

Machine safety products
from a name you trust

Trust

character ability

Honeywell

strength truth

confidence

Safety



Industrial safety is a matter of trust.

Machine operators entrust their well-being to equipment builders and plant owners. They must feel confident that their work environment is safe. They must be assured that certain safeguards will protect them from the inherent hazards of their occupations.

In turn, equipment builders and plant owners can place their trust in Honeywell. They can be confident that Honeywell helps them achieve optimum workplace safety.

Honeywell earns that trust by:

- delivering value – by lowering total cost through increased productivity
- offering an understanding of machine-guarding principles
- exceeding machine safety standards
- offering the broadest array of machine safety products
- integrating global resources

Experience you can trust.

Honeywell knows machine safety.

Honeywell is the worldwide leader in advanced switching and sensing technology — including the realm of industrial machine safety. We provide machine safety acumen to help customers achieve safer working environments.

Protecting workers around the world

Widespread reach

Honeywell has machine safety experience in both traditional and emerging markets — ranging from North America to South America, Europe to Asia.

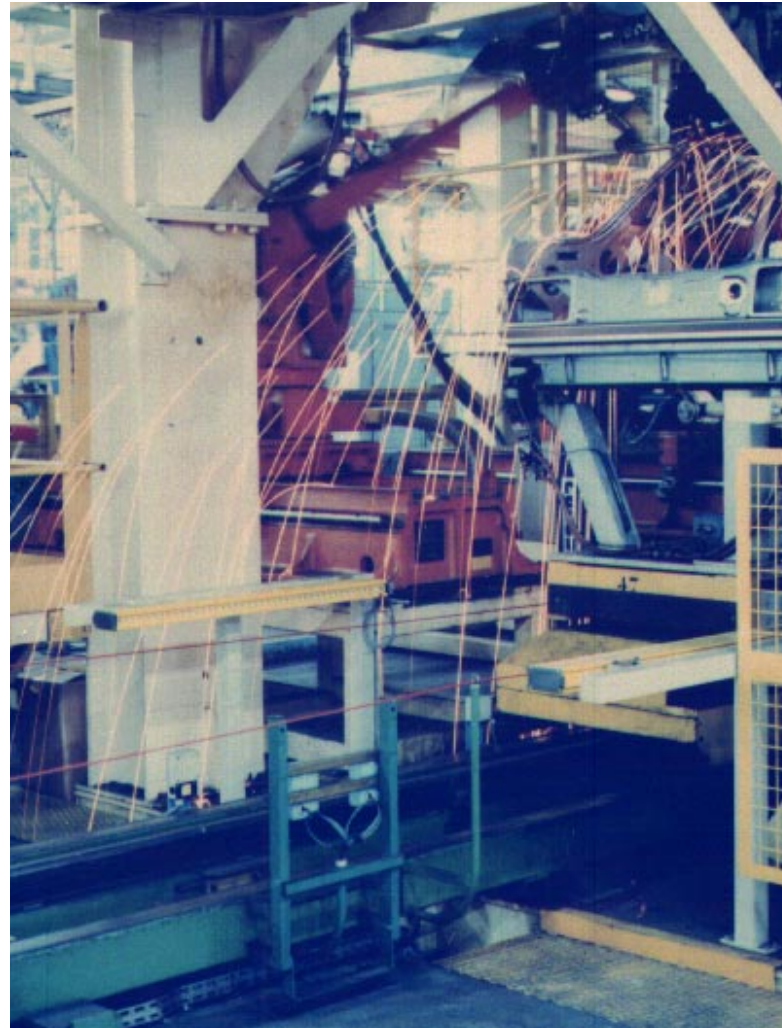


Diverse product expertise

Many other manufacturers concentrate on only one category of machine-guarding: either electromechanical products or electronic products. Honeywell, however, has pioneered technology and developed products in *both* of these categories.



Honeywell offers the widest range of sensing technologies (including Hall-effect, optoelectronic, fiberoptic and rotating laser technologies) for the machine safety market.



