



LT-700 LINEAR ARRAY LIGHTING SYSTEM

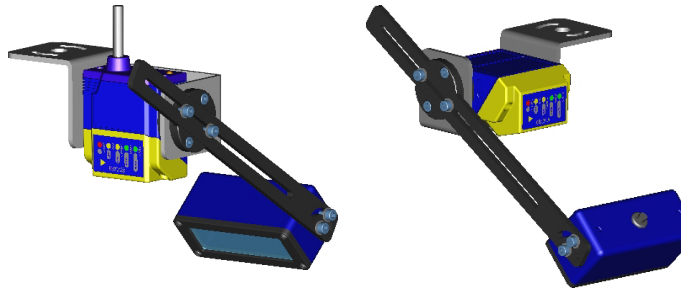
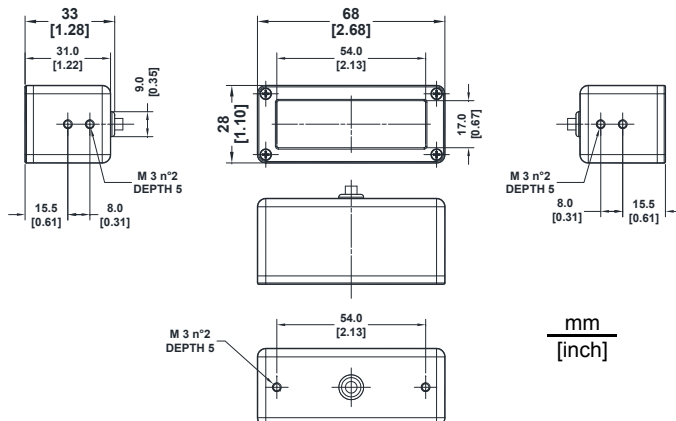


DESCRIPTION

The LT-700 Linear Array Lighting System provides a high intensity light source designed for the following applications:

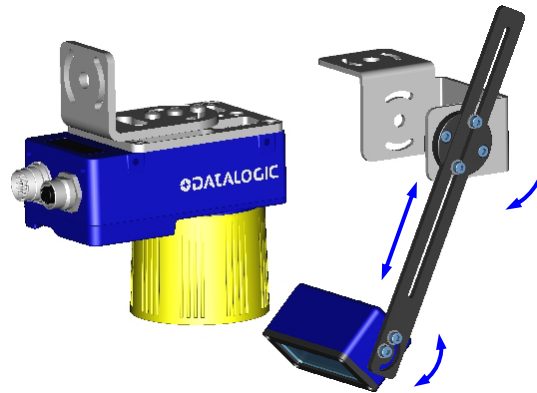
- with uneven, noisy and scratched surfaces
- where dot peening or laser etching codes are directly marked onto metal surfaces or PCBs and need to be highlighted. Here the use of more than one LT-700 at different positions can remove any shadowing effect.
- in the presence of highly reflective surfaces (metal, glass, etc.) causing direct reflections. Low light path to surface angles strongly reduce direct reflections.

MECHANICAL DIMENSIONS



Matrix 210™ Straight Model

Matrix 210™ 90° Model



Matrix 410™



The Matrix 410™ reader does not mount directly to the BK-21-000 bracket.

