ERBESSD INSTRUMENTS®

MASTERS OF MACHINE HEALTH

DEFIANT

REAL-TIME ONLINE PROTECTION AND MONITORING SYSTEM

www.erbessd-instruments.com

Engineered for versatility, the **DEFIANT 16-channel interface** supports a wide range of signals and seamlessly integrates with multiple sensor types.

Fully **compatible** with our **PHANTOM** sensors, **DEFIANT** is more than just a tool—it's a path to smarter, seamless monitoring tailored to meet every industrial requirement.

DEFIANT provides unparalleled data visualization alongside **remote access capabilities**, empowering you to stay connected from anywhere.



REAL-TIME MONITORING (WIRED CHANNELS)	
Channels	16
Data acquisition	Simultaneous reading *(no multiplexing)*
Sample rate	32kS/s
Fmax	12.5kHz
Resolution	16-bit
Sensor support	IEPE Accelerometers, pulse-train output sensors, proximity probes, displacement sensors, 4-20mA *(with an external adapter)*, current transformers and any voltage-output sensor *(AC and DC)*.
Voltage input ranges (AC)	±2.5 V, ±5 V, ±10 V *(selectable per channel)*
Voltage input ranges (DC)	0-5 V, 0-10 V, 0-12 V *(selectable per channel)*
Recording types	Interval-based, time-of-day, overall-triggered
Short Burst Waveform Recording	3,276,800 lines of resolution *(102 seconds)*
Long-Term Waveform Recording	Continuous recording, viewable in windows up to 100 seconds
Vibration monitoring real time overalls	Standard overalls: Acceleration, velocity, displacement, acceleration envelope, crest factor, kurtosis, skewness, peak to peak, etc.
Monitoring speed	<10ms depending on channels and overalls enabled
Connector type	Terminal block plug 3 positions, 3.81mm pitch *(DC input, AC input and Ground)*
Storage	256GB SSD *(up to 3 days of continuous data recording for 16 channels)*

DIGITAL INPUT/OUTPUTS	
Number of channels	4
Channel types	Configurable as Dry Contact input or 0-12V/150mA digital output
Output channel control	Based on overall alarms
Connector type	Terminal block plug 2 positions, 3.81mm pitch

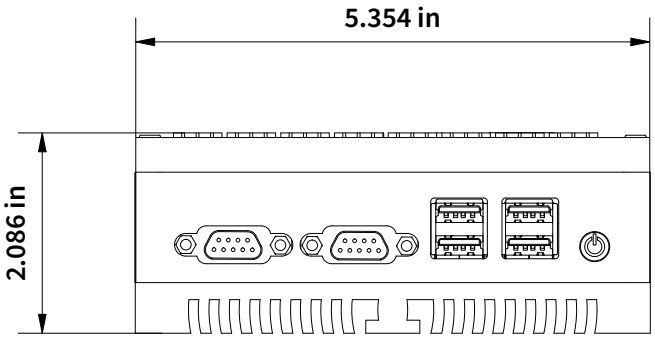
WIRELESS SENSOR SUPPORT	
Sensors support	Compatible with the full line of Phantom Wireless sensors *(vibration, speed, current, etc)*
Wireless range	100 m line of sight / 500 m line of sight *(long range mode)*
Wireless sensor protocol	BLE 5.0
Operating frequency	2.4 Ghz
Transmission Power	+/-8dBm
Antenna connector *(for BLE)*	RP-SMA Male connections
Antenna Gain *(for BLE)*	2.4Ghz Antenna 3dBi

SOFTWARE SUPPORT	
Analysis Software	Built-in, also compatible with Digivibe MX And Wiser Vibe
Cloud service support	EI Analytic *(eianalytic.com)* for cloud vibration monitoring, analysis and alarm notifications
Industrial protocols *(overalls only)*	Modbus TCP, OPC UA
APIs *(overalls and time waveforms)*	MQTT, Websockets, REST

