

Equipment Compatibility List

SYSTEMS	SIGNAL TYPES EXAMPLES	MAKERS & MODELS EXAMPLES	
NAVIGATION Speedlog GPS Anemometer Autopilot Gyrocompass Magnetic Compass Echosounder AIS Radar ECDIS Conning Display Rudder Angle Drafts	<ul style="list-style-type: none"> • RS422/RS485 NMEA serial protocol • Synchro type • Analog type <ul style="list-style-type: none"> ○ 0/4...20mA ○ ±10V ○ Pneumatic • Other custom serial protocols 	<ul style="list-style-type: none"> • JRC • Furuno • Transas • Kongsberg • Raytheon • Consilium • Garmin • Raymarine • Simrad • Japan Radio • B&G • GEM Electronics • Sperry Marine • Marine Technologies 	<ul style="list-style-type: none"> • Veinland • Honeywell • Tokyo Keiki (ex Tokimec) • Kelvin Hughes • Maris • Icom • Koden • Norbit • Navitron • Humminbird • Nexus • Sam Electronics • Maretron • Vaisala • Etc.
CARGO CONTROL Cargo Monitoring Ballast Monitoring FO Tanks Monitoring Pumps Monitoring Manifolds Monitoring	<ul style="list-style-type: none"> • Analog type <ul style="list-style-type: none"> ○ 0/4...20mA ○ ±10V ○ Pneumatic • RS422/RS485/RS232/USB serial protocols <ul style="list-style-type: none"> ○ Modbus (E.g. Krohne Cargomaster, Etc.) ○ Fieldbus ○ Other custom serial protocols (E.g. Kongsberg ASAP, Emerson SAAB, Auxitrol MICAD, Musasino, etc.) • CAN bus • Voltage Pulses • Etc. 	<ul style="list-style-type: none"> • Emerson Rosemount (SAAB) • Erma First • Kongsberg Autrocargo • Enraf Auxitrol • Hanla Level • Samsung SSAS-TLGS • Musasino • Krohne Cargomaster • Framo • Various Electrical Load Analysers (installed at pumps, etc.) 	
ALARM MONITORING SYSTEMS	<ul style="list-style-type: none"> • Analog type <ul style="list-style-type: none"> ○ PT100 ○ 0/4...20mA ○ Voltage ○ Frequency • RS422/RS485/RS232/USB/TCP serial protocols <ul style="list-style-type: none"> ○ Modbus RTU ○ Modbus TCP ○ Fieldbus ○ Any custom serial protocol • CAN bus • Etc. 	<ul style="list-style-type: none"> • Bemac Uzushio • Samsung SSAS • Aconis <ul style="list-style-type: none"> ○ 1000 ○ 2000 ○ 2000E ○ Etc. • Terasaki <ul style="list-style-type: none"> ○ WE21 ○ WE22 ○ WE500 ○ Megaguard ○ Teranet50X • JRCS <ul style="list-style-type: none"> ○ SMS-22K ○ SMS-55 	<ul style="list-style-type: none"> • Kongsberg <ul style="list-style-type: none"> ○ Norcontrol DataChief 2000 ○ Norcontrol DataChief C20 ○ K-Chief 500 ○ K-Chief 600 ○ K-Chief 700 • Lyngsø Marine <ul style="list-style-type: none"> ○ UMS 2100 ○ Etc. • Etc.

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TORQUEMETERS	<ul style="list-style-type: none"> • Analog type <ul style="list-style-type: none"> ○ 0/4...20mA ○ Frequency ○ Voltage • RS422/RS485/RS232 serial prot. <ul style="list-style-type: none"> ○ Modbus type ○ NMEA type ○ Custom serial protocol • CAN bus 	<ul style="list-style-type: none"> • Kyma • Lemag • VAF • Seatechnik • Leutert • Shoyo Engineering • Kongsberg 	<ul style="list-style-type: none"> • Terasaki • AMS • Aquametro • Datum • Hoppe Marine • ABB • Trelleborg • BMT Smart
POWER MANAGEMENT & MAIN SWITCHBOARD	<ul style="list-style-type: none"> • Analog type <ul style="list-style-type: none"> ○ 0/4...20mA ○ Voltage • RS422/RS485/RS232/USB serial protocols <ul style="list-style-type: none"> ○ Modbus ○ Any custom serial protocol • CAN bus 	<ul style="list-style-type: none"> • Hyundai Aconis PMS (2000, Etc.) • Kongsberg K-Chief • Wärtsilä • Terasaki (Mega-Guard, Etc.) • Power Analysers that collect the Busbars' Electrical Load • Watt transducers • Power/Current/Voltage Indicators 	
FLOWMETERS Fuel/Lubricant Oil	<ul style="list-style-type: none"> • Voltage Pulses <ul style="list-style-type: none"> ○ Open Collector ○ PNP ○ NPN ○ Reed switch • Contact <ul style="list-style-type: none"> ○ Current Pulses (NAMUR) ○ RS422/RS485/RS232 serial protocols ○ Modbus ○ Any other custom protocol 	<ul style="list-style-type: none"> • VAF • ABB • Endress+Hauser • Krohne • Tokico • Akatuki Seiki • Nitto Seiko • Aquametro (Contoil) 	<ul style="list-style-type: none"> • Alfa Laval • Kral • Emerson • Istec • Aliamag • Flomec • Fluxus
STEAM PRODUCTION PLANT AUX Boilers Exhaust Gas Economizers Composite Boilers	<ul style="list-style-type: none"> • Analog type <ul style="list-style-type: none"> ○ 0/4...20mA ○ PT100 ○ Voltage • Digital type <ul style="list-style-type: none"> ○ Status signals 	<ul style="list-style-type: none"> • Aalborg • Mitsubishi • Kangrim • Etc. 	
OTHER Inert Gas Systems Bow Thruster Reefers	<ul style="list-style-type: none"> • Analog type <ul style="list-style-type: none"> ○ 0/4...20mA ○ PT100 ○ Pneumatic ○ Voltage ○ Etc. • Status signals • Serial protocols (from power analysers, etc.) 	<ul style="list-style-type: none"> • Framo • Wärtsilä • Rolls-Royce • ZPMC • ABB 	

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METIS equipment compatibility - V1018

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