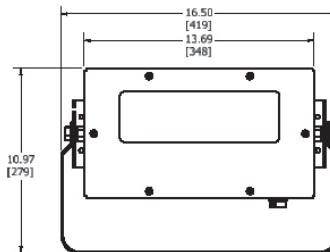
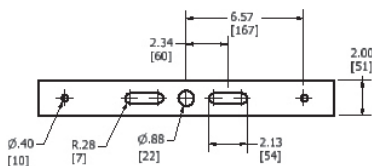
- One 3/4" NPT hub & R-21 3/4" x 1/2" reducer is standard
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C
- Instant On – Including after power interruption
- Solder-LESS LED Board Connections – Vibration Resistant

Catalog Number Logic



ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2		C1D2		C2D1	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C
KFLC1527	9.50 / 4.31	15	12-24VDC	1.3-0.6	1435	T6	T6	T4	T3B	T4A	T4A
KFLC1530			120-277VAC	0.2-0.1		T6	T6	T4	T3B	T4A	T4A
KFLC1534			120-250VDC	0.2-0.1		T6	T6	T4	T3B	T4A	T4A
KFLC2027		20	12-24VDC	1.7-0.8	2170	T6	T6	T4	T3B	T4A	T4A
KFLC2030			120-277VAC	0.2-0.1		T6	T6	T4	T3B	T4A	T4A
KFLC2034			120-250VDC	0.2-0.1		T6	T6	T4	T3B	T4A	T4A
KFLC2527		25	12-24VDC	2.1-1.0	2667	T6	T6	T4	T3B	T4A	T4A
KFLC2530			120-277VAC	0.2-0.1		T6	T6	T4	T3B	T4A	T4A
KFLC2534			120-250VDC	0.2-0.1		T6	T6	T4	T3B	T4A	T4A
KFLC3030		30	120-277VAC	0.26-0.11	2662	T6	T6	T4	T3B	T4A	T4A
KFLC3530				0.30-0.13	3302	T6	T6	T4	T3B	T4A	T4A
KFLC4030				0.34-0.15	4039	T6	T6	T4	T3B	T4A	T4A
KFLC4530	0.38-0.17			4718	T6	T6	T4	T3B	T4A	T4A	
KFLC5030	0.42-0.18			5353	T6	T6	T4	T3B	T4A	T4A	

Dimensions





C1D2 FLOOD – INTRODUCTION & LOGIC



PETROBRIGHT® LED FEATURES-SPECIFICATIONS

Applications

LED Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX/ATEX & INMETRO.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66

Materials

- Body and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – stainless steel
- Thermal shock and impact resistant glass lens (Polycarbonate available)
- High temperature silicone gasketing
- Trunnion heavy gauge 316 stainless steel



LED Flood Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C up to 250W to -50°C for non-hazardous applications
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Class I, Div. 2, Groups A, B, C, D
Class I, Zone 2, IIC, IIB, IIA
Class II, Div. 1 & 2, Groups E, F, G
Class III
Suitable for wet locations
Marine Rated (US only)
Type 3, 4X
IP66

IEC Ex Rated Model (w/ IEX suffix)
Zone 2 and Zone 21 areas
Ex nA IIC T6...T3, Gc
Ex tb IIC T105°C Db
Tamb -50°C < Ta < +55°C, IP66

IECEX Certificate
QPS 15.0011



ATEX Certificate
CML 15ATEX4079X (nA)
&
CML 15ATEX3080X (tb)

**PATENTED
LENS and
REFLECTOR
DESIGN**

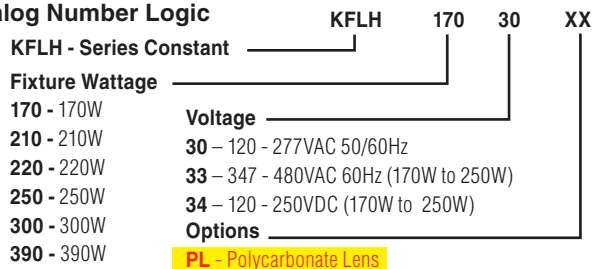


KFLH
Luminaire



Dark Sky Visor
KFLH-DARK

Catalog Number Logic



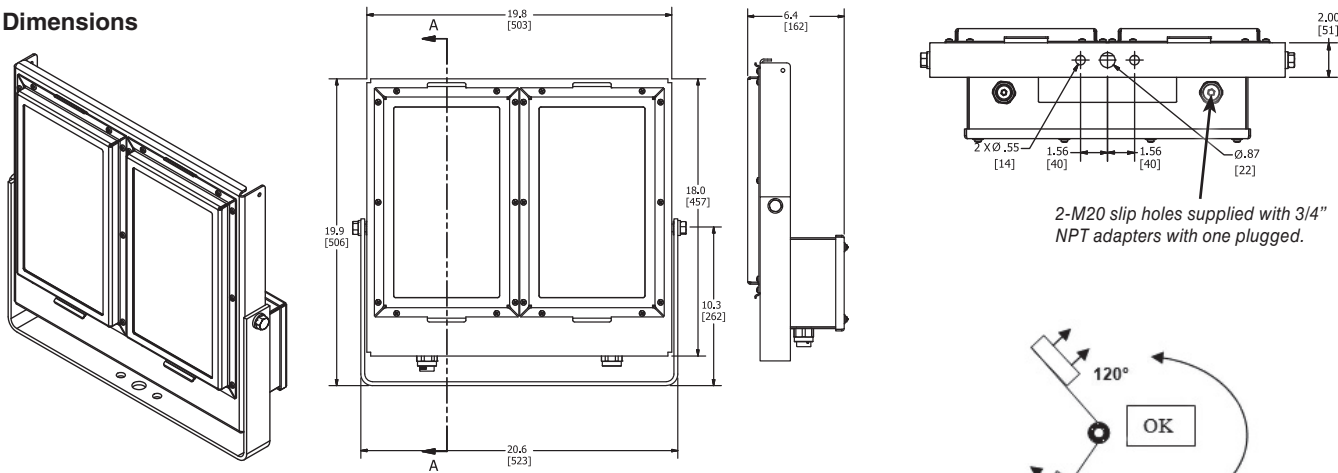
- F** - Single Fuse (Not for use in Canada)
- FF** - Double Fuse (Not for use in Canada)
- TBL** - Terminal Blocks **Looping**
- P1** - 120V Photocell, factory installed
- P2** - 208V-277V Photocell, factory installed
- P3** - 347V Photocell, factory installed



C1D2 FLOOD – ORDERING INFORMATION & TECHNICAL DATA

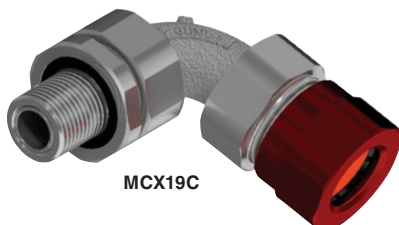
ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2		C1D2 SIMULTANEOUS		C2D1		IEC ZONE 2		IEC ZONE 21	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
KFLH17030	25.00 / 11.3	170	120-277VAC	1.46-0.63	21620	T4A	T4	T4	T3C	T4	T3C	T4	T4	T100°C	T100°C
KFLH17033			347-480VAC	0.51-0.36											
KFLH17034			120-250VDC	1.46-0.56											
KFLH21030		210	120-277VAC	1.75-0.75	21220	T4A	T4	T4	T3C	T4	T3C	T4	T4	T100°C	T100°C
KFLH21033			347-480VAC	0.61-0.43											
KFLH21034			120-250VDC	1.75-0.68											
KFLH22030		220	120-277VAC	1.88-0.81	26970	T4A	T4	T4	T3C	T4	T3C	T4	T4	T100°C	T100°C
KFLH22033			347-480VAC	0.65-0.47											
KFLH22034			120-250VDC	1.88-0.73											
KFLH25030		250	120-277VAC	2.17-0.94	30950	T4A	T4	T4	T3C	T4	T3C	T4	T4	T100°C	T100°C
KFLH25033			347-480VAC	0.75-0.54											
KFLH25034			120-250VDC	2.17-0.85											
KFLH30030	300	120-277VAC	2.48-1.07	37030	T4A	-	-	-	-	-	-	T4	-	T110°C	
KFLH39030	390	120-277VAC	3.30-1.43	40410	T3C	-	-	-	-	-	-	T3	-	T110°C	

Dimensions



KFLH MOUNTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe.
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting. Use with KFS-6
KFLG	Wire Guard, 316 Stainless Steel (order 2 per fixture)
VMSC10	10' Stainless Steel Safety Cable with loop grip
KFLH-DARK	Dark Sky Visor, White Painted Aluminum
KFLH-DOOR	Replacement Internal Reflector and Lens Assembly (order 2 per fixture as required)

CABLE GLAND ORDERING OPTIONS



CATALOG #	ENTRY THREAD SIZE (NPT)	BEND	CABLE ACCEPTANCE DETAILS	
			DIAMETER 'C'	MIN.
MCX19C	1/2"	90°	.60" (15.2)	.82" (20.8)
MCX29	3/4"	90°	.73" (18.5)	1.03" (26.2)

For entire series, please see page 77





KFL2H SERIES

KILLARK

C1D2 FLOOD – INTRODUCTION & LOGIC



Class I, Div. 2, Groups A, B, C, D
 Class I, Zone 2, IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Suitable for wet locations
 Marine Rated (US only)
 Type 3, 4X
 IP66

IEC Ex Rated Model (w/ IEX suffix)
 Zone 2 and Zone 21 areas
 Ex nA IIC T6...T3, Gc
 Ex tb IIC T105°C Db
 Tamb -50°C ≤ Ta ≤ +55°C, IP66

IECEx Certificate
 QPS 15.0011



ATEX Certificate
 CML 15ATEX4079X (nA)
 &
 CML 15ATEX3080X (tb)

PETROBRIGHT® LED

FEATURES-SPECIFICATIONS

Applications

LED Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEx/ATEX & INMETRO.

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598(A)
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- IP66

Materials

- Body and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware – stainless steel
- Thermal shock and impact resistant glass lens (Polycarbonate available)
- High temperature silicone gasketing
- Trunnion heavy gauge 316 stainless steel

LED Flood Features and Standards

Supplemental **20KA/10KV Surge Protection** is standard (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

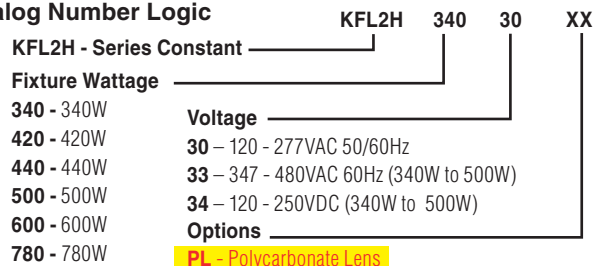
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Ambient suitability -40°C to 55°C up to 500W to -50°C for non-hazardous applications
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

PATENTED LENS and REFLECTOR DESIGN

Dark Sky Visor
 KFLH-DARK



Catalog Number Logic



F - Single Fuse (Not for use in Canada)

FF - Double Fuse (Not for use in Canada)

TBL - Terminal Blocks **Looping**

P1 - 120V Photocell, factory installed

P2 - 208V-277V Photocell, factory installed

P3 - 347V Photocell, factory installed

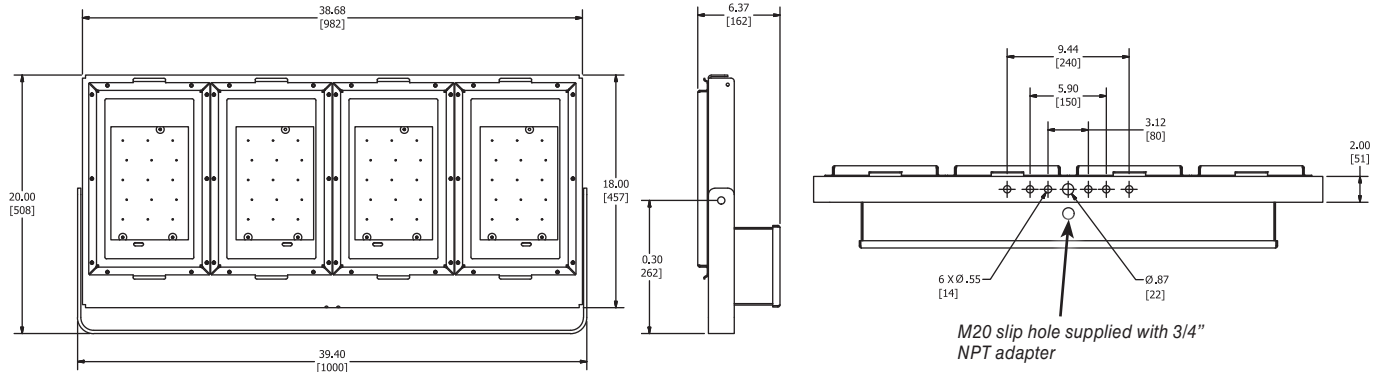
IEX - IEXEx includes TBL & External ground



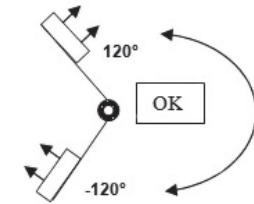
C1D2 FLOOD – ORDERING INFORMATION & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2		C1D2 SIMULTANEOUS		C2D1		IEC ZONE 2		IEC ZONE 21	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
KFL2H34030	50.00 / 22.6	340	120-277VAC	2.92-1.26	43240	T4A	T4	T4	T3C	T4	T3C	T4	T4	T85°C	T100°C
KFL2H34033			347-480VAC	1.02-0.72											
KFL2H34034			120-250VDC	2.92-1.12											
KFL2H42030		420	120-277VAC	3.50-1.50	42440	T4A	T4	T4	T3C	T4	T3C	T4	T4	T85°C	T100°C
KFL2H42033			347-480VAC	1.22-0.86											
KFL2H42034			120-250VDC	3.50-1.36											
KFL2H44030		440	120-277VAC	3.76-1.62	53940	T4A	T4	T4	T3C	T4	T3C	T4	T4	T85°C	T100°C
KFL2H44033			347-480VAC	1.30-0.94											
KFL2H44034			120-250VDC	3.76-1.46											
KFL2H50030		500	120-277VAC	4.34-1.88	61900	T4A	T4	T4	T3C	T4	T3C	T4	T4	T85°C	T100°C
KFL2H50033			347-480VAC	1.50-1.08											
KFL2H50034			120-250VDC	4.34-1.70											
KFL2H60030	600	120-277VAC	4.96-2.14	74060	T4A	T4	-	-	-	-	T4	T4	T85°C	T100°C	
KFL2H78030		780	120-277VAC												6.60-2.86

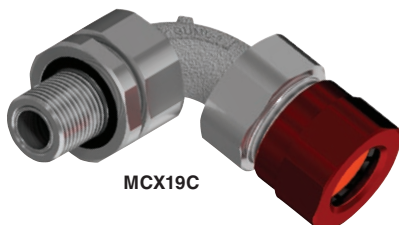
Dimensions



KFL2H MOUNTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting. Use with KFS-6
KFLG	Wire Guard, 316 Stainless Steel (order 4 per fixture)
VMSC10	10' Stainless Steel Safety Cable with loop grip
KFLH-DARK	Dark Sky Visor, White Painted Aluminum
KFLH-DOOR	Replacement Internal Reflector and Lens Assembly (order 4 per fixture as required)



CABLE GLAND ORDERING OPTIONS



CATALOG #	ENTRY THREAD SIZE (NPT)	BEND	CABLE ACCEPTANCE DETAILS	
			DIAMETER 'C'	MIN.
MCX19C	1/2"	90°	.60" (15.2)	.82" (20.8)
MCX29	3/4"	90°	.73" (18.5)	1.03" (26.2)

