

HIGH POWER REED SENSORS FOR INDUSTRIAL SYSTEMS

Designed for Lamp Loads and High Inrush Current Applications

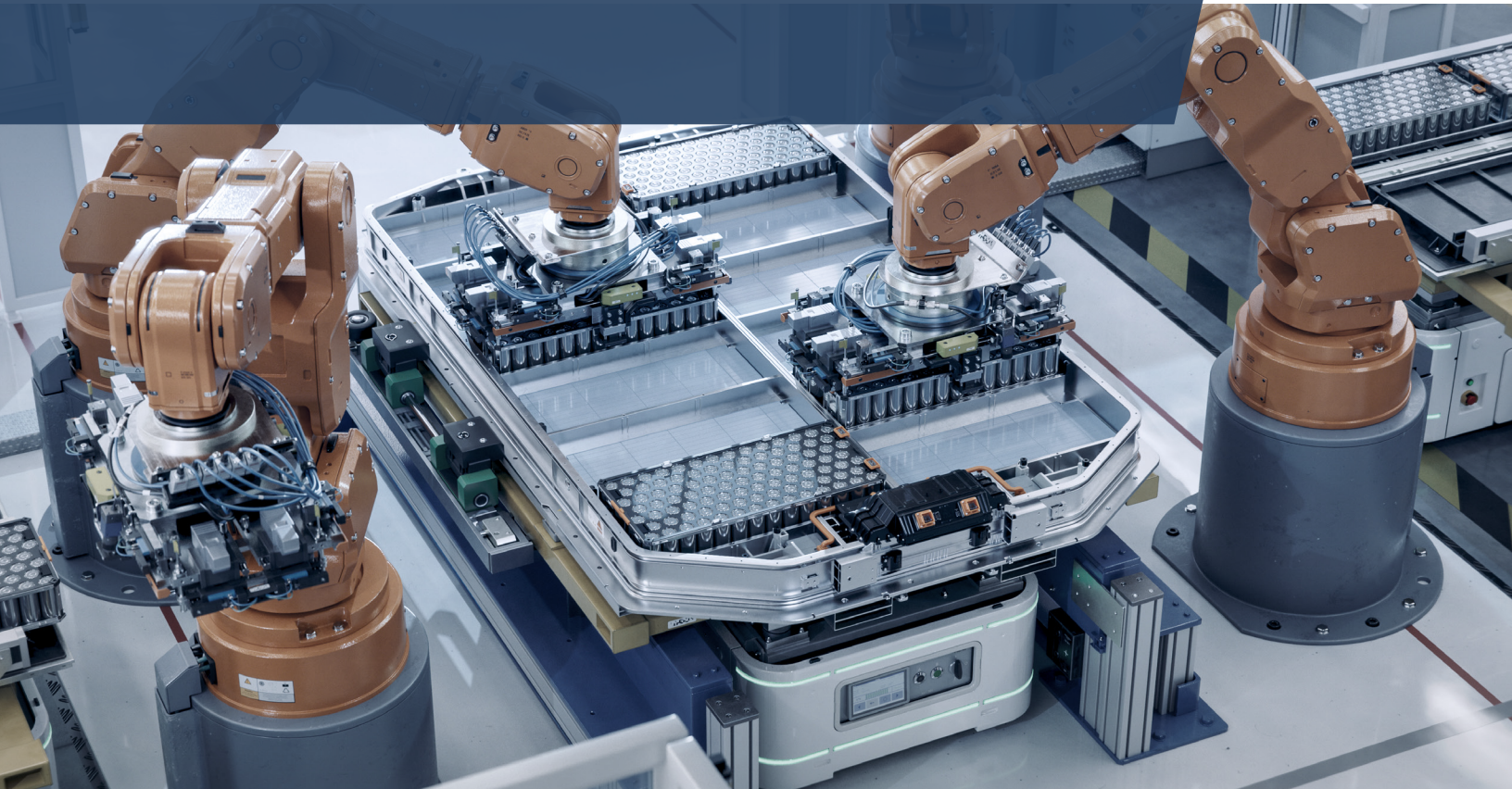


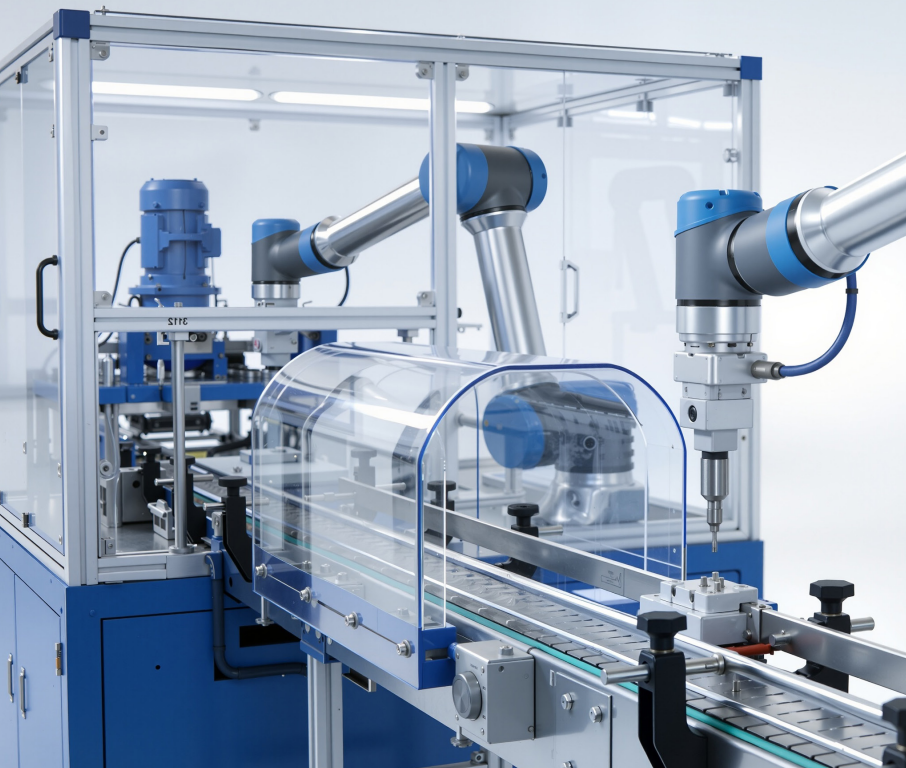
Engineered for High Power. Proven in Industrial Reality.

Standex Detect high power reed sensors are purpose engineered to handle lamp and lighting loads with high inrush current, delivering reliable switching performance of 1 amps all the way up to 3 amps in demanding industrial and commercial systems.

These sensors provide the precision, stability, and long life reliability required where electrical stress and harsh operating environments push conventional sensing technologies beyond their limits.

**HIGH VOLTAGE • HIGH INRUSH CURRENT
• HIGH POWER REED SENSORS**



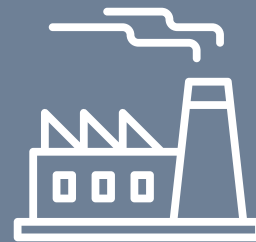


The Industrial World Is Getting Tougher. Your Sensors Must Too.

Modern industrial systems increasingly rely on electrified actuators, lighting, alarms, and safety devices many of which create high inrush currents at turn on, even when steady state current is relatively low.

In these environments, a sensing failure caused by contact welding, dielectric breakdown, or environmental contamination can lead to:

- Unplanned downtime
- Unsafe operating conditions
- Premature component failure
- Costly system damage



Challenges in Harsh Environments

Contact welding and dielectric breakdown:

High inrush currents can cause premature component failure.

Mechanical wear and corrosion:

Traditional contacts degrade when exposed to solvents, water, or dust. Dust-filled facilities and wash-down processes compromise mechanical switches.

Costly system damage:

Frequent replacements increase maintenance expenses and reduce equipment uptime.

Standex Detect high power reed sensors address these challenges through hermetically sealed construction and application driven electrical design, ensuring predictable switching performance even under high inrush current, mechanical shock, vibration, and contamination.

In Line Current Switching for Lamp Loads and Inrush Heavy Devices

Standex Detect high power reed sensors can be wired directly in line to control loads where inrush current, not steady state current, is the primary design concern.

These sensors are particularly well suited for lamp and lighting loads, where initial current surges can be several times higher than normal operating current.

Key capabilities include:

- Up to 3 amps switching capacity for lamp and lighting loads
- Proximity and liquid level sensors rated for switching currents of 1 A and 1.5 A
- High dielectric strength to prevent leakage and false actuation
- Non contact magnetic actuation for extended service life
- Hermetic isolation from harsh industrial environments

This makes high power reed sensors ideal for direct ON/OFF control, eliminating the need for additional electronics in many applications.

Lamp loads and long cables can create a capacitive build up generating a high Inrush current.

