

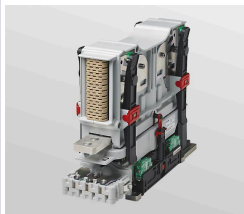
NATIONAL LABORATORIES, RESEARCH FACILITIES AND EXPERIMENTS

Power it. Control it. Prove it.

The electrical line for the experiment, the bench and the building around them: **the switching and clean power the apparatus needs, the console for the person running it, and the slow-control data layer that reaches serial instruments behind a locked door.** The manufacturers Dynamic Measurement and Control Solutions represents, organized the way you design, with an application engineer on the phone before the spec locks.

Power it

Energy in, converted, moved. And the switching and protection that keeps it safe.



SCHALTBAU

The test bench that does not weld

Charge-discharge cycling and short-circuit simulation on a battery or powertrain bench, without contact welding. C303 breaks **1,500 V and 500 A continuous, bidirectional**, 5,000 A for 20 ms without welding; the CP series is modular high-voltage switchgear to 4,800 V and 2,000 A, delivered as a pre-engineered contactor panel, arc chambers swapped without tools.



PREMIUM PSU

Clean AC, galvanically separated

TDS and TDX converters deliver single or three-phase AC with **galvanic separation from the mains**, the supply for metrology, laser and lab loads that should not see the building's noise; 3 kVrms isolation is standard across the line. A DC UPS with Ethernet reporting keeps the controller through a dip. From a shop with 900 custom designs behind it.



WALTHER

The test stand comes out, goes back in

Procon rectangular connectors carry power and control through one hood, so a skid, a test stand or a piece of lab equipment comes out and goes back in the same way: mate the inserts, snap the hood, energize. The interlocked receptacle beside it **cannot be made or broken under load**, and the handle takes a lock. Series II pin and sleeve, 20 to 100 A, UL Listed and CSA Certified together.



CELDUC

One degree, held, without a click

Solid state relays for furnace, bath and thermal-block heating, switching at the zero cross **fast enough to hold a zone within a degree**, no contact to wear, no click in the room, with relays and plug-on modules that report mains, load and protection status. For the DC bus, the SCM to 1,700 V DC and the SDI protected relay at 750 V DC and 50 A, no arc.

Control it

Commanded, coordinated. The utility panel around the experiment, and the console for the person running it.



IMO

Pumps, fans and the panel that runs them

Jaguar drives, including harsh-environment models built for vibration, contactors and motor control from compact to heavy frames, iSmart smart relays and XGB PLCs with **license-free programming**, iView HMIs on the door. UL-approved miniature circuit breakers, RCBOs and surge protection for the auxiliary circuits. Up to 5-year warranty on electromechanical components, same-day dispatch from US stock.



GETT

The console, from a quantity of one

InduSmart panel PCs from 10.1 to 21.5 inches, IP65 front, fanless, Windows or Linux. The BlackLine adds **six capacitive keys and an NFC reader below the display** for operator login and traceability, an E-stop in the panel as an option and your logo printed, from a quantity of one, with seven years of form-fit-function availability. Glass keyboards that wipe clean and optical switches for the lab bench.

Prove it

Proven, not assumed. The slow-control layer beside the DAQ, and the supply recorded next to the experiment.



BRAINBOXES

Diagnostics reached from outside the hall

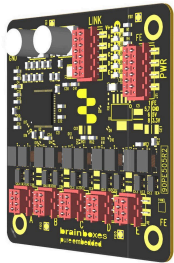
A stellarator experiment put roughly **fifty serial-only diagnostic subsystems on Ethernet**, so operators monitor from outside the access-controlled hall while it runs. Ethernet-to-serial installs as a local COM port, so LabVIEW, MATLAB and the VIs you already have keep working when the instrument moves from the bench PC to the network.



BRAINBOXES

Slow control, not pulse diagnostics

Fast pulse data lives on digitizers; this is the layer beside it. Remote I/O reads module health, interlocks, vacuum and cooling at the sensor and presents them as **Modbus TCP devices your own software polls**; RTD and thermocouple modules put bath and block temperatures on the same network; a bank of sixteen outputs is written in one command.



BRAINBOXES

Ethernet inside your own product

Board-level switching the size of a paperclip, designed into the enclosure instead of bolted on. One OEM built it into a flow controller for wafer-fab gas delivery: **113,000 power cycles, zero failures**, and a ten-year availability commitment behind the part number.



SATEC

Sags recorded, not remembered

PRO Series: a Class 0.2S revenue meter and a Class A Edition 3.1 power quality analyzer in one instrument. Sags, swells, interruptions and unbalance logged with their time and depth, so **the run that tripped at 03:10 has a cause on file**. AC and DC on the same platform, DC to 1,500 V.

Foundation

Looks simple. Fails first. Where the schematic meets the panel.



CONTA-CLIP

Validated cable, connectors on

KDS split entry passes a pre-terminated, tested cable through the enclosure wall with the connector on, sealed to IP66, so the harness that was qualified is the harness that ships; KDS brush entries for the high-density pass-through on a test bench or in a control room.



WISKA

Brace conduit and fittings that seal

The Brace system: plastic conduit with fittings that lock and seal at the enclosure, plus glands including EMC versions and junction boxes, so the drop enters sealed and the shield lands where it should.

A data layer beside the controls

Brainboxes sits outside the control loop and moves information up to MES, historians and dashboards without interfering with machine operation. Anything deterministic, safety rated or inside the loop stays with the controller vendor's I/O.

Standards are datasheet-first

A listing or a standard on a specific part is confirmed on that part's datasheet before it goes on your drawing. Where a supplier's page names a standard and the datasheet does not, we treat it as unconfirmed and say so.

Where we will say no

Anything deterministic, safety rated or inside the control loop stays with the controller vendor. Fast pulse diagnostics, digitizers and the DAQ are not ours; the slow-control and facility layer is. We do not represent enclosures, cryogenics, vacuum hardware or the safety controller. Listings are confirmed on your exact configuration when we quote it.

Talk it through at the design stage

If any part of this card raises a question mid-design, whether that is the contactor on the bench, the isolated supply for the instrument or the serial device behind a locked door, that question is exactly what we are for. A short technical conversation before the spec locks usually surfaces the options a datasheet does not.

Jeff Weseloh, Application Engineer

Dynamic Measurement and Control Solutions

(408) 780-9190 · jeff@dynamicrep.com ·

www.dynamicrep.com/process-life-science-solutions-reliable-power-control-connectivity

THE MANUFACTURERS ON THIS CARD

