

THE GATEKEEPERSM

MAN-MACHINE SAFEGARDING NEWS FROM **SCHMERSAL**
Turning Workplaces into Safeplaces®

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GK-1 CATALOG

8th Edition (2007)

416 pages

Technical Data Sheets for all products.

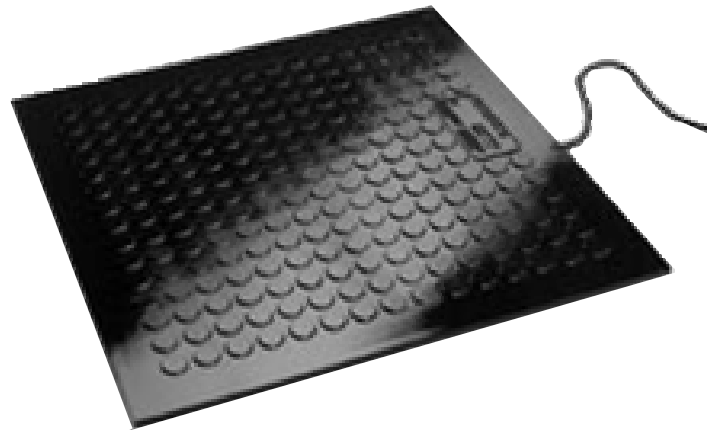
Safety tutorial handbook and reference section.

View the catalog online:
www.schmersalusa.com.

Category 3 Safety Pressure Mats

One effective way to safeguard a hazardous area around dangerous machinery is to use safety pressure mats. A person's presence is detected upon their stepping or walking on the mat. A safety controller continuously monitors the integrity of the safety mat system, sending a "stop" signal to the machinery in the event of a system fault or pressure mat actuation.

Unfortunately, ordinary pressure mats commonly fail due to shorting corrosion, cable pull-out, or excessive loading. Schmersal's SMS3 Series Safety Pressure Mats were specially designed to overcome these problems.



Solutions

Moisture is the key culprit in shorting corrosion. To prevent moisture from entering, the SMS3 safety pressure mat is sealed to an IP67 rating. They are manufactured with a dry internal atmosphere which eliminates condensation in the electrode gap. Moisture migration due to a surface penetration is reduced by the 100% bond between electrode plates and surface material.

The innovative design of the SMS3 Safety Pressure Mat reduces cable pull-out two ways. First, the cable terminations are mechanically attached to the electrodes instead of soldered. Then, the cable becomes an integrated component of the mat during fabrication when the cable jacket is molded as a single element with the mat surface.

There is a heavy-duty plastisol material bonded to the electrode plates on the outside. Inside are compressible elastomeric insulating strips, sandwiched between the electrode plates. This combination gives the SMS3 Mat the ability to withstand surface loads up to 2900 lbs/in² – tough enough to survive forklift and other material handling traffic. The Series SMS3 Safety Mats have a mechanical life expectancy of more than 5 million actuations and carries the industry's only 3 year warranty.

Additional Features

SCHMERSAL's Series SMS3 Safety Mats are useful in a diverse range of hazardous areas. The mats can be custom designed and manufactured in a variety of colors, textures, and shapes or dimensions to fulfill the requirements of spe-

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PRODUCT HIGHLIGHT



SERIES TG-1

Door Handle for use with Power-to-Unlock Solenoid Latching Interlock Switches

LED Status Indicators:
Green = locked
Red = unlocked

Integrated pushbuttons:
Door Release
Optional E-Stop (shown)
Optional top pushbutton
Other options available

Extends life of the solenoid:
Solenoid energized only while release button pushed

M12 , 8 pin connector:
No complicated wiring.

See GK-1 Catalog, page 114

SAFETY PRESSURE MATS Continued from page 1

cific applications. The plastisol surface is tolerant of most acids, alcohols, caustics, solvents, and oils found in industrial environments.

The unique geometry of the surface profile is designed to enhance traction and minimize slippage. To prevent tripping on the edges, the mats are provided with ramp edge profile trim kits. When properly installed with the ramp edge profiles, a 100% mat actuation area is achieved, thus complying with the stringent requirements of EN 954-1 safety category 3.



For More Information: on the **SMS3 Safety Pressure Mat** See page 312 in the new [GK-1 Catalog](#) for technical data.

Frequently Asked Questions

Q: What are "Consensus Standards" and how do they relate to OSHA guidelines?

A: "Consensus Standards" are those industry standards developed by groups of professionals representing a cross section of firms in that industry. Examples are standards prepared by:

- ISA Instrument Society of America
- RIA Robotics Industry Association
- SAE Society of Automotive Engineers
- ANSI American National Standards Institute
- NFPA National Fire Protection Association
- ASME American Society of Mechanical Engineers

These standards provide guidelines for machinery designers and users.

OSHA specifically requires that guarding devices at the point of operation be in conformity with any appropriate standards (which include any OSHA or "Industry Consensus Standards"). Hence OSHA may cite such "Consensus Standards" as a basis for their findings and enforcement.

More FAQs: www.schmersalusa.com/faqs.asp

CONTACT INFORMATION

SCHMERSAL

660 WHITE PLAINS ROAD
SUITE 160
TARRYTOWN, NY 10591

TEL: 914-347-4775

FAX: 914-347-1567

E-MAIL: Info@schmersalusa.com

WEB SITE: www.schmersalusa.com