For entire series, please see page 77



KF1L SERIES

KILLARK

C1D1 FLOOD – INTRODUCTION & LOGIC



PETROBRIGHT® LED

FEATURES-SPECIFICATIONS

Applications

LED KF1L Series Explosion-proof Floods are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC/CEC/IECEX/ATEX & INMETRO

Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities

Compliances

- UL-8750 for LED lighting
- ANSI/UL 1598A
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 1; Class II, Division 1; Class III
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Zone 1 and Zone 21 to IEC 60079-0,60079-1,60079-31, 60079-7 Standards
- Enclosed and gasketed
- Type 3, 4X
- IP66

Materials

- Body, end caps and lens frame corrosion resistant copper-free aluminum alloy with baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Thermal shock and impact resistant extra heavy-duty glass lens
- High temperature silicone gasketing
- Trunnion heavy gauge 316 SS



LED Flood Features and Standards

Supplemental **20KA/10KV Surge Protection** is **standard** (for 120-277 VAC models)
10KA/10KV Surge Protection (for 347-480 VAC)

- **Factory Sealed Construction**
- One 3/4" NPT & one M20 entry standard (see logic for other choices)
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000 K (CCT); approx. 70 CRI
- Energy Savings – High lumens per watt
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Instant On – Including after power interruption
- World Voltage 120 – 277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Class I, Div. 1&2, Groups B,C,D
Class I, Zone 1&2, Groups IIB+H2, IIA
Class II, Div. 1&2, Groups EFG, Class III
Enclosure Type 4X, IP66 (-50°C to +55°C)

cSP us File LR11713

IEC Ex Rated model (w/IEX or IEX4B suffix) Zone 1, Zone 21

Ex de IIB+H2 T6..T5, Gb, IP66
Tamb -20°C ≤Ta ≤ +55°C; Option LT for -50°C ≤Ta ≤ +55°C

Ex de IIB T6..T5, Gb, -50°C ≤Ta ≤ +55°C
Ex tb IIIC T90°C Db, -50°C ≤Ta ≤ +55°C

IECEX Certificate
CSA 14.0010

ATEX Certificate
SIRA14ATEX1159X

Patent Pending
Fixture
Design



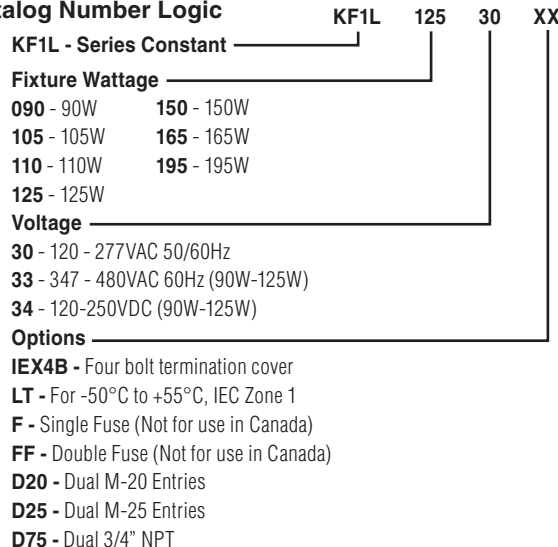
KF1L with KFS-6 Slipfitter mount on 2" pipe



Dark Sky Visor
KF1L-DARK

Suitable for Paint
Spray

Catalog Number Logic



Construction/Certification Notes:
 KF1L units are standard with one 3/4" NPT hub & one M20 hub – both plugged, with an 8-bolt factory sealed termination chamber, suitable for CID1 BCD -50°C to +55°C and IEC Zone 1 Ex de suitable for -20°C to 55°C.

Use option LT for models needing IEC Zone 1, -50°C to +55°C suitability for hydrogen.

Option IEX4B utilizes 4 terminal cover bolts for Ex de and maintains all ratings **EXCEPT CID1 BCD.**

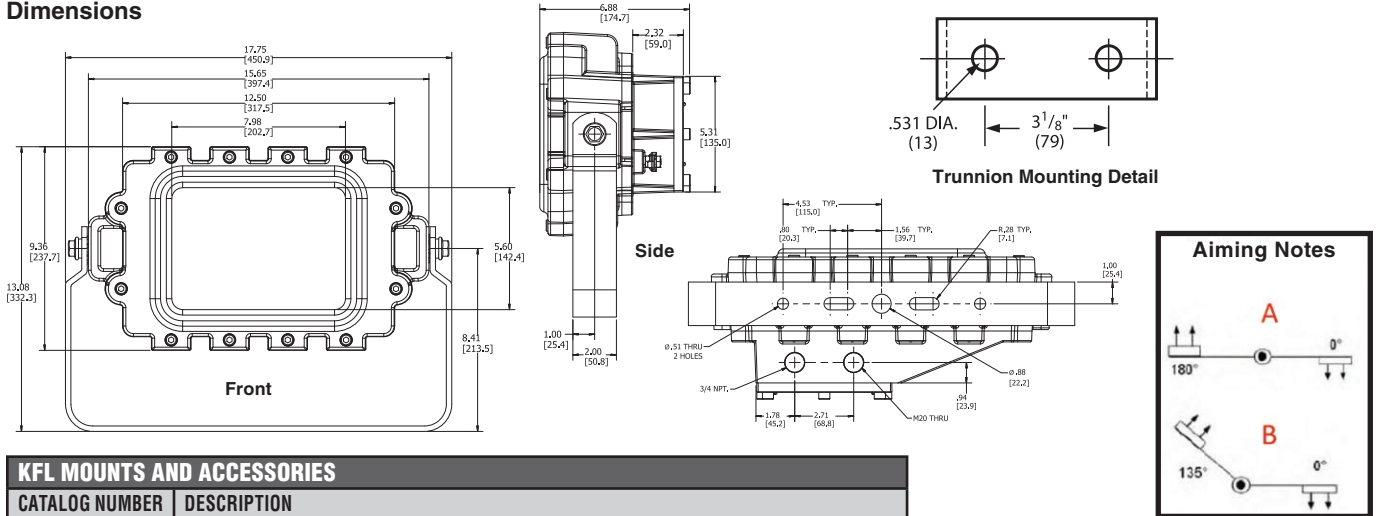
See logic for other entry options



C1D1 FLOOD – ORDERING & TECHNICAL DATA

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D1		C2D1		IEC ZONE 1		IEC ZONE 21	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	DELIVERED LUMENS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
KF1L09030	46.00 / 20.87	90	120-277VAC	0.72-0.31	7182	T6	T6	(EFG)	Limited Aiming B	T6	T5	160-75	175-90
KF1L09033			347-480VAC	0.25-0.18									
KF1L09034			120-250VDC	0.72-0.28									
KF1L10530		105	120-277VAC	0.85-0.37	8362	T6	T6	(EFG)	Limited Aiming B	T6	T5	160-76	175-91
KF1L10533			347-480VAC	0.29-0.21									
KF1L10534			120-250VDC	0.85-0.33									
KF1L11030		110	120-277VAC	0.95-0.41	10590	T6	T6	(EFG)	Limited Aiming B	T6	T5	160-77	175-92
KF1L11033			347-480VAC	0.33-0.24									
KF1L11034			120-250VDC	0.95-0.37									
KF1L12530		125	120-277VAC	1.10-0.48	11590	T6	T6	(EFG)	Limited Aiming B	T6	T5	160-78	175-93
KF1L12533			347-480VAC	0.38-0.28									
KF1L12534			120-250VDC	1.10-0.43									
KF1L15030		150	120-277VAC	1.25-0.54	13280	T5	-	-	-	T5	-	-	-
KF1L16530		165	120-277VAC	1.38-0.60	13760	T5	-	-	-	T5	-	-	-
KF1L19530		195	120-277VAC	1.63-0.70	15707	T5	-	-	-	T5	-	-	-

Dimensions



KFL MOUNTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
KFS-6	Steel Slipfitter for 2" Pipe (2-3/8" o.d.) Tenon. Slips 3.75" Over Pipe
KFCB	Heavy Duty Cast-Iron Crossarm Fitting for Horizontal Trunnion
KFWB	Heavy Duty Wall Mount and/or Pipe Clamp Fitting Clamps 2" Pipe (2-3/8" o.d.) Through 2-1/2" Pipe (2-7/8" o.d.)
K4040	Heavy Duty Steel Wall Bracket. (Must be with KFCB Crossarm Fitting)
4041	Heavy Duty Steel Wall Bracket 2" Pipe (2-3/8" o.d.) Tenon Fitting
KFLG	Wire Guard, 316 Stainless Steel
VMSC10	10' Stainless Steel Safety Cable with loop grip
KF1L-DARK	Dark Sky Visor, White Painted Aluminum
KF1L-DOOR	Replacement Door and Lens Assembly



CABLE GLAND ORDERING OPTIONS

CATALOG NUMBER	ENTRY THREAD SIZE (NPT)	CABLE ACCEPTANCE DETAILS	
		DIAMETER 'C'	
		MIN.	MAX.
MCX1B	1/2"	0.51" (13.0)	0.63" (16.0)
MCX1C	1/2"	0.60" (15.2)	0.82" (20.8)
MCX2	3/4"	0.73" (18.5)	1.03" (26.2)

For entire series, please see page 77



WALLPACK



Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC, IIB, IIA
Type 4X



FEATURES-SPECIFICATIONS

CERTILITE®

Applications

KWPL Wall Luminaires are ideally suited for applications requiring a pleasing aesthetic appearance or hazardous location suitability in a compact energy saving fixture. Units are made of aluminum construction for cool operation with a bronze electrostatically applied powder-coat finish. Suitable for locations such as perimeter security lighting, parking areas, factories and parking garages.

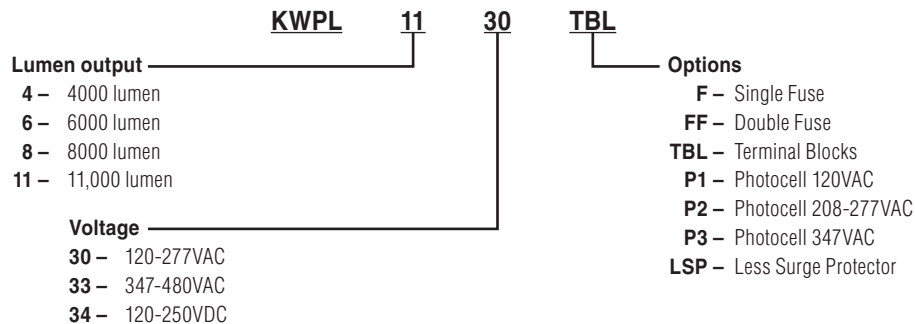
Features

- Aluminum with Bronze finish 1/2" hub on either side for conduit entry
- Suitability for 55°C ambient, 90°C supply wire required (see table)
- Lens thermal shock and impact resistant prismatic borosilicate glass
- Two Hubbell Guard® Corrosion resistant hex head fasteners provide water-tight seal for door gasket
- Options include: factory installed photo cells, fusing

Compliances

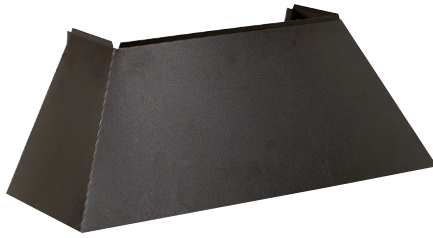
- UL 1598 Standard for Luminaires
- UL 844 Standard for lighting fixtures for hazardous locations
- CSA C22 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4X
- LED Array Life – 100,000+ hours with 70% initial lumens
- Long Fixture Life – 50,000 - 55,000 maintenance free hours

Catalog Logic





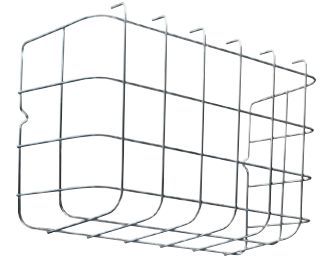
WALLPACK



Glare Shield



Clear Shield



Wire Guard

ORDERING INFORMATION

ORDERING INFORMATION AND AMBIENT SUITABILITY						C1D2	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	LUMENS	40°C	55°C
KWPL430	14.00 / 6.35	34	120-277VAC	0.12 - 0.28	4436	T5	T4A
KWPL433			347-480VAC	0.07 - 0.10		T5	T4A
KWPL434			120-250VDC	0.14 - 0.28		T5	T4A
KWPL630		46	5636	120-277VAC	0.17 - 0.38	T4A	T4
KWPL633				347-480VAC	0.10 - 0.13		
KWPL634				120-250VDC	0.18 - 0.38		
KWPL830		68	8404	120-277VAC	0.25 - 0.57	T4A	T4
KWPL833				347-480VAC	0.14 - 0.20		
KWPL834				120-250VDC	0.27 - 0.57		
KWPL1130		90	10914	120-277VAC	0.32 - 0.75	T4	-
KWPL1133				347-480VAC	0.19 - 0.26		
KWPL1134				120-250VDC	0.36 - 0.75		

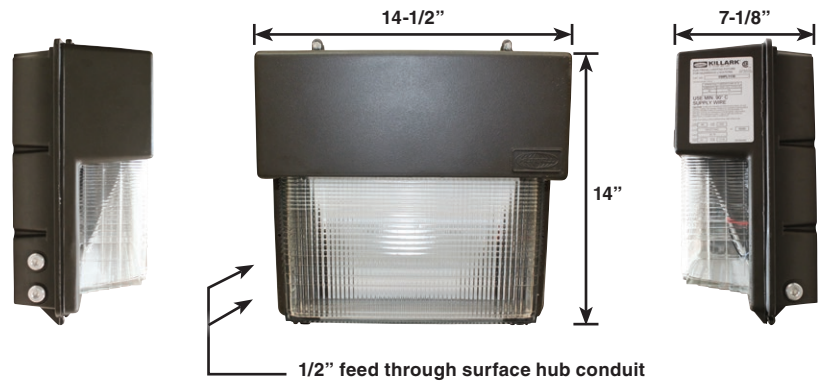


Photo Cell Field Kits for Harsh Type 4X and Class I, Div. 2 Locations

PHOTO CELL FIELD KITS	
CATALOG NUMBER	VOLTS
VMFSPC1	120VAC
VMFSPC2	208-277VAC
VMFSPC3	347VAC

KWP ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
PGPS	Clear Shield (Polycarbonate) for Protecting Lens
PGWG	Wire Guard, Cadmium Plated Steel
PVLV	Glare Shield Full Cutoff Visor – Formed Bronze Aluminum Forces light to Walkway
KWPLENS	Replacement Door and Lens



EMERGENCY & UTILITY LIGHTING

KILLARK

EMERGENCY BATTERY BACKUP & UTILITY LIGHTING





EMERGENCY BATTERY SYSTEM



FEATURES-SPECIFICATIONS

Applications

The NEBS Series is a highly versatile superior lumen output, industrial application emergency lighting unit, designed to provide a minimum of 90 minutes illumination when primary power is lost. The NEBS Series provides the same level of lumen output with no light degradation for the full 90 minutes of battery discharge. It has a flame-rated, UV stable thermoplastic housing which is fully gasketed and corrosion resistant with a gray finish. LED based lamp-heads are made of high strength die-cast aluminum with a polycarbonate lens. Includes micro-controller based 3-stage charger and Lithium Iron Phosphate (LiFePO4) battery. The NEBS Series accepts 120 through 277VAC input at 50 or 60Hz. Not designed for self-diagnostic operation at 220-240VAC input. Universal mounting plate made of painted stamped steel. The NEBS is specifically designed for demanding environments, high reliability operation in industrial settings such as wet location or hose-down, food processing, food storage, production facilities, chemical plant and wastewater treatment.

