



# Guardian Mat® Model ME146

## INSTALLATION INSTRUCTIONS

### IMPORTANT: THINK SAFETY!

**CAUTION:** Read, understand and follow all directions before beginning installation or maintenance.

### Description:

The **ME146 Guardian Mat®** is a pressure sensitive mat designed to provide a stop signal when a person steps down on the mat. When a down force is applied to the surface of the mat, the two **Alumaglas®** contact elements meet sending a stop signal to a controller. A separate reset button should be located in a safe area. The **ME146 Guardian Mat®** is not intended to continuously detect the presence of an individual. The **ME146 Guardian Mat®** is safe when used for its intended purpose. They are often used to stop the dangerous motion of hazardous machinery. If applied incorrectly serious injury or death can occur.

### Inner Switching Function:

**Alumaglas® Contact Elements**, completely flexible blanketed contact elements cover the entire surface; virtually eliminating any dead zones in the active surface. **Alumaglas®** will not Rust or Dent.

### Construction:

- Flame Resistant
- Environmentally friendly: CFC Free
- No Silicone
- Resistant to Common Oils and Chemicals  
(For specific chemical resistance - contact factory)
- Water Resistant

- Hermetically Sealed
- Ability to custom manufacture to user spec for:  
Size • Shape • Sensitivity
- Electrical Diagram: 4 wire, N.O. self-monitoring
- Electrical Requirements: 24 volt, 1 amp  
AC or DC maximum.

### Specification:

Outer Material: PVC  
Color: Black  
Assembled Mat Thickness: 1/2" (12.7mm)  
Weight : 3 lbs. per sq. ft. (14.6 kg per sq.m)  
Max. Size: Black: 59" wide x 96" long  
(1500mm) x (2440mm)  
(For larger sizes contact factory)  
Lead Wire: 16 AWG, 10ft. long  
Lead Wire Location: Anywhere on the side of the mat except the first 3" (75mm) in from any corner.  
Operating Temperature Range: -25°C to +70°C  
(-20°F to +158°F)  
Storage Temperature Range: -25°C to +70°C  
(-20°F to +158°F)  
Min. Actuating Force: 25lbs. (30kg) per 3 1/8" (80mm) dia.

Min. Object Size: 0.118" (3mm) diameter  
Certified Safety Category: See attached controller  
Sensor Enclosure: Meets IP54 requirements  
Sensitivity Adjustment: Not available after mat has been manufactured.  
Max. Response Time of Mat: 10 msec.  
Response Time Adjustment: Not available after mat has been manufactured.  
Effective Sensing Areas: The effective sensing area is the entire area of the mat with the exception of 1/2" (1.27cm) around the perimeter and 1" (2.54cm) at the wire outlet.  
Number of mats to be used with one controller: 4  
Critical Length of Connections: distance between mat and control panel is 100 ft.(30m) max.

### Guardian Mat® Cross-Section

