

SENSORS

Modes of Operation

We will briefly introduce you to these modes, and fully explain them later.

Mode	Description
Thru-Beam	A source unit in one location sends a light beam to a detector unit in another location. An object is detected when it passes between the source unit and the detector unit, interrupting the light beam.
Reflex (Retro-Reflective)	The source and detector are housed in one package and placed on the same side of the target object's path. When the object passes by, the source signal is reflected back to the detector by a retroreflector.
Diffuse Reflective	The source and detector are housed in one package and placed on the same side of the target object's path. When the object passes by, the source signal is reflected back to the detector off the target object itself.
Background Rejection (Perfect Prox[®])	This is a special type of diffuse reflective sensor that includes two detectors. This arrangement allows the sensor to detect targets reliably within a defined range, and to ignore objects just outside of this range. Unlike a standard diffuse reflective sensor, color or reflectivity has minimal effect on the sensing range of a Perfect Prox sensor.

IN THE WORKPLACE

At the tollbooth, the gate raises only when you have tossed in your coins. But how does the gate know when to drop back into place?

The gate is controlled by a photoelectric sensor that detects your car as it passes through the beam.



FIGURE 69: A PHOTOELECTRIC SENSOR PREVENTS COMMUTERS FROM FOLLOWING YOU THROUGH THE TOLLBOOTH FOR FREE