Construction

The NEBS Series housing, covers, remote housing, shield and LED Lenses are made of impact resistant polycarbonate. Lamp-heads are made of die-cast aluminum for thermal dissipation.

Installation

The unit includes a universal mounting plate which facilitates mounting to a truss or I-beam, pole, column, or wall.

Illumination

The NEBS series provides bright and uniform illumination and is specifically designed for higher mounting heights above 9'. Coverage provided by 2 sealed aluminum lamp-heads using 3 high power LEDs each. The LEDs are located in a specially designed heat dissipating lamp-head which is fully adjustable and can be locked into position. The NEBS is designed for full lumen output across the entire 90 minutes of operation. This ensures maximum visibility of the egress path over the full 90 minute discharge period.

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, Groups IIA, IIB, IIB+H2, IIC
Class II, Division 1, Groups E, F, G
Class III
Suitable for wet locations
Type 4, 4X
IP66

UL Sanitation Certified with FP Option

Operating Temperature:
C1D2 & C2D1: 50° to 122°F (10° to 50°C)
C1D2 & C2D1: with heater option -22° to 122°F (-30° to 50°C)

Electronics

Upon failure of the normal utility power, a LED driver is automatically activated to power the emergency LED lamp-heads. At resumption of normal utility power, the LED driver is turned off. The battery is recharged through a micro-controller based 3-stage charger. The battery is a maintenance-free Lithium Iron Phosphate (LiFePO4) type. The NEBS series accepts dual-voltage input of 120 through 277VAC at 50 or 60 Hz. A low voltage battery disconnect feature protects the battery from severe damage during prolonged power failures. Manual testing is available at any time using the push-to-test button. The NEBS remote can be located up to 100' from the source unit using 75°C minimum rated 12 gage wire.

Spectron Includes:

- Self-diagnostics monitors LED status, LED driver circuit, battery capacity and charger function and displays any fault detection by means of a flashing code
- Self-Test feature automatically runs a 1 minute test once a month and an alternating 30-60 minute test once every 6 months. Multi-color LED indicator provides visible fault detection and charging status
- User initiated 1, or 90-minute system test feature
- 15 minute re-transfer delay
- Automatic unit transfer in brown-out conditions (below 80% of nominal AC input voltage)

SERVICE ALERT CODES

- = BATTERY DISCONNECTED
- = BATTERY FAULT
- = CHARGER FAULT
- = LED DRIVER FAULT
- = LAMP FAULT
- = LOAD LEARN FAILURE
- = ALTERNATING = LOAD LEARN PROGRESS

OPERATING STATUS

KILLARK®

OFF = AC OFF
ON = AC ON
BLINKING = TEST IN PROGRESS

SPECTRON®

PUSH TO TEST



EMERGENCY BATTERY SYSTEM

NEBS	12	I	C1D2	06L
Model	Capacity	Self-Diagnostics	Application	Lamp
	6 – 6 Watt 12 – 12 Watt	Blank – None I – Spectron® Self-Diagnostics	FP – Food Processing Rated C1D2 – Class 1 Div. 2 C2D1 – Class 2 Div. 1 HTR – Heater for Cold Temp	Blank – 3 Watt LED lamps 06L – 6 Watt LED lamps

OPERATING TEMPERATURE IN °C		
AMBIENT °C	CLASS 1 DIV. 2 A, B, C, D	CLASS 2 DIV. 1 E, F, G
40	T6	T6
50	T5	T6

ADDITIONAL PRODUCT INFORMATION							
CATALOG NUMBER	BATTERY	CAPACITY	LAMP(W)	LUMENS PER LAMP	RUNTIME	REMOTE CAPABLE	REMOTE PART NUMBER
NEBS6I-C1D2	LiFePO4	6 watts	3 watts	331	90 min	No	N/A
NEBS6I-C2D1							
NEBS12I-C1D2		12 watts	3 watts	331	90 min	Yes	NEBSRS-C1D2
NEBS12I-C2D1							NEBSRS-C2D1
NEBS12I-C1D2-06L							12 watts
NEBS12I-C2D1-06L							

INPUT POWER CONSUMPTION			
	INPUT VOLTAGE	AMPS.	MAX. WATTS
NEBS6	120	0.03	3.40
	277	0.04	3.49
NEBS12	120	0.05	5.98
	277	0.04	6.52

ACCESSORIES	
NEBSRS	Type 4X Rated Single Head Remote
NEBSRD	Type 4X Rated Double Head Remote
NEBSRS-FP	Food Processing Rated Single Head Remote
NEBSRD-FP	Food Processing Rated Double Head Remote
NEBSWG	Wire Guard (Does not include Food Processing option) 15"H x 14"L x 7"D
NEBSRD-C1D2	Class 1, Div. 2 Remote, 3W heads, 1 conduit hub included
NEBSRD-C2D1	Class 2, Div. 1 Remote, 3W heads with shield, 1 conduit hub included

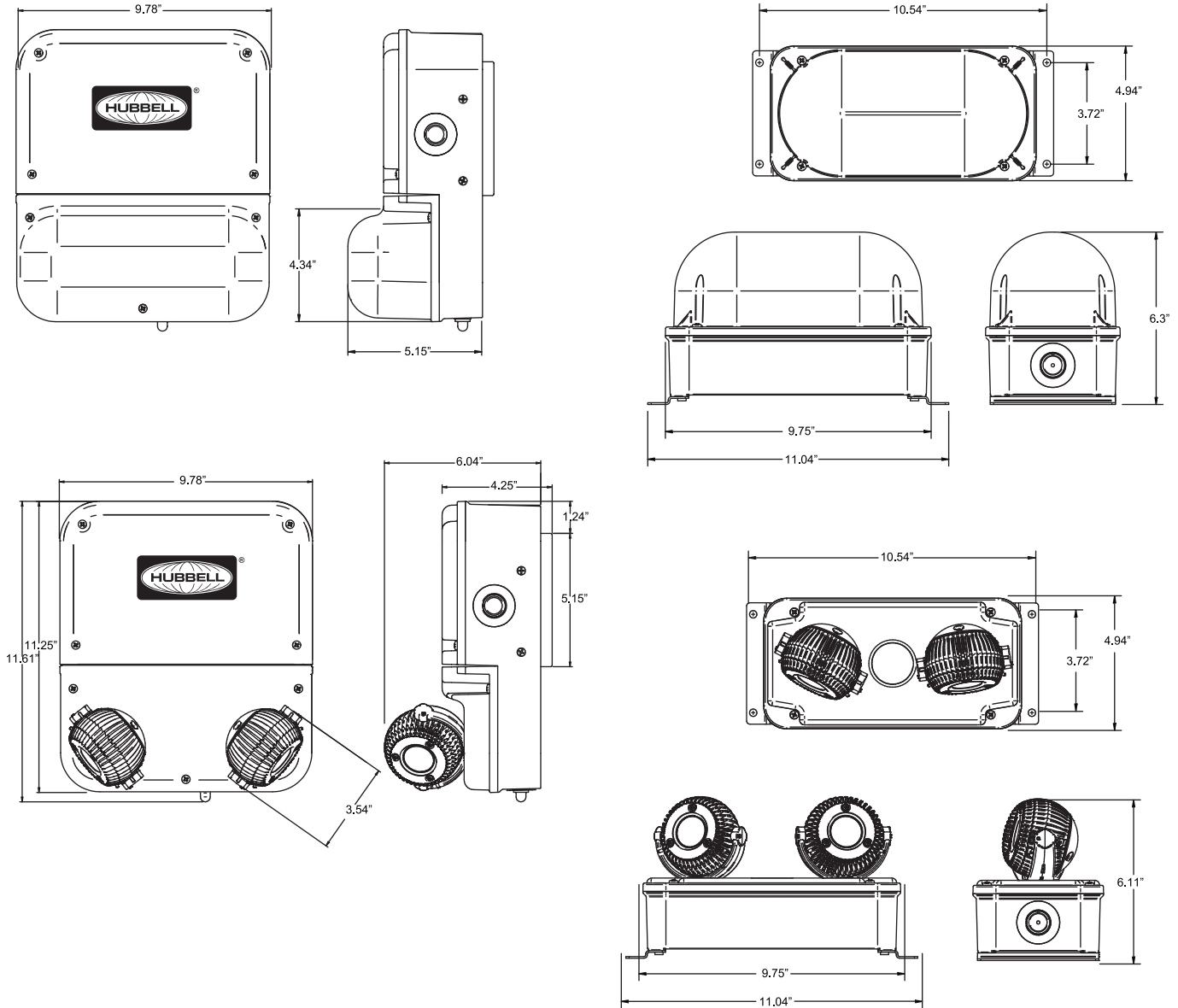
The NEBS Series meets proposed California Energy Commission(CEC) requirements for limits on power consumption in maintenance mode with less than 0.5 watts.

- Maintenance Mode Power Consumption 120VAC- 0.33W
- Maintenance Mode Power Consumption 277VAC- 0.36W



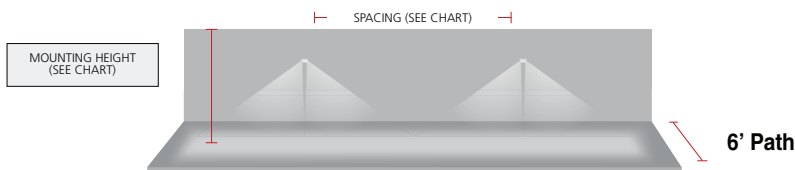


DIMENSIONS



APPLICATION DATA

Ceiling Mount



* Multiple unit spacing based on 6' path

INDUSTRIAL PARAMETERS CH=30', R=10/10/10, CEILING MOUNTED (MULTIPLE UNIT SPACING), 6' PATH															
NEBS12I-06L (6 WATT HEAD OPTION)							NEBS6I (3 WATT HEADS)								
MOUNTING HEIGHT	20'	18'	16'	14'	12'	10'	7.5'	MOUNTING HEIGHT	20'	18'	16'	14'	12'	10'	7.5'
MAX SPACING @ 1 FC AVG.	62'	65'	68'	71'	74'	77'	81'	MAX SPACING @ 1 FC AVG.	43'	45'	48'	51'	53'	56'	59'
MAX SPACING @ 1 FC MIN.	35'	34'	34'	33'	32'	31'	29'	MAX SPACING @ 1 FC MIN.	28'	28'	27'	27'	26'	24'	22'



EMERGENCY BATTERY SYSTEM – INTRODUCTION



EBS Battery Unit Only

Class I, Div. 1&2, Groups B,C,D
Class I, Zone 1&2, Groups IIB+H2, IIA
Class II, Div. 1&2, Groups EFG
Class III
Enclosure Type 4 (Type 4, 7B CD, 9EFG)

 File LR11713

HOSTILE^{ITE} EBS EMERGENCY

FEATURES-SPECIFICATIONS

Applications

Where required by the NEC (or local "Life Safety" code) for safe egress (over doors, aisleways, stairs, walkways, exit paths, and outer perimeter walls) to provide illumination during interruption of normal power to area lighting.

In indoor or outdoor locations made hazardous by the presence of flammable gas, vapors, or dusts. Includes refinery/chemical production and storage, grain processing, waste water treatment facilities and any area requiring heavy-duty dependable emergency lighting.

Exclusive Features

- LED Heads provide clear crisp illumination at 5000° Kelvin
- LED Head L70 value 100,000 hours for minimal maintenance
- Two head models up to 500% brighter than competitive non-LED units
- Enclosure Type 4 (Type 4) for wet and harsh locations
- Group B is standard when using EBSHK type heads
- Automatic Safety Disconnect – Removing main cover disconnects battery power
- Ambient Suitability 0°C to 45°C Battery Unit; Heads to 55°
- Compact unit requires only two mounting points
- World Voltage 120-277 VAC 50/60Hz input

Other Features

- High % of lumens maintained during 90 minute egress cycle
- EBSHK type heads are fully adjustable on unit or remote when ordered with RFSL Factory Sealed mounting kits

- EBSEL type heads are factory sealed on their EZ type mounting boxes
- Heads can be remote mounted over 300' from battery unit
- Ni-Cad sealed batteries provide 90 minutes of illumination
- Integral base unit LED pilot light indicates AC power is present
- Choice of Integral or Remote Push-To-Test station to verify system operation
- Vapor Capsule to inhibit corrosion is standard with main enclosure unit
- Terminal Blocks identified for incoming and outgoing connections

Compliances

- UL 1598 Standard for Luminaires
- UL 8750 for LED Lighting
- UL 844 Luminaires for Hazardous Locations
- UL 1203 Explosion-Proof/Dust-Ignition-Proof Electrical Enclosures
- UL 924 Emergency Lighting
- CSA C22.2 no. 137-M1981 Luminaires for Hazardous Locations
- CSA C22.2 no. 30-M1986 C1D1 Enclosures
- CSA 22.2 no. 25-1066 C2D1 EFG Enclosures
- Enclosure Type 4
- Type 4, 7BCD, 9EFG

Materials

- Main Enclosure and Heads Copper Free Aluminum alloy with Baked Powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- Attachment fittings copper-free aluminum
- External hardware 316 Stainless Steel
- EBSEL reflectors EXIT accessory aluminum with white paint

Notes

- Main EBS unit is CID1 Grp B (Suitable Zone 1 IIB+H2) with attached EBSHK heads or no heads; with attached EBSEL heads unit is CID1 Groups CD (Suitable Zone 1 IIB, IIA)



EBS Unit with HK Type Heads and Integral Push-To-Test



EBS Unit with EL Type Heads and Integral Push-To-Test



EBS Unit with EL Type Head and Exit plus HK Head with remote Push-To-Test



EMERGENCY BATTERY SYSTEM – LOGIC & COMPONENTS

Catalog Number Logic

EBS23DH - P T A D

EBS23DH Series Constant 120-277V 50/60Hz 23W
Dual-Head (Remote or Attached)

Test Options

- P** – Push-To-Test on Enclosure
- R** – Remote Push-To-Test Station (EBS-PTT shipped separately)
- N** – None - ordered separately or breaker controlled

Time Delay Option

- T** – Power Resumption Emergency Time-delay (Factory set approx. 15 min.) 120 thru 277V
- N** – No Time-Delay

Luminaire Head Options

- N** – No heads - For Remote Heads Ordered Separately
- A** – 2 EBSHK1030 Heads Factory Attached
- B** – 2 EBSEL1030 Heads (Less Guards) and Fittings for Attachment
- BG** – 2 EBSEL1030 Heads with Guards and Fittings for Attachment
- BE** – 2 EBSEL1030 Heads with 1 Guard and 1 HEXA-100 EXIT and Fittings for Attachment
- C** – 1 EBSHK1030 Head Attached and 1 EBSEL1030 Head (Less Guard) and Fittings for Attachment
- CG** – 1 EBSHK1030 Heads Attached and 1 EBSEL1030 Head with Guard and Fittings for Attachment
- CE** – 1 EBSHK1030 Heads Attached and 1 EBSEL1030 Head with HEXA-100 EXIT and Fittings for Attachment
- D** – 1 EBSHK1030 Only (2nd Head Remote - Ordered Separately)
- E** – 1 EBSEL1030 Only Less Guard and Fittings for Attachment (2nd Head Remote - Ordered Separately)
- EG** – 1 EBSEL1030 Only with Guard and Fittings for Attachment (2nd Head Remote - Ordered Separately)
- EE** – 1 EBSEL1030 Only with HEXA100 EXIT and Fittings for Attachment (2nd Head Remote - Ordered Separately)

Drain

- D** – Group B Drain for Wet Applications including condensation from heat <> cold cycling
- Blank** – Not included



Factory Sealed Remote LED Spot Light - Bottom Feed



Factory Sealed Remote LED Spot Light - Side Feed



Remote Push-To-Test Station



Remote LED Luminaire

EBS UNIT - BOTTOM DETAIL



- A** Optional Push-To-Test
- B** Optional Group B Drain
- C** Standard Pilot Light
- D** Entry for Remote P-T-T Station
- E** Power Entry (also on top)

The EBS23 System is designed to power 2 Heads for operation (total attached or remote); each Head is approximately 10 Watts.



