Technical Data Sheet

SKU	MODEL
90-0001A	EdgePi BYOD-FAN (No Compute Module)
90-0002A	EdgePi Lite 4GB-16GB SD-FAN
90-0005A	EdgePi Pro 8GB-32GB eMMC-WIFI-FAN
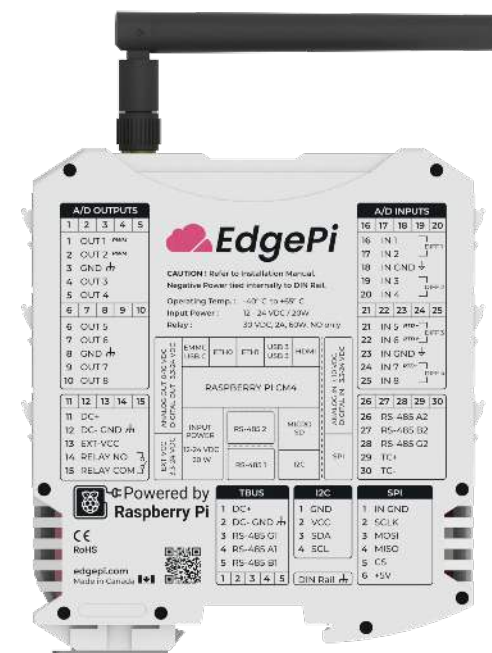
PHYSICAL PROPERTIES

Housing Dimensions (H x W x D)	**114 x 104 x 45 mm**
Housing Weight	**283 g (0.62 lbs)**
Housing Material	**PA66 (Nylon, 125°C Max)**
Mounting	**35 mm DIN Rail (IEC/EN 60715-35, TS35)**
IP Classification	**IP20**
Screw Terminal Wire Gauge	**16 - 28 AWG**
Screw Terminal Torque	**0.22 - 0.25Nm (1.9 - 2.2 lb-in)**

POWER

Power Requirements	**12 - 24 VDC ±15%, reverse-polarity protected**
Max Power Consumption	**20 Watts (includes USB power, Fan)**

ENVIRONMENTAL

Operating Temperature	**-25°C to +65 °C**
Storage Temperature	**-40°C to +85 °C**
Humidity	**0 to 95% (non-condensing)**
CPU Temperature at Peak Load	**25°C above ambient**
Cooling Method	**Internal heatsink, variable speed fan**

INPUTS & OUTPUTS

Input Channels (8x Analog or Digital)	**Digital In** • 3.3V - 24VDC Digital Input **Analog In** • ±10VDC, 32-bit resolution, Max 5.4kHz sampling • Configurable as 4x differential pairs • Configurable as 3-wire RTD input • 3kV Isolation
Output Channels (8x Analog or Digital)	**Digital Out** • 3.3V - 24VDC Digital Out • 2x configurable as PWM output • Up to 500mA from internal 5V power • Up to 2A from external power **Analog Out** • 0 - 10VDC Analog Out, 16bit resolution

PORTS & SLOTS

Video	1x Micro HDMI 2.0a (4K)
Serial	2x RS485 3-wire, 3kV isolation
Powered USB	2x USB 3.0 (1A Each)
Gigabit Ethernet	2x RJ45 10/100/1000 Gigabit Ethernet
Programming Interface	1x USB-C for eMMC programming only
Development Interfaces	1x SPI, 3kV Isolation, 6-wire JST-SH connector 1x I2C, no Isolation, 4-wire JST-SH Qwiic Connect and Stemma QT compatible
Micro SD Slot	1x Micro-SD Card, 50 Mbps, 1 TB Max (Disabled for all eMMC models)

FEATURES

Fan Header	1x 12 VDC, 4-wire variable speed PWM control
Relay	1x 30 VDC, 2A, 60W
Real-Time Clock	3 PPM accuracy
Battery	3V Lithium CR1216 / CR 1220 / CR1225
Thermocouple	19 bit, Types K,J,N,R,S,T,E and B
Wireless Models	WiFi 802.11 b/g/n/ac, BLE 5.0
Indicator LEDs	8x programmable or H/W assigned to I/O's
EEPROM	32KB (16KB reserved, 16KB user programmable)

COMPLIANCY

FCC Compliant	Yes
RoHS Compliant	Yes
CE Compliant	Yes
UL Certification	Yes, cULus (pending)

COMPUTE MODULE

Raspberry Pi Compute Module 4	All models are supported but micro-SD slot is disabled for modules with eMMC memory

SOFTWARE & CLOUD

IoT Protocol	MQTT
Security	256-bit private key encryption
Data topics	All digital/analog inputs/outputs, TC, LED status, relay status, fan speed, CPU temperature, etc.
Remote Device Configuration	EdgePi Portal Dashboard (free)
Cloud Automatic Data Storage	EdgePi Portal (subscription required)
Cloud Data Visualization	EdgePi Portal (subscription required)
Cloud API	Read streaming (semi real-time) and historical data (subscription required)
EdgePi Hardware SDK	Python SDK, Open source MIT license https://github.com/edgepi-cloud