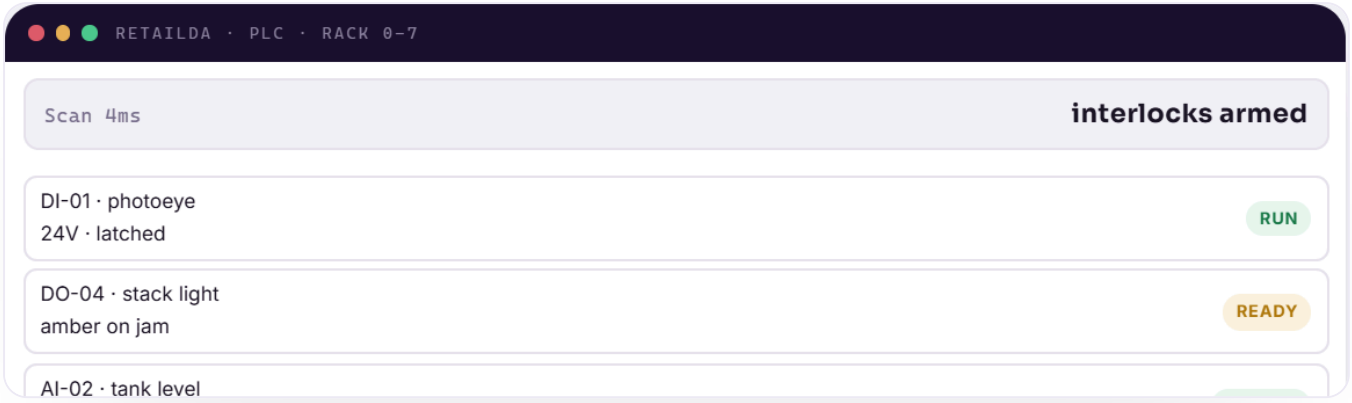
RetailDA

PRODUCT DATASHEET · HARDWARE & EDGE

P.L.C

Programmable logic control on ESP32, NodeMCU and Raspberry Pi.

Industrial edge control on commodity silicon — the same ESP32/NodeMCU architecture that runs India's zero-chemical SCADA water-treatment plants. GPIO, relays and sensors wired straight into the ledger. PLC behaviour without PLC pricing.



97	5 yrs	Air-gap	₹20L
terminals live on one deployment	production on the original build	proven at defence sites	lost in 48h — none since

WHAT IT CHANGES ON THE FLOOR

Commodity-silicon PLCs

ESP32, NodeMCU and Raspberry Pi run hardened control logic — no proprietary controller required.

Sensor to ledger telemetry

GPIO inputs, ADC readings and sensor data land as ledger events automatically.

Relay & actuator control

Outputs drive relays, solenoids and actuators on rules you configure.

Autonomous offline loops

Control loops run on-device — the plant works even fully disconnected.

OTA firmware management

Firmware rolls out signed and staged — a fleet of controllers updates as one.

In production since 2021 — retail, defence, education, manufacturing & hospitality

AVAILABILITY

Included on Scale (Industrial IoT Suite), or + ₹4,999/site/mo ($69) add-on

RUNS ON

Any device · offline-first · your infrastructure or ours

COMPLETE CAPABILITY SET — 10 FEATURES

- ✓ ESP32, NodeMCU & Raspberry Pi hardened control
- ✓ Sensor & ADC telemetry land as ledger events
- ✓ OTA signed firmware rollout
- ✓ Timers, schedules & interlocks
- ✓ Modbus & serial bridges
- ✓ GPIO, relays, solenoids & actuators on rules
- ✓ Autonomous offline control loops
- ✓ SCADA-proven — runs zero-chemical water-treatment plants
- ✓ Threshold actions fire ERP events
- ✓ Fleet dashboard for controllers

BUILT FOR

Manufacturing · SCADA · IoT · Process plants

THE ECONOMICS

	RETAILDA™	PER-SEAT SAAS PATTERN
Pricing unit	Per site — staff accounts unlimited	Per user — every hire compounds the bill
Modules	Toggle on what you need, priced like apps	Per-module add-ons stacked on per-seat tiers
Connectivity	Runs fully offline — forever, if you want	No link, no sale
Data	One database per client — export anytime	Multi-tenant pool, export rituals

How P.L.C compares

Verified against current competitor pricing and feature documentation — retailda.com/compare#plc

ALTERNATIVE	WHERE RETAILDA™ WINS
Siemens / Allen-Bradley	PLC behaviour on ESP32/NodeMCU at commodity-silicon cost — proven controlling live SCADA water-treatment plants.
Ignition SCADA	Control logic wired to the operational ledger — process events become inventory and alerts.
Node-RED DIY	Signed OTA firmware, autonomous control loops and fleet dashboards — industrial, not hobbyist.

DEPLOYMENT MODELS

MODEL	WHAT IT MEANS
Shared cloud	Fastest start — provisioned, patched and monitored for you. Per-site pricing, unlimited staff.
Private cloud	Your own isolated instance — one client, one database. No multi-tenant pooling.
TolsTek Host	On-premise enterprise server — ECC memory, power-loss-protected NVMe, hardware RAID. Also runs the local AI daemons.
Air-gapped	Zero external calls, permanently — proven at defence installations where isolation is mandatory.

WORKS WITH — the platform fabric

UPI & QR · EMV terminals · ESC/POS & thermal · LoRaWAN · Zigbee · MAVLink · MCP agents · ONDC (testing) · WhatsApp Business · Excel/CSV · CloudPRNT · OTAs via channel pipeline

RUNS WITH

Peripheral Bridge · Cloud Print Fabric · Payment Terminals · Digital Signage · TolsTek Local Network

Deployment & rollout

What a P.L.C deployment actually looks like — bring this page to whoever signs off.

ROLLOUT

01 **Sandbox first**
Your catalogue, opening stock and flows run in a sandbox before anything touches production.

02 **Guided migration**
Bulk import of items, barcodes, suppliers and opening stock — Excel/CSV in one pass.

03 **Pilot site**
One counter or one site goes live first — measured against your old process, not promises.

04 **Staged rollout**
Remaining sites switch over on your schedule — staged, sandbox-first cutover.

COMMERCIAL MODEL

Pricing	Included on Scale (Industrial IoT Suite), or +₹4,999/site/mo ($69) add-on — priced per site, never per user. Staff accounts are unlimited.
Ownership	Your data, your keys, your export — leave with everything. No data lock-in.
Support	Real engineers, ticket-based. Feature unlocks are toggles, not projects.

Included on Scale (Industrial IoT Suite), or + ₹4,999/site/mo ($69) add-on

Sign up today — retailda.com/signup · no card required to start

Talk to an engineer

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SIEMENS · Modbus · Industrial Shields · MAVLINK

RetailDA