

YuDash ZENYX

Compact IoT Gateway & Data Logger



Connect

- Modbus RS485 / RTU
- Modbus TCP/IP
- 4 × Analog Inputs
- On-board Scaling & Calculations



Communicate

- 4G/LTE & Ethernet
- MQTT, HTTP, REST & FTP
- JSON, TXT & CSV Payloads
- Two-way Data Communication



Log

- 8 GB Local Storage
- Flexible CSV Data Logging
- Network Failure Backfill
- Local Monitoring & Diagnostics

One Product. Many Applications.



Industrial Process



Water Infrastructure



Weather & Hydromet



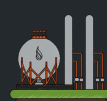
Energy Monitoring



Smart Building



Machine Monitoring



OEM Asset Monitoring



Environmental Compliance



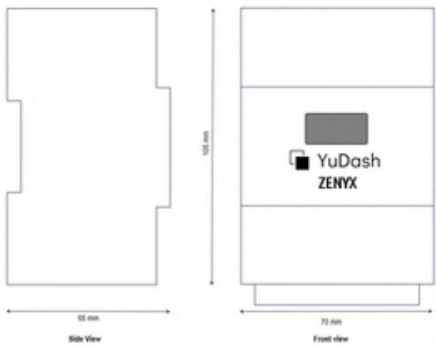
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ZENYX Model Selection

Part No	Analog Inputs			RS485 Modbus	Industrial SD Card (8 GB)	Data Logging
	0 – 20mA	0 – 5V	0 – 90V			
ZENYX44	4 Ch	X	X	✓	X	X
ZENYX46	4 Ch	X	X	✓	✓	✓
ZENYX48	3 Ch	X	1 Ch	✓	✓	✓

Physical Dimensions



Standard Features Across All Models

- 1) 4G/LTE Connectivity
- 2) Ethernet LAN
- 3) RTC

Technical Specifications

Rated Input Supply	12V / 24V DC input.
Processor	Dual-core 32-bit Xtensa LX6 @ 240 MHz
Hardware Interfaces	• 1 x RS485 • 4 channel analog inputs (16-bit ADC) • Inbuilt RTC with battery backup • 8 GB Industrial SD Card
Network Interfaces	• 4G/LTE • Ethernet LAN and Wi-Fi (2.4 GHz).
Display	0.96 inch OLED screen for status monitoring
Dimensions	70 mm (W) x 105 mm (H) x 65 mm (D)
Enclosure	ABS Plastic DIN-rail enclosure. IP30 rating.
Mounting	DIN-rail and wall mounting. Use in IP67 enclosure for outdoor use.
Weight	Approx. 180 gram
Terminals	5 mm pluggable terminal jacks
Environmental Conditions	Operating Temperature: -10 °C to 60 °C Storage Temperature: -20 °C to 70 °C Humidity: Up to 85% RH, non-condensing
Power Consumption (input 12V DC)	~ 100 mA

Protocol Support

Analog Inputs	1) 4 Channels of 16-bit ADC for 0-20mA. 2) Optional 0-90V DC input for battery voltage
RS485 Modbus	1) RS-485 MODBUS/RTU and MODBUS TCP/IP 2) Up to 120 parameters/tags. Support for 20 Modbus slaves 3) Modbus Write feature for PLC/Instrument settings update 4) MQTT/Analog to Modbus Client/Server (RTU and TCP/IP)
Ethernet Protocols	1) HTML parsing 2) Modbus TCP/IP 3) SNMP Client

Telemetry & Data Logger Features

Network Connectivity	1) 4G/LTE Cellular <i>EU, ANZ and Global variants available on request</i> 2) Ethernet LAN
Data Logger Features	1) 8 GB Industrial SD card included in data logger. 2) Flexible CSV data logging (hourly/daily/monthly/yearly files). 3) Ethernet LAN based SD card browser.
Cloud Protocols and Payloads	1) MQTT, REST, HTTP, FTP. Secure layer (SSL/TLS) support. 2) Inbuilt JSON payload formats to support all IoT servers. 3) Generic payload generator for CSV and JSON formats. 4) Data push to multiple servers across protocols. 5) Server backfill for network failure.
Ethernet Features	1) Connect to Internet / local LAN server 2) Modbus TCP/IP, HTML parsing, SNMP 3) LAN-based web server for monitoring and diagnostics.
Flexible Configuration	1) Easy configuration through Wi-Fi/LAN from laptop/mobile. 2) JSON based configuration for backup/restore.

Field-Proven Deployments



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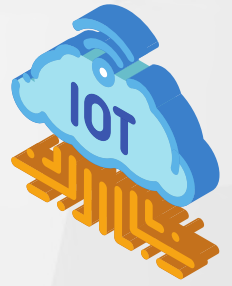
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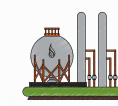
ZENYX IoT Gateway & Data Logger



Water & Air Pollution Compliance



Water Supply Management



Remote Asset Monitoring



Energy & Industrial Process



Network Connectivity



4G Cellular



Ethernet



WiFi



Lorawan



Product Variants



India, ASEAN



EU, MENA



ANZ, LATAM



USA, Global

Cloud Protocols



MQTT



REST



HTTP



FTP



TLS/SSL

Payload Formats



JSON



TXT



CSV

Industrial Protocols



Modbus RS485



Modbus TCP/IP



4-20mA Analog (4 Channels)

Data Logger



8GB Industrial SD card



Flexible CSV data logging

Product Features



On-device display for status & diagnostics



Inbuilt JSON payload formats library



Simultaneous data push to multiple servers



Data scaling & Post processing



Generic TXT/CSV payload generator & SD storage



WiFi/LAN based easy configuration



Tick, Select & Configure JSON backup and restore



MQTT based Remote Device Management



On-device web server for local monitoring



Network failure support Local Storage & Back-fill

Pre-integrated with Global IoT Platforms..



