



Ruggedized, Low Profile 13.56MHz Smart Card Readers In the Healthcare Setting: Implementing iRox™ and iRox Plus™, the Only Ligature Resistant Reader with Genuine HID Technology™.

As the developer of the only HID compatible ligature resistant, low profile card readers on the market, Essex Electronics is a technology partner working in the healthcare industry to help save lives.

Suicide is the 10th leading cause of death in the United States. It was responsible for more than 47,000 deaths in 2017, resulting in about one death every 11 minutes.¹ Every year, many more people think about or attempt suicide than die by suicide. In 2017, 10.6 million American adults seriously thought about suicide, 3.2 million made a plan, and 1.4 million attempted suicide.

Each year, more than 900,000 emergency department (ED) visits are made by people thinking of suicide.²

Although the vast majority of these incidents take place outside the healthcare setting, many suicides occur every year within health care facilities, including psychiatric hospitals, psychiatric units within general hospitals, general medical/surgical wards, and emergency departments.

One practice that should be widely adopted to lower suicide risk is to install ligature resistant products which provide less opportunity for use as an anchoring device. Ligature resistant access control technologies enable healthcare professionals to control access to critical areas using devices having ultra low-profiled face plates.

The Challenge

In the healthcare and behavioral health setting, few events are as catastrophic and as preventable as suicide. Recent data published by the National Violent Death Reporting System (NVDRS) reveals that, in 2015, 83 suicides occurred in medical facilities.

According to the Joint Commission, many patients who kill themselves in a general hospital inpatient unit do not have a psychiatric history or a history of suicide attempts.³

- 14.25 percent of reported incidents occurred in the non-behavioral health units of general hospitals
- 8.02 percent occurred in the emergency department
- 2.45 percent occurred in other non-psychiatric settings (home care, critical access hospitals, long term care hospitals, and physical rehabilitation hospitals)
- 25 percent of people who kill themselves while on a psychiatric ward do so by hanging or strangulation.⁴

Many of those incidents occurred due to strangulation using a ligature such as rope or sheets anchored to a ligature point. A ligature point is anything which could be used to attach a cord, rope or other material for the purpose of hanging or strangulation. Ligature points include shower rails, coat hooks, pipes and radiators, bedsteads, window and door frames, ceiling fittings, handles, hinges, closures and access control readers.

Increasing Regulations Guiding Holistic Design

Increasingly, governing bodies are urging healthcare agencies to improve their assessments of the ligature risks to patients and take appropriate steps to mitigate them in order to reduce the likelihood of strangulation.

Regulations through the Department of Health and Human Services such as the hospital Patient's Rights Condition of Participation (CoP) at § 482.13(c)(2) provides all patients with the right to care in a safe setting.⁵ This regulation and many others are guiding every detail of facility design.

Consultants specializing in the design of Behavioral Healthcare facilities know that the design of a facility with its fixed and movable components can have a significant positive impact on performance, especially on the health and safety of employees, patients, and families.

Facilities should consider tamper-proof hardware such as light fixtures, door handles, smoke detectors, sprinkler heads, and ceiling/wall air vents, and access control readers that are protrusion-free in the design of healthcare spaces.

iRox™ Anti-ligature Access Control Reader

Essex Electronics recently introduced iRox™ and iRox Plus™. The iRox™ Series are heavy duty smart card readers featuring a low profile, 1/8 " stainless steel faceplate.

These durable IP66 rated readers incorporate stainless steel construction, epoxy encapsulated electronics, audiovisual feedback and Genuine HID Technology™.

The slim profile of the iRox™ Reader is perfect for the anti-ligature requirements of highly sensitive environments such as healthcare and behavioral health facilities.



Summary

Healthcare facilities face the unique challenge of balancing safety and security while controlling access to various critical areas of the healthcare environment. In 2016, Centers for Medicare & Medicaid Services (CMS) urged The Joint Commission and state agencies to improve their assessments of the ligature risks for patients with suicidal ideations. These considerations cover everything from furniture to fixtures.

One company that offers a ligature resistant Smart Card Reader is Essex Electronics Inc., a Carpinteria, California based company that has specialized in developing and manufacturing access control products for more than 40 years. iRox™ features iCLASS SE® which is capable of reading HID 13.56MHz high-frequency formats. iRox™ Plus with MultiCLASS SE® adds 125kHz Proximity for dual frequency installations.

References

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