



1. Product Name

Sensing Edges

- Electronically Activated 4-Wire Sensing Edges
- Patriot 4-Wire Non-Contact Sensing System

2. Manufacturer

Miller Edge, Inc.
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3. Product Description

BASIC USE

Electronically Activated 4-Wire Sensing Edges
 Miller Edge electronically activated 4-Wire Sensing Edges consist of 2 conductive full width Alumaglas® strips inside an astragal, which is attached to the bottom of a motor-driven door or gate. These 2 adjacent strips are connected to a motor control circuit and are normally separated by a small gap (open circuit). When the Sensing Edge contacts an obstruction, the strips make contact (closed circuit), signaling the motor control circuit to stop or reverse the motor. An additional conductive wire runs the length of the Edge and maintains a continuous circuit, providing fail-safe monitoring to warn of system shorts or breaks. Miller Edge also offers a 2-Wire Sensing Edge for non-fail safe applications.

Patriot 4-Wire Non-Contact Sensing System
 This Miller Edge sensing system is a non-contact product designed to sense any obstruction from door to floor. The system includes a control box, an emitter eye and a receiver eye contained within a NEMA 4 enclosure that mounts to, and travels with, the door's leading edge. When the infrared beam becomes blocked by an obstruction, the operator is sent a signal to stop and reverse the motion of the door, thus eliminating dead zones.

This compact system is weather resistant and fail-safe, featuring a standard active range of 30' (9 m) and available range to 50' (15 m). It is available in a Z-Flap model to fit

rolling steel doors and a Telescopic model to fit rapid roll and sectional doors.

COMPOSITION & MATERIALS

Miller Sensing Edges are manufactured with only the highest quality components to ensure durability. The outer covers are resistant to UV light degradation, bacteria and mildew and will not deteriorate, even under severe weather conditions. The flexible Alumaglas contact elements and pure virgin foam ensure contact separation even after severe impacts, and an inner vapor barrier keeps moisture and condensation away from internal contact elements.

Sensing edges have bright yellow covers of XR-5 chemical resistant material that provide chemical resistance to: kerosene, diesel fuel, hydraulic fluids, SAE-30 oil, JP-4 jet fuel, saltwater and 50% concentrations of phosphoric, hydrochloric, acetic and nitric acid.

TYPES

Miller Edge Electronically Activated 4-Wire Sensing Edges are offered in 14 models for installation on lightweight grille and shutter applications, barrier gate arms, commercial doors and grilles, gates, rolling doors, rolling fire doors, rolling service doors, sectional doors, hangar doors and freezer doors up to 2" (51 mm) thick.

Sensing Edges can accommodate universal, end, top, left or right wire outlets and are available with flush or clip-on mounting types and direct, channel slide and screw attachment installation methods.

Note - See Table 1 for Sensing Edge types.

COLOR

Color options include black, white, yellow and gray. Black and yellow striped covers are also available on some models. Mounting options, installation methods and color choices vary by Sensing Edge model.

BENEFITS

- Easy installation for most applications
- Components available for hazardous and explosion-proof requirements
- Durable and resistant to light, bacteria, mildew and moisture
- NEC and NFPA compliant
- Models available conforming to ANSI/UL325 entrapment protection standards

OPTIONS

- Optional Configurations - Electrically activated sensing edges are available in 2- or



Patriot Model MIR-Z1 Z-Flap non-contact sensing edge

4-connector normally open (N.O.) electrical configurations. Safety professionals recommend the self-monitoring 4-conductor configuration for optimal safety. Sensing Edges are also available in pneumatic configurations with pneumatic or air wave switches

- Installation Options - For a more reliable signal, Miller Edge recommends hard wiring the sensing device. Wireless RF transmitters and receivers are also available

