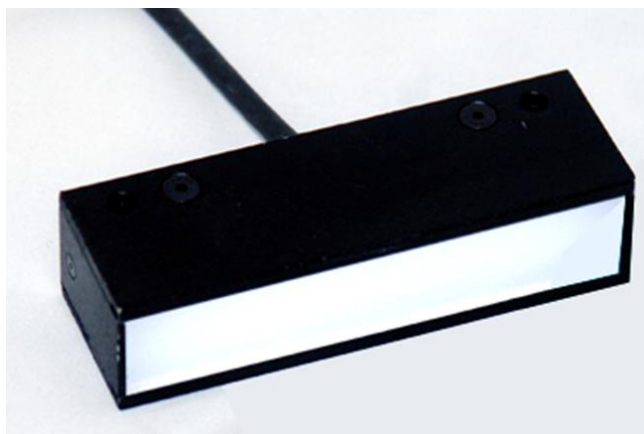


MB-NBL

The MetaBright™ Narrow Backlight provides uniform lighting ($\pm 5\%$) using High Density Precision Chip Technology (HDPCT) with the super bright LEDs.



FEATURES

- High density LED array provides maximum intensity area within $\pm 5\%$
- High aspect ratio backlight
- Flicker free performance and instant start up with Metaphase analog driver technology
- Available in multiple versions including continuous, in-line strobe (ILS), current controlled (ULC-2), etc.
- Flicker free performance and instant start up with Metaphase analog driver technology
- Optional Constant Current driver with 0-10VDC intensity control (Z option)

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
RGB	Red-Green-Blue

GENERAL SPECIFICATIONS

Power Source:	24VDC $\pm 5\%$
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)

MB-NBL

NARROW BACKLIGHTS							
MODEL	All models: H = 1.25" inches (3.18cm) Width and Length Inches (cm)	Active Area Inches (cm)	Weight lbs / grams	Cable QTY	Cable Length	Cable Description	Maximum Input Current @24VDC
MB-NBL105	1.00 x 4.13 (2.54 x 10.49)	0.75 x 4.00 (1.90 x 10.16)	.33 / 150	1	10ft	24 AWG 4 Conductor	0.3 amps
MB-NBL205	1.00 x 5.88 (2.54 x 14.92)	0.75 x 5.125 (1.90 x 13.02)	1.0 / 450				0.6 amps

Wiring (4 conductors, flying leads)**	
Wire Color	Function
RED	+24VDC
WHITE	0-10VDC INTENSITY CONTROL
BLACK	GROUND (24V RTN)
GREEN	SIGNAL GROUND

Wiring (4 conductors, 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).

MB-NBL

PART NUMBER KEY									
MODEL	SIZE	-	WAVELENGTH	-	DRIVER* (most common)	-	CABLE LENGTH	-	CONN.** (most common)
MB-NBL	XXX	-	XXXXX	-	XXXXXXXX	-	XXX	-	XXXX
MB-NBL	105 205		W (White 6000K, Nominal) R (Red 630nm) G (Green 530nm) B (Blue 470nm) IR850 (Infrared 850nm) IR940 (Infrared 940nm) UV395 (UV Long 395nm) RGB		24CV 24-ILZ 24-ILSXXX 24-ILD U¹		5M 10M Length can be customized: ex.7M=7meters Select or leave blank for 3 meters		M12D^{1 2} BC^{1 3} Select or leave blank for flying leads
Example 1: MB-NBL105-W-24CV Example 2: MB-NBL205-IR940-24-ILZ					¹ Not available in lights exceeding 4A input current ² Default cable length for an M12D connector is 19 inches ³ Default cable length for a Barrel Connector is 10 feet				

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](#)

MetaBright™ Narrow Backlights

PRODUCT DATA SHEET



MB-NBL

Sample Model Number: **MB-NBL205-W-24CV**

Technical drawing showing dimensions and components of the narrow backlight. Dimensions are provided in inches and millimeters.

- Top view dimensions: .375 [9.53] (width), 5.125 ACTIVE AREA [130.18] (length), .125 [3.18] (height).
- Side view dimensions: .750 [19.05] ACTIVE AREA (height), 1.250 [31.75] (height), 5.875 [149.23] (length), 4.000 [101.60] MOUNTING HOLES-CENTERED (length), 1.000 [25.40] MOUNTING HOLES (width), φ .188 [4.76] (hole diameter).
- Bottom view dimensions: 1.000 [25.40] (width).

Components labeled: FROSTED TIR DIFFUSER, BLACK ANODIZED HOUSING, Power Cable.

REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED

Metaphase Technologies, Inc. 211 Sinclair Road, Suite 100, Bristol, PA. 19007 215-639-8699 Fax 215-639-0977			
QUANTITY: Per order	TOLERANCE/FINISH UNLESS OTHERWISE SPECIFIED	THIS DOCUMENT IS THE PROPERTY OF METAPHASE TECHNOLOGIES, INC. WHOM MAY LOAN IT. SUBJECT TO RETURN UPON DEMAND. IT INCLUDES CONFIDENTIAL & PROPRIETARY INFORMATION WHICH MAY NOT BE DISCLOSED TO ANY THIRD PARTY, AND OR USED FOR ANY PURPOSE CONTRARY TO ITS INTENDED USE, WITHOUT THE EXPRESSED PRIOR WRITTEN CONSENT OF METAPHASE TECHNOLOGIES, INC.	
MATERIAL: Aluminum, Acrylic	INCHES(MM) 125 (7500) X .X .XX .XXX [RA3.2UM] ±.005 ±.010 ±.005 ANGLES ₉₀ 1°	TITLE Backlight; Narrow .5" x 6"	USED ON Per customer
FINISH: Black Anodize		SIZE B	DRAWING NUMBER NBL205-JM2-1
TREATMENT: N/A		SCALE 1:2	REV A SHEET 1 OF 2

Approval Signature: _____ Date: / /

COMPLIANCE



CONTACT US

Contact Metaphase Technologies at **215-639-8699** or your local representative for additional details, options and customizations.