Standex Electronics
PARTNER | SOLVE | DELIVER®

NETWORKED FREIGHT WAGONS

REED SENSORS, HALL EFFECT SENSORS

SMART SENSORS – INDUSTRY 4.0

- ✓ Networked freight wagons or trains are equipped with smart sensors that collect data on their current position, wagon conditions, and their cargo, including parameters such as temperature, air humidity, and the amount of sustained shock.
- ✓ Sensors can be used to detect the brake system and monitor the diagnosis during maintenance intervals.
- ✓ The GPS position allows the customer to pinpoint the exact location of the goods and optimize their logistical process.
- ✓ Digital IT infrastructures collaborate with business automation for controlling and optimizing logistics.

FEATURES

- › Hermetically sealed
- › Minimal space required
- › Corrosion resistant
- › Good implementation
- › Invisible
- › Cost effective solution

APPLICATIONS

- › Position Detection
- › Temperature
- › Diagnosis
- › Door contact
- › On/Off Switch
- › Shock Detection

Image: Bosch

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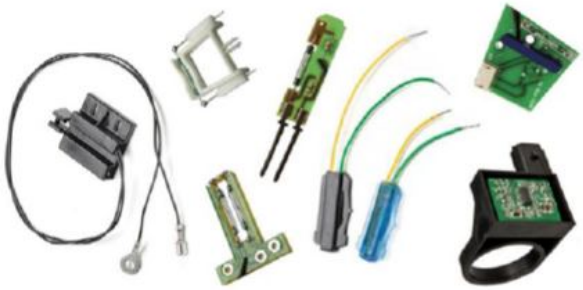
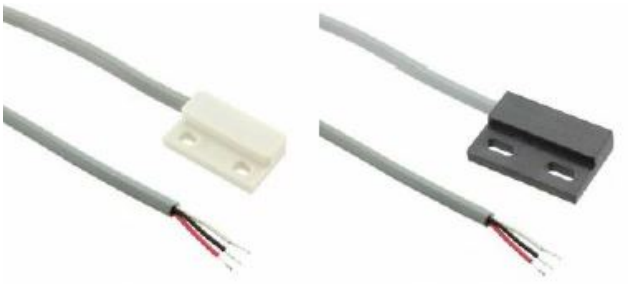
CUSTOM REED SENSORS

Customized Reed sensor solutions allows us to consider the needs and desires of our customers to develop and produce custom innovations for them with the highest quality requirements. Sensors from Standex Electronics are characterized by a high reliability, no power consumption, no-contact switching, and they are hermetically sealed in a robust and shielded housing.



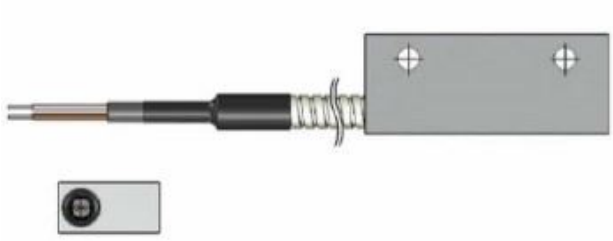


HALL EFFECT SENSORS

Hall Effect Sensors offer solid state reliability, low power consumption, and consistent activation points over a wide temperature range in a rugged and environmentally isolated package.

MK27 REED SENSORS

Technical Specifications	MK27
Contact Form	1A, 1C
Rated Power (W)	0 to 100
Switching Voltage (VDC)	0 to 1000
Switching Current (A)	0 to 1
Carry Current (A)	0 to 2.5



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SURFACE MOUNT REED SENSORS

Surface mount reed sensor products are an SMT design used in switching and sensing applications. Choose from bare glass or rugged thermoset over-molded versions in SPST-NO, SPST-NC or SPDT changeover contacts. Choose from 9 different switch models from 7mm and up, ranging from 0-100W and switch voltages up to 1,000 VDC as well as 5 different surface mount lead designs. They are typically supplied in tape and reel and are ideal for automatic pick and place.

Technical Specifications	MK22	MK15	MK23
Contact Form	1A	1A, 1B	1A, 1C
Rated Power (W)	0 to 20	0 to 10	0 to 100
Switching Voltage (VDC)	0 to 200	0 to 200	0 to 1000
Switching Current (A)	0 to 1	0 to 0.5	0 to 1
Carry Current (A)	0 to 1.25	0 to 1	0 to 2.5

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LOGISTICAL CHALLENGES

There are almost 1.37 million kilometers of railways globally, mostly transporting heavy goods such as steel, gravel, and coal. The trend is rising - more and more goods are transported via train. In the world of today, freight trains do not have their own power supply system nor their own sensors due to high regulations for railroad application - they need a robust and simple technology which fulfills the demands in terms of vibration, temperature, dirt, and moisture.

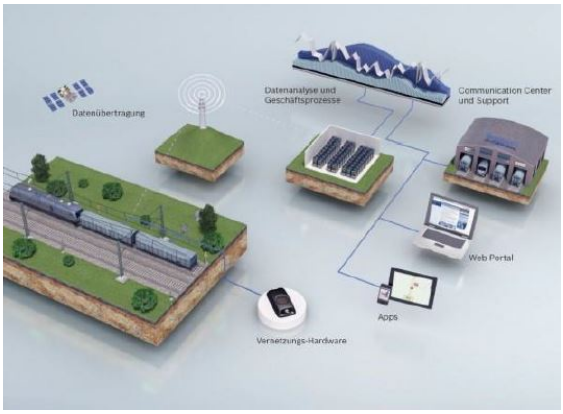

Image: Bosch

FUTURE TRANSPORTATION

Customers can track their goods via the internet and know exactly where they are, and if the cold chain for perishable products was interrupted. Industry 4.0 make this happen.

NETWORKED LOGISTICS WITH SENSOR TECHNOLOGIES

In order to integrate freight wagons with supply chain, they're equipped with sensors for monitoring conditions remotely. That way freight wagons, and their goods can be systematically tracked and optimized throughout each stage in the supply chain.