Applying our experience to customer applications

A personalized approach

Honeywell works with machine-builders and end-users to suggest mutually beneficial safety solutions. This is accomplished through:

- Technical assistance and documentation
- Application and product specification assistance
- After-sale support
- Guidance with U.S., European and international safety standards and regulation compliance



Specialized training

Customers can also leverage Honeywell's industrial safety experience through corporate training seminars and lab sessions. These cover the many facets of machine guarding, so that participants gain a better understanding and greater knowledge of this complex subject matter.

“Here’s a testimonial of how great your FF-SB Series Light Curtains are: In our body shop, we routinely use and abuse these light curtains! On a daily basis, they are subjected to weld spatter and strong magnetic fields from the “spot” welding that is performed on the body parts. As if that isn’t enough abuse, we also bang them around with tools, robots and steel body parts. The Honeywell beams stand up to all of this; they are extremely rugged and reliable.”

— Mark A. Skidmore
Body SUV Maintenance Group Leader
Subaru of America, Inc.

Over half a century of switching and sensing experience

- | | |
|--------------------|---|
| 1930s-1940s | MICRO SWITCH Corporation pioneered the design and manufacturing of solid-state and electromechanical switches, and manual contacts. |
| 1950s | 1950
MICRO SWITCH Corporation was acquired by Honeywell, but retained its identity as an industry leader. |
| | 1957
Introduction of the industry's first electronic proximity sensor. |
| 1960s | 1965
The first Hall-effect solid-state switch was introduced. (Honeywell's Hall-effect technology is still the basis for many modern-day machine safety devices.) |
| 1970s | 1974
Light curtains were introduced. |
| 1980s | 1982
Honeywell acquired Cometa, a progressive European manufacturer of machine safety products. |
| | 1984
Non-contact interlock sensor introduced to the market with control-reliable designs. |
| | 1986
Mechanical positive opening utilized in the family of safety switches. |
| | 1987
Technologically advanced SB-14 Light Curtains were introduced. |
| 1990s | 1992
Continued enhancement of electromechanical and electronic safety designs. |
| | 1993
All Honeywell MICRO SWITCH sites achieved ISO 9001 and ISO 9002 certification respectively. |
| | 1995
Unique fiber-optic technology developed for the safety mat. |
| | 1996
Honeywell licenses the technology of the rotating laser scanner. |

Technology you can trust.

Honeywell meets higher standards.

Honeywell products meet or exceed European machine safety standards, and have been approved for use in Europe for over 25 years. As North America adopts and adapts to these emerging European standards, machine builders and users can confidently turn to Honeywell for compliant machine safety solutions.



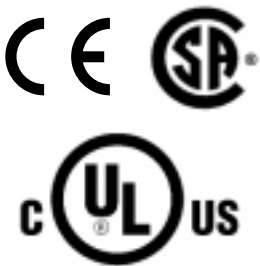
By investing in ongoing research and development, Honeywell demonstrates commitment to meeting customers' needs.

Shaping the future of safety

Several Honeywell specialists are active members of standardization committees and contribute their established expertise to the definition of standards and directives.



Meticulous testing ensures that Honeywell products meet high standards for performance and reliability.



Honeywell machine safety products

- are globally approved (CE, UL, CSA, INRS, BG)
- meet all applicable OSHA and ANSI standards
- comply with the European Machinery Directive, international safety standards and regulations
- are manufactured in accordance with ISO 9000 quality standards

