

NexBot Robotics 631-007

Pressure Safety Mat

1000x1000mm



SKU: NXB-GEN-631-007 | Category: Safety Systems
> Safety Mats & Bumpers > Pressure Safety Mats

Overview

The NexBot Robotics 631-007 Pressure Safety Mat is a robust, fail-safe floor device designed to protect personnel by detecting their presence within a hazardous robot work area. This mat provides a critical layer of protection in automated cells by sending an immediate stop signal to the robot controller when a specified weight threshold is exceeded, indicating a person has entered the guarded zone. Constructed from a high-durability, non-slip polyurethane material, the mat is engineered to withstand the rigors of industrial environments, including exposure to oils, coolants, and common chemicals. Its IP67 rating ensures it is completely protected against dust ingress and can withstand temporary water immersion, making it suitable for washdown applications and demanding production floors. The mat's construction ensures a long operational life with minimal maintenance. With a response time of less than 25ms, it provides rapid signaling to the safety control system, contributing to a shorter overall stopping time for connected machinery. The standard activation force of 35 kg is calibrated to reliably detect personnel while minimizing the risk of false triggers from dropped tools or materials. Typical applications for the 631-007 mat include perimeter guarding for articulated robot cells used in palletizing, machine tending, and welding, as well as safeguarding the operational envelope of SCARA robots in assembly and dispensing tasks. Installation is straightforward, with the mat connecting directly to a certified safety controller or safety relay. For secure floor mounting and edge protection, it is recommended to use the corresponding aluminum trim kits, which also help to prevent trip hazards. This safety mat is an essential component for building a comprehensive and compliant machine safety system.

Technical Specifications

Parameter	Value	Unit
Weight	18.5	kg
Material	Polyurethane	
Voltage	24VDC	
IP Rating	IP67	
Country of Origin	JP	
Dimensions	1000 x 1000 x 15 mm	

Safety Notice: This product must be installed and operated by qualified personnel in accordance with applicable safety standards (ISO 10218, IEC 61508).