EMERGENCY BATTERY SYSTEM – PRE-CONFIGURED UNITS



Class I, Div. 1&2, Groups B,C,D
 Class I, Zone 1&2, Groups IIB+H2, IIA
 Class II, Div. 1&2, Groups EFG
 Class III
 Enclosure Type 4 (Type 4, 7B CD, 9EFG)

File LR11713

ORDERING INFORMATION

INTEGRAL PUSH-TO-TEST		REMOTE PUSH-TO-TEST		
EBS SYSTEM WITH TWO EBSHK HEADS				CID1BCD
Integral PTT, Two EBSHK	Integral PTT, TDR , Two EBSHK	Remote PTT, Two EBSHK	Remote PTT, TDR , Two EBSHK	
EBS23DH-PNA	EBS23DH-PTA	EBS23DH-RNA	EBS23DH-RTA	
EBS SYSTEM WITH TWO EBSEL HEADS WITH GUARDS				CID1CD
Integral PTT, Two EBSEL Heads w/ Guards	Integral PTT, TDR , Two EBSEL Heads w/ Guards	Remote PTT, Two EBSEL Heads w/ Guards	Remote PTT, TDR , Two EBSEL Heads w/ Guards	
EBS23DH-PNBG	EBS23DH-PTBG	EBS23DH-RNBG	EBS23DH-RTBG	
EBS SYSTEM WITH ONE EBSHK HEAD & 1 EBSEL HEAD WITH GUARD				CID1CD
Integral PTT, One EBSHK & One EBSEL Head w/ Guard	Integral PTT, TDR , One EBSHK & One EBSEL Head w/ Guard	Remote PTT, One EBSHK & One EBSEL Head w/ Guard	Remote PTT, TDR , One EBSHK & One EBSEL Head w/ Guard	
EBS23DH-PNCG	EBS23DH-PTCG	EBS23DH-RNCG	EBS23DH-RTCG	
EBS SYSTEM WITH TWO EBSEL HEADS ONE WITH EXIT				CID1CD
Integral PTT, Two EBSEL Heads, One w/ EXIT, One w/ Guard	Integral PTT, TDR , Two EBSEL Heads One w/ EXIT, One w/ Guard	Remote PTT, Two EBSEL Heads, One w/ EXIT, One w/ Guard	Remote PTT, Two EBSEL Heads, One w/ EXIT, One w/ Guard	
EBS23DH-PNBE	EBS23DH-PTBE	EBS23DH-RNBE	EBS23DH-RTBE	
EBS SYSTEM WITH ONE EBSHK HEAD & ONE EBSEL HEAD WITH EXIT				CID1CD
Integral PTT, One EBSHK Head, One EBSEL w/ EXIT	Integral PTT, TDR , One EBSHK Head, One EBSEL w/ EXIT	Remote PTT, One EBSHK Head, One EBSEL w/ EXIT	Remote PTT, TDR , One EBSHK Head, One EBSEL w/ EXIT	
EBS23DH-PNCE	EBS23DH-PTCE	EBS23DH-RNCE	EBS23DH-RTCE	
EBS SYSTEM ONLY FOR REMOTE HEADS (ORDER TWO SEPARATELY)				CID1BCD
Integral PTT, No Heads	Integral PTT, TDR , No Heads	Remote PTT, No Heads	Remote PTT, TDR , No Heads	
EBS23DH-PNN	EBS23DH-PTN	EBS23DH-RNN	EBS23DH-RTN	





EMERGENCY BATTERY SYSTEM – REMOTE HEADS & ACCESSORIES



EBSEL Shown with Exit Accessory

EBSEL1030 COMPONENTS & ACCESSORIES – DESCRIPTION	CATALOG NUMBER
EBSEL 10W Head Only with LED's, Less Mount and Guard	EBSEL1030
Guard	EMG1
Red Guard – used to signify remote fixture is for Emergency	EMG1-R
EXIT Accessory – 3-sided white painted aluminum	HEXA-100
Dome Reflector	ERSD15
Angle Reflector	ERA15
Sealed Fittings Set for attachment of Pendant EBSEL to EBS23HD-xxx	EBS-AHFS
Replacement Globe and Support Assembly	EMGS1



EBSEL1030



EMG1



EMG1-R



ERSD15



ERA15



EMGS1



MOUNTING BOXES				
CATALOG NUMBER				HUB SIZE
PENDANT	CEILING	BRACKET	STANCHION	
EZA2	EZX2	EZB2	-	3/4"
EZA3	EZX3	EZB3	-	1"
-	-	-	EZD4	1-1/4" / 1-1/2"



EBSHK1030



EBSHK1030-RFSL

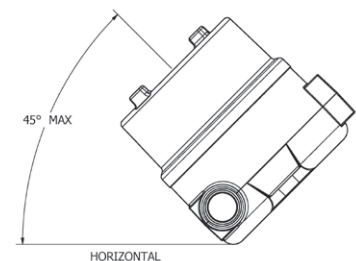


EBS-PTT



EBSHK1030-RFSC

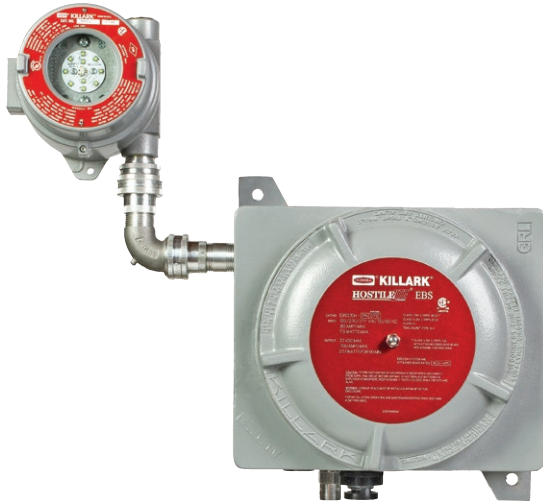
EBS23DH SERIES ACCESSORIES – DESCRIPTION	CATALOG NUMBER
Remote Push-To-Test Station Group B 3/4" Feed-Thru w/Close Up Plug	EBS-PTT
Remote Push-To-Test Station with Lock Off, Group B 3/4" Feed-Thru	EBS-PTT-LO
Lock-Off for Integral Push-To-Test	G010502
Sealed Fittings Set for attachment of EBSHK to GEBC-2 or GEBL-2	EBS-AHFS
Replacement Battery Pack and Electronics	KLBP01
Replacement Vapor Capsule for corrosion protection	EBS-VC



EBSHK Heads can be aimed up to 45 above horizontal – if flush on wall will require spacing out.

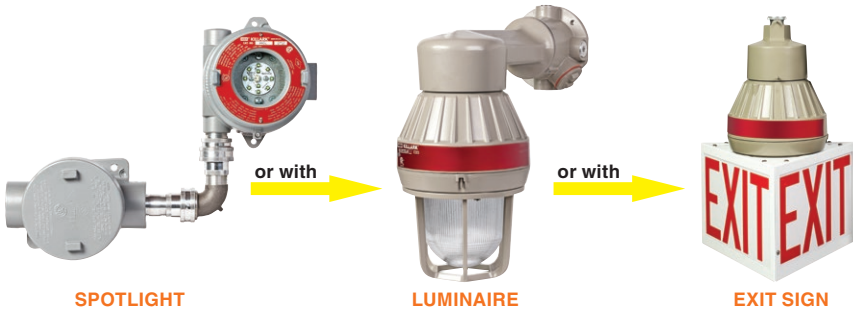


EMERGENCY BATTERY SYSTEM – ELECTRICAL & TEMPERATURE DATA



with Remote Options

EBS System with SINGLE HEAD



SPOTLIGHT

LUMINAIRE

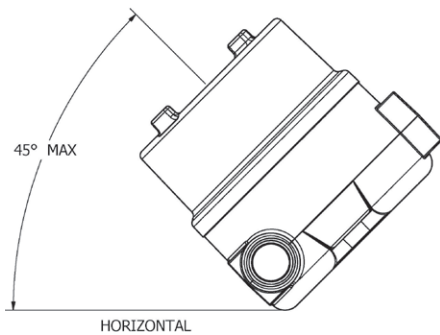
EXIT SIGN

EBS23DH ELECTRICAL DATA						
CATALOG NUMBER	INPUT**			OUTPUT**		
	VOLTAGE	WATTS	CURRENT	VOLTAGE	WATTS	CURRENT
EBS23DH	120-277VAC	7.5	.1 A	33VDC	23	700mA

** Figures nominal. Current is 350mA to each of 2 heads (2 heads are required for proper operation, remote or attached).

THERMAL PERFORMANCE DATA					
CATALOG NUMBER	AMBIENT	CID1	CID1	SUITABILITY	SUPPLY WIRE
EBS23DH	45°C	T6	EFG	0-45°C	75°C
EBSEL1030	55°C	T6	EFG	-40 to 40°C	75°C
EBSHK1030	55°C	T6	EFG	-40 to 40°C	75°C

* Heads are NOT certified for use without EBS Battery Unit

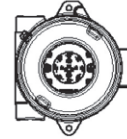


EBSHK Heads can be aimed up to 45 above horizontal – if flush on wall will require spacing out.

4 Head EBS option:

EBS units are designed for 2 head operation and will provide the lumens noted at right. However, 4 heads can be connected and will operate for 90 minutes at half the published lumen values. The EBSHK1030 would provide 456 lumens; the EVSEL1030 540 lumens. Instructions for wiring are included with the main EBS unit.

LED 10W EBSHK1030

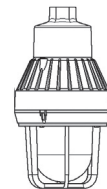


ZONAL LUMEN SUMMARY		
ZONE	LUMENS	FIXT%
0-30	254	27.9%
0-40	423	46.3%
0-60	781	85.5%
0-90	913	100.0%
90-120	0	0.0%
90-130	0	0.0%
90-150	0	0.0%
90-180	0	0.0%
0-180	913	100.0%

Absolute Photometry
Total Luminaire Efficiency = N.A.%
Spacing to Mounting Height Ratio 2.1

EMERGENCY MODE LUMENS		
5 Min.	99.1%	905 Lumens
45 Min.	99.4%	871 Lumens
90 Min.	95.3%	871 Lumens

LED 10W EBSEL1030

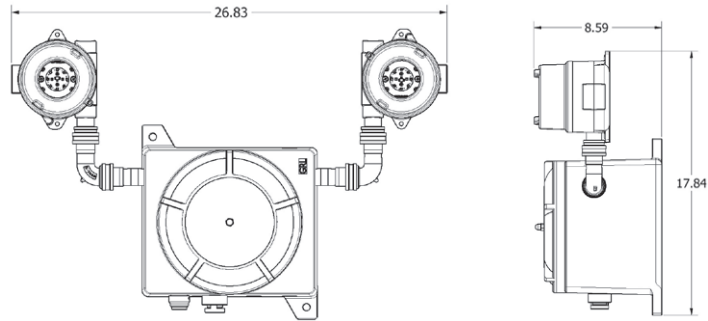


ZONAL LUMEN SUMMARY		
ZONE	LUMENS	FIXT%
0-30	180	16.7%
0-40	344	31.8%
0-60	758	70.1%
0-90	1067	98.7%
90-120	11	1.0%
90-130	13	1.2%
90-150	14	1.3%
90-180	14	1.3%
0-180	1081	100%

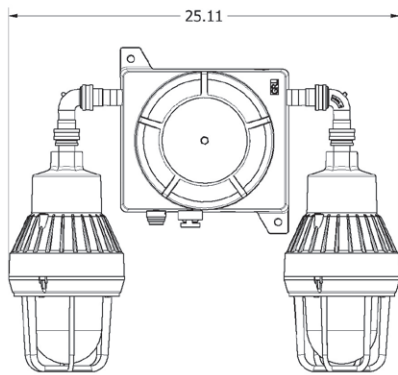
Absolute Photometry
Total Luminaire Efficiency = N.A.%
Spacing to Mounting Height Ratio 2.1

EMERGENCY MODE LUMENS		
5 Min.	94.4%	102 Lumens
45 Min.	91.3%	987 Lumens
90 Min.	89.3%	966 Lumens

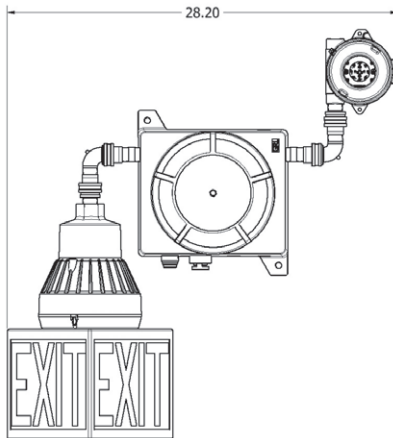
EMERGENCY BATTERY SYSTEM – DIMENSIONS & WEIGHTS



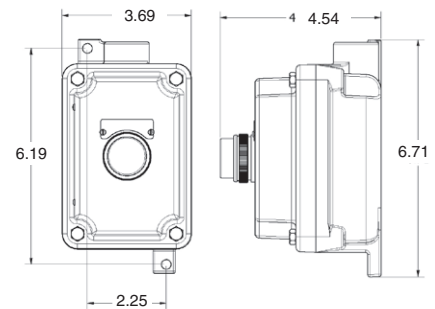
Dimensions - EBS with HK Heads



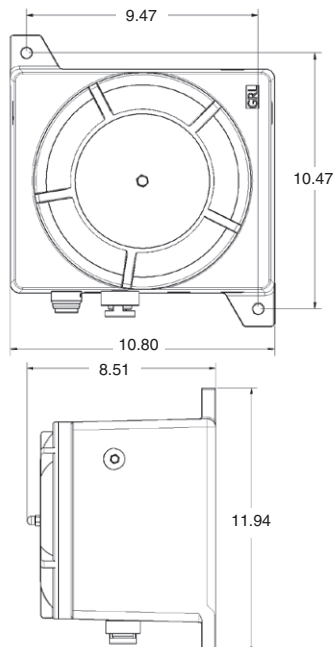
Dimensions - EBS with EL Heads



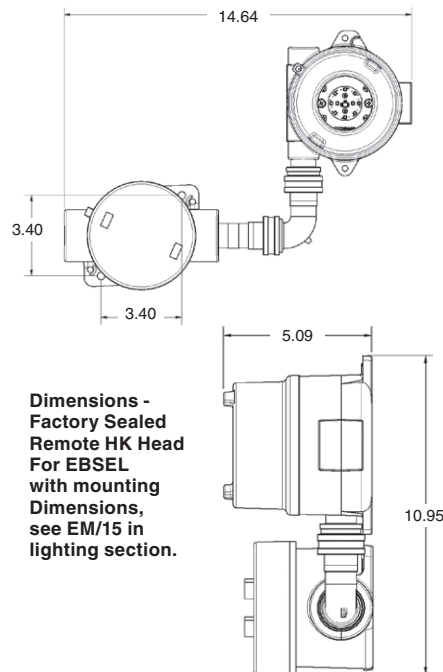
Dimensions - EBS with EL-EXIT & HK Heads



Dimensions - Remote Test Station



Dimensions - EBS Main Unit



Dimensions -
Factory Sealed
Remote HK Head
For EBSEL
with mounting
Dimensions,
see EM/15 in
lighting section.

