VTX-WLS configuration guide

Wireless nodes, local gateways and plant-wide monitoring kits

Document status - application guide and configuration review checklist. Use a controlled configuration datasheet, approved drawing and written quotation to define the delivered model, ratings, documents and commercial terms.

Select a radio and gateway architecture

VTX-WLS identifies a wireless vibration-plus-temperature node request. VTX-GW identifies its gateway request. Choose LoRaWAN or WirelessHART for the selected ecosystem, frequency plan, master and site requirements.

Describe where the network server, gateway services, data storage and supervisory software will run. For a local OT deployment, request local data retention, local administration and the exact northbound integration into plant SCADA.

Confirm the commercial and data path

For a hardware-purchase solution, request a written itemization of hardware, software licenses, optional services, updates and support. Ask the quotation to identify any recurring charge or required external service, together with the local operating capability.

Specify Modbus TCP registers or MQTT broker, topics, payload schema, authentication, timestamps and retention. Request OPC UA separately when the selected gateway supports the required information model.

Duty cycle determines the energy budget

Give feature sampling interval, reporting interval, event capture, waveform length, upload schedule, temperature range, expected coverage and battery-access constraints. Trend packets and full spectra impose different bandwidth and energy demands. Obtain a duty-cycle-specific battery estimate.

VTX-WLS configuration guide (continued)

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10 / 50 / 100-point kit planning

- 10-point pilot - list ten exact measurement points, node mounts, one proposed coverage area, gateway interfaces and acceptance checks.
- 50-point workshop rollout - group assets by radio zone, access conditions, sampling schedule, gateway coverage and machine criticality.
- 100-plus plant rollout - provide a coverage survey plan, gateway and network-server design, address / asset naming rules, spare-node policy and commissioning schedule.

For each kit, request an itemized BOM covering nodes, gateways, antennas, mounting hardware, power supplies, network services, licenses and commissioning. Gateway count follows the site and traffic design.

Site, battery and approval checklist

- Destination country, radio band, antenna placement, obstructions and survey conditions.
- Exact battery type, replacement method, transport documentation and service access.
- For hazardous areas, exact node, battery, antenna and accessory certificate conditions.
- Alarm latency and data-loss behavior. Review machine protection separately from scheduled monitoring.

Request the exact quantity, destination, installation schedule and required documents. Confirm unit prices, installation-kit prices, calibration scope, transport, warranty and lead time in the quotation for the selected configuration.

Machine evaluation and engineering reference

Select the applicable ISO 20816 part and adopted edition for the machine, support, speed, measurement direction and operating state. Overall housing vibration and changes from a baseline support condition trending. A diagnostic bearing assessment may need high-frequency features or waveforms.

https://www.iso.org/standard/89922.html