

TECHNICAL DATASHEET

AURA X36

Gateway for distributed signals, sensors, actuators and systems, with monitoring, security, remote actuation and remote management

Type:

Technical datasheet

Product:

AURA X36

System:

AITHANEX

Audience:

Engineering, installation, integration and support

Document version:

1.0

Revision date:

2026-10-04

Product type

Gateway for distributed signals, sensors, actuators and systems, with monitoring, security, remote actuation and remote management.

It connects signals, sensors, actuators and systems to **AITHANEX** (management and control platform) or to customer platforms.

Role within the system

AURA X36 connects the physical infrastructure to an operations platform.

It allows data to be centralized, alerts to be generated, events to be logged, equipment to be acted on and integration with existing systems to be maintained.

Operational issue

At distributed sites, signals, actuators, sensors and auxiliary systems tend to end up isolated.

This limits remote monitoring, complicates local security and forces interventions without enough context.

Technical capabilities

Area	Scope
Signals	Reading of states, sensors and variables defined by engineering.
Inputs and outputs	Monitoring of digital and analog inputs, current measurement and control through potential-free relays.
Security	Monitoring of access, intrusion, tampering or other site events.
Local logging	Keeps events during connectivity interruptions.
Connectivity	RS485, RS232, USB, Ethernet, Wi-Fi, Bluetooth, 4G IoT.
Protocols	MQTT with AITHANEX and buses documented for the deployment.
Remote operation	Monitoring, alerts, actuation rules and remote update.

Applications

- Monitoring of telecom shelters and cabinets.
- Logging of events and alarms in operation.
- Distributed control of signals and auxiliary devices.
- Telemetry of remote infrastructure.
- Traceability of accesses and technical interventions.
- Integration with AITHANEX and with the customer's external systems.

Remote monitoring and control

The unit centralizes signal reading, actuation on outputs, local authentication and traceability of interventions.

The exact values of inputs, outputs and interfaces are gathered in the specification tables.

Communications

AURA X36 communicates with AITHANEX through MQTT over the link available at each site.

The physical and wireless interfaces are detailed in the communications table.

Logging

The unit keeps events, accesses and operations locally.

When connectivity is available, it synchronizes that information with AITHANEX to maintain traceability of accesses and interventions.

Construction

- Aluminum enclosure with heat dissipation.
- Screw closure.
- Wall mounting or mounting on a tray or technical cabinet.
- Tropicalized boards.
- LED status indicators.

System functionality

Remote monitoring

The unit centralizes the acquisition of digital states, analog signals and current variables coming from sensors, technical contacts, loops and auxiliary elements.

Control of external elements

The relay outputs allow external devices, automation, signals or subsystems associated with the monitored infrastructure to be operated.

Communication with AITHANEX

The unit maintains communication with the platform through MQTT using the link available at each site: Ethernet, Wi-Fi or 4G IoT.

Events are published to the defined topics and downstream commands are received by subscription.

Identification and traceability

The mobile app allows local connection, identification of an authorized user and logging of the action carried out.

The information is stored locally and synchronized with AITHANEX to maintain traceability of accesses and interventions.

Technical specifications

The following tables gather the reference technical values.

Inputs and outputs

Parameter	Specification
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Digital inputs	16, optocoupled.
Digital outputs	8 potential-free relays.
Relay	10 A up to 250 VAC.
Analog channels	3 inputs 0-10 V and 1 output 0-10 V.
Current inputs	2, range 0 to 20 mA.
Loop measurement	Up to 1000 m.
Authentication interface	1 input and 1 output, non-programmable.
Security cable sensor	1 dedicated input.

Detailed communications

Parameter	Specification
RS485	1 two-wire port.
Reinforced RS485	1 port for higher EMC requirements.
RS232	1 port.
USB	1 service port.
Ethernet	Yes.
Wi-Fi	Yes.
Bluetooth	Yes.
4G IoT	Multi-frequency module, global coverage.
Communication with AITHANEX	MQTT over Ethernet, Wi-Fi or 4G IoT.
OTA	Yes.

Logging and monitoring

Parameter	Specification
Local logging	Events, accesses and operations.
Server logging	Yes, via MQTT with AITHANEX.
Accelerometer and gyroscope	Integrated.
Status indicators	LED.

Construction and mounting

Parameter	Specification
Enclosure	Aluminum with heat dissipation.
Closure	Screw-closed box.

Mounting	Wall or tray or technical cabinet.
Board protection	Tropicalized.
Reference dimensions	320 x 220 x 100 mm.

Power supply

Parameter	Specification
Nominal input voltage	100-240 VAC.
Frequency	50/60 Hz.

Operating environment

Parameter	Specification
Operating temperature	-20 C to +60 C.
Environmental protection	IP20. Screw-closed aluminum box, not sealed for direct outdoor exposure.
Impact	IK7.

System advantages

Operation and connectivity:

- Unified platform for monitoring, control and logging in operation.
- Reduction of auxiliary equipment in the installation.
- Local, field and global cellular connectivity.
- MQTT communication with AITHANEX.

Maintainability and deployment:

- OTA update for maintenance and evolution of the system.
- Robust construction aimed at distributed deployments.

Authenticated intervention

When an operator acts on a site with AURA X36, the procedure may require validation from the mobile app.

- Identification of the operator in a secure app.
- Local connection over Bluetooth.
- Authorized temporary deactivation of security.
- Photographic evidence of the intervention captured from the mobile app itself.
- Logging of time, device, action and result.

Typical applications

- Telecom shelters and cabinets.
- Prefabricated installations and remote sites.
- Energy infrastructure.
- Technical rooms.
- Distributed industrial installations.

References

- AITHANEX: <https://aitha.es/en/platform/>
- AURA X36: <https://aitha.es/en/products/aura-x36/>

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