WEIGHTS (SHIPPING) INDIVIDUAL AND COMBINATIONS	LBS.
EGS23DH Main Unit Only	36.6
EBSEL1030 Pendant Head Only w/ Fittings Set	12.3
EBSHK1030 Head Only w/ Fittings Set	5.0
EBSHK1030-RFSC (or RFSL)	11.0
EBS-PTT	3.0
EBS-AHFS Factory Sealed Fittings Set	0.6
EBS23DH & 1 EBSHK w/ Fittings	41.6
EBS23DH & 2 EBSHK w/ Fittings	46.6
EBS23DH & 1 EBSEL w/ Fittings	48.9
EBS23DH & 2 EBSEL w/ Fittings	61.2
EBS23DH & 1 EBSEL & 1 EBSHK w/ Fittings	53.9



UTILITY LIGHT – INTRODUCTION



Class I, Div. 2, Groups A,B,C,D
 Class I, Zone 2, Groups IIC,IIB,IIA
 Class II, Div. 2, Groups F,G
 Class III
 Suitable for wet locations
 Enclosure Type 4

Certified - File LR11713

V SERIES LED

FEATURES-SPECIFICATIONS

Introduction

Killark 'VSL' Series LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or Type 3 and 4 areas where wind, water, snow or high ambients can be expected. VSL's are sized to replace "Utility" type fixtures (incandescent or CFL's) in hallways, closets, elevator pits, docks, stairwells, access tunnels, and mechanical rooms. These fixtures can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC. Typical applications include manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, and garage areas.

LED Luminaire Features and Standards

- Compact in Size with Traditional Industrial Appearance and Suitability
- Wide variety of optics including glass globes (clear and tempered, color) plus polycarbonate globes in clear and colors (Polycarbonate globes are suitable to 40°C.)
- Optional Mounting arrangements including Pendant, Wall, Ceiling, Stanchion and Adapters
- Fixtures available unit packed, order option CP
- VSL LED Housings can be retrofitted to existing V Series splice boxes; upgrade from CFL or incandescent
- Energy Savings – less than 13 Watts of Power; less than 16 Watts for VSL1630. Replaces 75W or higher incandescent

- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000°K (CCT); 70 CRI
- Integral driver – maintains fixture's compact profile to fit in existing spaces
- Ambient suitability -40°C to 55°C
- Instant on – including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Compliances

- UL-8750 for LED lighting
- UL 1598 standard for luminaires
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Division 2; Class III, Division 2
- CSA C22.2 no. 137-M1981 electric luminaires for use in hazardous locations
- Enclosed and gasketed
- Type 3, 4

Materials, Weights

- Body, splice box and guards are corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- Reflectors – Polypropylene for pendant or ceiling applications
- Heavy-duty silicone gasketing for Type 4 requirements

Optic Selection Examples

- Broadest **COLOR** globe offering for Hazardous Locations in the industry
- Use as status lights or specialty/emergency indicators





UTILITY LIGHT – CATALOG LOGIC



Clear Glass w/Guard White Glass w/Guard Blue Glass Clear Polycarbonate Red Polycarbonate

Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC,IIB,IIA
Class II, Div. 2, Groups F,G
Class III
Suitable for wet locations
Enclosure Type 4

Certified - File LR11713

V SERIES LED Catalog Number Logic

VSL Series Constant — 1

Lamp Wattage — 2
 13 = 13W LED
 16 = 16W LED

Voltage — 3
 30 – 120-277VAC (13W, 16W)
 27 – 12-24VDC (13W, 16W)
 34 – 120-250VDC (13W)

Mounting Type — 4
 NN – Mounr Ordered Separately
 A1 – 1/2" Pendant (VGA-1)
 A2 – 3/4" Pendant (VGA-2)
 F1 – 1/2" Ceiling w/Feet & Adapter (VBC-1 w/VBA)
 F2 – 3/4" Ceiling w/Feet & Adapter (VBC-2 w/VBA)
 X1 – 1/2" Ceiling (VGX-1)
 X2 – 3/4" Ceiling (VGX-2)
 C1 – 1/2" Ceiling (VGC-1)
 C2 – 3/4" Ceiling (VGC-2)
 H1 – 1/2" Ceiling Dead End (VGH-1)
 H2 – 3/4" Ceiling Dead End (VGH-2)
 D1 – 1/2" Ceiling Deep (VXA-1)
 D2 – 3/4" Ceiling Deep (VXA-2)
 D4 – 1-1/4" Stanchion (VD-4)
 RA – Round (Box) Adapter (VBA)
 SA – Square (Box) Adapter (VFPS)
 W1 – 1/2" Wall w/Feet (VBC-1 w/VB-1)
 W2 – 3/4" Wall w/Feet (VBC-2 w/VB-2)
 V1 – 1/2" Wall Elbow (VB-1)
 V2 – 3/4" Wall Elbow (VB-2)
 FL – Elbow for "V" Box (VFL)

5 — **S** — Standard Reflector (Pendant or Ceiling Use Only)
CP – Component Pack

6 — **G - B** — **Optic Color (Optic Type)**
A – Amber (S, H, P)
B – Blue (S, H)
R – Red (S, H, P)
G – Green (S, P)
P – Purple (S)
BG – Blue Green (S, H)
W – White (S)

7 — **Guard**
G – Guard (For Glass Globes Only)
N – No Guard (Standard on Polycarbonate Globes)
R – Guard Red (For Glass Globes Only)
 Can Signify Emergency UPS Circuits

8 — **Optics****
S – Standard Globe (Clear)
H – Heat Resistant (Tempered) Globe (Clear)
P – Polycarbonate (Clear)



COLORED GLOBE OPTIONS** EXAMPLE VSL1330A1SG-A			
SUFFIX AND AVAILABLE COMBINATIONS			
COLOR NUMBER	STANDARD GLOBE	TEMPERED GLOBE	POLYCARBONATE
AMBER	A	A	A
BLUE	B	B	—
RUBY	R	R	R
GREEN	G	—	G
PURPLE	P	—	—
BLUE-GREEN	BG	BG	—
WHITE	W	W	W



** Use tempered glass or poly globe for wet location applications.



UTILITY LIGHT – COMPONENTS



VSL Body

**RETROFIT
FOR ENERGY
SAVINGS**

VSL Fixture Bodies Only

Fixture bodies contain the LED driver and array, heat sink plus gaskets, and are threaded to accept globes, guards and reflectors. Users with KILLARK “V” Series vapor tight fixtures from the 1960’s onward can up-grade to the latest technology and, in many cases, reuse existing mounts, globes and guards. VSL bodies are designed for metallic boxes and mount directly to V Series splice boxes or adapters as indicated.

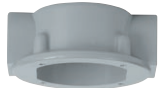
VSL FIXTURE BODIES	
CATALOG NUMBER	DESCRIPTION
VSL1330	13W 120-277VAC 50/60Hz Body with LEDs and Driver
VSL1630	16W 120-277VAC 50/60Hz Body with LEDs and Driver



VGA



VGH



VGC



VGX



VXA



VBC



VBA



VFPS

VSL Splice Boxes

For use with VSL Series fixture bodies.

VSL SPLICE BOXES				
CATALOG NUMBER	HUB SIZE	QTY.	LOGIC CODE	DESCRIPTION
VGA-1	1/2"	1	A1	Pendant mount
VGA-2	3/4"	1	A2	
VGH-1	1/2"	1	H1	Ceiling mount
VGH-2	3/4"	1	H2	
VGC-1	1/2"	2	C1	Ceiling mount
VGC-2	3/4"	2	C2	
VGX-1	1/2"	4	X1	Ceiling mount
VGX-2	3/4"	4	X2	
VXA-1	1/2"	5	D1	Ceiling mount, deep box
VXA-2	3/4"	5	D2	
VBC-1	1/2"	4	F1	Ceiling mount, with 3 close-up plugs (requires VBA Adapter) or wall mount with VB elbow
VBC-2	3/4"	4	F2	
VXAB	–	–	–	Blank close-up plate (less gasket)

VSL Adapters

VSL ADAPTER MOUNTING PLATES	
CATALOG NUMBER	DESCRIPTION
VBA	Adapts fixture body to VB, VJ or steel 3-1/2" & 4" splice boxes. Supplied with gasket.
VFPS	Adapts fixture body to steel 4" square outlet boxes or 3-1/2" or 4" octagon boxes

VSL Wall/Stanchion Mounts



VB



VFL



VD

VSL MOUNTING BRACKETS			
CATALOG NUMBER	HUB SIZE	QTY.	DESCRIPTION
VB-1	1/2"	1	Wall mount to VJ or VB boxes
VB-2	3/4"	1	Wall mount to VJ or VB boxes
VFL	–	–	Wall mount to V boxes directly or to VJ, VB boxes with VBA adapter
VD-4	1-1/4"	1	Stanchion mount



UTILITY LIGHT – COMPONENTS, RATINGS & WEIGHTS

VSL Globes



VSL GLOBES – ORDERING INFORMATION AND SUFFIX GRID*						
COLOR	GLASS	OPTIC LOGIC	TEMPERED GLASS	OPTIC LOGIC	POLYCARBONATE	OPTIC LOGIC
Clear	VCG-100	S*	VCGP-100	H*	VPLCG-100	P*
Amber	AMG-100	A	VAMGP-100	A	VPLCG-100A	A
Blue	VBG-100	B	VBGP-100	B	–	–
Ruby (Red)	VRG-100	R	VRGP-100	R	VPLCG-100R	R
Green	VRSG-100	G	–	–	VPLCG-100G	G
Purple	VPG-100	P	–	–	–	–
Blue-Green	VGG-100	BG	VGGP-100	BG	–	–
White	VWG-100	W	VWGP-100	W	VPLCG-100W	W

* Use tempered glass or polycarbonate globes for wet location applications.

VSL Components



VSL COMPONENT PARTS AND ACCESSORIES	
CATALOG NUMBER	DESCRIPTION
VAG-100	Aluminum Guard for use with Glass Globe
VAG-100R	Red Aluminum Guard for use with Glass Globe
VTG-S	Body to Splice Box Gasket – Silicone
VTGG1-S	Globe Gasket – Silicone
VPRSD-100	White polypropylene for pendant & ceiling applications. Not for use with wall or stanchion models.

Typical Weights (lbs.) w/Standard Globe and Guard – VSL Series			
Pendant 7.03	Ceiling 7.51	Wall 8.09	Stanchion 7.61

VSL Thermal Ratings

VSL THERMAL PERFORMANCE DATA INCLUDING VPRSD-100 REFLECTOR						
CATALOG NUMBER	AMBIENT	C1D2		C2D2		SUPPLY
		GLASS GLOBE	POLY GLOBE	GLASS GLOBE	POLY GLOBE	WIRE
VSL1330	40°C	T6	T5	T5 (F,G)	T5 (F,G)	90°
VSL1330	55°C	T5	–	–	–	90°
VSL1630	40°C	T5	–	T5 (F,G)	–	90°

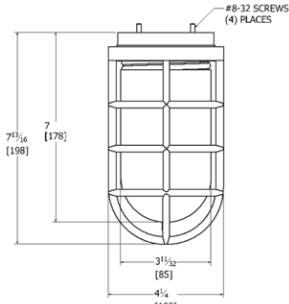
VSL Electrical Ratings

VSL LED BODY WITH DRIVERS AND LEDS – ELECTRICAL RATINGS					
CATALOG NUMBER	VOLTAGE 50/60HZ	WATTS	AMPS 120/277	LUMENS	WEIGHT LBS.
VSL1330	120-277VAC	12.42	.108/.047	1300	5.0
VSL1630	120-277VAC	15.64	.156/.067	1625	5.0

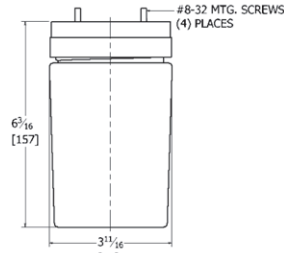
DELIVERED LUMENS			
WATTS	W/GLOBE VCG-100	W/GLOBE VPLCG-100	W/GLOBE VWG100
13W	1211	1104	905
16W	1328	1308	1072



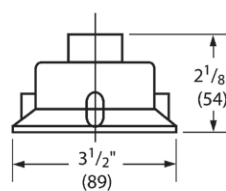
UTILITY LIGHT – DIMENSIONS



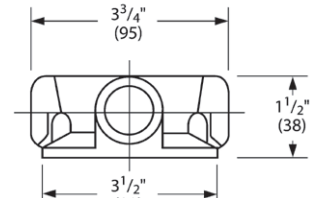
VSL Body w/Globe & Guard, No Splice Box



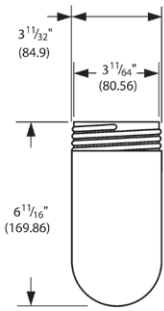
VSL Body w/Polycarbonate Globe, No Splice Box



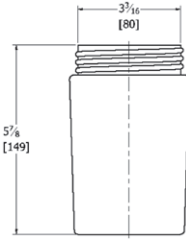
VGA



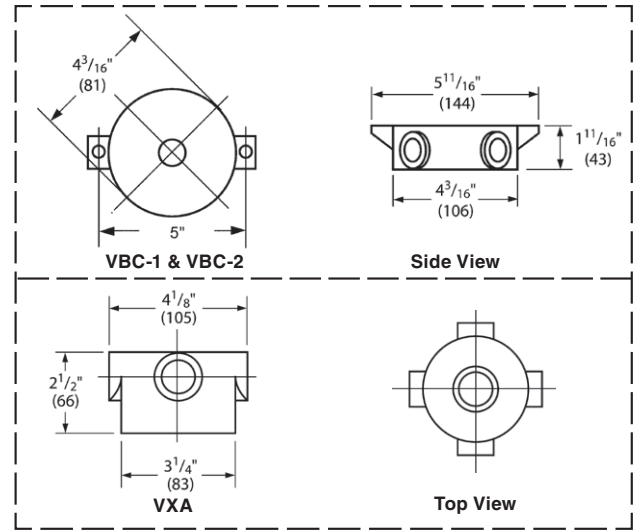
**VGC or VGX
*VGH is 3-5/8" (92)**



Glass Globe



Polycarbonate Globe

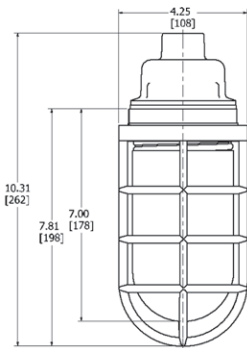


VBC-1 & VBC-2

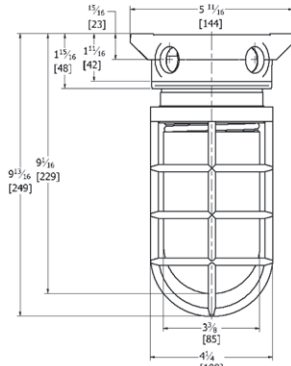
Side View

VXA

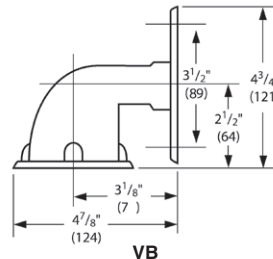
Top View



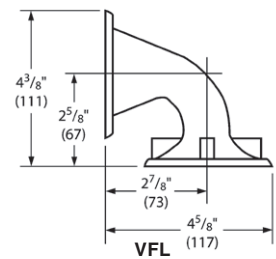
VSL Pendant Fixture w/Globe & Guard



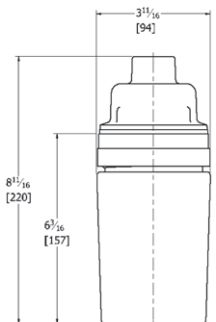
VSL Ceiling Fixture w/Globe & Guard



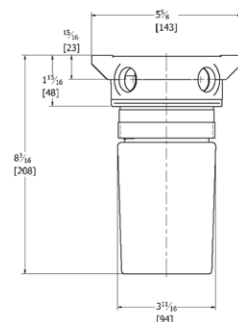
VB



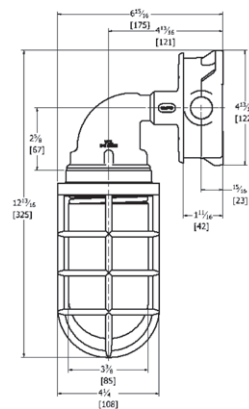
VFL



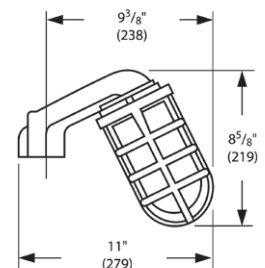
VSL Pendant Fixture w/Polycarbonate Globe



VSL Ceiling Fixture w/Polycarbonate Globe



VSL Wall Mounted Fixture w/Globe & Guard



VSL Stanchion Fixture w/Globe & Guard



CLASS II UTILITY LIGHT – INTRODUCTION & ORDERING INFORMATION



Class II, Div. 1 & 2, Groups E, F, G
Class III
Class I, Div. 2, Groups A, B, C, D

Certified - File LR11713

DV SERIES LED

FEATURES-SPECIFICATIONS Introduction

Killark 'DVL' Series LED fixtures are designed for hazardous locations where suspended metal, carbon (such as coal) and grain dusts create explosive or ignitable mixture with the air.

