

ENDPOINT CONTROLLER

Data Sheet



Send / receive wireless safety commands



Communicate with up to 30 machines at once



Command machines onsite or across multiple sites



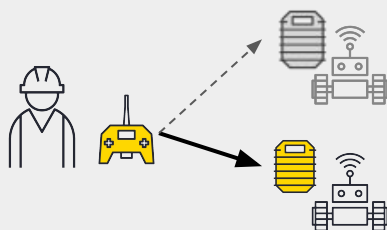
Increase workplace safety and reduce damage, injuries, downtime

Safe, Secure Machine Control

The FORT Endpoint Controller (EPC), part of the FORT Pro Series, makes it possible to send and receive trusted safety commands over a variety of networks.

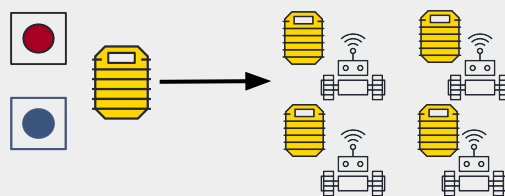
The Endpoint Controller can be mounted to a machine, or machine attachment for remote control. It can also be used to send safety commands to up to 30 Endpoint Controller-equipped machines simultaneously.

Use with Remote Control



Mount the Endpoint Controller on up to 30 machines to enable control from a FORT Safe Remote Control Pro over ISM Radio or Bluetooth, one machine at a time.

Send and Receive Safety Commands



Integrate the Endpoint Controller with safety input devices to send two separate safety commands over Wi-Fi or Ethernet to a fleet of machines.

Endpoint Controller Features

Send and receive **two separate safety commands** such as E-Stop, rest, crawl, fire response

Communicate with up to **30 machines simultaneously** over Wi-Fi or Ethernet

Send safety commands or control an **entire machine or a machine attachment**

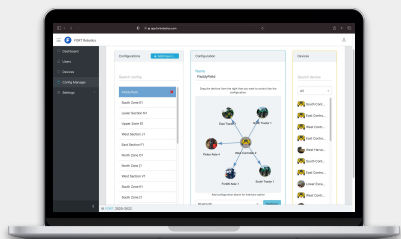
Work in harsh environments with **rugged design** and IP65 rated enclosure

Easily integrate using the CANopen or CAN J1939 protocols, ethernet, or 23-pin connector

Protect against security threats with tamper resistant hardware, secure element for root of trust, and digital signature verification for boot, configuration, and updates

FORT Manager

Easily manage, configure, and update your FORT devices via our web app or APIs



FORT Manager accelerates safe, secure machine deployment.

- Onboard and manage FORT devices
- Build device-to-device configurations
- Manage organizations, users, and permissions

FORT Manager is **accessible via:**

Web App: convenient drag-and-drop device configuration with no coding required

APIs: build integrations between FORT Manager and your applications

The Endpoint Controller comes with 3 years of access to the FORT Manager Web App and APIs. Learn more at fortrobotics.com/fort-manager