Potential solutions for handling inrush currents to extend the life of a reed switch include:

1. Using a reed switch rated for higher currents
2. Adding a resistor in series of the reed switch
3. Adding a resistor in parallel of the reed switch

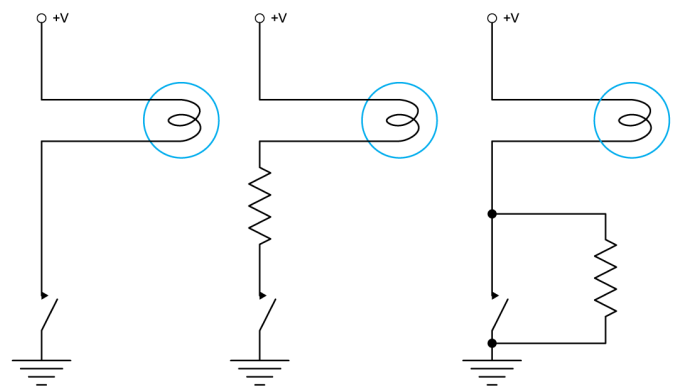

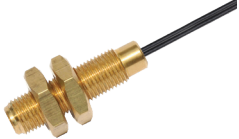








Figure #1. Lamps when first turned on have a high inrush current because of their cold filament. Adding series resistance will reduce the inrush. Having a resistor in parallel with the contacts will allow a trickle current to flow, heating the lamp filament below it. Then when the contacts close the filament is hot and does not draw an inrush current.

Featured High Power Reed Sensors

All of the featured reed sensors below can be customized with high-voltage switch configurations, cable lengths, and termination options to fit a wide range of applications. With contact forms including Form A, B, and C, you

can tailor the switching setup that best meets your system's needs. For High Current switching, sensors come in Form A (Normally Open) configurations meaning when the magnet is not present, the sensor is in an open state.

Sensor Series		Features
MK11 Plastic Proximity Sensor		M8 thread mount for adjustable positioning Plastic cylindrical housing with cable terminals 0.984" L (25.0mm) x M5 x 0.049" Thread (1.25)
MK11 Brass Proximity Sensor		Brass cylindrical housing with adjustable thread mount Available in M6, M8, M10, and M12 thread sizes 1.496" L (38.00mm) x M6 1.496" L (38.00mm) x M10 x 0.039" Thread (1.0)
MK11 Stainless Proximity Sensor		Stainless steel cylindrical housing for rugged durability M5/M8 thread mount for adjustable positioning 0.984" L (25.00mm) x M5 x 0.020" Thread (0.50) 1.968" L (80.00mm) x M8 x 0.049" Thread (1.25)
MK21, MK21PR Proximity Sensor		Rectangular flange-mount housing with cable terminals MK21M variant supports high-temperature environments up to +150°C Right-side cable exit available (MK21PR variant) 1.122" L (28.50mm) x 0.748" W (19.00mm) x 0.246" H (6.25mm)
MK27 Series Proximity Sensor		Aluminum rectangular housing with screw flange mount Sensing distance up to 40mm (magnet included) 1.969" L (50.00mm) x 0.787" W (20.00mm) x 0.394" H (10.00mm)
LS02 Series Liquid Level Sensor		Stainless steel shaft and float for enhanced durability High temperature tolerance up to 120°C 2.953" L (75.00mm) x M10 x 0.039" Thread (1.00)
LS03 Series Liquid Level Sensor		Side mount installation in tanks and reservoirs High temperature resistance up to 150°C Constructed from PA or PP for chemical and thermal durability 3.268" L (83.00mm) x M16 x 0.079" Thread (2.00)
LS05 Series Liquid Level Sensor		Durable stainless steel for high-temperature and high-pressure Supports single, multi-point, and continuous level sensing Multiple float positions (minimum 1.5" spacing) 3.150"-78.74" L (80.00-2000mm) x M10-30 x 0.049" Thread (1.25)

Typical Applications and Load Ranges

Standex Detect high power reed sensors are commonly used in applications such as:

- Solenoid valve switching
- Indicator and signal light control
- LED lighting load switching
- Alarm and siren activation
- Automotive accessory switching
- DC fan and blower control
- Interlock and guard switching
- End-of-stroke detection
- Position-based power control
- In-line load switching
- Conveyor gates and diverters
- Pneumatic cylinder end-of-stroke detection

Why Standex Detect Sensors Excel in High Power Environments

1. Precision Switching for High Inrush and Elevated Electrical Loads

High power reed sensors from Standex Detect are engineered to manage electrical stress at turn on, where many switches fail prematurely.

Design features include:

- High dielectric withstand capability
- Low and stable contact resistance
- Minimal contact bounce during closure
- Tight operate and release tolerances
- Consistent switching across wide temperature ranges

These characteristics allow engineers to confidently use reed sensors for control, feedback, and interlock functions in electrically demanding systems.