LED Luminaire Features and Standards

- Compact in Size with Traditional Industrial Appearance and Suitability
- DVL LED Housings can be retrofitted to existing DV Series splice boxes; upgrade from incandescent housing 100 Series components
- Long Fixture Life – 50,000 - 55,000 maintenance free hours
- Crisp White Light for Excellent Color Rendering – Chromaticity 5000°K (CCT); 70 CRI
- Integral driver – maintains fixture's compact profile to fit in existing spaces
- Instant on – including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant

Compliances

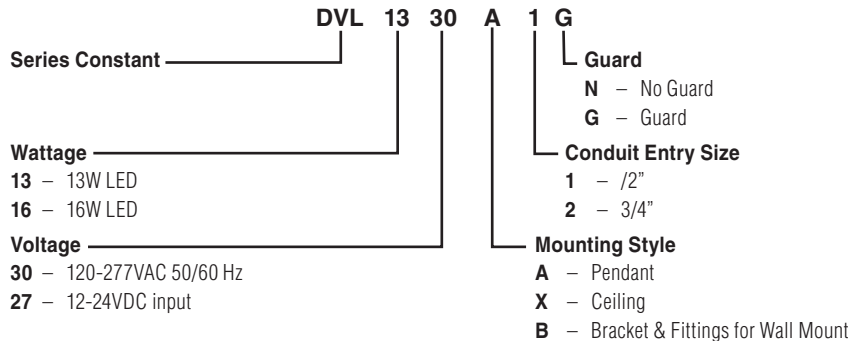
- UL-8750 for LED lighting
- UL 1598 standard for luminaires
- UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Division 2; Class III, Division 2
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations

Materials, Weights

- Body and splice box are corrosion resistant copper-free aluminum alloy. Steel guard.
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection

DVL 100 SERIES						
MODEL	LAMP	HUB	PENDANT	CEILING	WALL	DELIVERED LUMENS
Type 100 13Watt	Included	1/2"	DVL1330A1G	DVL1330X1G	DVL1330B1G	1144
		3/4"	DVL1330A2G	DVL1330X2G	DVL1330B2G	
Type 100 16Watt	Included	1/2"	DVL1630A1G	DVL1630X1G	DVL1630B1G	1355
		3/4"	DVL1630A2G	DVL1630X2G	DVL1630B2G	

DVL Series LED Catalog Logic



ACCESSORIES/COMPONENTS			
BODIES		MOUNTS	
DVL 1330	LED 13W	DVA1	1/2" Pendant Mount
DVL 1327	LED 13W	DVA2	3/4" Pendant Mount
DVL 1630	LED 16W	DVX1	1/2" Ceiling Mount
DVL 1627	LED 16W	DVX2	3/4" Ceiling Mount
		DVB1	1/2" Wall Mount
		DVB2	3/4" Wall Mount
GLOBE		GUARD	
DCGE-10		DAG-100	

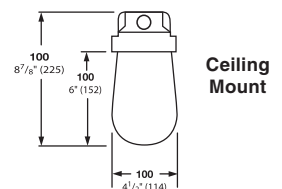
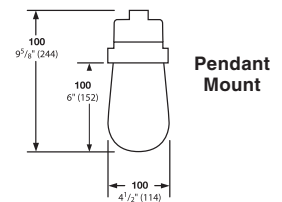
DVL THERMAL RATINGS					
CAT. NO.	AMBIENT	WATTS	C2D1 EFG	C1D2 ABCD	SUPPLY WIRE
DVL1330	40°C	13	T3B	T6	90°C
DVL1630	40°C	16	T3B	T6	90°C
DVL1330	55°C	13	-	T5	90°C
DVL1630	55°C	16	-	T5	90°C

DVL Electrical and L70 Ratings

Same as VSL Series - See page L55

Dimensions

As 100 Series incandescent



Wall Mount overall dimensions

Height = 13.125" (333mm)
 Outward from wall = 7.4" (188mm)



FIXTURE HANGERS



FKA



FH



HOOKLOOP

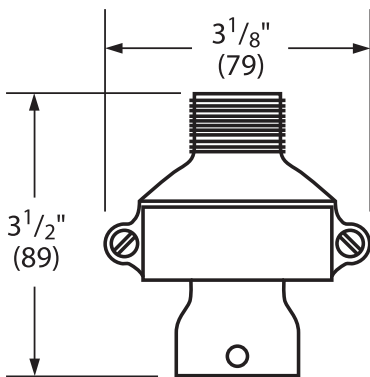
FEATURES-SPECIFICATIONS

FKA

Features

- Ball joint permits fixture to hang plumb. Fixture may swing up to 20° from vertical in any direction
- Cast of aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Set screw locks fixture stem in place. Cannot accidentally loosen – intended for use with threaded metal conduit
- Joint cannot twist conductor
- Suitable for fixtures up to 125 pounds

FKA		
CATALOG NUMBER	MALE THREAD	FIXTURE STEM SIZE
FKA-22	3/4"	3/4"



For replacement ball only catalog number 00890545



Listed - File E27731



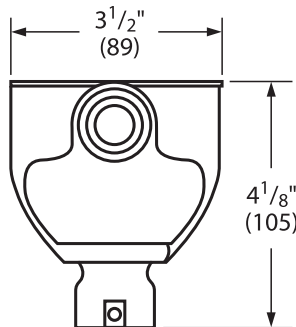
Certified - File LR11851
See files for details or call Killark.

FH

Features

- Combination splice box and flexible fixture hanger
- Ball joint permits fixture to hang plumb. Fixture may swing up to 20° from vertical
- Cast of aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Set screw locks fixture stem in place – intended for use with threaded metal conduit
- Joint cannot twist conductors
- Cover may be removed for easy wiring – 11 cu. inches
- Mounts directly to metal conduit
- Suitable for fixtures up to 125 pounds

FH			
TWO HUBS	THREE HUBS	CONDUIT SIZE	FIXTURE STEM SIZE
FEED THRU	T		
FHC-21	FHT-21	3/4"	1/2"
FHC-22	FHT-22	3/4"	3/4"



For replacement ball only catalog number 00890545



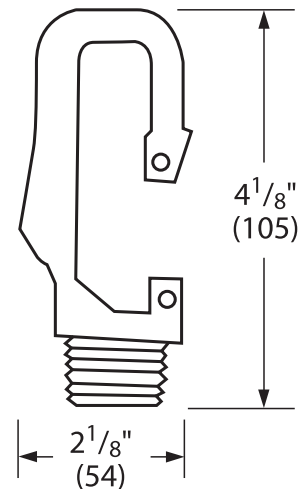
Listed - File E27731

HOOKLOOP

Features

- Pendant fixture hanger consists of a "HOOK" and safety bar which allows conversion to a "LOOP" configuration as necessary
- 3/4" male thread
- Maximum load 125 pounds

HOOKLOOP
CATALOG NUMBER
HOOKLOOP





FIXTURE HANGERS

FH

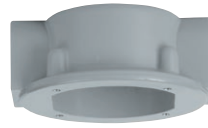


Hook

V Hanger Boxes



VGA



VGC



VGH



VGX

Covers



Flexible Hanger Covers



Hub Covers
(for Rigid Mounting)

FEATURES-SPECIFICATIONS

FH HOOK

Features

- Economical hanger for pendant fixtures
- Fixtures may absorb minor bumps and vibration through free swinging action
- Hub provided with a set screw to pre-vent accidental loosening of fixture stem
- A 1/2 inch hole in body is for flexible cable. Cord may be assembled with plug for quick removal of fixtures
- Cast of aluminum alloy (copper-free—less than 4/10 of 1%)
- FH supports up to 125 pounds

V SERIES

Features

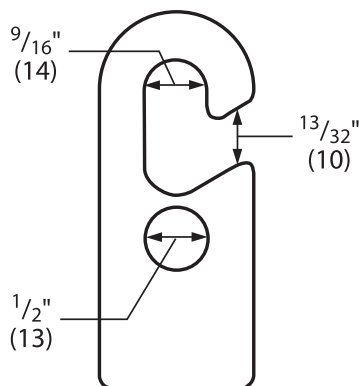
- Flexible fixture hanger for threaded fixture stem. +120° from vertical
- Enclosed and gasketed, suitable for wet locations
- Permits angular displacement of fixture without twisting wires
- Cushioned—absorbs shock and vibration. Internal strap assures ground continuity

- Combines splice box and hanger in one unit. Splice box available in four configurations
- Cast of corrosion resistant aluminum alloy (copper-free—less than 4/10 of 1%)
- Supports up to 125 pounds

- File E27731 or E3397

FH HOOK, LOOP		
CATALOG NUMBER	DESCRIPTION	FIXTURE STEM SIZE
FH-2	Hook	3/4"

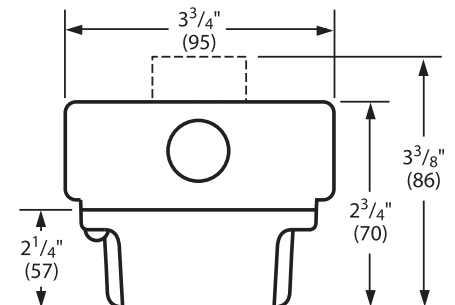
FLEXIBLE HANGERS, V SERIES ENCLOSED AND GASKETED			
CATALOG NUMBER		HUB SIZE	FIXTURE STEM SIZE
HANGER W/SPLICE BOX	SPLICE BOX ONLY		
VPFHA-12	VGA-1	1/2"	3/4"
VPFHA-22	VGA-2	3/4"	3/4"
VPFHC-12	VGC-1	1/2"	3/4"
VPFHC-22	VGC-2	3/4"	3/4"
VPFHH-12	VGH-1	1/2"	3/4"
VPFHH-22	VGH-2	3/4"	3/4"
VPFHX-12	VGX-1	1/2"	3/4"
VPFHX-22	VGX-2	3/4"	3/4"



- File E27731 or E3397

See files for details or call Killark

FIXTURE HANGERS ONLY		
CATALOG NUMBER	DESCRIPTION	FIXTURE STEM SIZE
VPFH-2	Flexible hanger cover, maximum load 125 Lbs.	3/4"
VG-2	Hub cover for rigid mounting	3/4"



Flexible cover with box, dotted line is VGA pendant



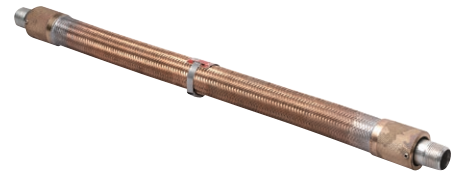
FIXTURE HANGERS



HXB



XFH



EKJ

FEATURES-SPECIFICATIONS

HXB

Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III

Features

- Fixture hanger for hazardous locations combining splice box and hanger
- Set screws in female hub prevents accidental loosening of fixture stem; set screws in hub cover lock cover to the splice box
- Four hubs in "X" configuration up to 3/4"
- Flange mounting ring cast as integral part of box
- Splice box wiring hole with cover for access to box interior
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports to 125 pounds; vol. 16 cu."

LISTED - File E10514

Certified - File LR11716

HXB SPLICE BOX AND HANGER		
CATALOG NUMBER	CONDUIT HUB SIZE	FIXTURE STEM SIZE
HXB-11	1/2"	1/2"
HXB-12	1/2"	3/4"
HXB-21	3/4"	1/2"
HXB-22	3/4"	3/4"
HXBC	Blank Cover	
HIC-SILVER	Replacement Wiring Plug	

XFH

Class I, Div. 1 & 2, Groups C,D
 Class I, Zones 1 & 2, Groups IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III

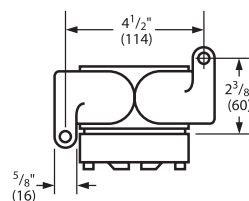
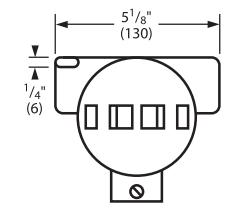
Features

- Fixture hanger for hazardous locations combining splice box and hanger
- Set screws in female hub prevents accidental loosening of fixture
- Straight through conduit hubs for through feed. 20 cu"
- Mounting lugs are standard
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports to 125 pounds

LISTED - File E10514

Certified - File LR11716

XFH SPLICE BOX AND HANGER		
CATALOG NUMBER	CONDUIT HUB SIZE	FIXTURE STEM SIZE
XFH-21	3/4"	1/2"
XFH-22	3/4"	3/4"



EKJ

Class I, Div. 1 & 2, Groups A,B,C,D
 Class I, Zones 1 & 2, Groups IIC, IIB, IIA
 Class II, Div. 1 & 2, Groups E,F,G
 Class III

Features

- Fixture pendant hanger for hazardous locations
- Permits free swing and plumb hang
- Set screws in each hub prevents accidental loosening of fixture
- Constructed of seamless bronze hose with brass outer braid. Asphaltum impregnated jute inner insulates and protects wire from abrasion. Brass female end fittings are supplied with short nipples
- Electrical ground continuity without bonding jumper
- Suitable for wet locations as well as hazardous locations
- Flexible lengths 4 to 18 inches
- Supports to 125 pounds

LISTED - File E10514

Certified - File LR11716

EKJ FLEXIBLE PENDANT HANGER *		
CATALOG NUMBER	CONDUIT HUB SIZE	FIXTURE STEM SIZE
EKJ-14	1/2"	4"
EKJ-24	3/4"	4"
EKJ-16	1/2"	6"
EKJ-26	3/4"	6"
EKJ-18	1/2"	8"
EKJ-28	3/4"	8"
EKJ-110	1/2"	10"
EKJ-210	3/4"	10"
EKJ-112	1/2"	12"
EKJ-212	3/4"	12"
EKJ-115	1/2"	15"
EKJ-215	3/4"	15"
EKJ-118	1/2"	18"
EKJ-218	3/4"	18"



