

Icon DP 2 - dynamic positioning system

A positioning product from Rolls-Royce

System topology

Icon DP2 system comprise two or more operator stations, a redundant network (Ethernet) and a triple redundant control architecture. To enhance system safety and integrity, interfaces to position reference and sensor systems, power system and thrusters systems are split into logical groups based on Class requirements and system segregation.

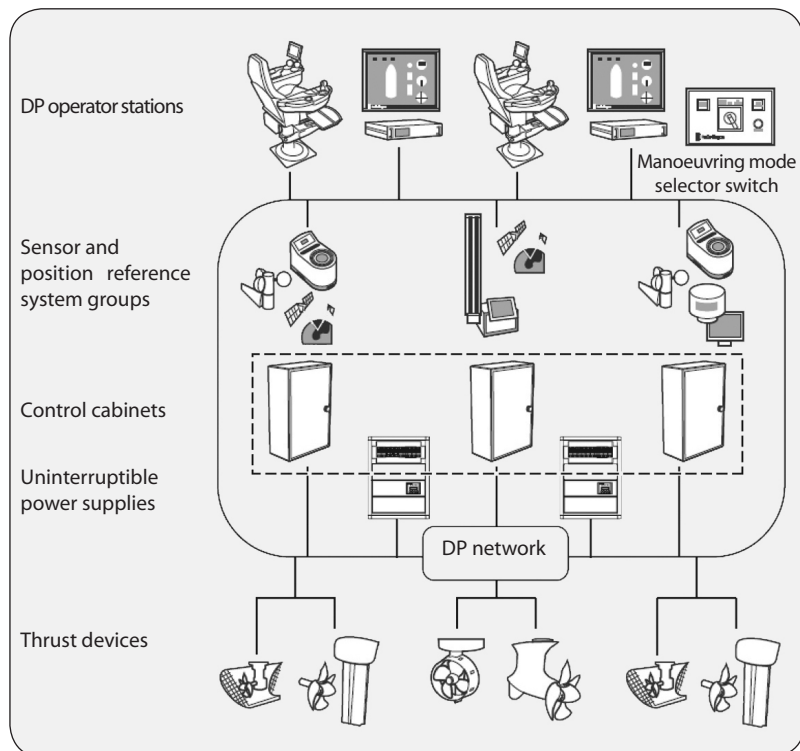
Control cabinet

provides the interface to the surrounding sub-systems in a DP2 system, such as propellers/ thruster, sensors, reference systems, power system etc. Rolls-Royce marine controllers execute the DP application and handle interfaces. The triple redundant Icon DP2 system can be provided either as one cabinet or as three stand-alone cabinets.

Operator stations

The operator stations have a display with a touch-screen interface, a positioning device and a joystick device. Additional touch-screen is available as an option for Rolls-Royce operator's chair.

General system description - DP class 2



Unit	Function	Size(wxHxD)/Installation
Control cabinet	Alt.1: Three stand alone DP control unit Alt.2: Three modules in one cabinet comprising power supply, application controllers, I/O's for sensors and ref. systems. Serial line interface to Rolls-Royce thruster controls.	800x1200x300mm (each) 1000x1400x300mm / wheelhouse or instrumentation room
Interface cabinet	HIL/Simulation + 2x PMS + 2x steering gear	600x600x210mm / instrumentation room
Interface cabinet	6x thrusters + 2x steering gear + 2x switch board	600x600x210mm / instrumentation room
Operator station (two or more)	Standard 19" touch-screen Mounting plate with CPU and terminals	Desk top mount with adjustable arm 400x600x210mm / inside control desk
Operator station - compact	10" touch-screen w/ integrated display computer	Desk top mount with adjustable arm
DP joystick and DP positioning device for operator station	DP operation control devices with integrated push buttons and LED indicator lamps.	Desk top or operator chair arm rest drop in Cut out: 90x120mm (oval) - dept 120mm
UPS - dual w/integrated batteries	UPS status displayed at DP OS	560x800x880mm - weight 220kg / instr. room
Operation mode switch (DP switch)	Panel with switch and indication lights Mounting plate w/ relay and terminals	195x125mm - dept 130mm/ Desk top drop in. 150x220x180mm/ inside control desk
Sensors and reference systems according to customer requirements. All types available		