

# Mercmaster™ III Low Profile Luminaires

## High Pressure Sodium and Pulse Start Metal Halide

Listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

Class I, Division 2, Groups A, B, C, D  
Class I, Zone 2, AEx nR IIC (Z2)  
Class I, Zone 2, Ex nR IIC (Z) †  
Class I, Zone 2, AEx nR IIC (ZB)

Class II, Division 1 and 2, Groups E, F, G  
Class III  
Simultaneous Exposure (Class I, Division 2/  
Class II, Division 1)

Fixtures Outside Type (Salt Water)  
Type 4X  
IP66

### Applications

- Enclosed and gasketed fixtures suitable for use in:
  - Marine and wet locations
  - A wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III
  - Areas of low clearance, low ceiling heights or where fixture weights must be minimized
  - For Zone 2, the method of protection is AEx nA nR – Restricted Breathing/Nonsparking or AEx nR – Restricted Breathing
  - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
  - Pulp and paper mills
  - Processing plants
  - Chemical plants
  - Oil refineries
  - Foundries
  - Manufacturing plants
  - Storage areas
  - Waste and sewage treatment
  - Parking garages
  - Other areas where dust, water, dirt and rough usage are a problem

### Features

- Compact light weight low profile design is suited for low mounting heights in conjunction with lower wattage fixtures.
- Modular design allows scores of fixture component combinations to meet installation and lighting needs. Uses same mounting hoods and optical accessories as Mercmaster III.
- A choice of heat-resistant prismatic glass refractors (NEMA I, III or V) or heat-resistant globes which thread directly into ballast housing. Photometrics available upon request – contact your local sales representative.
- Standard dome or 30° angle reflectors made of fiberglass reinforced white polyester. Highly resistant to corrosive atmospheres.
- Accommodates medium base lamps.
- A wide range of voltages available (120 to 600 Volt) and ballast types (Reactor, CWA, CWI and Super CWA).
- Medium base lamp type and watts:
  - HPS 50 W-150 W
  - PSMH 50 W-175 W
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on ballast housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- All Mercmaster III mounting hoods have provision for easy field installation of fuses in fixtures (see fuse kits).
- Fixtures are for use in Class I, Zone 2 hazardous locations.
- The AEx nA nR / Ex nR (†) factory sealed Mercmaster III prevents vapors and gases from entering the globe chamber. There are no seals or putty required which will reduce installation time and installation errors.



Low Profile Mercmaster III with Prismatic Globe and Guard

### Standard Materials

- Mounting hoods, bodies and guard: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Reflectors: Fiberglass reinforced white polyester
- Globes and Refractors: heat-resistant prismatic glass

### Standard Finishes

- Mounting hoods, bodies and guards: baked gray epoxy-clad finish, electrostatically applied for complete uniform protection

### Options

- Quartz Auxiliary comes to full brightness immediately and remains lit until the HID lamp attains 60-70% of full illumination. Quartz Auxiliary supplied with relay switch and socket to accept 120 V quartz double-contact bayonet base lamp (not included). Add suffix **-E †**.
- Guards with gray epoxy painted to match fixtures, supplied with stainless steel screws. Add suffix **-G** before voltage suffix.
- Hot Restrike to restrike HPS lamp immediately when power is restored after a momentary power interruption. Add suffix **-R**.
- Smart Starter incorporates a 1-1/2 minute timer and performs as a conventional starter to normally start lamp. Removes itself from circuit if lamp burns out or is removed from socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps and simplifies finding their location, reducing maintenance and repair costs. Available for all fixtures. Add suffix **-S**.
- Smart Hot Restrike will immediately restrike HPS lamp when power is restored after a momentary power interruption. The smart function removes the hot restrike ignitor from the circuit if the lamp burns out or is removed from the socket. Eliminates starter failures caused by prolonged operation with cycling or failing lamps. Add suffix **-SR**.
- AEx nA nR fixtures, add suffix **-ZZ**.
- AEx nR fixtures, add suffix **-ZB**.
- Ex nR fixtures, add suffix **-Z †**.
- Reflectors are available as standard dome and 30° angle polyester. Order separately.

† Fixtures equipped with quartz auxiliary lamp do not comply with NEC/CEC † requirements and are not suitable for use in classified locations.

† CSA Certification Only.

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Class III  
Simultaneous Exposure (Class I, Division 2/  
Class II, Division 1)

Fixtures Outside Type (Salt Water)  
Type 4X  
IP66

### Certifications and Compliances \*

- UL Listed: 60079-15
- UL Standard: 1598A, UL 844, Marine Type Electric Fixtures Outside Type (Salt Water)
- CSA Certified: LR25428

### Related Products

- Photocells for classified use are available, see PCD2 Series.

Order using catalog numbering guide below or select catalog number from tables on following pages.

