



# Recommended External Entrapment Protection Sensors List

The following sensors have been tested with Nice | HySecurity gate operators by an independent laboratory and certified to comply with UL 325 7th Edition. Select sensors from this list for UL compliant gate automation solutions. Contact the sensor manufacturer for specific recommendations for use.

Nice   HySecurity Recommended Sensors					Control Boards				
	Mfg. Part # or Model	Brand	Nice   Hysecurity Part #	Max Range	Smart Touch	Smart DC	SmartCNX	1050	Mercury 310
<b>Photo Eyes (Retro-reflective)</b>	E3K-R10K4-NR-1	Omron	MX000999	40 ft	•	•	•		
	NIR-50-325	EMX	-	45 ft	•	•	•	•	•
	IRB-RET	EMX	-	53 ft	•	•	•	•	•
	E-931-S50RRGQ	Seco-Larm	-	46 ft	•	•	•		•
<b>Photo Eyes (Thru-Beam)</b>	Blue Bus Era Photo Eyes	Nice   HySecurity	EPMB/A EPMOB/A EPLOB/A EPMAB/A EMBORB/A	45 ft			•	•	•
	OVS-50TNR	Optex	-	33 ft	•	•			
	IRB-MON	EMX	MX3990	65 ft	•	•	•		•
	E-960-D90GQ	Seco-Larm	-	90 ft	•	•	•		•
<b>Edge Sensors</b>	Sentir Series	ASO Safety	"AS1502-* AS1501-"		•	•	•	•	•
	CPT210-2U-#-T2	Miller Edge	-		•	•	•	•	•
<b>Edge Sensor Converters</b>	Hy2NC (Converts 10K to NC Monitoring)	HySecurity	MX4018		•	•			
	GEM103 (Converts 10K to Pulsed Monitoring)	Miller Edge	-					•	
<b>Edge Wireless Kits</b>	iGAZE RE Kit	Transmitter Solutions	-		•	•	•	•	•
	WEL-200	EMX	-		•	•	•	•	•
<b>Multi-Input Module</b>	The Solution – MIM-62	Miller Edge	-		•	•	•		•

## UL 325 Standard:

- The operator shall monitor for the presence of every device at least once during each open and close cycle (32.1.8)
- It shall not be possible to make simple modifications in the field by adding, suppressing or changing, either on the operator or external entrapment protection device(s), to bypass, interfere with, or otherwise defeat the monitoring function. (32.1.10)
- Entrapment zones are now defined for each gate type (4.23, 4.24, 4.29, 4.34)

**Slide Gates:** To enable fully automatic operation, all SLIDE gate operators will require a minimum of TWO monitored external entrapment protection sensors (one for each direction) to protect entrapment zones in both the open and close direction of travel.

Preferred solution for slide gates: A photo eye for the close direction and a hard-wired edge sensor for the open direction that is mounted to the face of the leading post of the fence behind the gate. (Reach through injuries are the most common hazard associated with automatic sliding gates)

**Swing Gates:** To enable fully automatic operation, all SWING gate operators will require a minimum of ONE monitored external entrapment protection sensor to protect entrapment zones in either the open or close direction of travel. However, an additional monitored sensor is required if there is a risk of entrapment in both directions of gate travel.

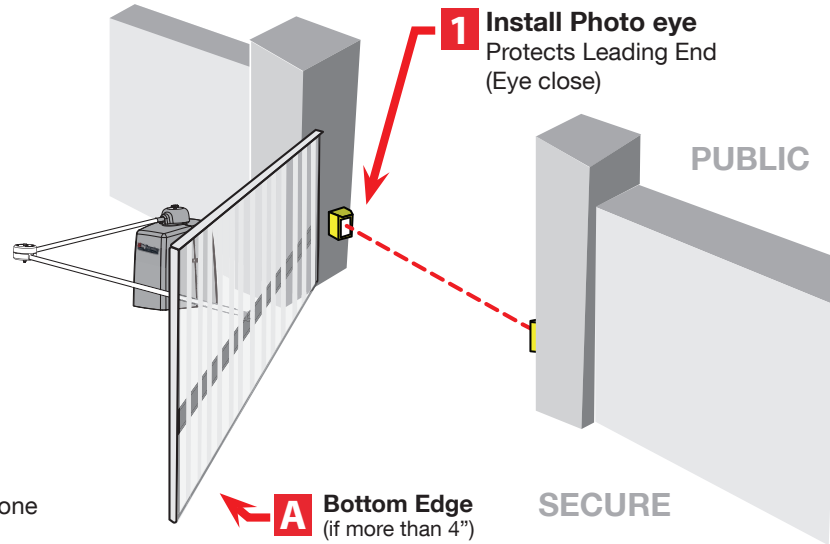
Preferred solution for swing gates: A photo eye for the close direction and/or a hard-wired wraparound edge sensor on the leading edge of the gate, which protects for both directions of gate travel.

# Installers must assess each specific site and install sensors that protect all potential entrapment zones

For more information visit Gate Safety or see latest operator manuals at [support.hysecurity.com](http://support.hysecurity.com)

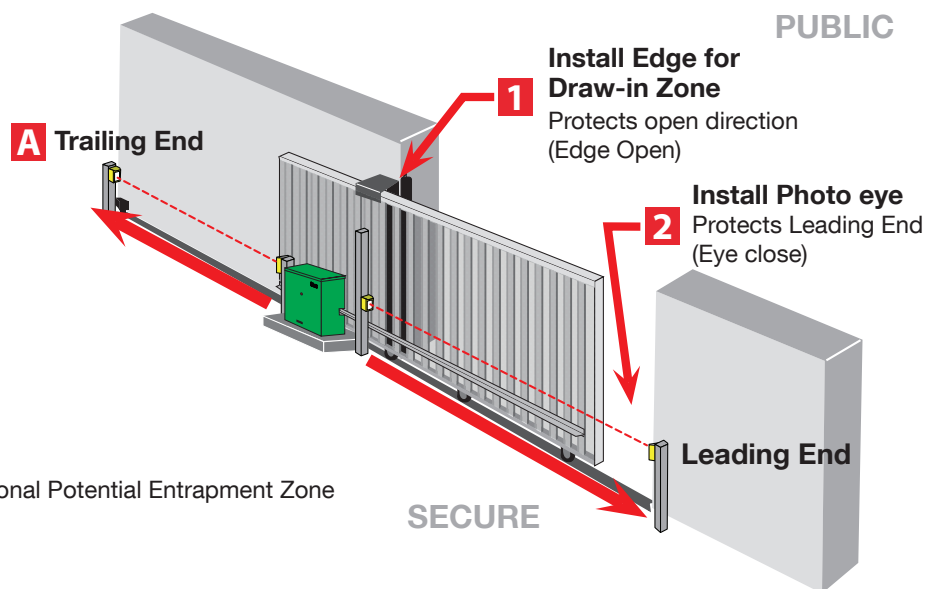
## Swing Gate Common Entrapment Zones

**A** Indicates Additional Potential Entrapment Zone



## Slide Gate Common Entrapment Zones

**A** Indicates Additional Potential Entrapment Zone



Contact Nice | HySecurity for an operator/parts distributor near you.  
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