FIXTURE HANGERS



JL



JAL



ENY Pendant Seal

FEATURES-SPECIFICATIONS

JL/JAL

- Class I, Div. 1 & 2, Groups C,D
- Class I, Zones 1 & 2, Group IIB
- Class II, Div. 1 & 2, Groups E,F,G
- Class III

Features

- Splice box and hub cover for mounting pendant fixtures in hazardous locations
- Conduit openings in two configurations

- Flange type cover. Set screw in hub prevents accidental loosening of fixture stem
- Integral lugs for mounting box to ceiling
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports up to 125 pounds

UL LISTED - File E10514



SR Certified - File LR11716

ENY PENDANT SEALS

- Class I, Div. 1 & 2, Groups A,B,C,D
- Class I, Zones 1 & 2, Groups IIC,IIB,IIA
- Class II, Div. 1 & 2, Groups E,F,G
- Class III

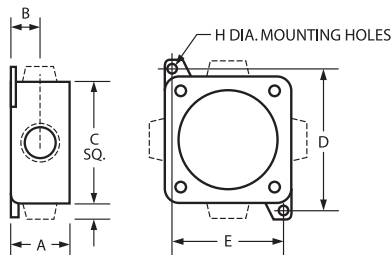
Features

- ENY Pendant Seals are designed for hazardous locations and meet code requirements for a safety set-screw when hanging fixtures. Common applications are for Class I Division I Group B or Class I Zone 2 Ex nR restricted breathing fixtures
- Cast of corrosion resistant aluminum alloy (copper-free aluminum; less than 4/10 of 1%)
- Supports up to 125 pounds

JL/JAL SPLICE BOX AND HUB COVER FIXTURE HANGER				
CATALOG NUMBER		CONDUIT BOX	COVER	TYPE
JL SERIES W/HUB COVER	JAL SERIES W/HUB COVER			
JLC-11	—	1/2"	1/2"	CS Straight Through 
JLC-12	—	1/2"	3/4"	
JLC-21	—	3/4"	1/2"	
JLC-22	—	3/4"	3/4"	
JLX-11	JALX-11	1/2"	1/2"	XF our Hubs 
JLX-12	JALX-12	1/2"	3/4"	
JLX-21	JALX-21	3/4"	1/2"	
JLX-22	JALX-22	3/4"	3/4"	
—	JALX-31	1"	1/2"	
—	JALX-32	1"	3/4"	

CATALOG NUMBER	SIZE
ENY-2SET	3/4"

JL/JAL DIMENSIONS						
SERIES	A	B	C	D	E	F
JL	1-15/16" (49)	11/16" (17)	3-1/4" (95)	4-7/32" (107)	2-3/8" (60)	5/16" (8)
JAL	2-3/8" (60)	15/32" (12)	4-5/8" (117)	5-1/4" (133)	4-1/8" (105)	5/16" (8)





FLOODLIGHT MOUNTS

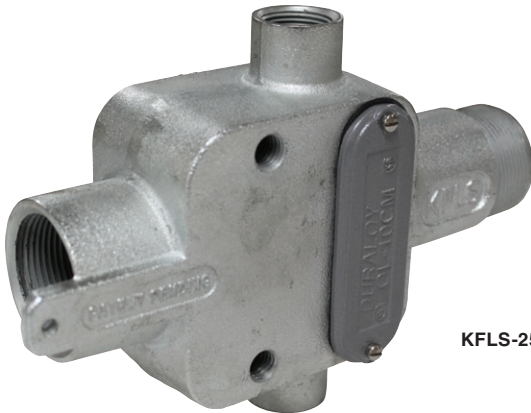
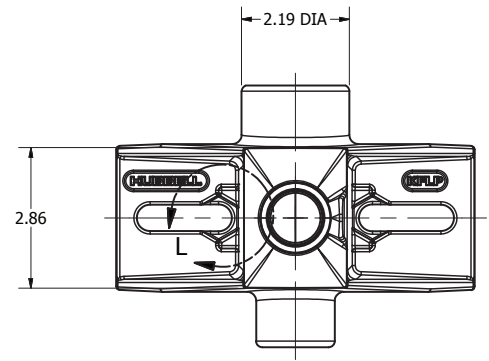
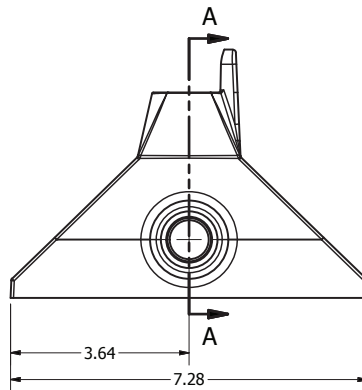


KFLP-23

Class I, Div. 1&2, Groups A, B, C, D
Class II, Div. 1&2, Groups E, F, G
Class III
Suitable for wet locations Types 3, 4 IP66

Features:

- Zinc Plated ductile iron
- Stainless Steel Set Screw prevents accidental loosening due to vibration
- Indention in slot to prevent the nut from moving for one handed tightening during installation
- 1" or 3/4" NPT Conduit
- 3/4" NPT Cord Connector or Flexible Coupling
- Splice box wiring hole with cover for wiring access
- Earthquake tab
- Supports 125 lbs.

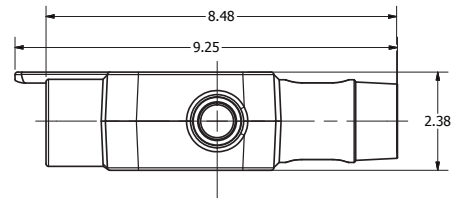
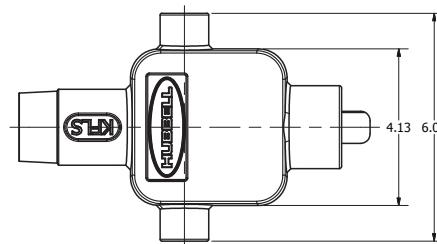


KFLS-25

Suitable for wet locations when used with gasketed covers.
Federal Specification W-C-586D/A-A 50563.
Suitable for use in hazardous location applications when installed according to NEC Articles 501.10(b), Class I, Div. 2, (Suitable for use in Class I Zone 2 applications) 502.10 and 503.10.

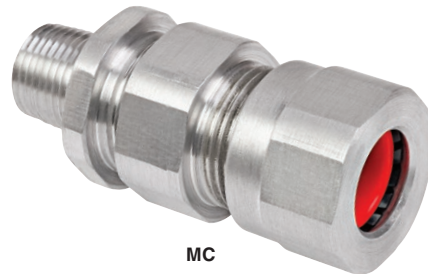
Features:

- Zinc Plated ductile iron
- Stainless Steel Set Screw prevents accidental loosening due to vibration
- 1.5", 1" or 3/4" NPT Conduit
- (2) - 3/4" NPT Cord Connector or Flexible Coupling
- Stackable; allowing up-to 4 positions to mount a floodlight
- Splice box wiring hole with cover for wiring access
- Supports 125 lbs.





ALUMINUM CABLE CONNECTORS



MC

Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Class I, Zone 2†, Group IIC, Zone 20
 Suitable for wet locations
 Types 3, 4X IP66
 MC5 thru MC0: IPX8 6ft 1hr
 Suitable for use in hazardous location applications when installed according to NEC Articles 501.10



CLENCHER®

FEATURES-SPECIFICATIONS

Applications

Designed for use with jacketed interlocked, continuously corrugated and welded armor cable (all types shown in chart below). Install where it is essential to provide positive grounding to the cable and for a Type 3,4 connection.

Features

- 360° armor grounding spring is reusable.
- Robust threads and world class seal enables easy installation with minimal torque required.
- Design meets and exceeds third party requirements for cable retention.
- Provides sealing back nut plus inner O-ring seal to prevent moisture ingress to the cable armor and enclosure.
- Copper free aluminum construction for hostile, corrosive and certain hazardous locations

Materials

- Body – Copper free aluminum (less than 4/10 of 1%)
- Ground Spring – Stainless Steel
- Backnut Seal – Thermoplastic elastomer (silicone)

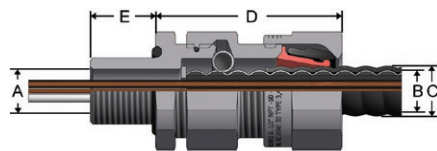
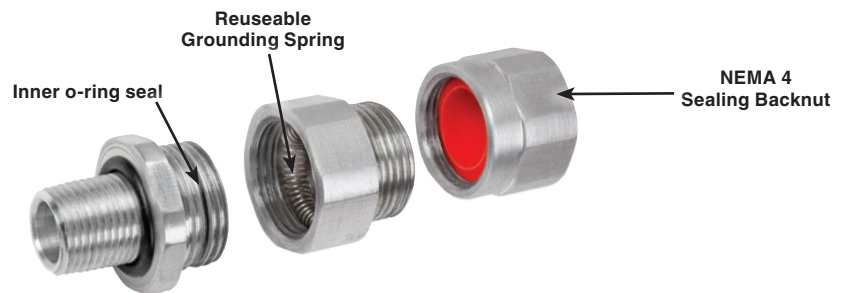
- Backnut Clamp – Nylon

- Inner and Outer O-rings – Nitrile

Operating Temperature Range

- -50°C to +60°C

Construction Details



SUITABLE ARMORED/METAL CLAD CABLE TYPES	
AC-	AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90
MC-	MCC, MCI, MCI-A, MC-HL
RA-	RA90, RA90-HL
TECK-	TECK90, TECK90-HL

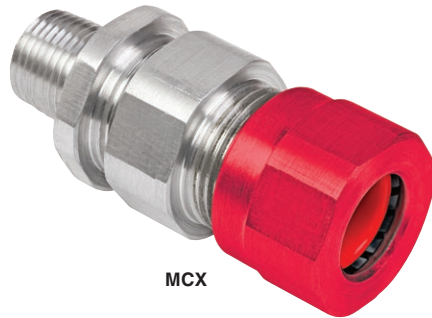
CATALOG NUMBER	ENTRY THREAD SIZE (NPT)	CABLE ACCEPTANCE DETAILS						MAX LENGTH 'D'	NPT LENGTH 'E'	HEXAGON DIMENSIONS	
		MAX NUMBER OF CORES	THROUGH DIAMETER 'A'	ARMOR DIAMETER 'B'		DIAMETER 'C'				ACROSS FLATS	ACROSS CORNERS
				MIN.	MAX.	MIN.	MAX.				
MC1B	1/2"	6	.47" (11.9)	0.43" (10.9)	0.55" (14.0)	0.51" (13.0)	0.63" (16.0)	1.7" (43)	0.83" (21.1)	1.06" (26.9)	1.12" (28.4)
MC1C	1/2"	10	0.56" (14.2)	0.52" (13.2)	0.74" (18.8)	0.60" (15.2)	0.82" (20.8)	2.3" (58)	0.83" (21.1)	1.42" (36)	1.50" (38.1)
MC2	3/4"	21	0.80" (20.3)	0.65" (16.5)	0.95" (24.1)	0.73" (18.5)	1.03" (26.2)	2.5" (64)	0.84" (21.3)	1.61" (41)	1.69" (42.9)
MC3	1"	42	1.04" (26.4)	0.89" (22.6)	1.23" (31.2)	0.97" (24.6)	1.31" (33.3)	2.6" (66)	1.03" (26.2)	1.97" (50)	2.13" (54.1)
MC4	1 1/4"	73	1.28" (32.5)	1.15" (29.2)	1.48" (37.6)	1.23" (31.2)	1.56" (39.6)	3.1" (79)	1.05" (26.7)	2.36" (60)	2.50" (63.5)
MC5	1 1/2"	80	1.66" (42.2)	1.39" (35.3)	1.62" (41.1)	1.47" (37.3)	1.78" (45.2)	4.5" (114.3)	1.07" (27.2)	2.95" (74.9)	3.06" (77.7)
MC6	2"	80	1.98" (50.3)	1.39" (35.3)	1.89" (48)	1.47" (37.3)	2.04" (51.8)	4.5" (114.3)	1.10" (27.9)	2.95" (74.9)	3.06" (77.7)
MC7	2 1/2"	100	2.46" (62.5)	1.85" (47)	2.36" (60)	1.93" (49)	2.51" (63.8)	4.7" (119.4)	1.62" (41.1)	3.54" (89.1)	3.65" (92.7)
MC8	3"	120	2.93" (74.4)	2.19" (55.6)	2.81" (71.4)	2.27" (57.7)	3.01" (76.5)	4.8" (121.9)	1.68" (42.7)	4.06" (103.1)	4.22" (107.2)
MC9	3 1/2"	120	3.40" (86.4)	2.69" (68.3)	3.28" (83.3)	2.77" (70.4)	3.46" (87.9)	4.8" (121.9)	1.73" (43.9)	4.53" (115.1)	4.69" (119.1)
MC0	4"	120	3.92" (99.6)	3.28" (83.3)	3.82" (97)	3.46" (87.9)	4.07" (103.4)	5.1" (129.5)	1.78" (45.2)	5.12" (130)	5.33" (135.4)

Cable armor diameter and cable jacket diameter refer to the dimensions across the crest.

† Where explosion proof/flameproof enclosures are being used the MC must be installed in conjunction with an approved sealing fitting. In Division 2 areas the MC can be fitted directly to an enclosure which has no source of ignition.



ALUMINUM CABLE CONNECTORS



MCX

Class I, Div. 1 & 2, Groups A, B, C, D
 Class II, Div. 1 & 2, Groups E, F, G
 Class III
 Class I, Zones 1 & 2, Group IIC, Zone 20
 Types 3, 4X IP66
 MCX5-MCX0: IPX8 6ft/1hr.



CLENCHER®

FEATURES-SPECIFICATIONS

Applications

Designed for use with jacketed interlocked, continuously corrugated and welded armor cable (all types shown in chart below). Install where it is essential to provide positive grounding to the cable with a complete gas block/explosion proof seal. Also for a Type 3, 4X connection.

Features

- 360° armor grounding spring is reusable.
- Robust threads and world class seal enables easy installation with minimal torque required.
- Provides a barrier seal between the individual insulated cores within the cable and prevents entry of the products of an explosion into the cable.
- Assembly of the cable gland compresses and distributes the compound evenly to create a barrier seal at the point of entry into the enclosure.