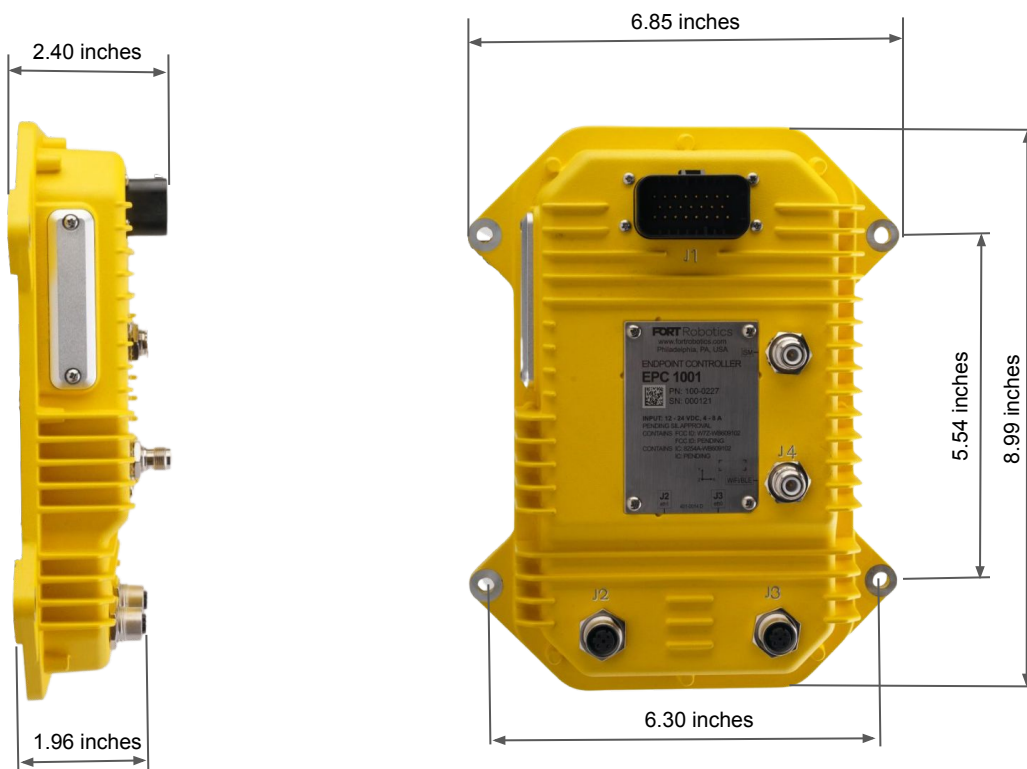
Guardian Add-On Warranty

Hassle-free protection for your FORT devices

The **Guardian Protection Plan**, an optional add-on service, helps you get the most out of your FORT devices. With hassle-free support and free repairs, Guardian gives you peace of mind and protection from unexpected costs or downtime. Ask your sales representative for more information.

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ENDPOINT CONTROLLER TECHNICAL SPECIFICATIONS

	EPC 1000	EPC 1001	EPC 1002
Device Form Factor	Machine mountable transmitter / receiver		
Dimensions	228mm x 176mm x 70mm 8.99" x 6.85" x 2.4"		
Base Unit Weight	878g		
Operating Temps	-40°C to 85°C		
Operating Voltage	8V to 32V DC		
Wired Interface	Power, CAN and Field Input/Output		
CAN Supported Protocols	CAN J1939, CANopen		
Connectors	2x M12 Ethernet connectors 23-pin main integration connector mini USB-B (service port)		
Antenna Connectors	1 RP-SMA	2 RP-SMA	2 RP-SMA
Inputs	3 dual channels		
Input Voltage	12V or 24V nominal, 8 to 32V full range		
EPC Power Draw	2.18 - 2.78 W		
Safety Outputs	3 dual channels (1 dedicated to FORT Safe Remote Control Pro)		
Current Limit	750 mA max per output channel		
Safety Output Type	3 dual channel current sourcing		
Enclosure Rating	IP65		
Pairing	1 EPC : 30 EPC, 1 Safe Remote Control Pro : 30 EPC		
Management Console	FORT Manager Web App		
Secure device boot up	cryptographic boot and firmware image verification		
Secure Element (storage)	SE050 NXP chip		
Secure Enclave (CPU)	ARM TrustZone		
Signature verification	for configurations and firmware updates		
Regulatory	pending FCC, IC compliant (US)(CA), CE mark (EU)		
Safety Certification	E-stop functionality pending Exida SIL-2 rating per IEC 61508		

COMMUNICATION INTERFACES

Bluetooth Low Energy (BLE)	included		
BLE Range	30m line-of-sight		
Wi-Fi	included (access point not included)		
Wi-Fi Range	customer coverage dependant		
Ethernet	embedded 10/100 Mbps port		
ISM Radio Add-On Options	—	900MHz (NA) 902 - 928 MHz	868MHz (EU) 869.4 - 869.65 MHz
Max ISM Rangex	—	1km line-of-sight	1km line-of-sight
Output Radio Transmission Power	ISM: 500mW, BLE: 2.5mW, Wi-Fi: 6.3mW		