

## OPTICAL BARRIER SYSTEM

### INTRODUCTION & APPLICATION

Operation of heavy duty press, cutters and similar machines involves safety hazards for human beings. Optical Safety Barriers, designed by BEE, is ideal for preventing accidents by sensing presence of any object in the Danger-Zone. This noise immune System has a very fast response to take care of high speed applications.

### APPLICATIONS

Human safety while working on heavy machines like press, bending machines Cutters, Machining Centers  
Sensing on conveyor belts at Airports / Passenger lifts.  
An advanced version incorporating movement sensors is also available.

### OPERATING PRINCIPLE

The Barrier columns are mounted at entry positions of the danger zone. The controller unit can be mounted in the control panel of the machine. The transmitter unit continuously transmits infra-red light in a specific sequence from the no. of transmitter modules used. An individual beam is a high frequency modulated beam. A synchronization signal is sent to receiver unit for proper correlation. In the receiver, the individual sensors receive the signal from corresponding transmitter. This avoids cross-talk problem. If any of the beam is disrupted, the receiver immediately sends a signal to the controller unit to operate the output relay

### STANDARD SPECIFICATIONS

Supply Voltage : 110 / 240 V AC / DC  
No. of Beam : 4 / 7 / 11 / 16 / 20  
(User Defined)  
Scanning Height : Depends upon No. of beams & Pitch  
Sensing Range : 3.5 m  
Enclosure : MS Fabricated

## AVAILABLE MODELS

MODEL	NO. OF BEAMS	SCANNING HEIGHT	PITCH (C/C DISTANCE BETWEEN TWO BEAMS)	SENSING GAP
BOBS 6057-3	3	60 / 100 mm	30 / 50 mm	
BOBS 6075-4	4	90 / 150 mm	30 / 50 mm	
BOBS 6057-6	6	150 / 250 mm	30 / 50 mm	
BOBS 6057-7	7	180 / 300 mm	30 / 50 mm	
BOBS 6057-8	8	210 / 350 mm	30 / 50 mm	
BOBS 6057-11	11	300 / 500 mm	30 / 50 mm	
BOBS 6057-16	16	450 / 750 mm	30 / 50 mm	
BOBS 6057-20	20	570 / 950 mm	30 / 50 mm	

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### MOUNTING ARRANGEMENTS

- View - A** : Normal mounting position with transmitter-receiver modules facing each other.
- View - B** : Transmitter / Receiver modules are positioned this way in the column.
- View - C** : Normal mounting position as seen from the top.
- View - D** : Top view of mounting position with transmitter mis - aligned.
- View - E** : Top view of mounting position with receiver mis-aligned.
- View - D and E are indicative of wrong mounting.

