


**TRAC-MASTER®**

 MH<sub>v</sub>™ Metal Halide Trac

## CONCENTRIC CYLINDER T4, G8.5 LAMP HOLDERS

**TM232**

Project: \_\_\_\_\_

Fixture Type: \_\_\_\_\_

Location: \_\_\_\_\_

Contact/Phone: \_\_\_\_\_

### PRODUCT DESCRIPTION

The ultra-compact Concentric Cylinder combines a simple aesthetic with premium performance. Available in spot, narrow flood and flood beam distributions, its computer contoured highly polished faceted specular aluminum reflector is securely mounted to the lamp shroud for precise optical alignment with the lamp. The lamp shroud has a 1" deep integral step baffle for optimal shielding and brightness control. The detachable lamp shroud is easily removed for simplified fixture maintenance. Uniform light distribution is accomplished with a clear lens for maximum luminaire efficiency. The clear lens can be replaced with a variety of 2.75" media accessories for optimum beam control. Combined with the new vertical ballast design, the MH<sub>v</sub> Series offers practical functionality with one of the smallest footprints in CMH Trac fixtures.



T4 ceramic metal halide lamps produce light output equivalent to halogen lamps of 3-4 times the wattage. They produce a crisp, white light in 3000K or 4200K color temperature with a color rendering index of up to 90+. Combined with new electronic ballast technology, these lamps last up to 15,000 hours with no perceived shift in color temperature. Ceramic metal halide trac fixtures are ideal for accent and perimeter lighting from higher ceilings and/or to create dramatic accents in settings, such as display windows, where contrast with high ambient light levels are required.

### PRODUCT SPECIFICATIONS

**Construction** Die cast aluminum socket housing and lamp shroud • Coarse thread attachment of socket housing and lamp shroud simplifies fixture maintenance • Die formed steel yoke.

**Socket** G8.5 bi-pin base, ceramic/PPS • 5kV rated with nickel plated contacts.

**Aiming** Full 360° horizontal coverage eliminates aiming dead spots • 90° vertical aiming capability.

**Optics** Computer contoured highly polished faceted specular aluminum reflector is securely mounted to lamp shroud for precise optical alignment with lamp and facilitates simplified relamping • Choice of spot, narrow flood or flood optical distributions • Lamp shroud has 1" deep integral baffle for optimal shielding and brightness control • Uniform light distribution is accomplished with clear lens for maximum luminaire efficiency.

**Lens** Fixture includes clear glass lens • Lens may be replaced with 2.75" dia. media accessory listed below to customize lighting effects.

**Juno Universal Trac Adapter** Universally compatible with both Trac-Master 1-circuit or 2-circuit trac, Trac-Lites trac, monopoints and special mountings • Also UL Recognized for use on ConTech® LT Series track • Oversized trac adapter for greater mounting stability • Copper alloy contacts provide precise spring action - no arcing and will not take a set • True, positive electrical ground • On/off switch included • Patented embossed polarity arrows on bottom of adapter • Spring-loaded positive latch with embossed polarity arrows secures trac light to trac • Two-position power contact provided for two-circuit application.

**Alternate TEK/HTEK Trac Adapter** Compatible with either Juno TEK or HTEK trac systems • System specific and assembled to trac fixture • Integrally polarized construction to prevent reverse installation – only allows insertion in proper orientation • Rotary circuit selector enables simple switching between circuits • Integral on/off switch enables individual fixtures to be switched for servicing.

**Alternate GTYPE Trac Adapter** Compatible with track systems based on GES type track, including Lithonia LT Commercial Track (not LTS type) • System specific and assembled to trac fixture • Consult factory for additional information.

**Alternate HTYPE Trac Adapter** Compatible with track systems which use a H-type track adapter, including Lithonia LTS Decorative Track (not LT type) • System specific and assembled to trac fixture • Two-position power contact provided for two-circuit application • Consult factory for additional information.

**Alternate LTYPE Trac Adapter** Compatible with track systems which use a L-type track adapter • System specific and assembled to trac fixture • Two-position power contact provided for two-circuit application • Consult factory for additional information.

