

**NOW WITH SPEED OVER GROUND INDICATION** *From Ships G.P.S.*



## Integrated Speed Log, Wind and Weather Data System

### Walker 7070

*Walker 7070 is a new integrated Speed Log, Wind and Weather Data System providing both electromagnetic log and relative wind data with a true wind option from a single processor.*

*The new 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 cooling water inlet pipe.*

*This compact, cost effective system takes advantage of 'state of the art' electronics to process log, wind and weather sensor inputs, outputting digital data on a single NMEA 0183 databus to DIN 144 data displays.*

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

**CE** Type Approved to EMC European Directive IEC945 + IEC 1023

#### Features

- Full sensor compatibility with WALKER 4040, 4060 and 2060 log and wind systems.
- Now with alternative combined masthead option.
- Digital display to DIN 144 for logs speed and distance travelled.
- Digital display to DIN 144 for wind speed and direction combined with 72 x LED's giving 'analogue' display of wind direction.
- RELATIVE or TRUE wind data display with appropriate inputs to master unit.
- 4 levels of speed log calibration.
- NMEA 0183 interface to ship systems.
- Ease of installation, use and service.
- Speed over ground (SOG) indication from ships GPS NMEA 0183 input.
- NEW Weather data functions: Barometric pressure, Barometric pressure trend, Air Temperature, Humidity and Water temperature.

#### Log

Walker 7070 electromagnetic log is designed for vessels above 500GRT offering both forward and astern speed, with ranges from 0 to 80 knots full scale. It is suitable for vessels varying from patrol boats and ferries to liners and bulk carriers.

Based on Walkers' proven electromagnetic log technology, the 7070 log provides speed and distance information with accuracy and reliability regardless of sea conditions and water depth.

Walker 7070 log is designed to cope with the toughest shipboard environment. A rugged stainless steel main enclosure coupled with robust and clear DIN 144 bridge indicators combine to assure the trouble-free service proven in professional applications worldwide.

Walker 7070 is designed for speed ranges up to 60 knots and meets IMO requirements, including resolution A824 (19) for accuracy, and IEC 945 + IEC 1023 type approvals. Hull fitting and transducer are suitable for use in Lloyd's approved installations. Sea-valved, hull-fitting assemblies are supplied pressure tested, witnessed by Lloyd's surveyors.

#### Wind Speed

The anemometer cup unit transducer uses a LED/phototransistor module. This allows the exceptionally low start speed of 2½ knots of wind to be achieved. A three digit display is incorporated within the DIN 144 format indicator.

#### Wind Direction

The vane unit transducer provides full 360 degree transmission, and may easily be rotated on its base in order to align to Ship's Head. The indication of wind direction is by digital and 'analogue' displays. A three digit display of wind direction sits inside an array of 72 x 5° spaced red LED's. Relative wind direction is the standard display. When heading is available true wind direction may be indicated.

