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 (semi-automatic), 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
**System Specification**

**Operating Log:** Electromagnetic type which generates a low frequency AC field.

**Principle:**

**Accuracy:** Equal or better than 2.0%

**Repeaters:** Dimmable organic LED (OLED) requiring no backlight

**Log Range:** Speed -20 to +80 knots

**Distance:** 0 to 99999.9 NM

**Wind Range:** Speed: 0 to 120 knots (m/sec & Kph option to be stated if required)

**Direction:** True to North capability with suitable inputs

**OLED digital Ring of 72 LEDs in 5° steps**

**Weather:**

- **Barometric pressure:**
  - Range: 300mB to 1200mB
  - Accuracy: +/- 1.5mB between 10°C / 40°C
- **Barometric Trend indicator**
- **Air temperature:**
  - Range: -25°C to +55°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°C

**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**

- **Log:** Electromagnetic type which generates a low frequency AC field.
- **Principle:**
- **Accuracy:** Equal or better than 2.0%
- **Repeaters:** Dimmable organic LED (OLED) requiring no backlight
- **Log Range:** Speed -20 to +80 knots
- **Distance:** 0 to 99999.9 NM
- **Wind Range:** Speed: 0 to 120 knots (m/sec & Kph option to be stated if required)
- **Direction:** True to North capability with suitable inputs
- **OLED digital Ring of 72 LEDs in 5° steps**
- **Weather:**
  - **Barometric pressure:**
    - Range: 300mB to 1200mB
    - Accuracy: +/- 1.5mB between 10°C / 40°C
  - **Barometric Trend indicator**
  - **Air temperature:**
    - Range: -25°C to +55°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°C

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

**Interface Specifications**

**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)