

The GracePort® USB-C charging functionality allows service technicians and PLC programmers to safely charge their laptops and other handheld devices from outside the door using a USB-C charging cable.

Under OSHA directives and NFPA 70E guidelines, there must be 50 Volts or above for shock hazards to exist in a typical work environment, and voltages operating at below 50 Volts do not require guarding against accidental contact which is required by OSHA under 29 CFR 1910.303(g)(2)(i). Having a 24VDC-powered USB-C charging option eliminates shock hazard risk and gives users a unique ability to transition from their current GFCI protected outlets to a much safer and compact option with minimal wiring complexities.

Additionally, control panel design engineers are constantly working to simplify their designs and increase safety in their control panels. By removing

120 VAC power through the panel, they can eliminate the risk of both shock and arc flash hazard as per NFPA 70E. With the emerging USB-C standard, laptops and other electronic devices are now able to be quickly charged using a USB-C charging port powered by a 24 VDC connection.

USB-C connections are quickly becoming an industry standard for transmitting both data and power within a single cable. In the case of our GracePort configurations, we wanted to create a more efficient way of providing power for laptops and other essential devices.



## **VERSIONS**

- USB-C (C1): The standard C1 component is 60W Max Output 20V at 3 AMPs and is capable of charging most laptops, phones, and other handheld devices.
- USB-C (C2): The C2 component features the same output and functionality as the C1, although it is manufactured to feature a low-profile on the back of the housing, saving space within the cabinet.



- Labor Savings: Smaller GracePort® housings with fewer components means less installation time. Connections are easily made from an existing 24 VDC auxiliary supply within a panel.
- **Convenience:** Less for engineers and maintenance to carry (i.e. no large laptop chargers).
- Combine: Add other components and power options to the mix from our full line of customizable GracePorts (housing sizes may vary).

## **BENEFITS**

- Safety: Voltages operating at below 50 Volts do not require guarding against accidental contact which is required by OSHA under 29 CFR 1910.303(g)(2)
  (i). USB-C components remove the need for GFCI protected outlets on the door.
- Cost: USB-C cables are more affordable than laptop chargers, making them much more costeffective, interchangeable for use, and replaceable.
- Space Savings: A smaller alternative housing for power transfer in lieu of a 120V power outlet placed within a larger housing. In addition, the C2 component features a lower profile on the inside of the cabinet.