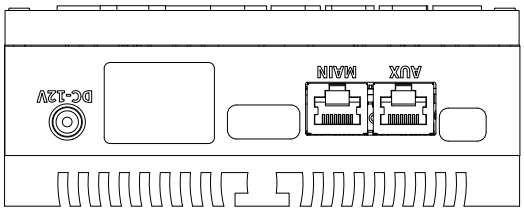
CONNECTIVITY	
Wired Network	Two 100M/10M Ethernet ports RJ45 (*for OT and IT Network)*
Wireless Network	WiFi 802.11 a/b/g/n
Wireless Security	WPA-2/WPA-3 *(PSK)* and WPA Enterprise *(802.1X)*
Antenna connector *(for WiFi)*	RP-SMA Male connections
Antenna gain*(for WiFi)*	2.4Ghz Antenna 3dBi

DEVICE SPECIFICATIONS	
Power supply	12 V DC/3 A *(power supply included, with replaceable IEC C13 cable)*
Dimensions	5.354 x 4.976 x 2.086 in
Weight	960 grams
Housing material	Stainless Steel
Operating temperature	-7 to 60 °C *(20 to 140 °F)*
Protection grade	IP54
Mounting	Standard DIN Rail *(35 mm, 42 mm wide)*
SKU	EPH-D16

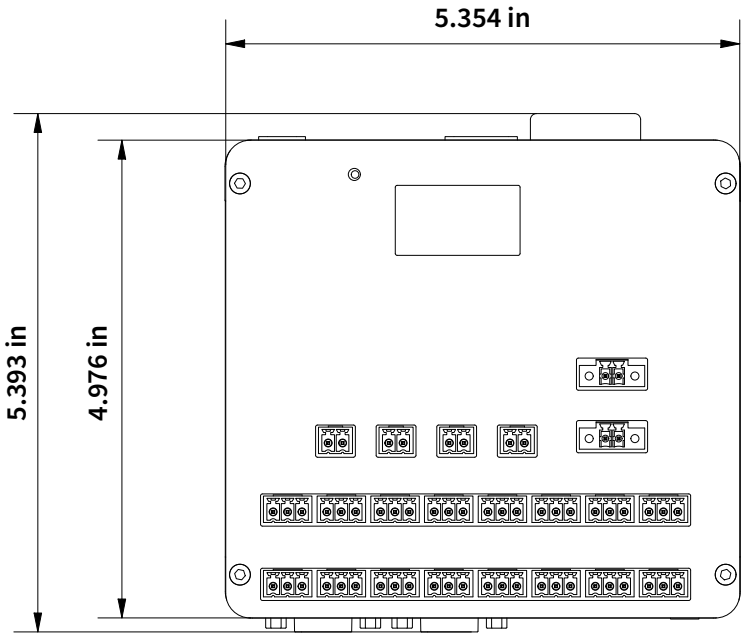
DIMENSIONS



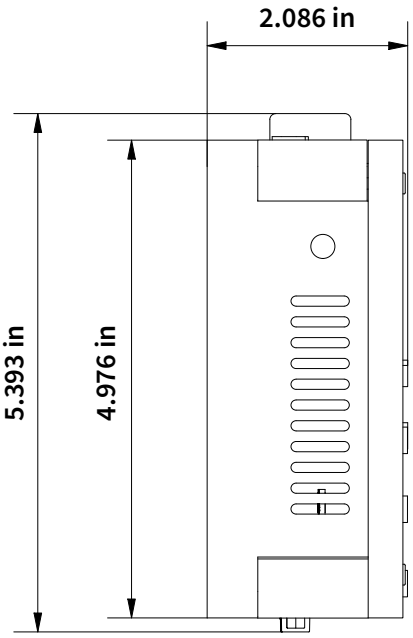
BOTTOM VIEW



TOP VIEW



FRONT VIEW



LATERAL VIEW