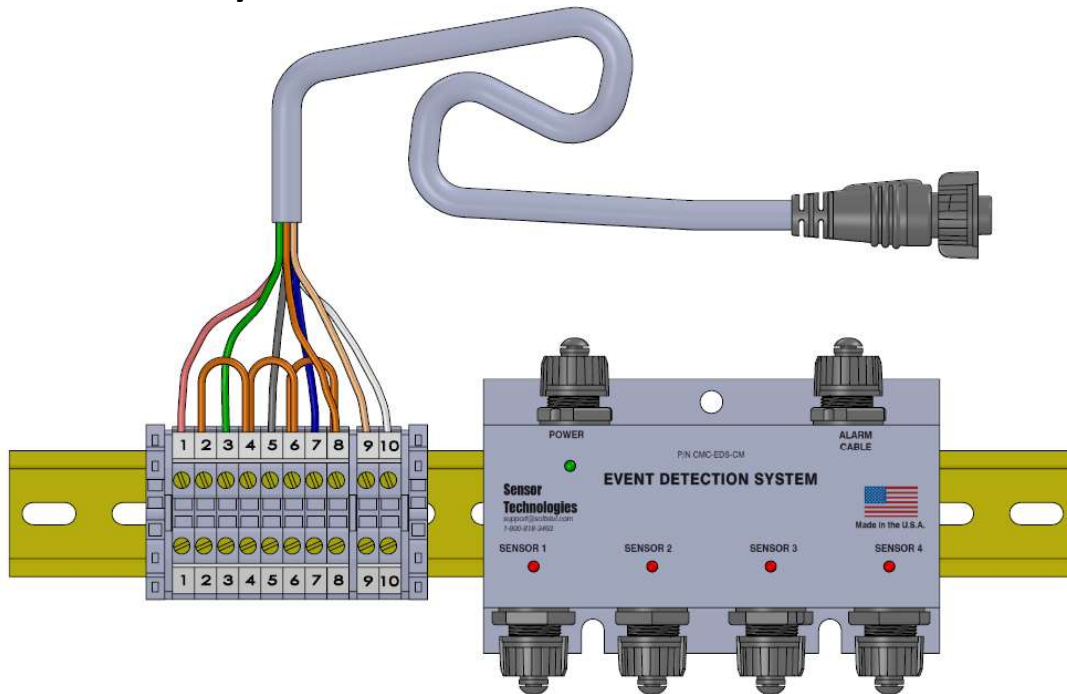


## Event Detection System



### Features and Benefits

#### PRC-002 Compliant

The North American Reliability Corporation (NERC) establishes the requirements (PRC-002) needed to facilitate the analysis of disturbances on the power system for both generation and transmission assets. The Event Detection System (EDS) provides the hardware to capture the required sequence of events (SOE) data.

#### Monitoring

The system provides DC targets from protection systems in order to provide sequence of events records. When a target is detected, the system operates an appropriate set of relays to indicate the target duration and type.

### Non-Intrusive Installation

The system uses an array of “intelligent electronic sensors” that deploy on live wires without having to plan for outages.

#### Health Monitoring

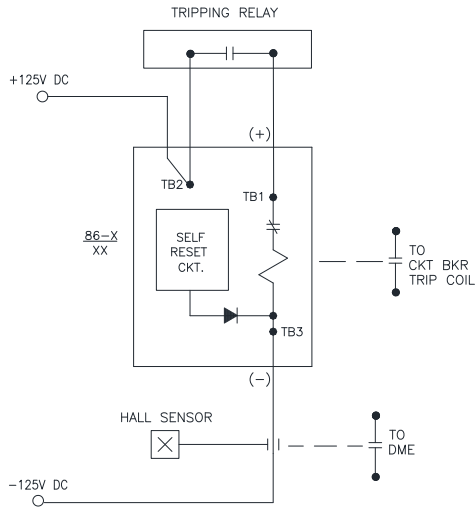
The system has five health indicating LEDs and upon a health condition, the alarm relay produces an output contact closure which provides notification to an alarm panel or any another intelligent electronic device.

#### Reliable

All of the components in the system are designed to operate reliably in harsh environments and conform to IEEE C37.90 standards. The design for reliability and ruggedness means less downtime.