**Ballast** Premium, high efficiency electronic enclosed in an extruded aluminum monolith • Provides optimum color stability and CRI uniformity from fixture to fixture • Controlled lamp output ensures stable normal operation maximizing lamp life • Faster hot restrike and lamp warm-up time compared to magnetic ballast • Automatic resetting thermal protection • MOV transient protection • End-of-life shutdown prevents nuisance cycling and flashing.

**Labels** UL and C-UL Listed • Union made • Assembled in U.S.A.

Specifications subject to change without notice.

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**TRAC-MASTER®**MH<sub>v</sub><sup>™</sup> Metal Halide Trac**CONCENTRIC CYLINDER T4, G8.5  
LAMP HOLDERS****TM232****ORDERING INFORMATION**

Ordering Examples: TM232 70M SP WH, TM232 TEK 70M SP BL

**Lamp** 70W or 100W ED17 medium base ceramic metal halide lamp.

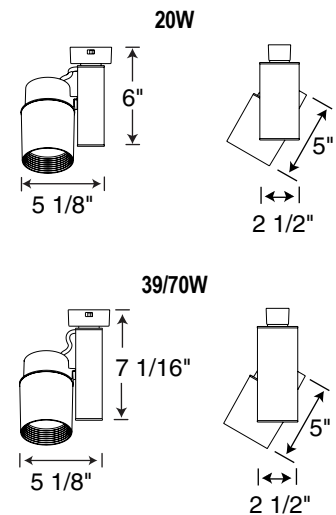
Series	Mounting Adapter Type	Lamp Type	Distribution	Finish	
<b>TM232</b> T4/ T4.5 Metal Halide	<b>(Blank)</b>	Universal 120V Trac Adapter	<b>20M</b> 20W Metal Halide	<b>SP</b> Spot	<b>BL</b> Black
	<b>TEK</b>	TEK 120V Trac Adapter	<b>39M</b> 39W Metal Halide	<b>NFL</b> Narrow Flood	<b>SL</b> Silver
	<b>HTEK<sup>1</sup></b>	HTEK 277V Trac Adapter	<b>70M</b> 70W Metal Halide	<b>FL</b> Flood	<b>WH</b> White
	<b>GTYPE</b>	G-Type Trac Adapter			
	<b>HTYPE</b>	H-Type Trac Adapter			
	<b>LTYPE</b>	L-Type Trac Adapter			

Accessories			
<b>HCLBL 275</b>	Hexagonal Cell Louver - Black	<b>SOLITE 275</b>	Uniformity Lens (Solite)
<b>CGF 275</b>	Color Glass Filter	<b>PRISM 275</b>	Prismatic Spread Glass Lens
<b>DGF 275</b>	Dichroic Glass Filter	<b>LSPREAD 275</b>	Linear Spread Glass Lens
<b>DCCF 275</b>	Dichroic Color Correction Filter	<b>TMR1 MINI SPT</b>	Reflector Assembly - Spot
<b>DIFF 275</b>	Diffusion Glass Lens	<b>TMR1 MINI NFLD</b>	Reflector Assembly - Narrow Flood
<b>UVF 275</b>	UV Filter	<b>TMR1 MINI FLD</b>	Reflector Assembly - Flood

See specification sheet [D1.2.0](#) and [D1.2.2](#) for details

## Notes:

1 Alternate HTEK 277V Trac Adapter compatible with 20M and 39M Lamp Types only.



# TRAC-MASTER®

MHV™ Metal Halide Trac

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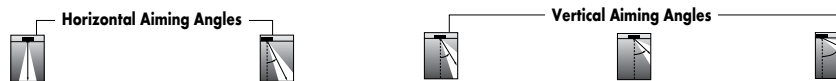
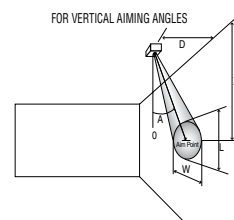
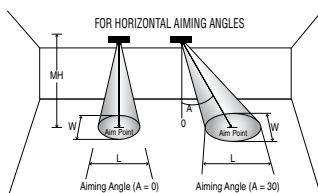
TM232

