

Four things worth remembering about Brainboxes

Data off machines that were never designed to share it, without opening the controls or touching the machine logic.

1



The port is already there

A running, qualified controller has an RS-232 or RS-485 port on it. An Ethernet-to-serial unit puts that port on the network; **the plant PC still sees the same COM port** it has always talked to.

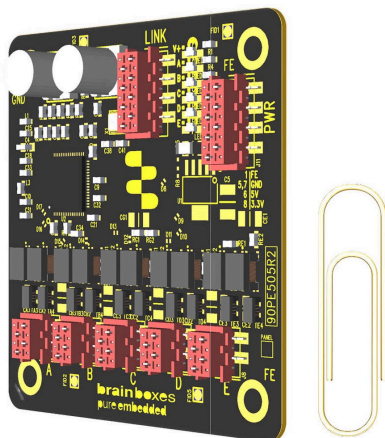
2



Read the machine without opening it

Remote I/O picks up states, counts and temperatures at the sensor and presents them as **Modbus TCP devices your own software polls**. The controller is never touched.

3



Ethernet inside your own product

Board-level switching the size of a paperclip. One OEM built it into a flow controller for wafer-fab gas delivery: **113,000 power cycles, zero failures**.

4



The switch that lives in the cabinet

Compact unmanaged and PoE switches on the DIN rail, so cameras, sensors and edge devices join **one network from inside the panel**.

A data layer beside the controls

Sits outside the control loop and moves information up to MES, historians and dashboards without interfering with machine operation.

Speaks what your software speaks

Modbus TCP, raw TCP, or a Windows COM port. LabVIEW, MATLAB and the VIs you already have keep working.

Where it is the wrong answer

Anything deterministic, safety rated, or inside the control loop stays with the controller vendor's I/O. We will say so.