2. Hermetically Sealed for Harsh Industrial Conditions

Each sensor is hermetically sealed, protecting the reed contacts from contaminants that commonly degrade exposed or mechanical switching technologies.

- Protection includes resistance to:
 - Oils, coolants, and hydraulic fluids
 - Dust, metal shavings, and weld spatter
 - High humidity and condensation
 - Corrosive industrial atmospheres
 - Vibration, shock, and mechanical stress

This construction makes high power reed sensors especially well suited for automation equipment, material handling systems, transportation platforms, and safety critical machinery.

3. Reliability That Supports Safety and System Integrity

In high power and safety related applications, predictability is non negotiable.

Standex Detect sensors support system safety and uptime through:

- High insulation resistance
- Strong dielectric isolation

- Repeatable switching behavior over life
- Long cycling endurance under load
- Compatibility with global safety and compliance standards

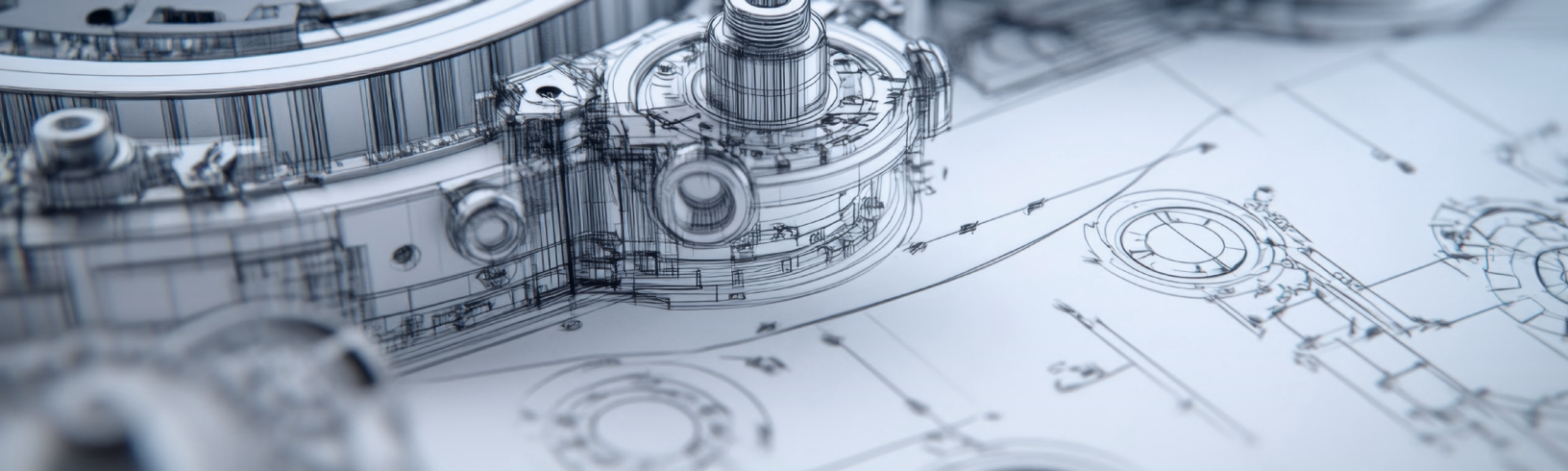
Quality is engineered into every stage from materials and contact geometry to testing, validation, and controlled manufacturing processes.



High Power Switching Where It Matters Most

Standex Detect high power reed sensors are not general purpose switches they are application specific solutions designed for lamp loads, high inrush current devices, and harsh industrial environments.

When engineers need direct in line control, electrical robustness, and long term reliability, these sensors deliver performance where traditional technologies fall short.

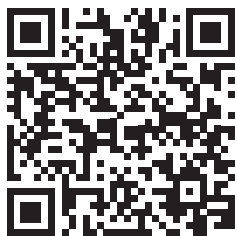


For When it Matters - The Right Design, at the Right Time, at the Optimal Cost.

At Standex Electronics, we believe in: Collaborative innovation with our customers

- Collaborative innovation with our customers
- Delivering the right design, at the right time, at the optimal cost
- Acting as an extension of your engineering team
- Living our promise: **Innovate | Consult | Engineer | Deliver** — when the stakes are high, Standex Detect delivers

To learn more about how Standex Detect can support your projects with innovative sensing, switching, and relay technologies, visit standexdetect.com or contact our engineering team to discuss your specific application needs.



Request a Quote



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