ACCESSORIES

- Universal Wireless Transmitter and Receiver with/without Alarm
- Motion Detector
- Industrial Door Sensors
- Infrared Beam Systems
- Digital Inductive Single Loop/Dual Loop Detectors
- MWKT-01 and MWHT-01 Hand-Held Transmitters
- 3-Button Control Wall Station
- Universal Timer
- TB-01 Transmitter Mounting Bracket
- Gate Bumper - Model GB-0101
- Loop Seal/Bulb Seal
- ME146 Guardian Mat®
- Custom Extrusion Brochure
- Industrial Safeguarding

COMPATIBILITY

Miller Edge Sensing Edges are compatible with the following:

- Amarr Garage Door
- Arm-R Lite Garage Door



TABLE 1 SENSING EDGE TYPES

Model	Applications	Conductor	Color	Outlet	Mounting Options
ME110	Gates, grilles, counter shutters	2 or 4, air-wave	Black	End, left, right	Flush, clip-on double-faced tape
ME111	Barrier gate arms	2 or 4, air-wave	Black	End, left, right	Flush, clip-on
ME112	Commercial doors, grilles up to 1 1/4" (32 mm) thick	2 or 4 pneumatic, air-wave	Black	End, left, right	Flush, clip-on
ME113	Commercial doors, grilles 1 1/4" - 1 1/2" (32 - 38 mm) thick	2 or 4 pneumatic, air-wave	Black	End, left, right	Flush, clip-on
ME120	1 1/2" (38 mm) gates, grilles, commercial doors	2 or 4 pneumatic, air-wave	Black, white, caution yellow	End, left, right	Flush aluminum, PVC channel
ME123	1 1/2" - 2" (38 - 51 mm) commercial doors, gates, grilles	2 or 4 pneumatic, air-wave	Black, caution yellow	Universal, end, left, right	Flush, clip-on
MGO20	1 1/2" (38 mm) commercial doors, gates, grilles 3-sided activation	2 or 4	Black, white, caution yellow	End, left, right	Flush aluminum, PVC channel
MGR20	2" (51 mm) round gates, commercial doors 3-sided activation	2 or 4	Black, white, caution yellow	End, left, right	Attaches with screws
MGS20	2" (51 mm) square gates, commercial doors 3-sided activation	2 or 4	Black, white, caution yellow	End, left, right	Attaches with screws
MC22	Grilles, rolling doors	2 or 4 pneumatic, air-wave	Gray, yellow, black, white, optional blk/yel striped cover	Universal, left, right	Bottom bar profile
MT21	Rolling fire doors	2 or 4 pneumatic, air-wave	Gray, yellow, black, white, optional blk/yel striped cover, XR-5 cover	Universal, left, right	Mounts to double L-angle bottom bars
MT22	Rolling service doors	2 or 4 pneumatic, air-wave	Gray, yellow, black, white, optional blk/yel striped cover, XR-5 cover	Universal, left, right	Mounts to double L-angle bottom bars
MU21	Sectional doors	2 or 4 pneumatic, air-wave	Gray, yellow, black, white, optional blk/yel striped cover, XR-5 cover	Universal, left, right, end or top	Mounting flaps attach to door bottom
MU22	1 3/4 - 2 (44 - 51 mm) sectional doors	2 or 4 pneumatic, air-wave	Gray, yellow, black, white, optional blk/yel striped cover, XR-5 cover	Universal, left, right, end or top	Flexible mounting flaps attach to door bottom
MU Bumpers	2 (51 mm) freezer doors	2 or 4 pneumatic, air-wave, optional blk/yel striped cover, XR-5 cover	Gray, yellow, black, white, end or top	Universal, left, right,	Customizable



Patriot Model MIR-T1 telescopic non-contact sensing edge

- Atlas Door
- Clopay Door
- The Cookson Company
- Cornell Iron Works
- Haas Door
- Ideal Door
- Martin Door
- Midland Garage Door
- Overhead Door Corporation
- Provene Door
- Raynor Door
- Upward Door
- Wayne Dalton
- Windsor Door

4. Technical Data

APPLICABLE STANDARDS

American National Standards Institute (ANSI) - ANSI/UL325 Safety for Door, Drapery, Gate, Louver, and Window Operators and Systems

National Electrical Code (NEC) Compliant

National Fire Protection Association (NFPA) Compliant

APPROVALS

Consult manufacturer for current information on approvals by code bodies and other industry entities.