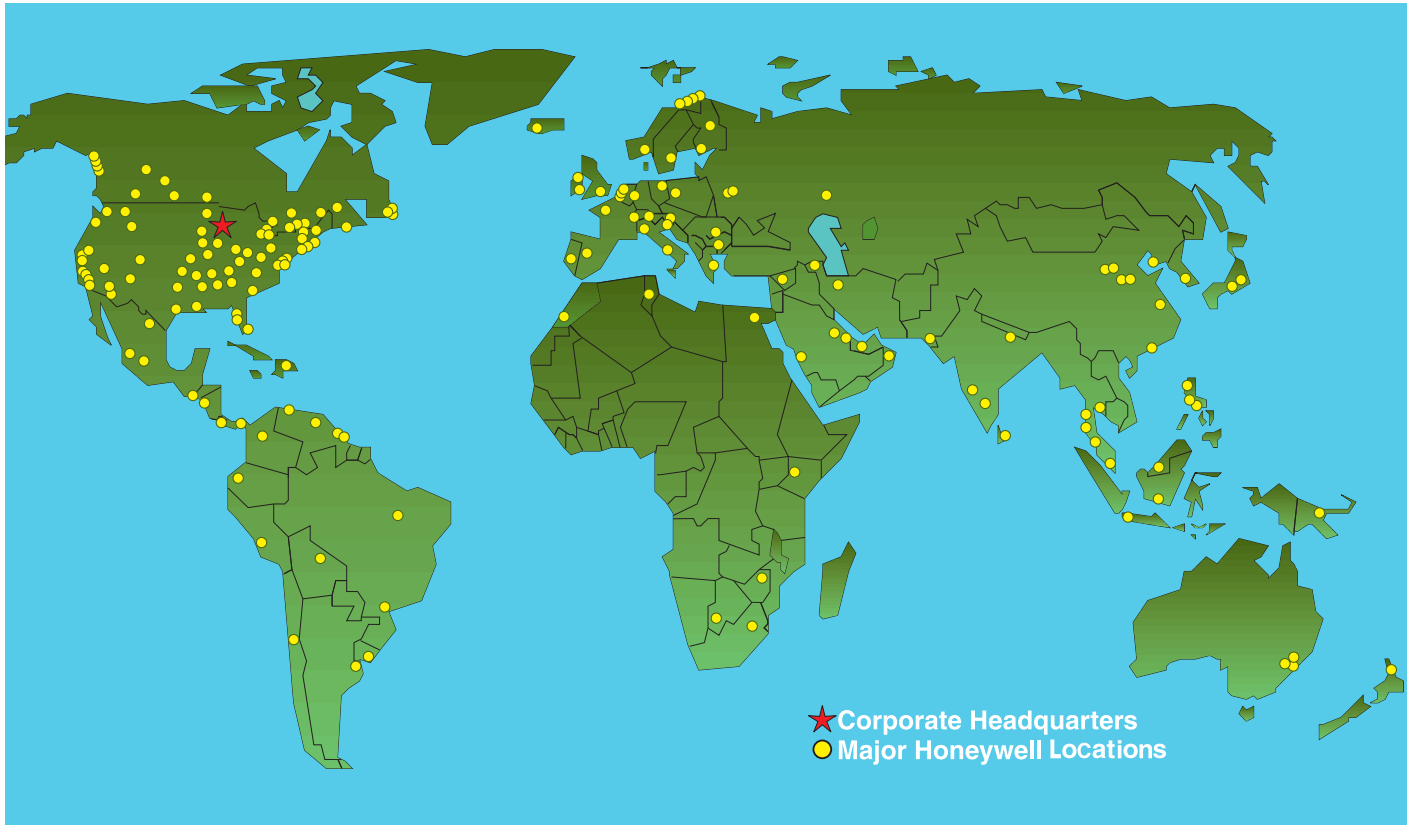
“Honeywell’s products achieve the highest safety standards with respect to ANSI B11.19 and EN standard 954. Virtually any one of their products — applied properly — can achieve a Category 4 matching the highest level of associated risk.”

— Sam Boytor
Owner and President
Fox Controls, Inc.

Support you can trust.

Honeywell integrates global resources.

More resources translate into better solutions: Honeywell's global network encompasses product design, engineering, research, testing, manufacturing, sales, distribution and technical support. Plus additional sales and distribution support is available through our many global affiliates.



Worldwide presence

Honeywell, global leader of industrial controls, is able to support customers' machine safety needs around the world. Honeywell's machine safety products are offered globally by qualified distributors.



Comprehensive support

Honeywell's Customer Response Center is a unique resource that comprises three support groups:

- *Application Center*: Helps customers speed up design processes, solve control needs, and increase productivity.
- *Customer Service Group*: Provides order management, price and delivery information, reduction in transaction costs, and relationship-building with customers.
- *Customer Satisfaction Group*: Continuously works to improve service and responsiveness by surveying more than 100 customers every month. The goal is to meet and exceed customers' expectations.

"We had experienced problems with other companies' machine safety products. So we switched to Honeywell products — and have been 100% satisfied!"

