

Fab Mat Safety System

The Fab Mat system consists of a control box and up to four ruggedly constructed floor mats arranged to detect the presence of a person in a restricted area and to generate a stop signal to the machinery being protected. Once the machine is stopped a reset push button allows to reset the controller to restart the machine being guarded.

The mat is a pressure sensitive device designed to provide a stop signal when a person weighing more than 35 Kg (77lbs) steps down on the mat. When a down force is applied to the surface of the mat, the two internal contact elements meet sending a stop signal to a controller.



Primary Applications

Fab Mat immediately signals automated and computerized equipment to stop when someone enters the areas protected by the safety mats. The ISB FAB-MATS have a long history of successfully guarding potentially dangerous areas common to metal fabrication such as CNC punching machines, laser cutters, benders, welders, folders, etc.

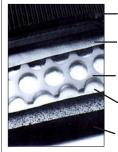
ISB FAB-MATS are ideal to protect the working envelope of robots, (ie; pick and place robots, paint spray robots) and can be used to stop overhead or tabletop conveyor systems and material handling equipment.



Heavy Duty Construction

FAB MAT has a tough 1/4" corrugated PVC surface that is non-slip and provides excellent abrasion resistance. Only 3/8" thick. FAB MAT has tapered the edges so carts and personnel gain easy access. Patented Alumaglas contact elements are totally flexible for sure contact seperation. FAB MAT is water and flame resistant, extremely tough, it can withstand severe impacts without damaging Alumaglas contacts.

FAB MAT INTERNAL CONSTRUCTION



· Corrugated PVC rubber surface

Patented Alumiglas conductive surface

Perforated foam rubber insulator

Patented Alumiglas conductive surface

Corrugated PVC base

Why 4-wire Construction?

Standard 4-wire construction for optimum safety, so that any disruption of Fab Mat circuitry will stop equipment. Relay is energized during normal operating conditions. Relay is de-energized when any of the following occurs:

- Mat is actuated.
- There is a short circuit.
- There is a break in any lead wire.
- There is a power loss.

Specifications

Fab Mat specifications

- Resistant to common oil and chemicals and flame resistant.
- Environmentally friendly: CFC free, No silicone
- Outer Material: PVC, Black ribbed non-stick surface
- Weight: 3lbs. Per sq. ft. (14.6 kg per sq. m.)
- Max size: 48" wide x 96" long (120 cm x 244 cm)
- Min. Object size: 0.118" (3mm) diameter
- Sensor Enclosure: Meets IP54 requirements.
- Lead wire: 10 AWG, 10 ft. Long. 4 Wire, N.O,
 Self-monitoring
- Effective Sensing Areas is the entire area of the mat with the exception of the 1/2" (1.27cm) around the perimeter and 1" (2.54cm) at the wire outlet.
- Input power: 24 VDC/24 VAC 1amp (maximum)

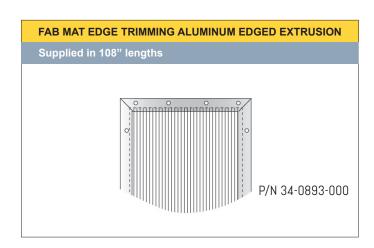


Fab Mat 2 controller enclosure specifications

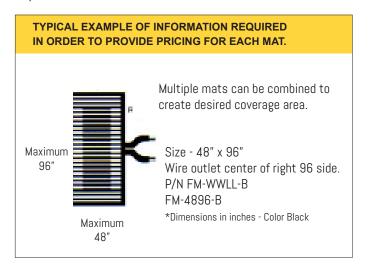
- IP66 (NEMA 4X)
- Polycarbonate gray tinted transparent cover
- Dimensions 180 mm (7.09 in) x 110 mm (4.33 in) x 137 mm (5.39 in)

Fab Mat 2 controller electrical & functional specifications

- Input power (115 VAC)
- Maximum wiring distance between mat and controller is 100ft (30m)
- Safety output contacts rated 5 A at 230 VAC.



Fab Mats should be secured to the floor using our ramped aluminum extrusion. This prevents the safety mat from being moved. The installer will need to cut and miter the corners of the extrusion to eliminate any trip hazards.



ISB will design and construct Fab Mat to meet your exact specifications as to size and shape, to meet your needs.

When ordering please specify size in inches and location of wire outlet (see above).

