



For Immediate Release

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## **New Compact IDEC XA/XW Emergency Stop Switches Enable Improved Safety for Demanding Applications**

***Expanding robotic and industrial equipment applications call for small form factor emergency stop switches.***

*IDEC Corporation, Sunnyvale, CA, January 23, 2024* — IDEC Corporation has expanded their line of emergency stop (E-stop) switches with new XA/XW series short body models. These industrial-grade and outdoor-rated models are designed in the space-saving size essential for robotic and industrial equipment applications, with innovative features to meet the increased requirements of international safety standards.

### **Modern E-stop challenges**

While E-stop switches have been a fundamental design and safety element of automated systems for decades, two factors have prompted an update of these devices. The first factor relates to the proliferation of smaller-scale automated equipment with increasingly limited on-board space but a need for E-stop functionality. Examples are robot teach pendants, mobile robotics, production machines, and industrial vehicles. The second factor concerns revisions to safety standards.

Safety standard ISO3691-4 (2020) requires E-stops to be accessible from both ends and both sides of industrial vehicles, which can be difficult or impossible to achieve without compact devices. In addition, any detachable or cableless control stations—such as pluggable portable teaching pendants or wireless controllers—are now required by ISO13850 (2015) to incorporate measures for avoiding user confusion regarding whether the E-stop is active or inactive. While there are various ways to achieve this, the XA/XW E-stops change color through illumination to indicate if they are active or inactive, which is a leading way to comply with the standard.

### **Addressing new E-stop requirements**

IDEC has designed the XA/XW series to minimize the installation depth behind the mounting surface. Available in industry-standard diameters of 16mm for the XA and 22mm for the XW, these new E-stops now require only an industry-leading 12.6mm of space behind the mounting surface for solder terminal styles, and just 18.0mm for tab terminal styles.

All devices are rated IP67/69K and UL Type 4X for outdoor installation, and they can be specified with or without illumination. Operating temperatures range from -25 to +55 or +70 °C, depending on the model.

When users select the active/inactive version for compliance with ISO13850, the E-stop cap color is opaque white when the device is inactive and red when the device is active. This unique feature is designed so that users will recognize the device is plugged into equipment and usable only when the E-stop is red. If the device is white, then the E-stop is not connected.

The E-stops follow a standard push-lock and pull or turn to reset action, and the top cap uses cap-color direction arrows to comply with ISO13850. The body base is high visibility yellow with an angled

“escape structure” design so debris will not hinder operation, and a green ring acts as a secondary visual indication of the E-stop pressed or not-pressed status.

The E-stop physical mechanism uses IDEC’s unique and patented “reverse energy structure” for an additional degree of safety, with a spring arranged to operate the E-stop if it is physically damaged in certain ways. Competitive devices can fail to drive equipment to a safe state under these conditions.

Even though the XA/XW series features a compact body, the non-illuminated version offers two NC contacts for integration with safety circuits, and one NO contact for illumination and/or monitoring. Contacts are rated for an industry-leading 250,000 operations at 24V and 100mA, ensuring exceptional durability.

### **Improved safety for any application**

The IDEC XA/XW series is designed to meet the latest safety standards in an industry-leading small form factor rated for challenging environmental conditions. Space saving E-stops are needed for robotics, AGV/AMR, medical device, tabletop machine, and other industrial applications. EV chargers, power generators, outdoor conveyors, and specialty industrial vehicles all need robust E-stops that are easily installed in limited spaces. As designers are increasingly using wireless controllers and detachable pendants for these applications, the active/inactive capability of associated E-stops is a key requirement.

The IDEC portfolio of E-stop switches is ideal for providing technical performance and regulation-compliant capabilities for a wide variety of applications. As with all its products, IDEC offers free tech support for the XA/XW series short-body E-stops, with no service or support contract required. For complete specifications or additional information, please contact IDEC Corporation at 800-262-IDEC (4332), or visit us online at <https://lp.idec.com/XA-XW-Series-Illuminated-Short-Body-E-Stop-US.html> .

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For more information, please contact:

Luiz Shida  
Product Manager  
IDEC Corporation  
800-262-4332  
[luiz.shida@idec.com](mailto:luiz.shida@idec.com)