Integrated Speed Log, Wind and Weather Data System





Walker 7080

Walker 7080 is an integrated log, wind and weather system that includes a true wind option. Ship's speed and distance travelled is derived from a Walker electromagnetic (EM) log transducer. Alternatively, log NMEA 0183 serial data may be used. Calibration of the EM log may be performed using ship's GPS. Wind speed and direction is derived from input relative wind NMEA serial data. A comprehensive range of Walker wind sensors are available. True wind data can be calculated given suitable inputs.

The weather data functions include measurement of barometric pressure, air temperature and humidity by sensors housed in a single tower and water temperature via a sensor installed in a seawater inlet pipe.

This compact, cost effective system takes advantage of state-of-the-art electronics to process log, wind and weather sensor inputs, and outputs serial data on a IEC61162-1 (NMEA 0183) data bus.

Log, wind and weather elements may be specified separately or in various combinations.



Features

- Various masthead sensor options.
- Digital display to DIN 43700 pattern -144x144 for log speed and distance travelled.
- Digital display to DIN 43700 pattern -144x144 for wind speed and direction combined with analogue display of wind direction.
- RELATIVE and TRUE wind data display capability subject to appropriate NMEA data to master unit.
- Facility for 64 speed log calibration points.
- Three methods of calibration, i.e. measured mile, GPS (semiautomatic), known speed.
- IEC61162-1 (NMEA 0183) interface to ship systems.
- Ease of installation, use and service.
- Weather data functions: Barometric pressure, Barometric pressure trend, Air Temperature, Humidity and Water temperature.

Log

Walker 7080 electromagnetic log is designed for vessels above 500GRT offering both forward and astern speed, with ranges from -20 to +80 knots full scale. It is suitable for military and commercial applications. Based on Walker's proven electromagnetic log technology, the 7080 log provides speed and distance information with accuracy and reliability regardless of sea conditions and water depth. Walker 7080 log is designed to cope with the toughest shipboard environment. A rugged stainless steel enclosure coupled with robust and clear DIN 43700 pattern - 144x144 bridge indicators combine to assure the trouble-free services proven in professional applications, worldwide.

Walker 7080 is designed for speed ranges up to 80 knots and meets IMO requirements, including resolution A824 (19) for accuracy, and IEC 60945 + IEC 61023 standards.

Sea-valved, hull-fitting assemblies are supplied pressure tested, witnessed by Lloyds surveyors.



Proven Accuracy and Reliability

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Interfaces

Inputs:

 $5\ x$ Serial NMEA 0183 input ports for: Log, Wind, Weather, Gyro Compass & GPS data

Outputs:

7 x Serial NMEA 0183 output ports for: Log, Wind (Relative / True), Weather, Gyro Compass & GPS data

2 x 200 ppNM isolated relay contacts (distance travelled)

Serial Data



System Specification

Operating Principle:	Log: Electromagnetic type which generates a low frequency AC field
System	
Accuracy:	Equal or better than 2.0%
Repeaters:	Dimmable organic LED (OLED)
Log Danga	Speed 20 to 1 20 kpots
LOg Kange:	Speed -20 to $+60$ knots
Wind Pango	Speed: 0 to 120 knots
wind Kange:	(m/sec & Kph option to be stated if required) True to North capability with suitable inputs Direction: 0° to 180° to 0° or 0° to 360° OLED digital Ring of 72 LEDs in 5° steps
Weathow	Ring of 72 LLDs III 5 steps
weather:	Range: 300mB to 1200mB
	Accuracy: $\pm/-1.5$ mB between 10°C / 40°C
	Barometric Trend indicator
	Air temperature:
	Range: -25° C to $+55^{\circ}$ C
	Accuracy +/- 0.3° at 25°C
	Humidity:
	Range: 0 to 100%
	Accuracy +/- 2% (over 10% to 90% Rh)
	Water temperature:
	Range: -10°C to +55°C
	Accuracy: +/- 0.5°

Installation

Mechanical Dimensions

Hull fitting and transducers:	Retractable Transducer assembly with Sea Valve and Skin Fitting
	387 (W) x 165 (D) x 578 (H)
	Fixed type Transducer assembly with hull pad
	152 (Ø) x 178 (H)
Electronic Unit:	242 (W) x 390 (H) x 192 (D)
	DIN 43700 Displays:
	144 (W) x 144 (H) x 63 (D)
Power Supply Unit:	200 (W) x 240 (H) x 128 (D) (for optional AC supply)
Electrical	
requirements:	24v DC
Power requirement:	20w (DC) minimum Note: Power surge, at switch on, 1.75A max. for 500msec.

Options

Repeaters:	Additional DIN 144x144 digital log, wind and weather data indicators
	Analogue log speed indicators DIN 96x144 Analogue wind speed indicators DIN 144x144 or DIN 96x144
	Analogue wind direction indicators DIN 144x144 or DIN 96x144
Hull fitting and transducers:	Fixed type Transducer assembly with hull pad Retractable Transducer assembly with Sea Valve and Skin Fitting (Models for steel, aluminium, wood or GRP hulls) Additional Log transducer cable (supplied loose)

In accordance with our policy of continuous development, changes may be made from time to time without prior notice.

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