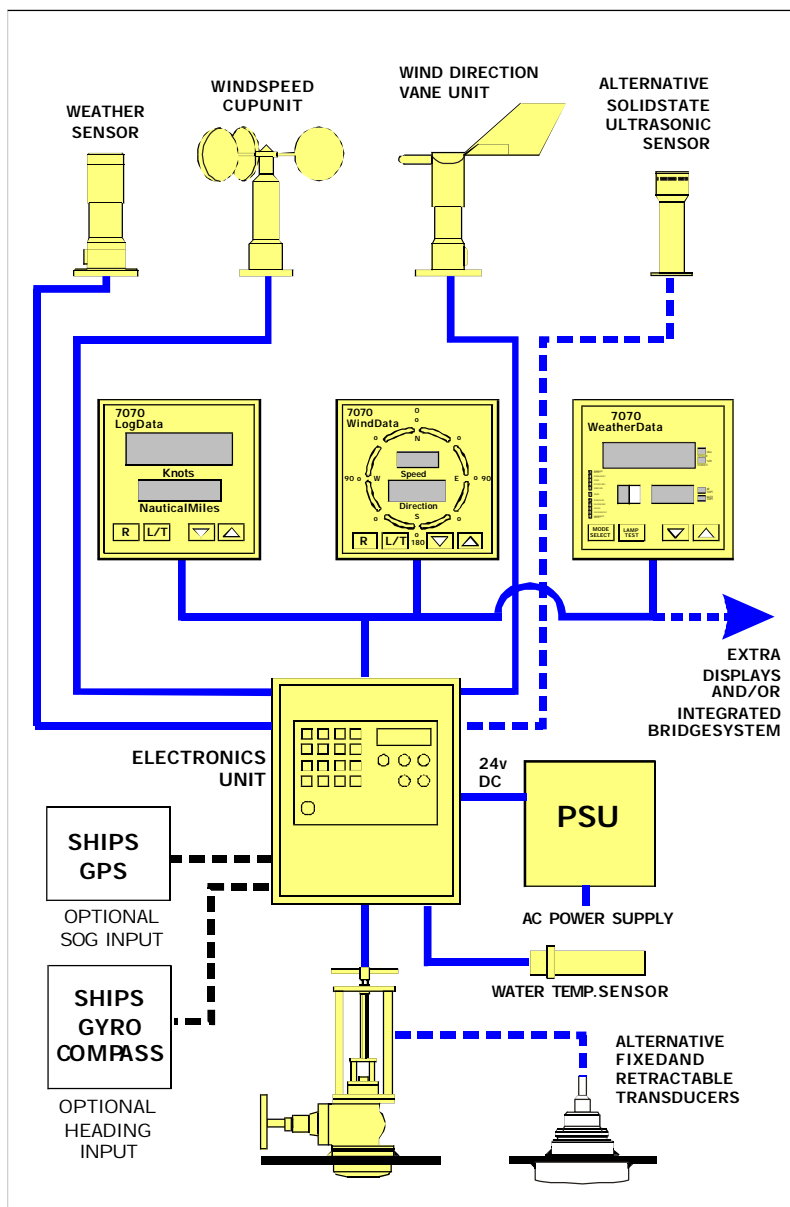
#### Weather

The DIN 144 indicator displays weather data in modes:

- Mode 1 Barometric pressure  
Air Temperature  
Barometric pressure trend
- Mode 2 Humidity  
Water temperature  
Barometric pressure trend



**Proven Accuracy and Reliability**



#### SYSTEMS SPECIFICATION

Operating Principle:	Log: Electromagnetic type low frequency AC field
Calibration Accuracy:	+/- 1.0% (Digital system)
System Accuracy:	+/- 1.0% (Digital system)
Displays:	Red LED, dimmable
Log Range:	Speed: 0 - 80 knots Distance: 0 - 99999.9 NM
Wind Range: (True/relative switchable with heading & log input)	Speed: 0 - 160 knots (m/sec & Kph option)  Direction: 0°-180° - 0° or 0°-360° digital and 72 x 5° steps. Red LED
Weather:	Barometric pressure: Range: 800mB to 1100mB Accuracy: +/- 1mB Trend: 0 to 5 rising/falling Air temperature: Range: -30°C to +80°C Accuracy: +/- 2° Humidity: Range: 0 to 100% Accuracy: +/- 2% (over 5 to 95%) Water temperature: Range: -10°C to +30°C Accuracy: +/- 2°

#### INTERFACES

Outputs  
6 x NMEA 0183      log speed  
                         log distance  
                         wind speed  
                         wind direction  
                         weather

4/20 mA current outputs may be configured  
5 x 200ppm isolated relay contacts of distance travelled

- wind alarm output
- Analogue output to wind chart recorder option (0-10v DC)
- Sensor inputs for log, wind and weather

Single NMEA serial input for:  
- Heading by NMEA 0183 for true wind data  
- Log speed by NMEA 0183 for wind only system.

#### OPTIONS

- Analogue wind speed indicators DIN 144
- Analogue wind direction indicators DIN 144
- Analogue log speed indicators DIN 144
- Additional DIN 144 digital log, wind and weather data indicators (unlimited number by daisy chaining)
- Hull fitting and sensor:
- fixed type without sea valve
- various types for steel, aluminium, wood or GRP hulls
- Chart recorders for wind data
- Log sensor cable extension

## Integrated Speed Log, Wind and Weather Data System

# Walker 7070

#### SERIAL DATA

NMEA 0183 Outputs:

- LOG: VLW Standard  
VBW Standard
- WIND: MWV Relative (standard)  
MWD True wind option
- WEATHER: XDR

NMEA 0183 Optional Inputs:

- HEADING & SPEED: HDT & VBW
- SOG: RMC from GPS

#### INSTALLATION

Mechanical Dimensions:

- Speed log sensor and hull fittings with sea valve: 387(W) x 165(D) x 578(H)
- Speed log sensor and hull fittings without sea valve: 152 x 178(H)
- Electronic Unit:  
411(H) x 238(W) x 152(D)
- DIN 144 Displays:  
144(H) x 144(W) x 105(D)
- Power Supply Unit:  
240(H) x 200(W) x 128(D)
- Wind Speed Cup Unit:  
Ø 328 x 318(H)
- Wind Direction Vane Unit:  
Ø 456 x 356(H)
- Alternative Combined Masthead Unit P260: Ø 470 x 440(H)
- Weather Sensor:  
Ø 127 x 226(H)

Electrical requirements:

- Power supply: 110v AC or 220v AC or 24v DC (specify when ordering)
- Power requirement:  
30VA (AC) or 20w (DC)

**CE** Type Approved to EMC European Directive  
IEC 945 + IEC 1023

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

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