



WORKING PRINCIPLE :

This is a system which consist of one device and a reflector. The device contains emitter and receiver. The rays emitted by the emitter are reflected by the reflector to the receiver. The sensing of the object occurs when these rays are interrupted.

ADVANTAGES :

- Easy assembly compared to the through beam type.
- Large active sensing range compared to diffused beam type.

FIELD OF APPLICATION :

This sensor can be used where it is difficult to install Through Beam Sensor due to space constraint. Further, simple wiring makes it suitable where sensing objects are bigger in size. Thus these sensors are used for loop control in decoiler, edge detection in paper/sheet metal etc.

Note : As every object has some reflectivity, in Retro-Reflective Sensor object will not be sensed if it is passed nearer to sensor. In this portion sensor remains inactive as object itself works as reflector. This portion is known as Dead Zone. Hence, it is recommended to move the object nearer to reflector [i.e. away from the sensor] as much as possible.

Generally, the effective sensing zone for an object is 30 to 100%, away from sensor. Also, you can reduce the dead zone by gain adjustment facility provided on sensor, but it will also reduce the nominal sensing distance [Sn].

Type	Ø (mm)	L (mm)	Sn
RBI - 300	18	90	300mm
RBI - 1K	18	90	1 Mtr.
RBI - 2K	30	90	2 Mtrs.
RBI - 3K	30	90	3 Mtrs.
RBI - 4K	30	90	4 Mtrs.

TECHNICAL CHARACTERISTICS :

Response Time	: 5 msec
Switching Frequency	: 100 Hz
Operating Voltage	: 10-30 VDC
Maximum Load Current	: 100 mA
Output	: NPN or PNP
Maximum Current consumption	: 25 mA in OFF state
@ 24V DC (No Load)	35 mA in ON state
Voltage Drop	: 1 V Max
Short Circuit Protection	: Provided
LED Indicator	: Provided
Temperature Limit	: 0 - 55° C
Cable	: 2 Mtrs (std.)

ORDERING CODE

A Type	B Load Technique	C Load Logic
RBI - 300	P - PNP	O - NO
RBI - 1K	N - NPN	C - NC
RBI - 2K		
RBI - 3K		
RBI - 4K		

Example :

RBI - 3 K - P - 0

Retro - Reflective Sensor, Sensing range 3 Mtrs., PNP, Normally open



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We Command and Control



PROXIMON CONTROLS PVT. LTD.

202, Krishna, Laxmi Industrial Complex,
Pokharan Road No. 1, Vartak Nagar, Thane-400 606, INDIA
Tel.: 91-22-2588 9244 / 45, 2585 4287
Fax: 91-22-2588 9246
e-mail: info@proximon.com Website: www.proximon.com