Designed and Made in India



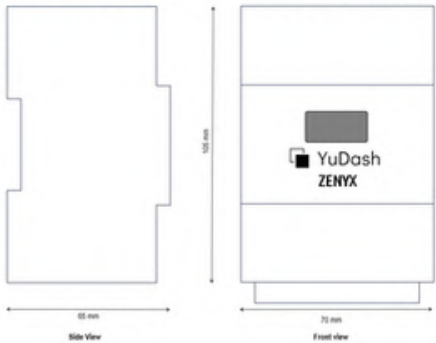
Product documentation
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IoT | Industry 4.0

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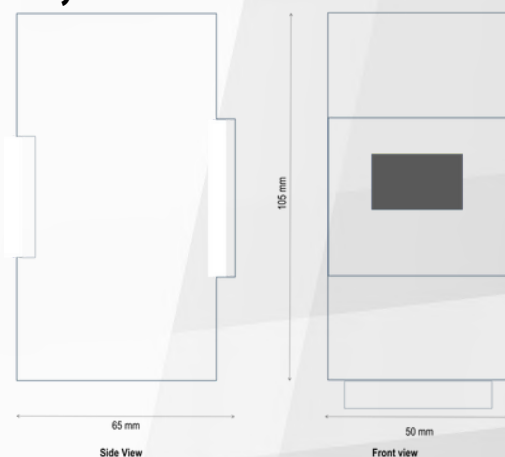


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ZENYX Part Numbers

Part No	Hardware Features							Firmware Features	
	WiFi	4G/LTE	Ethernet	Modbus RS-485	4 Channel Analog	RTC	Industrial SD card (8GB)	Data Logging and NFH	FTP
IoT Gateways									
ZENYX40	✓	✓		✓		✓			
ZENYX41	✓		✓	✓		✓			
ZENYX42	✓	✓	✓	✓		✓			
ZENYX44	✓	✓	✓	✓	✓	✓			
ZENYX45	✓		✓	✓	✓	✓			
Data Loggers									
ZENYX46	✓	✓	✓	✓	✓	✓	✓	✓	✓
ZENYX47	✓		✓	✓	✓	✓	✓	✓	✓

Physical Dimensions



Product Features

Network Connectivity	1) WiFi, Ethernet, 4G Cellular (LTE). 2) India, EU and Global variants for 4G/LTE 3) Network fallback options. 4) Real Time Clock (RTC). Auto-synchronization with NTP/4G network
MODBUS Communication	1) RS-485 MODBUS/RTU and MODBUS TCP/IP 2) Upto 96 parameters/tags. Support for 16 Modbus slaves 3) Modbus Write feature for PLC/Instrument settings update 4) MQTT/Analog to Modbus Server (RTU and TCP/IP)
Cloud Protocols and Payloads	1) Supports MQTT, REST, HTTP. Secure layer (SSL/TLS) support. 2) Inbuilt JSON payload formats to support all IoT servers. 3) Generic payload generator for json/text/csv formats. 4) Data push to multiple servers across protocols. 5) FTP protocol support in data-logger variants.
Ethernet Features	1) Connect to Internet / local LAN server 2) Modbus TCP/IP, HTML parsing, SNMP 3) Configurable for Static or Dynamic IP. 4) On-device Web server for real-time monitoring and diagnostics.
Analog Inputs	1) 4 channel Analog Inputs (0-20mA / 4-20mA) 2) Data scaling, clipping for parameter mapping.
Flexible Configuration	1) Easy configuration UI through WiFi/LAN from laptop/mobile. 2) JSON based configuration for backup/restore and mass deployment. 3) Configure deployed ZENYX in field through MQTT or YuDash cloud
Data Logger Features	1) Local Storage (8GB Industrial SD card) 2) Configurable data logging in CSV file. UI based SD card access. 3) Network failure Handler (NFH) with server back-fill.

Technical Specifications

Rated Input Supply	12V / 24V DC input.
Mounting	DIN Rail mounting and Wall mounting.
Dimensions	105 x 50 x 65mm
Enclosure	ABS Plastic Enclosure. IP 30 rating.
Display	OLED screen for status monitor and configuration
Environmental Conditions	Within IP67 enclosure for outdoor or indoor use.
Temperature	Operating : 0 °C to 60 °C Storage: -10 °C to 70 °C
Humidity	Upto 85% (non-condensing)
Weight	150 gram (approx)



Product documentation
<https://docs.yudash.com>



Global 4G/LTE Product variants

- 1) EU part numbers: ZENYX44E, ZENYX46E
- 2) ANZ part number: ZENYX44A, ZENYX46A
- 3) Global part numbers: ZENYX44G, ZENYX46G

Worldwide YuDash deployments..



Government Projects



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