### Catalog Numbering Guide

ML	A	L	15	2	G1	G	MT	R	Z2
Series: ML - Mercmaster III Low Profile		Lamp Type: I - Incandescent L - High Pressure Sodium H or P - Pulse Start Metal Halide H - 175 W Metal Halide (available with TT voltage only) <sup>1</sup>		Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT stanchion 5 - 1-1/2" NPT stanchion		Guard Options: G - Cast Guard N - No Guard		Options: E - Emergency Quartz <sup>5</sup> F - Fuse Kit (Specify Voltage) <sup>6</sup> R - Hot Restrike <sup>3</sup> S - Smart Starter <sup>4</sup> SR - Smart Hot Restrike <sup>3</sup> H1 - Photocontrol 120 V H2 - Photocontrol 208 V H3 - Photocontrol 240 V H4 - Photocontrol 277 V C - Safety Cable Adapted <sup>1</sup> D - E-27 Export Socket T - Terminal Blocks <sup>1</sup> V - Anti-Vibration Modifications <sup>1</sup> X - Appledapter <sup>7</sup> Mounting Hood Adapter <sup>1</sup> Optional Fusing <sup>8</sup> FN - 120 V FP - 208 V FS - 240 V FT - 277 V FF - 480 V	
	Mounting: A - Pendant (rigid mounting) C - Ceiling D - Pendant Cone Hood F - Pendant (flexible mounting) R - 90° Stanchion S - 25° Stanchion W - Wall	Wattage: 10 - 100 W HPS, PSMH 15 - 150 W HPS, PSMH and 60-150 W max. Incandescent 17 - 175 W PSMH 17 - 175 W MH <sup>1</sup> 50 - 50 W HPS, PSMH 70 - 70 W HPS, PSMH		Optical Assembly: <sup>2</sup> G1 - Globe J1 - NEMA I Glass Reflector J3 - NEMA III Glass Reflector J5 - NEMA V Glass Reflector P2 - NEMA II Polymeric Reflector P3 - NEMA III Polymeric Reflector P4 - NEMA IV Polymeric Reflector P5 - NEMA V Polymeric Reflector		Voltage: <sup>1</sup> LB - Incandescent, 120, 60 Hz MT - 120/208/240/277, 60 Hz 5MT - 120/208/240/ 277/480, 60 Hz 48 - 480, 60 Hz 125 - 120, 50 Hz 225 - 225, 50 Hz 226 - 220, 60 Hz 245 - 240, 50 Hz C2 - 208, 60 Hz, CWI <sup>1</sup> C3 - 240, 60 Hz, CWI <sup>1</sup> C6 - 480, 60 Hz, CWI <sup>1</sup> C7 - 600, 60 Hz, CWI <sup>1</sup> TT - 120/277/347, 60 Hz, CWA <sup>1</sup>	Suffix: Z2 - Zone 2 suffix (required for AEx nA nR rating) ZB - Zone 2 suffix (required for AEx nR) Z - Zone 2 suffix (required for Ex nR) <sup>1</sup>		

\* Compliance data varies for specific fixtures. Consult Appleton regarding suitability of specific fixtures for a particular application.

<sup>1</sup> Other voltages, frequencies available – contact your local sales representative. Voltages shown are limited to specific combinations; refer to following pages.

<sup>2</sup> Polymeric Refractor suitable for Class II, Groups F and G, NEMA 4X and Marine Type Electric Fixtures Outside Type (Salt Water) only (100 W PSMH Max.).

Reflectors ordered separately.

<sup>3</sup> Available for 50-150 W HPS fixtures only.

<sup>4</sup> Available for HPS or PSMH fixtures.

<sup>5</sup> Not suitable for hazardous location per NEC/CEC <sup>1</sup>.

<sup>6</sup> Canadian Electrical Code does NOT allow fusing in hazardous locations <sup>1</sup>.

<sup>7</sup> Appledapter is available for use with the pendant, ceiling and angled stanchion mounting only.



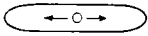



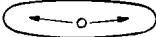
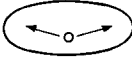







<sup>8</sup> Optional fusing is available for use with MT, 5MT and 48 voltage suffixes ONLY.

<sup>1</sup> CSA Certification Only.

# Mercmaster™ III Low Profile Luminaire Accessories and Replacement Parts

## High Pressure Sodium and Pulse Start Metal Halide

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		Description	Catalog Number
<b>Prismatic Glass Globes — Heat-Resistant</b>			
 <p><b>Glass Globe</b></p>		Clear	VPGL-1HR
		Amber	VPGL-1AM
		Blue	VPGL-1BL
		Green	VPGL-1GR
		Red	VPGL-1RE
		Light Distribution	IES/NEMA Distribution Curves
<b>Closed Prismatic Glass Refractors — All Heat-Resistant</b>			
 <p><b>Glass Refractor</b></p>	NEMA Type I		LPG-R1
	NEMA Type III		LPG-R3
	NEMA Type V		LPG-R5
<b>Closed Prismatic Polymeric Refractors — For Use with PSMH Lamps</b>			
<i>100 W max. 104 °F/40 °C max. ambient temperature. Suitable for Class II, Division 1 and 2, Groups F, G; NEMA 4X, UL 1598A Marine Type Electric Fixtures Outside Type (Salt Water)</i>			
 <p><b>Polymeric Refractor</b></p>	NEMA Type II		LPRF-2CP
	NEMA Type III		LPRF-3CP
	NEMA Type IV		LPRF-4CP
	NEMA Type V		LPRF-5CP
		Description	Catalog Number
<b>White Polyester Reflectors</b>			
 <p><b>Standard Dome</b></p>	For Globe Fixtures	Standard Dome	KR2-ST
		Deep Dome	KR2-DD ①
		30° Angle	KR2-AN
 <p><b>30° Angle</b></p>	For Glass Refractor Fixtures	Standard Dome	CMR-4ST ②
		Deep Dome	CMR-4DD ①
		30° Angle	CMR-4AN
<b>Guards</b>			
 <p><b>Globe Guard</b></p>		Globe Guard	KGU1
 <p><b>Refractor Guard</b></p>		Refractor Guard	KRG2
<b>Replacement Globe Gaskets — Silicone Rubber</b>			
 <p><b>Globe Gaskets</b></p>		Globe Gasket	VPGL-GK
		Refractor Gasket	KRF-GK

① Dark Skies Compliant.

② Standard and deep dome reflectors may interfere with bottom conduit entry if used with KPST and KPWB mounting hoods.