

# Photoelectric Sensors/Controls

## Typical Photoelectric Applications

Photoelectric controls are found in many different kinds of applications and can satisfy a wide range of control needs. This is because they respond to the presence or absence of virtually any type of object, be it large or small, transparent or opaque, shiny or dull. Photoelectrics can sense from a fraction of an inch up 2500 feet.

Photoelectric controls need no physical contact and are ideal where sensed objects must remain untouched. Photoelectric controls respond rapidly to parts moving quickly and in varying positions along a conveyor, yet operate dependably if actuated only infrequently. There are controls for indoor or outdoor use, for varying ambient light conditions, for high vibration, for areas restrictive in space, and even for explosive locations. In short, MICRO SWITCH has a photoelectric control to satisfy almost any application.

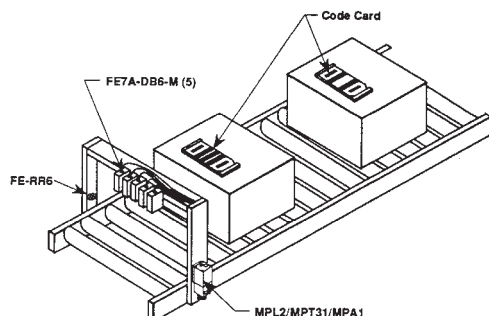
MICRO SWITCH photoelectric controls bring solid state dependability and long life to applications. Although some applications demand a particular control, most can be handled easily and efficiently using any one of several controls or scanning techniques. MICRO SWITCH offers a broad line of controls with an equally broad range of logic capabilities to handle routine or unique applications.

Typical applications include:

- Counting
- Labeling
- Conveyor control
- Bin level control
- Parts inspection
- Feed and/or fill control
- Package handling
- Thread break detection
- Edge guide
- Web break detection
- Registration control
- Food processing
- Parts monitoring and sorting
- Batch counting
- Robotics
- Parts handling

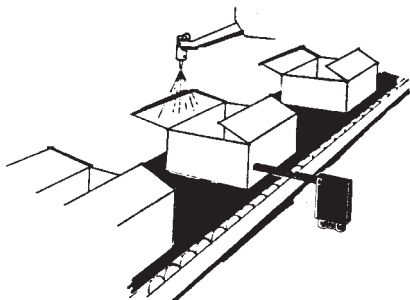
### Conveyor Control

This application involves sorting brown cardboard boxes which are coded with up to four black marks per box. The application is to sense the number of marks on each box.



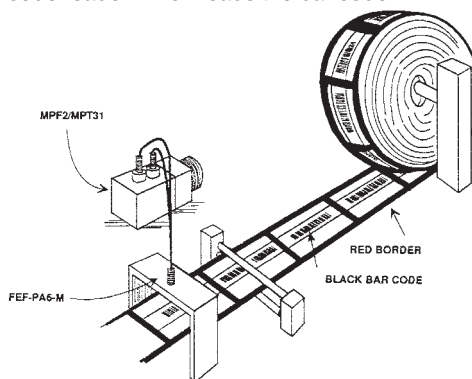
### Package Handling

A diffuse scan photoelectric control is used to detect the light reflected from the object in this application. The control detects the light reflected off the box, turning On and Off the gluing machine.



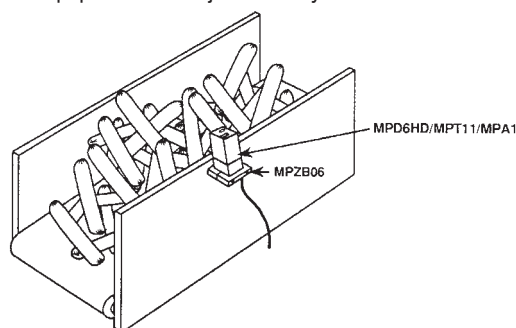
### Labeling

This application is designed to detect the leading edge of a black bar code on a red and white label. The labels are edge to edge on a spool. When the bar code is detected the sensor output triggers a laser bar code reader which reads the bar code.



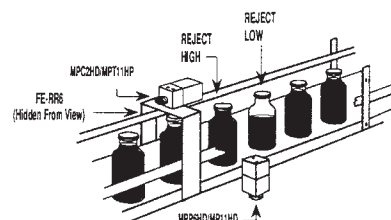
### Food Processing

This application monitors the level of an accumulator in a meat processing facility. A photoelectric control detects a fill level of hotdogs in the accumulator then turns on the conveyor for a preset time period. Side walls of the accumulator are polished stainless steel. The equipment is subject to daily washdown.



### Fill Level Control

This application inspects the fill level of various jars of food products. The photoelectric system produces an output when either an under or over fill condition is detected.



### Parts Handling

Fiber optics are ideal for areas too small for a standard photoelectric control. The fiber optic cables direct the light from the base to where the sensing is needed.

