

HOW IT CONNECTS

Non-invasive installation: the module taps the signals your station already produces. No PLCs or controls are replaced.

01 MACHINE OR STATION

Four 24 VDC digital inputs are wired in (good part, defective part, machine cycle) along with field sensors. Manual operations are supported too.

02 TRACEABILITY MODULE

RFID reader, touch screen, 3-axis accelerometer and four 24 VDC / 15 mA outputs. Data capture starts with the first RFID scan of the shift.

03 PLANT NETWORK

Ethernet/IP over RJ45, 10/100BASE-TX standard, into a dedicated private network. Data travels encrypted.

04 SERVER AND DASHBOARD

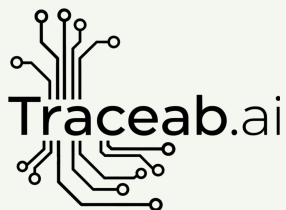
Centralized repository holding roughly 6 months of history. Charts by line, station, shift and downtime category, plus reports and e-mail alerts.



Rear panel: service mini-USB and RJ45 Ethernet

INCLUDED ACCESSORIES

3 m and 1.5 m GPIO cables, RS-485 cable and 120 V to 24 V power adapter.



INDUSTRY 4.0 WITHOUT REPLACING YOUR CONTROLS

Traceability installs on the equipment you already run and starts measuring from the first RFID scan: downtime, OEE, maintenance, materials, calibration and energy use. Real data, in real time, audit-ready.

- Works on new machines, legacy equipment and manual operations
- Data encrypted in transit and at rest, inside your private network
- Scalable platform, adaptable to each customer's process

INDUSTRIES

MEDICAL

AEROSPACE

AUTOMOTIVE

GENERAL MANUFACTURING

AT A GLANCE

24 VDC

Power supply · 0.5 A draw

4 IN / 4 OUT

Digital inputs and outputs

Ethernet/IP

RJ45 · 10/100BASE-TX

6.39 × 4.08 in

Front · 2.39 in deep

CONTACT

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QR CODE
pending

A MECHATRONICS AI PRODUCT

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INDUSTRIAL ARTIFICIAL INTELLIGENCE

TRACEABILITY 4.0



Turns any machine —legacy equipment included— into an Industry 4.0 station. Without replacing your PLCs.

RFID

REAL-TIME OEE

ETHERNET/IP

EMBEDDED AI

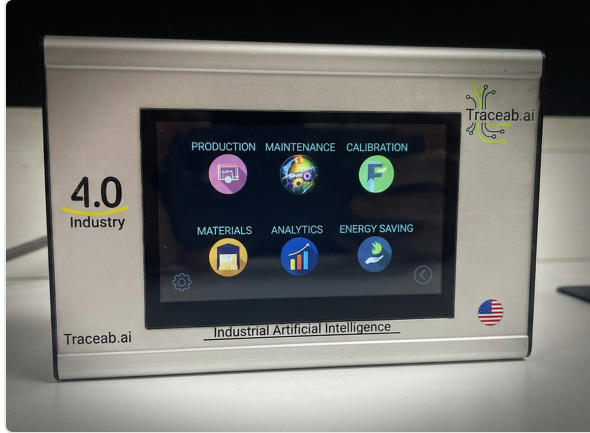
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MADE IN USA

01 WHAT IS TRACEABILITY?

Traceability 4.0 is an intelligent module powered by embedded artificial intelligence that turns any manufacturing station or machine —legacy equipment included— into an Industry 4.0 system.

It acquires, analyzes and displays production, operational and human data in real time, without replacing PLCs or controls, and ships with a built-in cybersecurity protection system.



SIX MODULES ON A SINGLE SCREEN

PRODUCTION

Detects the first piece and monitors production flow across the shift.

CALIBRATION

Prevents calibration from expiring on the components of each workstation.

ANALYTICS

Automatic OEE calculation and real-time production reporting.

MAINTENANCE

MP2 alerts, arrival and repair times, and troubleshooting documentation.

MATERIALS

Logs stoppages caused by missing raw material and the downtime they cause.

ENERGY SAVING

Up to 30% savings on machines connected to the system.

HOW IT WORKS

01

SCAN YOUR BADGE

The associate taps their RFID card. The system validates level, training and authorization.

03

EVERY EVENT IS LOGGED

Cycle time, planned and unplanned downtime, missing material, missing personnel and maintenance.

02

CAPTURE BEGINS

Cleaning and material-staging timers run, and the accelerometer detects the first operation.

04

ANALYZE AND DECIDE

Data reaches the server and becomes OEE, charts, reports and alerts.

02

BENEFITS

What changes on the floor once every station reports on its own.

30%

energy savings on connected machines

6 months

of stored history for audits

Real time

OEE and output, with no manual data entry

0

PLCs or controls to replace

DOWNTIME YOU CAN ACTUALLY SEE

Automatic detection of stoppages, classified by category: maintenance, materials, personnel and process.

MORE OUTPUT, SAME HEAD COUNT

The system recovers lost hours without adding staff or extra supervision.

ONLY CERTIFIED OPERATORS RUN THE JOB

RFID access control with levels: associate, quality, engineering, supervisor, maintenance and super user.

END-TO-END TRACEABILITY

Product tracking across the entire production process, with owner and timestamp on every event.

MAINTENANCE BEFORE THE FAILURE

Automatic alerts, arrival and repair times, and support for preventive and predictive maintenance.

AUDIT-READY BY DESIGN

Centralized, encrypted data on a private network, aligned with medical-industry requirements.

START WITH ONE STATION

Installation does not stop the line and does not touch your controls. A single pilot station is enough to measure the return before scaling across the plant.

03

TECHNICAL SPECIFICATIONS

RFID

- Automatically reads Wiegand HID Proxdata formats (26, 34, 35, 36 and 37 bits)
- Output interface: TTL UART
- Output format: 10-digit hexadecimal
- Reads facility code and card number
- External antenna
- Reading distance: ISO card 3–5 cm · key fob 3–4 cm
- Size: PCB 20 × 30 mm · antenna 35 × 60 mm

DIGITAL INPUTS

- 4 inputs at 24 VDC
- Defective part · Good part · Machine cycle

DIGITAL OUTPUTS

- 4 outputs at 24 VDC / 15 mA
- Authorized user · Unauthorized user · Work output

TOUCH SCREEN

- Operating interface for all six system modules
- User, shift, model and downtime-type registration
- Test mode to drive inputs and outputs and monitor the accelerometer

ELECTRICAL AND COMMUNICATIONS

- 24 VDC supply (120 V to 24 V adapter)
- Current consumption: 0.5 A · Output voltage: 24 V
- Ethernet/IP over RJ45, 10/100BASE-TX standard
- Industrial interfaces: RS-485, RS-232, CAN FD, I²C
- 3-axis accelerometer for first-operation detection

GENERAL DIMENSIONS

- Front view: 6.39 in wide × 4.08 in high
- Side view: 2.15 in high × 2.39 in deep



RFID reader on the side of the enclosure



Input and output connector panel