Eden OSSD IP69K Safety Sensors – Reset Input Simplifying Machine Safety

Inspired by industry

The Eden OSSD IP69K safety sensor was developed with two major industry concerns in mind. First, to eliminate the costly and potentially dangerous problems associated with using mechanical keyed interlock safety switches and non-contact magnetic safety switches. And secondly, to allow multiple sensors to be **wired in series to any standard safety relay and not compromise the level of safety, maintaining PLe / Safety Category 4**.

Eden offers control reliability and maintains the highest level of safety at reduced costs that allow companies to remain competitive in the global marketplace.

Unparalleled value

- Eden OSSD reduces installation time and labor costs.

- Plug-and-play M12 technology reduces costs up to 60% compared to conventional machine wiring methods.

- Built-in LED diagnostics reduce down time when trouble-shooting.

- Non-contact RF technology reduces costly production stop-pages.

- Up to 75% less components needed to achieve the higher levels of safety.

- Eden offers a level of control reliability and uninterrupted production that mechanical/magnetic switches cannot match.

- Eden sensors tolerant alignment allows for a wide range of mounting possibilities.

- Pre-made mounting brackets mean no costly fabricated switch brackets required.

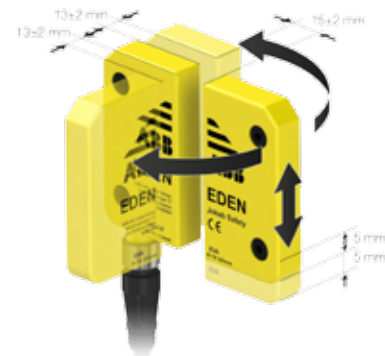- **Eden offers independent reset at each device with quick connect attachment**.

Unique design

Eden with an integrated reset function, allows for each sensor to have its own independent illuminated reset function, directly at the door.

Eden offers a diagnostic LED at the sensor for both the device and system status. Eden will direct you to the open door regardless of whether it is upstream or downstream.

Without these features, common system faults – due to vibration, misalignment and single channel safety faults – can be a mystery to diagnose until doors are individually cycled and tested, resulting in extended downtime.

Eden OSSD-Reset and Eden OSSD-Info can be used together in the same circuit allowing for certain safety functions to be manually reset and others automatically reset.

Dual channel safety relay

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Eden OSSD Safety Sensors - Coded

The Eva portion of the Adam & Eva Eden Sensor exists in two different models. The Eva with general code have all the same code and can be used interchangeably. The Eva units with unique code have all a different unique code which prohibits bypassing the Adam sensor with a spare Eva. The unique variant fulfills the requirements for a high level coded interlocking device according to EN ISO 14119:2013. The Eva with general code fulfills the requirement for a low level coded interlocking device. It is possible to mix different models of Eva in the same safety circuit. The Adam portion of the Eden Sensor can be taught to work with only its uniquely coded Eva or with any general coded Eva.

Component list

Product	Ordering number	Description
Adam OSSD-reset M12-5	2TLA020051R5600	ADAM OSSD 5PIN M12 WITH RESET I/P
Adam OSSD-reset M12-8	2TLA020051R5900	ADAM OSSD 8PIN M12 WITH RESET I/P
Eva General code	2TLA020046R0800	EVA WITH GENERAL CODE FOR UNIVERSAL APPS
Eva Unique code	2TLA020046R0900	EVA UNIQUE CODE FOR ISO14119 STNDS
SMILE 12 RG	2TLA030053R2700	SMILE 12 RG RESET BUTTON FOR 8PIN EDEN
SMILE 12 RF	2TLA030053R2600	SMILE 12 RF RESET BUTTON FOR 5PIN EDEN
SM4X20	2TLA020053R4200	SAFETY SCREW FOR MOUNTING ADAM/EVA
SBITS	2TLA020053R5000	SAFETY SCREWDRIVER BIT
M12-3G	2TLA020055R0700	M12-3G Y-CONNECTOR 8PIN
RT9-24VDC	2TLA010029R0000	RT9-24VDC SAFETY RELAY

Solving industry issues

Industry often struggles with maintaining both safety requirements, as well as machine reliability. In comparison to the switches below, Eden offers tremendous advantages in both of these areas. Eden is a non-contact, non-magnetic, non-mechanical safety sensor designed using solid state technologies with no moving parts.

Magnetic switches

- Magnetic reed safety switches rely on the strength of the coded magnet to hold the contacts in their "safe" state.

- Slight misalignment, machine vibrations or metallic interference reduces the holding strength.

- Vibration can cause "contact bounce" meaning 1 of the 2 safety contacts has changed state for a brief moment causing costly down time.
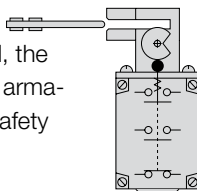
Mechanical switches

- Mechanical keyed interlock switches are Safety Category 1 devices-keys that can break, fall off, become lost or remain engaged leading to the loss of safety function.

- Sagging doors can become misaligned and cause unwanted wear on components; heads can be broken, removed, loosened, rotated or fall off and the switch will again keep the system operational in an unsafe condition.
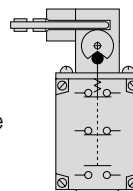
Door open:
Machine stops

When the key is removed, the rotational cam forces the armature down, opening the safety contacts.
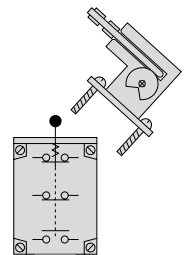
Door closed:
Machine runs

When the key is inserted, the cam rotates and allows the armature to raise thus closing the safety contacts.

Door open:
Machine runs

Mechanical failure! When this occurs, there is no force keeping the armature down which will allow the safety contacts to remain closed.

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