

MARINE, SUBSEA AND OFFSHORE SYSTEMS

Power it. Control it. Prove it.

The electrical line for the vessel, the vehicle that goes under, and the pier they come back to: **the DC switching and conversion on the electric platform, the interfaces that take salt and gloves, the network inside a sealed hull, and the power and metering on the shore.** 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

Breaks DC on the electric vessel

A battery bus never crosses zero, so the contactor clears the arc itself: permanent-magnet arc blowout in an open chamber, **bidirectional, to 3,000 V**, so charge, discharge and regeneration run through one device. A marine line with C320 and C360 contactors carrying DNV approval for the electric ferry; HV connectors at 1 kV and 470 A.



PREMIUM PSU

Sealed, from the pack to the deck

CMS-2000 takes **180 to 950 V DC from a pack**, sealed to IP67 and IP69K, for the 24 V bus; OPS-260 inverters sealed to IP66 for the open deck; ODX-6000 6 kVA three-phase inverters, parallelable, for a compressor or a welder run from the battery. -40 to +70 C ranges available across the line.



WALTHER

Power on the pier and in the yard

Portable power distribution for the shipyard and the pier: a 40 A portable unit with **six GFCI-protected duplex outlets** from a 60 A IP67 inlet, hand-truck carts with a step-down transformer on board, portable PDUs from 40 to 400 A, drive-over cable bridges. Series II pin and sleeve, 20 to 100 A, IP67, UL Listed and CSA Certified together.



CELDUC

Heat and sensing, nothing to wear

Solid state relays for the DC bus: the SDI protected relay at **750 V DC and 50 A**, the SCM to 1,700 V DC, for heaters, pre-charge and auxiliary loads with no moving parts and no arc. Not isolation and not a disconnect. Reed and magnetic sensors for hatch and door detection, sealed, stainless versions for the wet end.

Control it

Commanded, coordinated. The engine-room auxiliaries, the yard panel and the station on deck.



IMO

Ventilation, pumps, the yard panel

Jaguar drives, including **harsh-environment models built for vibration**, for the ventilation fans and the pumps; contactors with a 3 W sealed coil draw that run cool on a hybrid supply; UL-approved miniature circuit breakers, RCBOs and surge protection for the yard circuits; iSmart and XGB logic with license-free programming for the pier gate. Same-day dispatch from US stock.



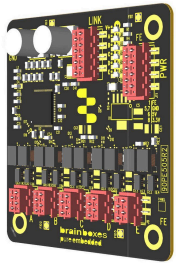
GETT

Wheelhouse, deck and pier interfaces

Stainless steel keyboards and keypads that **shrug off weather and abuse**, capacitive keyboards that read a gloved hand through a sealed front, sealed keyboards to IP68 that wipe clean, optical switches with no moving part, and InduSmart panel PCs with an IP65 front for the control station. Complete outdoor terminals to IP65 for access at the terminal.

Prove it

Proven, not assumed. The network inside the hull, the cabinet on the pier, and the meter on the shore service.



BRAINBOXES

Gigabit in the hull, under pressure

The PE-515 is board-level Ethernet 55 by 55 millimeters, designed into the vehicle's own electronics, and it **carries no electrolytic capacitors**, the part that fails when a board is immersed and pressurized. A builder of research submersibles tested one to 140 bar with a 24-hour soak; link speeds held on every channel.



BRAINBOXES

Sensors and sonar on one network

Subsea inspection vehicles consolidate dispersed sensor wiring onto **one gigabit network inside the hull**: PE embedded switches, remote I/O that presents states, counts and temperatures as Modbus TCP devices the topside software polls, and Ethernet-to-serial that puts an RS-232 or RS-485 instrument on the network as a local COM port.



BRAINBOXES

The cabinet on the pier

Compact unmanaged switches on the DIN rail that hold **-40 to +80 C** in a pier cabinet, managed switches with SFP fiber ports for the run down the wharf past the distance and the EMI copper cannot, and PoE switches that power the cameras at the berth from the switch port, one cable per device.



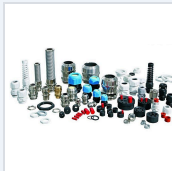
SATEC

AC on the pier, DC on the vessel

PRO Series meters the shore service and the DC bus on one family: DC to 1,500 V through Hall-effect sensors at 0.2 percent, up to 3,000 A DC, and a **Class 0.2S revenue meter with a Class A Edition 3.1 power quality analyzer** on the AC service. BFM-II gives each berth and charger feed its own kWh; HACS split-core sensors clip on around an energized conductor.

Foundation

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



WISKA

Sealing from a shipbuilding start

WISKA started on ship installations in 1919: glands including EMC versions, COMBI junction boxes to IP66, UV and ozone resistant, and venting, for the deck, the pier cabinet and the yard.



CONTA-CLIP

The tested harness, connectors on

KDS split cable entry passes a pre-terminated, tested cable through the enclosure wall with the connector on, sealed to IP66 from -40 to +120 C; spring-clamp terminal blocks that hold under vibration on the rail behind it.

DC breaks differently than AC

No zero crossing means the contactor has to stretch and cool the arc itself. Ask what a contactor breaks under load, not only what it holds; the two numbers are not the same.

A pressure rating is a survival test, not a depth

A gland rated to a bar figure for a set time survived that test; it is not a depth rating and not an immersion rating. Sustained depth is penetrator territory. Tell us what the enclosure sees.

Where we will say no

Anything deterministic, safety rated or inside the vessel control loop stays with the controller vendor. The only marine type approval on this card is the DNV approval Schaltbau publishes on the C320 and C360; any other is confirmed on your exact part when we quote it. We do not represent batteries, motors, propulsion or hull penetrators.

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 DC bus, the switch inside the hull or the connection on the pier, that question is exactly what we are for. A short technical conversation before the spec locks usually surfaces the options a datasheet does not.

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THE MANUFACTURERS ON THIS CARD