TECHNICAL PROPERTIES

Electronically Activated 4-Wire Sensing Edges Properties vary widely by model type.

Specification sheets are available for each model. Contact the manufacturer for more information.

- Patriot 4-Wire Non-Contact Sensing System
- Power input range - 8 - 28 VAC; 12 - 35 VDC
 - Relay output - Dry Contact N.O. standard (N.C. available) 1A at 24 VDC or 0.5A at 115 VAC
 - Operation distance - 50' (15.2 m) free air; 15' (4.6 m) in extrusion
 - Transmitter total radiated power - 86 mW
 - Free operation beam half angle - 5 degrees (nominal)
 - Peak wavelength - 940 nMeter
 - Response time - < 10 m/sec
 - Cable size - 24 AWG (length per customer requirements)
 - Operating temperature range -25 - 131 degrees F (-32 - 70 degrees C)

Patriot 4-Wire Non-Contact Sensing System Enclosure Specifications

- Enclosure material - Polycarbonate
- Enclosure color - Black
- Enclosure rating - NEMA 4 (IP56)
- Operating temperature - -25 - 158 degrees F (-13 - 0 degrees C)

5. Installation

PREPARATORY WORK

Deliver products in manufacturer's original, unopened, undamaged containers with identification labels intact. Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.

Verify that site conditions are acceptable for installation. Do not proceed with installation until unacceptable conditions are corrected.

METHODS

Installation methods vary by model. Contact Miller Edge for installation instructions by model type.

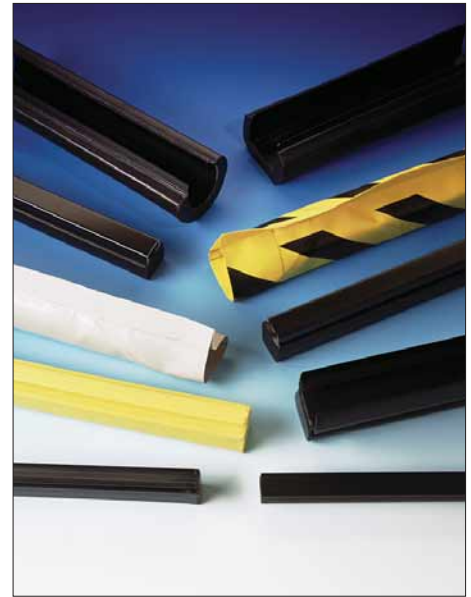
BUILDING CODES

Installation must comply with the requirements of all applicable local, state and federal code jurisdictions.

6. Availability & Cost

AVAILABILITY

Products are available from certified distributors. Contact manufacturer for information on local availability.



Electric sensing edges

COST

Budget installed cost information may be obtained from the manufacturer.

7. Warranty

All Sensing Edges are warranted to be free from defective materials or workmanship for a period of one year from the date of shipment from the factory, with the exception of the ME-23-2U, which is warranted for a period of 2 years from the date of shipment from the factory. The warranty is void where evidence of misuse or abuse is present. Specific warranty details are available from Miller Edge, Inc.

Complete warranty terms and conditions are available from the manufacturer.

8. Maintenance

Minimum care is required since all Miller Edge Sensing Edges are manufactured with only the most durable materials and the highest quality control standards.

The Sensing Edge should be checked monthly for any signs of damage, cuts, loss of sensitivity or water damage, which could damage internal components. Check wiring to ensure connections are secure. When properly maintained, Miller Edge Sensing Edges provide years of trouble-free service.

9. Technical Services

Technical assistance, including more detailed information, product literature, test results,

and assistance in preparing project specifications, is available by contacting Miller Edge.

10. Filing Systems

- Reed First Source®
- MANU-SPEC®
- Additional product information is available from the manufacturer upon request.