— Joe Kingery
Maintenance Director
Yusa Corporation



Safety Light Curtains — FF-SB, FF-LS and FF-SLC Series

These modular, non-contact machine guarding devices increase protection for operators from hazardous motion. This product family offers a large variety of protective height, product sizes, and sensing resolutions.



Safety Single-beam Light Curtains — FF-SPS4 Series

A single through-scan infrared beam detects the body of an operator on approach to a dangerous area. Interruption of the beam de-energizes the output contacts which creates an emergency stop (E-stop) condition.



Safety Laser Scanners — FF-SE Series

This revolutionary device combines radar and laser principles to scan pre-defined areas around dangerous machinery or moving vehicles. In case of intrusion into these zones, output relays are immediately opened, creating an E-stop condition.



Safety Mat — FF-SM Series

This pressure-sensitive device detects operators inside a dangerous area. The sensor uses an infrared modulated light source spread by a fiber optic cable: Presence of a load greater than the 30 kg (66.1 lb) detection capability causes a bending of the fiber optic cable on the whole sensing surface. The loss in signal resulting from this bending de-energizes the output relays of the control unit and stops the machine's dangerous movement.



Safety Control Modules — FF-SR Series

A wide range of safety modules enhance machine interfacing to ensure a safer working environment. Components include safety door monitors, emergency stop modules, expansion modules, and a standstill monitor. All are designed for control reliability with positive-guided contact.



Safety Non-contact Interlock Switches — 40FY/50FY Series

This protective guard comprises a safety amplifier accepting up to six Hall-effect sensors operated by coded magnet actuators. It allows control of up to six doors/casings of a machine or a small production line. When all connected sensors are actuated, the logic circuit closes the relay contacts to enable the machine operation.



Safety Interlock Switches — GK Series

The GK (Global Key-Operated) Series was developed for use on large door applications in environments where rugged, long-term durability is a key requirement, such as an automotive plant floor. This line of heavy-duty door interlock switches offers wide key entry tolerances, key retention for vibration resistance and a key eject mechanism for safety.



Safety Cable-Pull Switches — CLS Series

The CLS (Cable-Pull Limit) Series was designed specifically to meet the requirements of major global OEMs within the conveying and material handling market segments. Their chief requirement is for a highly reliable, safe-to-use rope-pull device to protect operators working near conveying systems. This requirement is greatest for applications where guarding is impractical either due to the low risk involved or because of the need for access at an acceptable cost. Other requirements include long spans from single devices with simple set-up, long-term temperature stability, cable-pull trip with physical reset (requirement of EN60947-5-5) and broken-cable detection.



Safety Enclosed Limit Switches — 24/924 CE Series

The 924CE Series miniature enclosed switches provide years of reliable operation, even in demanding industrial conditions. They feature direct-action, positive-break operation. Operating force is applied directly to the contact carrier when contacts are moved from the normally closed position, providing positive-contact breaking action.



Safety Limit Switches — GSS Series

The GSS (Global Safety Switch) Series is intended for use in safety applications for guarding. The bright red housing ensures that the switch is visible on machinery and is instantly recognizable as a critical component. GSS switches are designed to provide a complete range of CENELEC standard products specifically for use in machine guarding applications where physical touch with the guard is essential and where a key-operated switch may be impractical or impossible to implement.



Customers around the world put their trust in Honeywell machine safety products.

Please contact us for more information:

On-line information:

<http://www.honeywell.com/sensing>

E-mail:

info@micro.honeywell.com

Honeywell Customer Response Center:

In the U.S.A., 1-800-537-6945

In Canada, 1-800-737-3360

In Europe, (44) (1) 3 44 65 60 00

In Asia Pacific, (65) 249-0100

In Latin America, (954) 845-2600 (U.S.A. Number)

Or contact your local Honeywell office.

Warranty/Remedy

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship. Contact your local sales office for warranty information. If warranted goods are returned to Honeywell during that period of coverage, Honeywell will repair or replace without charge those items it finds defective. The foregoing is the Buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose.

While we provide application assistance, personally and through our literature, it is up to the customer to determine the suitability of the product in the application.

Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this printing. However, we assume no responsibility for its use.

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