- Provides cable retention and a low smoke and fume, zero halogen seal onto the cables outer sheath.
- Provides sealing back nut plus inner O-ring seal to prevent moisture ingress to the cable armor and enclosure
- Copper free aluminum construction for harsh, corrosive and hazardous duty
- Back nut is RED to indicate HAZARDOUS area product

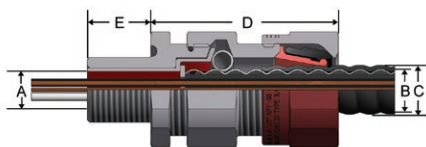
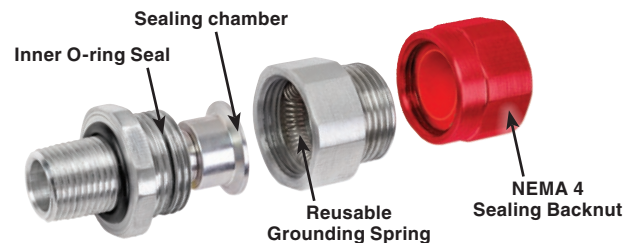
Materials

- Body – Copper free aluminum (less than 4/10 of 1%)
- Ground Spring – Stainless Steel
- Backnut Seal – Thermoplastic elastomer (silicone)
- Backnut Clamp – Nylon
- Inner and Outer O-rings – Nitrile

Operating Temperature Range

- -50°C to +60°C

Construction Details



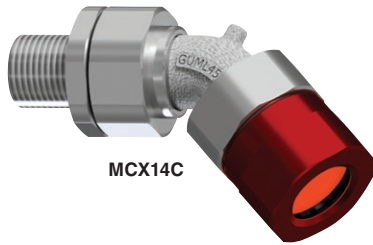
SUITABLE ARMORED/METAL CLAD CABLE TYPES	
AC-	AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90
MC-	MCC, MCI, MCI-A, MC-HL
RA-	RA90, RA90-HL
TECK-	TECK90, TECK90-HL

CATALOG NUMBER	ENTRY THREAD SIZE (NPT)	CABLE ACCEPTANCE DETAILS						MAX LENGTH 'D'	NPT LENGTH 'E'	HEXAGON DIMENSIONS	
		MAX NUMBER OF CORES	THROUGH DIAMETER 'A'	ARMOR DIAMETER 'B'		DIAMETER 'C'				ACROSS FLATS	ACROSS CORNERS
				MIN.	MAX.	MIN.	MAX.				
MCX1B	1/2"	6	0.39" (9.9)	0.43" (10.9)	0.55" (14.0)	0.51" (13.0)	0.63" (16.0)	2.1" (53.3)	0.83" (21.1)	1.06" (26.9)	1.12" (28.4)
MCX1C	1/2"	10	0.48" (12.2)	0.52" (13.2)	0.74" (18.8)	0.60" (15.2)	0.82" (20.8)	2.4" (61)	0.83" (21.1)	1.42" (36)	1.50" (38.1)
MCX2	3/4"	21	0.71" (18.1)	0.65" (16.5)	0.95" (24.1)	0.73" (18.5)	1.03" (26.2)	2.6" (66)	0.84" (21.3)	1.61" (41)	1.69" (42.9)
MCX3	1"	42	0.96" (26.4)	0.89" (22.6)	1.23" (31.2)	0.97" (24.6)	1.31" (33.3)	2.7" (69)	1.03" (26.2)	1.97" (50)	2.13" (254.1)
MCX4	1 1/4"	73	1.16" (29.5)	1.15" (29.5)	1.48" (37.6)	1.23" (31.2)	1.56" (39.6)	3.2" (81)	1.05" (26.7)	2.36" (60)	2.50" (63.5)
MCX5	1 1/2"	80	1.35" (34.3)	1.39" (35.3)	1.62" (41.1)	1.47" (37.3)	1.78" (45.2)	4.5" (114.3)	1.07" (27.2)	2.95" (75)	3.06" (77.8)
MCX6	2"	80	1.62" (41.1)	1.39" (35.3)	1.89" (48.0)	1.47" (37.3)	2.04" (51.8)	4.5" (114.3)	1.10" (27.9)	2.95" (75)	3.06" (77.8)
MCX7	2 1/2"	100	2.09" (53.1)	1.85" (47.0)	2.36" (59.9)	1.93" (49.0)	2.51" (63.8)	4.7" (119.4)	1.62" (41.1)	3.54" (90)	3.65" (92.8)
MCX8	3"	120	2.52" (64.0)	2.19" (55.6)	2.81" (71.4)	2.27" (57.7)	3.01" (76.5)	4.8" (121.9)	1.68" (42.7)	4.06" (103)	4.22" (107.2)
MCX9	3 1/2"	120	3.01" (76.5)	2.69" (68.3)	3.28" (83.3)	2.77" (70.4)	3.46" (87.9)	4.8" (121.9)	1.73" (43.9)	4.53" (115)	4.69" (119.2)
MCX0	4"	120	3.50" (88.9)	3.28" (83.3)	3.82" (97.0)	3.46" (87.9)	4.07" (103.4)	5.1" (129.5)	1.78" (45.2)	5.12" (130)	5.33" (135.3)

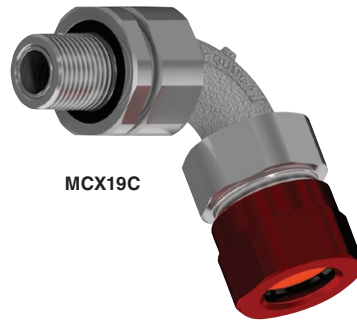
Cable armor diameter and cable jacket diameter refer to the dimensions across the crest.



ALUMINUM CABLE CONNECTORS



MCX14C



MCX19C

Class I, Div. 1, Groups A, B, C, D
Class II, Div. 1, Groups E, F, G
Class III,
CL. I Zone 1 GR. IIC. Zone 20
Types 3, 4X, IP66



FEATURES-SPECIFICATIONS

Applications:

Designed for use with jacketed interlock, continuously corrugated and welded armor cable where it is essential to prevent explosive vapors from passing through electrical devices. This series provides a 45 and 90 degree bend for the most compact space. It is rated for indoor and outdoor use.

Features:

- 360° armor grounding spring is reusable
- Provides a barrier seal between the individual insulated cores within the cable
- Assembly of the cable gland compresses and distributes the compound evenly to create a barrier seal at the point of entry into the enclosure.
- Provides a cable retention and low smoke fume, zero halogen seal onto the cables outer sheath
- Copper-free aluminum construction for harsh, corrosive and hazardous areas

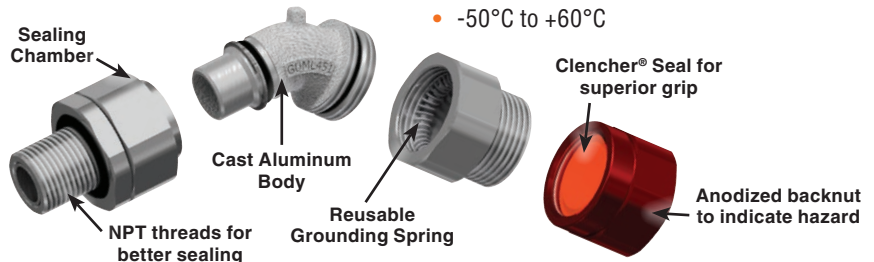
- Patent pending combination union elbow that allows proper 360° alignment where space is limited
- Compact 45° & 90° bends for optimized wiring configurations
- Armor is terminated prior to bend allowing for minimal bending radius
- Backnut is anodized RED to indicate HAZARDOUS area product

Materials:

- Body: Copper-free aluminum (less than 4/10 of 1%)
- Backnut Seal: Thermoplastic elastomer (silicone)
- Backnut Clamp: Nylon
- Inner and Outer O-rings: Nitrile

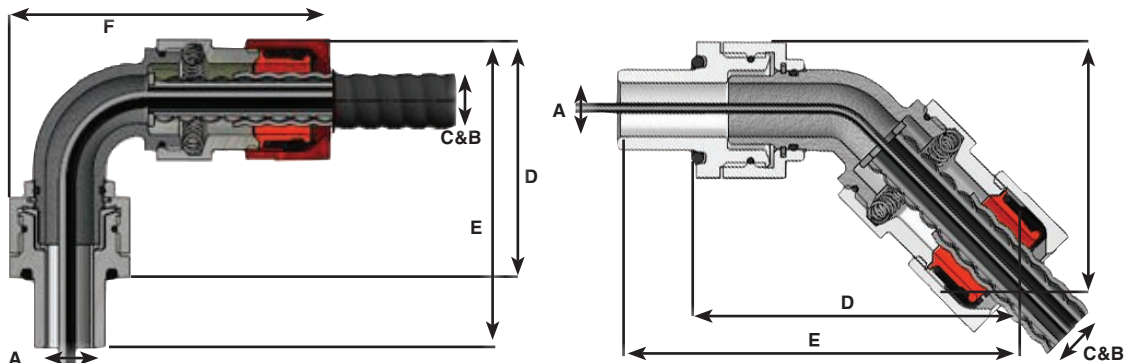
Operating Temperature:

- -50°C to +60°C



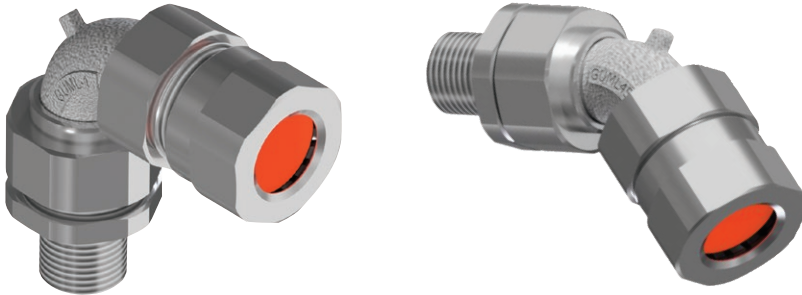
SUITABLE ARMORED/METAL CLAD CABLE TYPES	
AC-	AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90
MC-	MCC, MCI, MCI-A, MC-HL
RA-	RA90, RA90-HL
TECK-	TECK90, TECK90-HL

CATALOG #	ENTRY THREAD SIZE (NPT)	BEND	CABLE ACCEPTANCE DETAILS						MAX LENGTH 'D'	MAX LENGTH 'E'	MAX LENGTH 'F'
			MAX NUMBER OF CORES	THROUGH DIAMETER 'A'	ARMOR DIAMETER 'B'		DIAMETER 'C'				
					MIN.	MAX.	MIN.	MAX.			
MCX14C	1/2"	45°	10	.48" (12.2)	.52" (13.2)	.74" (18.8)	.60" (15.2)	.82" (20.8)	3.25" (82.6)	4.35" (110.5)	2.05" (52)
MCX24	3/4"	45°	21	.71" (18)	.65" (16.5)	.95" (24.1)	.73" (18.5)	1.03" (26.2)	3.43" (87.1)	4.55" (115.6)	2.19" (55.6)
MCX19C	1/2"	90°	10	.48" (12.2)	.52" (13.2)	.74" (18.8)	.60" (15.2)	.82" (20.8)	2.51" (63.8)	3.62" (91.9)	3.51" (89.2)
MCX29	3/4"	90°	21	.71" (18)	.65" (16.5)	.95" (24.1)	.73" (18.5)	1.03" (26.2)	2.61" (66.3)	3.73" (94.7)	3.60" (91.4)





ALUMINUM CABLE CONNECTORS



Class II, Div. 1, Groups E, F, G
Class III,
Zone 20, IP66,
Types 3, 4X
 Suitable for use in hazardous location application when installed according to NEC Articles 501.10



FEATURES-SPECIFICATIONS

Applications:

Designed for use with jacketed interlock, continuously corrugated and welded armor cable. Rated for indoor and outdoor use and allows for a 45 and 90 degree bend where space is limited.

Features:

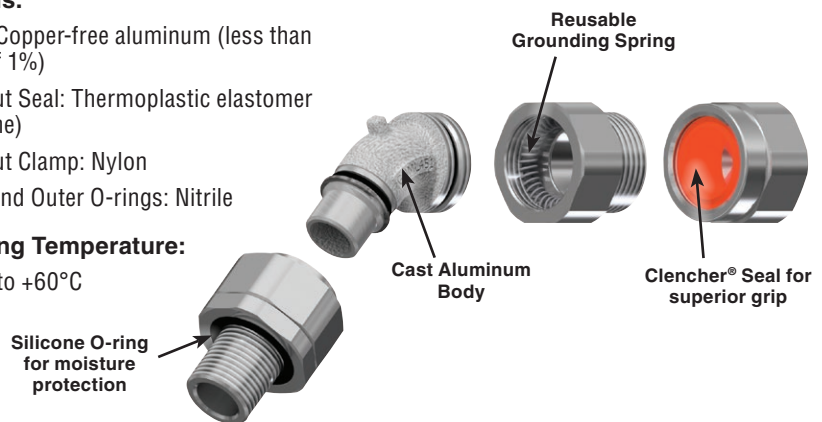
- 360° armor grounding spring is reusable
- Provides sealing backnut plus inner O-ring seal to prevent moisture ingress to the cable armor and enclosure
- Copper-free aluminum construction for harsh, corrosive and hazardous duty
- Patent pending combination union elbow that allows proper 360° alignment where space is limited
- Compact 45° & 90° bends for optimized wiring configurations
- Armor is terminated prior to bend allowing for minimal bending radius

Materials:

- Body: Copper-free aluminum (less than 4/10 of 1%)
- Backnut Seal: Thermoplastic elastomer (silicone)
- Backnut Clamp: Nylon
- Inner and Outer O-rings: Nitrile

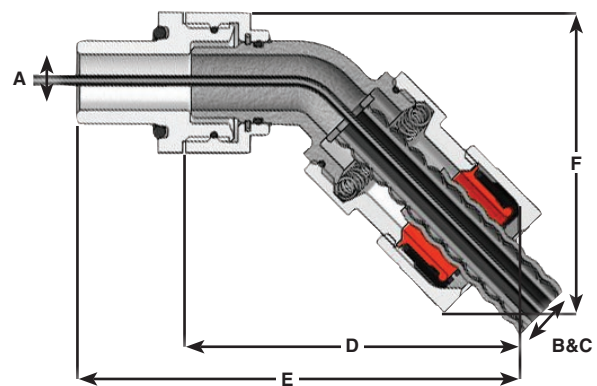
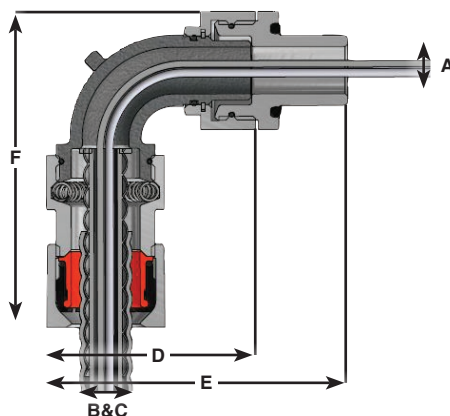
Operating Temperature:

- -50°C to +60°C



SUITABLE ARMORED/METAL CLAD CABLE TYPES	
AC-	AC90, ACWU90, AC90-HL, ACWU90-HL, ACG90, ACGWU90
MC-	MCC, MCI, MCI-A, MC-HL
RA-	RA90, RA90-HL
TECK-	TECK90, TECK90-HL

CATALOG NUMBER	ENTRY THREAD SIZE (NPT)	BEND	CABLE ACCEPTANCE DETAILS								
			MAX NUMBER OF CORES	THROUGH DIAMETER 'A'	ARMOR DIAMETER 'B'		DIAMETER 'C'		MAX LENGTH 'D'	MAX LENGTH 'E'	MAX LENGTH 'F'
					MIN.	MAX.	MIN.	MAX.			
MC14C	1/2"	45°	10	.48" (12.2)	.52" (13.2)	.74" (18.8)	.60" (15.2)	.82" (20.8)	3.25" (82.6)	4.35" (110.5)	2.05" (52)
MC24C	3/4"	45°	21	.71" (18)	.65" (16.5)	.95" (24.1)	.73" (18.5)	1.03" (26.2)	3.43" (87.1)	4.55" (115.6)	2.19" (55.6)
MC19C	1/2"	90°	10	.48" (12.2)	.52" (13.2)	.74" (18.8)	.60" (15.2)	.82" (20.8)	2.51" (63.8)	3.62" (91.9)	3.51" (89.2)
MC29	3/4"	90°	21	.71" (18)	.65" (16.5)	.95" (24.1)	.73" (18.5)	1.03" (26.2)	2.61" (66.3)	3.73" (94.7)	3.60" (91.4)





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