### ENGINEERING DATA

	20W	39W	70W
ANSI #	M-156	M-130	M-98/M-139/M-143
Input Voltage	120V	120V	120V
Input Current	0.20A	0.38A	0.64A
Input Power	24.5W	45W	75W
Power Factor	>.90	>.90	>.90
Lamp Current Crest Factor	<1.4 Typ.	<1.5 Typ.	<1.4 Typ.
Ballast Factor	1.0 Typ.	1.0 Typ.	1.0 Typ.
T.H.D.	<20%	<20%	<20%
Max. Recommended Ambient			
Operating Temperature	40° C	40° C	40° C
EMI	FCC Part 18 Class B	FCC Part 18 Class B	FCC Part 18 Class B
Sound Rating	A	A	A

**CBCP** • Centerbeam candlepower  
**FC** • Footcandles at beam center (aim point)

In vertical aiming applications, aim point (X) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.5774 for 30°, 1.0 for 45°, 1.732 for 60°).



Lamp	Beam Type	Beam Spread	Rated Life	CBCP	0°		30°			30°				45°				60°							
					MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L	W
39W T4 G8.5 Ceramic Metal Halide	SP	10°	12000	28630	10	286	1.7	1.7	186	2.3	2.0	4	224	6.9	2.9	1.4	633	4.0	1.4	1.0	6	517	3.5	0.9	0.8
					12	199	2.1	2.1	129	2.8	2.4	6	99	10.4	4.3	2.1	281	6.0	2.1	1.5	9	230	5.2	1.4	1.2
					14	146	2.4	2.4	95	3.3	2.8	8	56	13.9	5.7	2.8	158	8.0	2.8	2.0	12	129	6.9	1.9	1.6
					16	112	2.8	2.8	73	3.7	3.2	10	36	17.3	7.2	3.5	101	10.0	3.5	2.5	15	83	8.7	2.3	2.0
					18	88	3.1	3.1	57	4.2	3.6	12	25	20.8	8.6	4.2	70	12.0	4.2	3.0	18	57	10.4	2.8	2.4
					NFL	23°	12000	10174	8	159	3.3	3.3	103	4.4	3.8	2	318	3.5	3.7	1.6	899	2.0	1.7	1.2	4
	10	102	4.1	4.1					66	5.5	4.7	4	79	6.9	7.4	3.3	225	4.0	3.4	2.3	6	184	3.5	2.2	1.9
	12	71	4.9	4.9					46	6.6	5.6	6	35	10.4	11.2	4.9	100	6.0	5.1	3.5	8	103	4.6	3.3	2.8
	14	52	5.7	5.7					34	7.7	6.6	8	20	13.9	14.9	6.5	56	8.0	6.8	4.6	10	66	5.8	4.4	3.8
	16	40	6.5	6.5					26	8.8	7.5	10	13	17.3	18.6	8.1	36	10.0	8.5	5.8	12	46	6.9	5.5	4.7
	FL	32°	12000	5799					8	91	4.6	4.6	59	6.3	5.3	2	181	3.5	6.1	2.3	513	2.0	2.5	1.6	2
					10	58	5.7	5.7	38	7.9	6.6	3	81	5.2	9.1	3.4	228	3.0	3.7	2.4	3	419	1.7	2.4	2.0
					12	40	6.9	6.9	26	9.4	7.9	4	45	6.9	12.2	4.6	128	4.0	5.0	3.2	4	235	2.3	3.1	2.6
					14	30	8.0	8.0	19	11.0	9.3	5	29	8.7	15.2	5.7	82	5.0	6.2	4.1	5	151	2.9	3.9	3.3
					16	23	9.2	9.2	15	12.6	10.6	6	20	10.4	18.3	6.9	57	6.0	7.5	4.9	6	105	3.5	4.7	4.0

For 20W lamps use 0.47 multiplier.  
 For 70W lamps use 1.82 multiplier.

The beam spread in degrees and the beam "L" and "W" in the following tables are computed at 50% of centerbeam candlepower and represent areas of "effective illumination."  
 \*\*Due to steep aiming angle, length of beam extends beyond 25'.