

MB-AFSL105

This LED light casts a bright, crisp beam of light that's focus-adjustable from 4" to 7" away. Use this affordable light whenever you need a collimated light with a tightly focused beam. Without any additional focusing our Mini-spotlight is designed to cast a round pattern of light about the diameter of a nickel. Our Mini-spotlights feature a built in 24-volt driver, thermal management technology and a custom designed three lens relay with coated optics for perfect beam uniformity.



FEATURES

- Homogenous light output that provides high intensity illumination
- Tight, focused, adjustable beam of light
- LED thermal management for stable performance
- Custom bracket allows for precise positioning
- Flicker free performance and instant start up with Metaphase analog driver technology
- Economical...An ideal light for many applications
- Built-in Constant Current Driver with 0 – 10VDC intensity control
- Compatible with DDC-3 and ILD-35

WAVELENGTHS

Order ID	Description / nanometers
W	White (6000K), Nominal
R	Red / 630nm
G	Green / 530nm
B	Blue / 470nm
IR850	Infrared / 850nm
IR940	Infrared / 940nm
UV395	Ultraviolet Long / 395nm

GENERAL SPECIFICATIONS

Power Source:	24VDC ±5%
Cable (Standard):	10-foot cable with flying leads
Housing:	Black Anodized Aluminum
Ambient Temp:	-20°C to 40°C
Lifetime Expectancy:	75,000 hours (except UV)

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Adjustable Focus Mini-Spotlight							
MODEL	Dimensions Length x Diameter Inches (mm)	Lens Diameter Inches (mm)	Weight lbs (grams)	Cable QTY	Cable Length	Cable Description	Maximum Input Current @24VDC
MB-AFSL105	2.41" x Ø1.28" (61.2mm x Ø32.4mm)	Ø.37" (Ø9.3mm)	.36 (160)	1	10ft	24 AWG 4 Wire	.15A

Wiring (4 conductor with Intensity Control)**	
Wire Color	Function
RED	+24VDC
WHITE	0-10VDC INTENSITY CONTROL
BLACK	GROUND (24V RTN)
GREEN	SIGNAL GROUND

Wiring (4 conductor without Intensity Control)	
Wire Color	Function
RED	+24VDC
WHITE	+24VDC
BLACK	GROUND (24V RTN)
GREEN	GROUND (24V RTN)

M12 (5 position male)**	
Pin #	Function
1	+24VDC
2	0-10VDC Intensity Control
3	GROUND (24V RTN)
4	SIGNAL GROUND
5	No Connection

The M12 connector option is not recommended for lights rated more than 4 amps

Wiring with ULC-2	
Wire Color	Function
RED, WHITE (+)	LED INPUT
BLACK, GREEN (-)	

Terminated within a 2 position ULC-2 output connector
(Phoenix Contact P/N: BCP-508-2)

**Note: The 0-10VDC Intensity Control input can accept voltages from 0-24VDC where the light will operate at full intensity in the 10-24VDC range. The light is proportionally dimmer for any Intensity Control voltage less than 10VDC and the light is OFF at approximately 0V or not connected (floating).

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PART NUMBER KEY									
MODEL	SIZE	-	WAVELENGTH	-	DRIVER* (most common)	-	CABLE LENGTH	-	CONN.** (most common)
MB-AFSL	XXX	-	XXXXX	-	XXXXXXXX	-	XXX	-	XXXX
MB-AFSL	105		W (White 6000K, Nominal) R (Red 630nm) G (Green 530nm) B (Blue 470nm) IR850 (Infrared 850nm) IR940 (Infrared 940nm) UV395 (UV Long 395nm)		24Z 24NZ 24-ILSXXX 24-ILD U¹		5M 10M Length can be customized: ex. 7M=7meters Select or leave blank for 3 meters		M12D^{1 2} Select or leave blank for flying leads
Example 1: MB-AFSL105-W-24Z Example 2: MB-AFSL105-R-24-ILD					¹ Not available in lights exceeding 4A input current ² Default cable length for an M12D connector is 19 inches				

Contact Metaphase Technologies or your local representative for options such as custom diffusers, lenses, polarizers, IP-rated enclosures for harsh environments, higher intensity, custom wavelengths, higher uniformity, etc. Not all options are available for all lights.