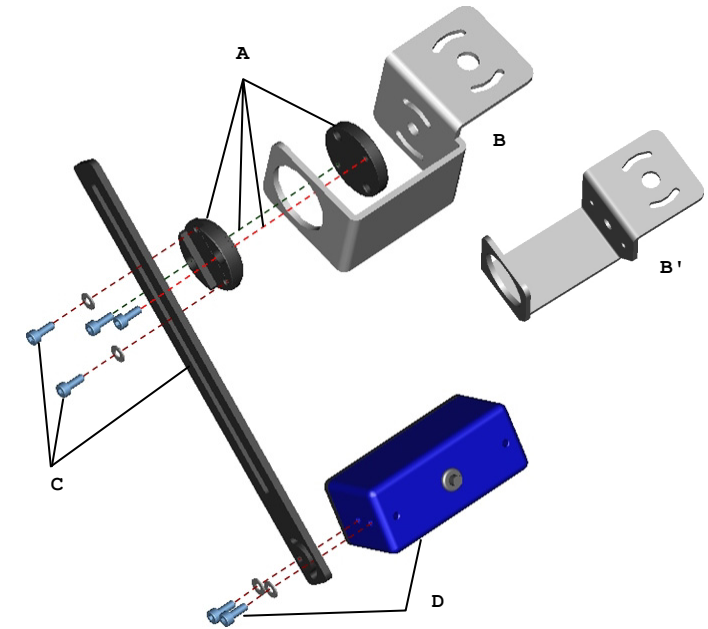
WIRING

Wire Color	CBX/Matrix Signal	Meaning
Red	Vdc	10 to 30 Vdc
Black	GND	Ground
White	Earth	Shield/Earth Ground
Green	O1- or O2-	Control Signal -
Yellow	O1+ or O2+	Control Signal +

MOUNTING LT-700

The following parts are required for mounting:

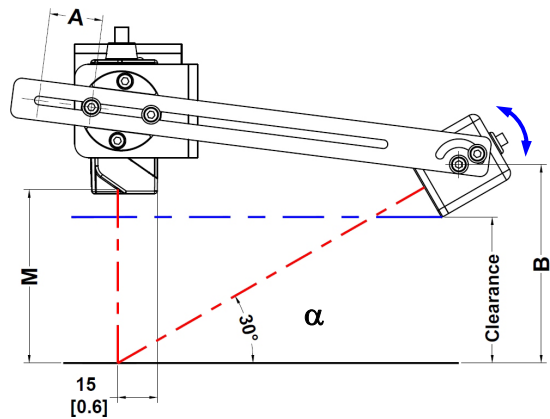
- LT-700 Linear Array Lighting System
- Accessory BK-21-000 LT-700 Fixing Bracket



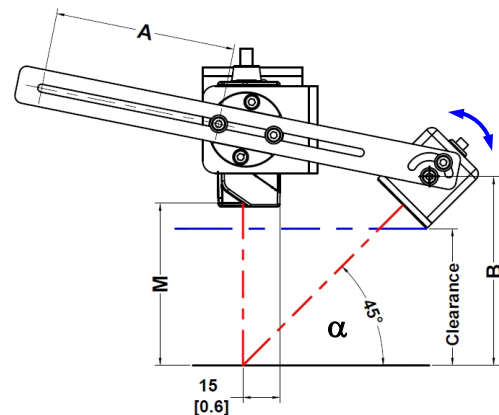
Example BK-21-000 Assembly

1. Mount the rotating bracket **A** (2 pieces) onto the Reader Mounting Bracket **B** (for straight models) or **B'** (for 90° models) using 2 of the M3 screws. Do not completely tighten the screws.
2. Mount the LT-700 sliding bracket **C** onto the rotating bracket **A** using 2 of the M3 screws and 2 washers. Do not completely tighten the screws.
3. Mount the LT-700 **D** onto the LT-700 sliding bracket **C** using 2 of the M3 screws and 2 washers. Do not completely tighten the screws.
4. Mount the Matrix 210™ reader to the Reader Mounting Bracket **B** (for straight models) or **B'** (for 90° models).
If LT-700 is used with Matrix 410™, the reader must be mounted separately.
5. Mount the entire assembly to the reading station frame (i.e. Bosch profile).
6. Wire the LT-700 to the CBX according to the Wiring table.
7. Follow the Positioning instructions in the following paragraph.

