BL
MetaBright™ Back Light
Model:MB-BL10x12

Metaphase
Technologies, Inc.

Backlighting is one of the most popular forms of vision inspection illumination, providing maximum contrast between object and scene and producing a high contrast image with consistent edge definition. Metaphase Backlights combine the latest high brightness LEDs with exclusive optical lensing to create high intensity and uniform (+/- 5%), shadow-free illumination.

Connectorized and convenient 24VDC power supply features an onboard and integrated driver. Commonly applied to measuring, defect and hole detection, and determining the orientation of parts. Metaphase offers variety of backlights to suit the needs of various applications: area, linear, narrow, and our highly compact thin backlights. Backlights can be configured for wavelength and other specifications.

BENEFITS:

· Up to 50 SMD LED's per inch array
· Exclusive optical lens provides high uniformity (+/- 5%), shadow-free backlight illumination
· High Density Precision Chip Technology (HDPCT)
· Patent-pending thermal management design draws heat directly from the die ensuring long life
· Metaphase Technologies has the largest selection of Backlights in the vision industry.
· Backlights with in-line and built-in strobe circuit available
· Backlight shapes/sizes include low profile, narrow and large area backlights
· Options include built-in line remote & potentiometer intensity control

APPLICATIONS:

• Absence/Presence of Objects
• Defect Detection
• Object tracking
• PCB (Printed Circuit Board)
• Web Inspection
• Bottle/Bolt
• Glass Sheet
• Sub-pixel

RATINGS:

RoHS COMPLIANT   CE   Buy American

DOMINANT WAVELENGTH:

Part #	Color	Power Supply
MB-BL10x12-W-24	White 5500K	
MB-BL10x12-R-24	Red 630nm	
MB-BL10x12-B-24	Blue 470nm (Optional 455nm)	
MB-BL10x12-G-24	Green 530nm	24 volt power supply available upon request.
MB-BL10x12-IRN-24	Infrared 850nm	
MB-BL10x12-IRL-24	Infrared 880nm	
MB-BL10x12-UVL-24	UV 395nm	
MB-BL10x12-UVS-24	UV 365nm	
MB-BL10x12-RGB-24	625nm / 530nm / 470nm (3 die packaging technology)	

10 ft. flying leads come standard on all products.
Light features built-in constant current driver.
No expensive controller required.

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Metaphase Technologies
3412 Progress Drive, Unit C
Bensalem PA, 19020 - USA

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ELECTRICAL & CONTROLS:

Current Consumption	2.2 ~3A
Light Intensity	+/-5%
Illuminance	60,000 Lux
Operating Temperature	-22°F(-30°C) to 120°F (60°C)
Lifetime Hours	75,000 Hours

HOUSING:

Dimensions	Length: 15in/381mm Width: 13.18in/334.65mm Height: .81in/20.65mm
Weight	4lb/ 1814.37g
Housing	Aluminum
Finish	Powder Coated- Black

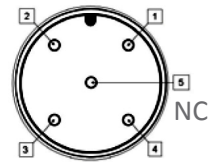## WIRING DIAGRAM:

RED	+24VDC
WHITE	+24VDC
GREEN	Ground
BLACK	Ground

24 AWG 2 WIRE CABLE X 1
When not using intensity control, connect 0-10V control line to +24
and intensity control ground to ground

WIRING DIAGRAM:

PIN #	Function
1	+24VDC
2	Falling E. Trigger
3	Ground
4	Trigger Ground
5	Rising E. Trigger

NC

ORDERING INFORMATION:

• M B - B L 1 0 x 1 2   -   ☐   - 2 4 -   ☐

W- White 6000k
R- Red 630nm
G- Green 530nm
B- Blue 470 nm
IRN- Infrared 850nm
IRL- Infrared 880nm
UVL- (long) 395nm
UVS- (short) 365nm
RGB- 625nm / 530nm / 470nm
   (3 die packaging technology)

*BLANK- 10 ft. Flying Leads
T- M12 Quick Disconnect
ILD- In Line Dimmer
ILS- In Line Strobe (customer provide trigger info)

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DRAWING & DETAILS:

ELECTRICAL CABLE
(4) CONDUCTOR, 22 AWG
10 FT. LONG WITH
FLYING LEADWIRE ENDS.

15.00 [381]
14.50 [368.30]
4.00 [101.60]
.25 [6.35]
3.58 [90.93]
1.55 [39.37]
1.59 [40.39]
12.55 [318.77]
10.00 [254]
12.00 [304.80]
6.00 [152.40]
1.50 [38.10]
13.18 [334.65]
Ø.19 THRU [4.76] (4) PLACES
.50 [12.70]
13.38 [339.85]
.81 [20.65]
.13 [3.18]

				REVISIONS		
ZONE	REV.		DESCRIPTION		DATE	APPROVED
	B		REDRAWN IN SOLIDWORKS, KW		10/3/2011	

		UNLESS OTHERWISE SPECIFIED:		NAME	DATE	METAPHASE TECHNOLOGIES, INC.
		DIMENSIONS ARE IN INCHES TOLERANCES: FRACTIONAL± ANGULAR: MACH± BEND ± TWO PLACE DECIMAL ± THREE PLACE DECIMAL ±	DRAWN	KW	10/2/2011	TITLE:
			CHECKED			
			ENG APPR.			
			MFG APPR.			
		INTERPRET GEOMETRIC TOLERANCING PER:	Q.A.			
		MATERIAL	COMMENTS:			
						SIZE **B**	DWG. NO. BL10X12	REV **B**
NEXT ASSY	USED ON	FINISH				
APPLICATION		DO NOT SCALE DRAWING				SCALE: 1:5	WEIGHT:	SHEET 1 OF 1

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