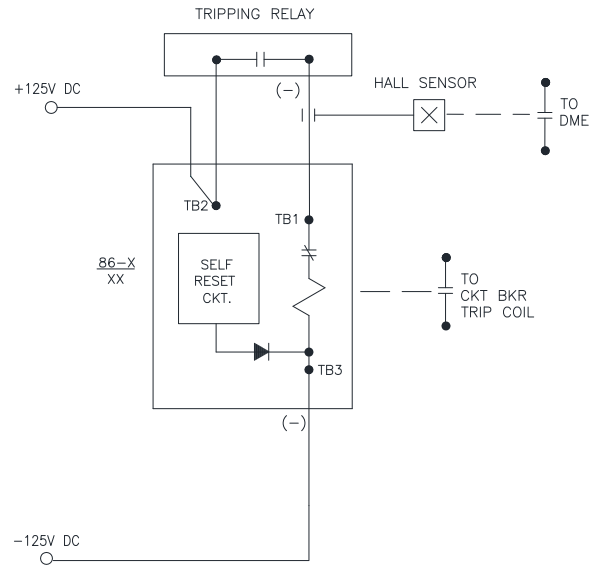
## Tripping Relay Monitoring (LOR)

The EDS sensor is typically placed on the negative (-) terminal of the lock-out relays trip coil.



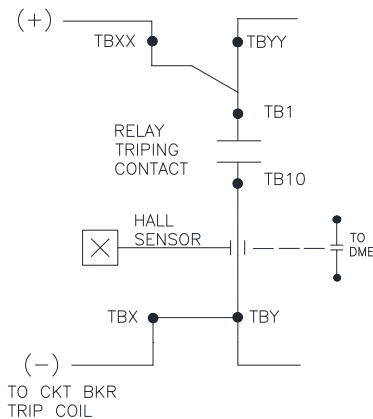
## Protective Relay Monitoring

The EDS sensor is typically placed on the negative (-) terminal of the output relay contact.



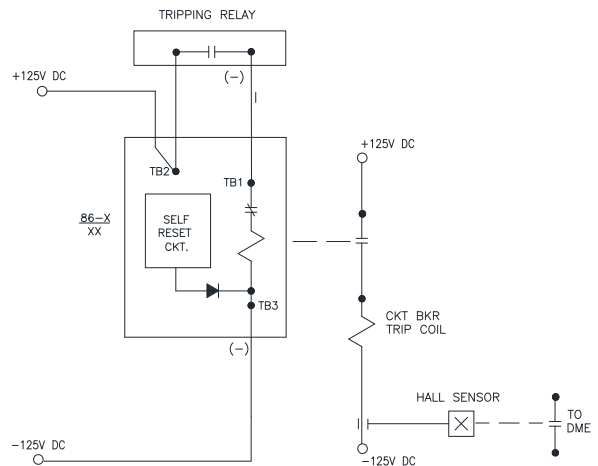
## Tripping Relay Monitoring (AR)

The EDS sensor is typically placed on the negative (-) terminal of the AR relays output contact.



## Circuit Breaker Monitoring

The EDS sensor is typically placed on the negative (-) terminal of the CBs trip coil.



## System Configuration

**Control Module:** The module can be panel mounted directly (with screws) using the mounting holes on the rear plate or it can be mounted on a din rail using the provided bracket. The module is equipped with 6 quick and easy to use connectors which simplify installation and replacement procedures. The connectors are used to connect 4 sensor modules, 1 power cable, and 1 alarm cable. The alarm cable is terminated onto a 10 terminal Phoenix Terminal Block. The alarm cable provides 7 wires and the power cable provides 2 wires (#18).

**Sensor Module:** Each module is comprised of a molded sensor enclosure with a 10' sensor cable, a conductor stabilizer, a curved metallic shield, and a UV stabilized wide temperature range tie wrap. The conductor stabilizer is used to wedge the monitored conductor against the surface of the sensing chip. The curved metallic shield is used to protect against magnetic fields and to hold the conductor stabilizer in place. The tie wrap is to attach the sensor module to the monitored conductor.