[Link to *Driver Options Key / **Connector Options Key](#)

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Sample Part Number: **MB-AFSL105-W-24Z**

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A	REVISED AND REDRAWN. KW	2/11/2011	
	B	REVISED DRAWING. KW	5/17/2012	
	C	Revised and Reformatted. Created Sub Details	7/18/2016	
	D	ADDED MISSING PARTS / UPDATE TO AS BUILT	12/14/2016	
	E	ADDED SHEET FOR OPTIONAL BRACKET	8/21/2017	

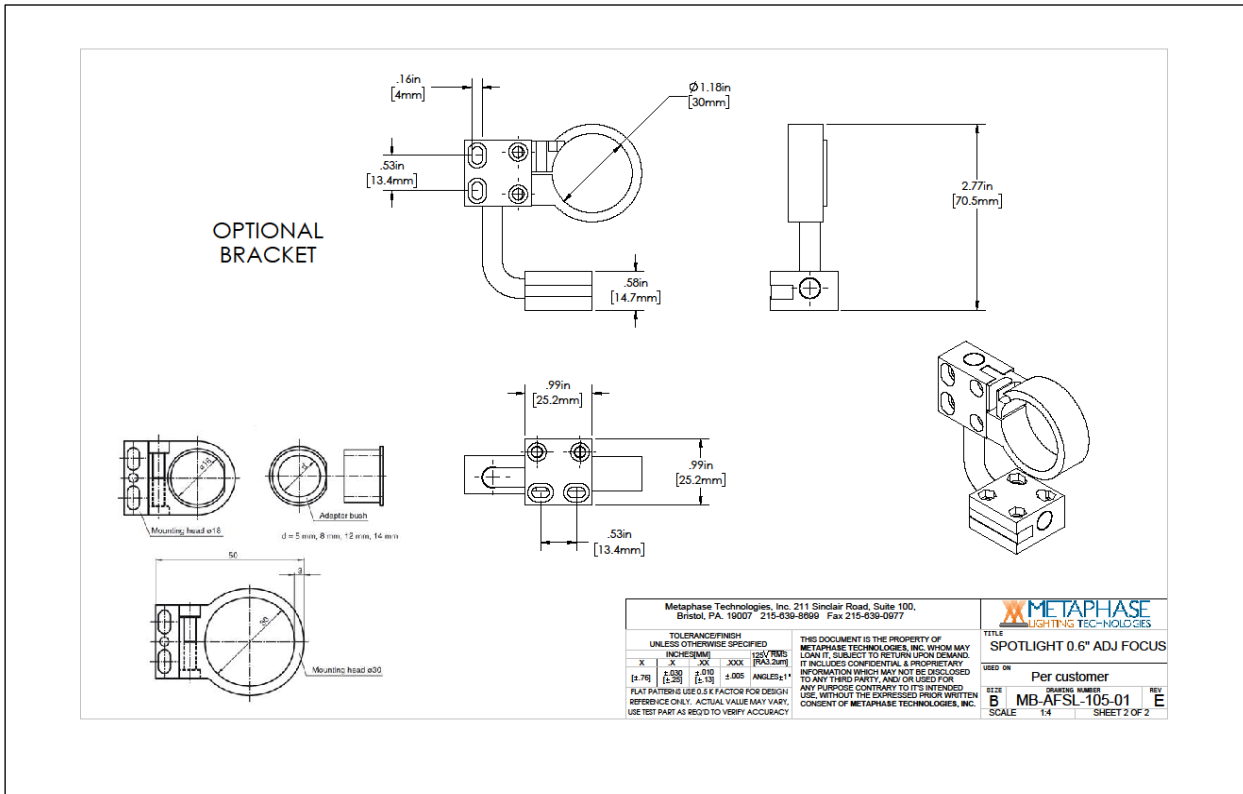
Technical drawing details:
 - Front view: 30° angle, #4-40 UNC X .3 DP. (2) PLACES ON A 1.09 Ø B.C.
 - Side view: 2.41in [61.2mm] length, Ø 1.28in [32.4mm] diameter, ADJUSTMENT SCREW #2-56.
 - Rear view: Ø .63in [15.9mm] diameter, Ø .37in [9.3mm] LENS APERTURE.
 - SEE NOTE #2.

NOTES: UNLESS OTHERWISE SPECIFIED
 1. FINISH: BLACK ANODIZED HOUSING.
 2. 10 FT CABLE PROVIDED.
 3. OPTIONAL HOLDING BRACKET- AB3-30.

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QUANTITY: Per order MATERIAL: Per BOM FINISH: Black Anodize TREATMENT: N/A	TOLERANCE/FINISH UNLESS OTHERWISE SPECIFIED INCHES (MM) .X .X .XX .XXX (R&S 2UM) (+.76) (+.25) (+.13) ±.005 ANGLES ±1		TITLE: SPOTLIGHT 0.6" ADJ FOCUS USED ON: Per customer SIZE: B DRAWING NUMBER: MB-AFSL-105-01 REV: E SCALE: 1:4 SHEET 1 OF 2

Approval Signature _____	Date / / _____
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COMPLIANCE



CONTACT US

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