

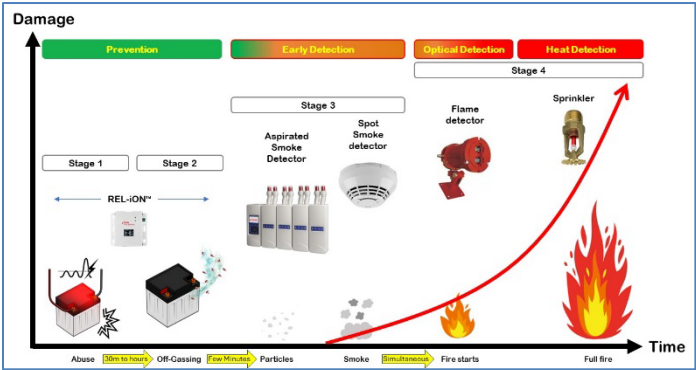


**REL-iON™
APPLICATIONS**

Energy Storage Systems

Energy Storage Systems pose a significant fire risk that can be mitigated with the proper sensing platform.

A battery subjected to abuse by thermal, environmental, mechanical, or power factors is said to be in Stage 1. Typical time to respond is minutes, if not, hours. Next, in Stage 2, the battery begins to off-gas. Detection at this stage is key to attempt to limit the propagation of a thermal runaway event.



Kidde Fire Systems’ REL-iON may be unique in the ability to detect both Stage 1 and 2 anomalies and thus, to help maximize storage system lifespan.

Part Number	Sensor Use Case	Minimum Recommended
31-BASE-WIRED	Base Unit SensorGateway	1 base required
31-EXP-12HUB	Sensorhub - 12 Ports Hub & 1 Daisy-Starter circuit	1 hub required, hosts 12 sensors
31-BASE-PWR	Power Adapter for Base Unit	1 power adapter required
31-ENV-THUM	Monitors temperature and humidity levels	2 recommended per container
31-ENV-LEAK-LOC	Monitors leaks or presence of water	1 recommended + cable
31-ENV-PARTICLE	Monitors air quality monitoring and air purifiers	3 recommended per container
31-ENV-CORROSION	Monitors real-time atmospheric corrosion levels and severity per ANSI/ISA 71.04 standard	2 recommended per container
31-SEC-DOOR	The security door contact sensor triggers an alert when the door is opened	1 recommended per container
31-ENV-DUST	Designed to monitor dust particles in data centers, server rooms & cabinets	3 recommended per container
31-ENV-AIRFLOW	Monitors the airflow that typically comes from the AC unit in the room	1 recommended per room
31-GAS-H2-VOC	Detects VOC, temperature and humidity	1 recommended per rack
31-ENV-THIMG-L	Monitors object and equipment temperatures with 19,200 measurement points per image, analyzed every 2 seconds	1 recommended per cabinet
31-GAS-PANEL	Detects CO, VOC, and NoX gas types to monitor smoldering cables	1 recommended per cabinet
31-SEC-SOUND	Returns the highest recorded sound level (in db) between 2 requests to monitor anomalies	1 recommended per container
31-PWR-AC-QUAL	Designed to monitor single-phase power quality	1 recommended per container
31-PWR-AC-CUR	The current sensor indicates the state of legacy equipment based on its power usage	1 recommended per container

- Notes**
- The visual appearance and dimensions presented on this datasheet are for illustrative purposes only and are subject to change without prior notice. Actual product appearance and dimensions may vary due to continuous product improvement and manufacturing.
 - Quantities of sensors and other equipment are indicative only. Please ensure adequate coverage based on site and application conditions and dimensions.