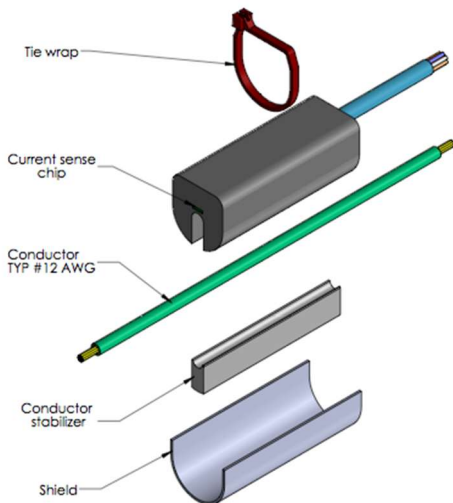


Figure 1: Sensor Module (Exploded View)

## System Specifications

Sensors:	AC/DC Current
Output Contact:	4 Sensors, 1 Health
Operating Temperature:	-20 to 65°C
Power Supply:	3W, 125 VDC
Power Supply Fuse:	0.5A Slow Blow
Power Cable:	2 Wire (#18 AWG)
Input Voltage:	85 to 264VDC
Bandwidth:	DC to 100 KHz
Relative Humidity:	0 to 90%
Metallic Shield:	Nickel-Iron Alloy
Operating Current (DC):	500mA to 150A
Response Time (typical):	1 millisecond
Cable Connector Type:	IP68 (Watertight)

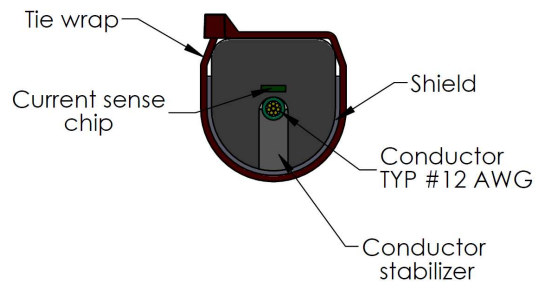


Figure 2: Sensor Module Assembled (Cross-Section View)

## Dimensions

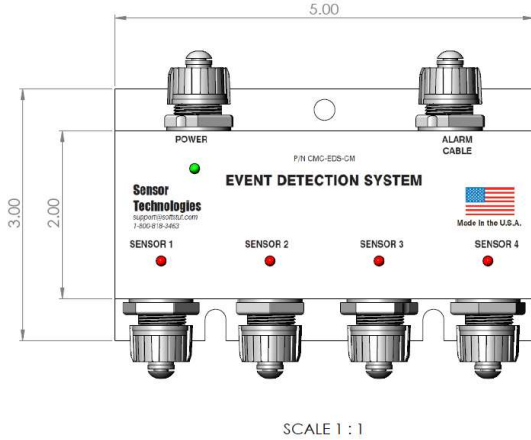


Figure 3: Control Module (Front View)

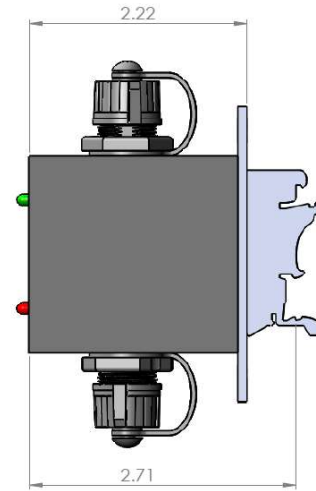


Figure 4: Control Module (Side View)

## Ordering Information

Item	Part Number	Description
1	CMS-EDS-04	<b>Complete Package /w:</b> 1 CMS-EDS-CM (Control Module with Brackets and 1' Din Rail) 4 CMS-EDS-SM (Sensor Module with 10' Cable) 1 CMS-EDS-PC-10 (Power Cable – 10' – 2 Wire) 1 CMS-EDS-PTC-F (Alarm Cable – 1' Pig Tail – Female – 7 Wire) 1 CMS-EDS-ATA (Alarm Terminal Block – 10 I/O Terminals)
2	CMS-EDS-SEC	Accessory (Sensor Extension Cable – 10')
3	CMS-EDS-AEC	Accessory (Alarm Extension Cable – XX') [XX denotes req'd length]
4	CMS-EDS-PTC-M	Accessory (Alarm Cable – 1' Pig Tail – Male)
5	CMS-EDS-PTC-F	Accessory (Alarm Cable – 1' Pig Tail – Female)
6	CMS-EDS-SSA	Accessory (Surge Suppression Adaptor)

## Contact Us

To purchase systems, please contact our Sales department at: *Phone:* 800.818.3463

*Email:* [sales@softstuf.com](mailto:sales@softstuf.com)

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**Mailing Address:**

Softstuf  
P.O. Box 40245  
Philadelphia, PA 19106-0245

**Support:**

Phone: 800.818.3463  
Fax: 609.677.8736  
[support@softstuf.com](mailto:support@softstuf.com)