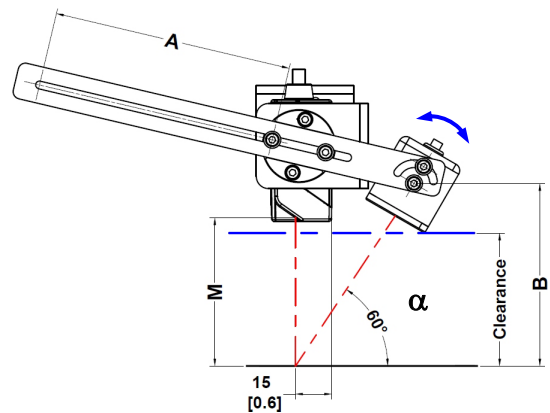
LT-700 POSITIONING FOR MATRIX 210™ STRAIGHT MODELS




LT-700 30° Illumination Angle



LT-700 45° Illumination Angle



LT-700 60° Illumination Angle


NOTE  The positioning drawings, intended to show the various adjustments, are graphically representative of the Matrix 210™ Medium model and are significantly different for other models.


Matrix 210™ + LT-700 Positioning Reference Table					
Straight Models	Focus Distance M	Clearance	Illumination Angle α	A	B
Near	45 (1.8)	43.5 (1.7)	30°	33 (1.3)	66 (2.6)
			45°	82 (3.2)	66 (2.6)
			60°	-	-
Medium	65 (2.6)	55 (2.2)	30°	19 (0.7)	75 (3.0)
			45°	72 (2.8)	75 (3.0)
			60°	97 (3.8)	75 (3.0)
Far	105 (4.1)	55 (2.2)	30°	7 (0.3)	75 (3.0)
			45°	53 (2.1)	75 (3.0)
			60°	75 (3.0)	75 (3.0)

1. Position and mount the Matrix assembly over the code reading area at the correct Focus Distance **M** for your model.
2. Using the positioning diagrams and the LT-700 Positioning Reference Table, you can obtain the given illumination angles at the given code clearance by adjusting the LT-700 bracket assembly as follows:

Set measurement **A** according to the LT-700 Positioning Reference Table and tighten the LT-700 sliding bracket screws.

Set measurement **B** according to the LT-700 Positioning Reference Table and tighten the rotating bracket screws.
3. Rotate the LT-700 angle **α** to the indicated Illumination Angle; the lower corner of the LT-700 matches the Clearance value. Tighten the LT-700 positioning screws.
4. Run the VisiSet™ configuration program and follow the Setup Wizard and Data Matrix Setup Wizard procedures in VisiSet™ to complete installation.

NOTE  The values given for LT-700 **positioning** are based on three common angles for DPM applications and demonstrate the basic positioning procedure. Your application may require different settings.

NOTE  By reducing **clearance**, LT-700 can be positioned closer to the code surface to maximize illumination.

If necessary, **clearance** can be increased with some reduction in lighting power on the code surface.

TECHNICAL FEATURES

Supply Voltage	10 to 30 Vdc
Power Consumption	0.25 to 1.0 A; 3 W max.
Optimal Working Distance	application dependent
Effective Working Range	application dependent
Illumination Area: @ 50 mm (2 in) @ 75 mm (3 in) @ 100 mm (4 in)	70 × 55 mm (2.75 × 2.16 in) 80 × 70 mm (3.15 × 2.75 in) 90 × 85 mm (3.54 × 3.35 in)
Wavelength	630 nm
Typical Irradiance	180 W/m² @ 75 mm (with Exposure Time ≤ 500 μs)
Operating Temperature	0 to 50 °C (32 to 122 °F)
Storage Temperature	-20 to 70 °C (-4 to 158 °F)
Max Humidity	90% non-condensing
Vibration Resistance	1.5 mm @ 5 to 9 Hz; 0.5 g @ 9 to 150 Hz 2 hours on each axis
Shock Resistance	15g; 11 ms; 3 shocks on each axis
Protection Class	IP65
Dimensions (L x H x W) (without bracket)	68 x 33 x 28 mm (2.7 x 1.3 x 1.1 in)
Weight (without bracket)	113 g. (4 oz.)

COMPLIANCE

LED Safety

LED EMISSION ACCORDING TO EN 62471

CE Compliance

Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

FCC Compliance

Modifications or changes to this equipment without the expressed written approval of Datalogic could void the authority to use the equipment.

This device complies with PART 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference which may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.