



## SHIPS MOVEMENT INFORMATION DISPLAY SYSTEM

AMI's type approved SMIDS docking and manoeuvring system delivers precise and continuous vessel motion and speed information to masters and pilots in even the most severe conditions. Employing all available GPS and GLONASS satellites SMIDS delivers critical manoeuvring data, worldwide, regardless of sea state or water conditions.

Navigating or manoeuvring in strong winds or currents and in confined waters requires great skill and places severe demands on masters and pilots. Reliable and accurate information on ship movement is essential to maximise safety, reduce the risk of structural damage to ship and shore infrastructure and minimise the threat of accidental pollution.

Highly sensitive, and accurate to 0.01knots, SMIDS will detect and display vessel movement instantly - often before it is visibly apparent - ensuring vessel movement can be precisely controlled and corrective action can be taken at the earliest opportunity. It is the perfect solution for large vessels, those where visibility is restricted, lightering, dredging and for ships that frequently manoeuvre without tugs in adverse conditions.

Separate bow and stern sensors measure rather than calculate motion and are completely unaffected by depth and salinity of water, aeration caused by propeller cavitation and other conditions that affect hull mounted sensors.

Whether equipping a new build or for retrofit, SMIDS is an ideal cost effective replacement for Doppler docking systems and can even be installed at sea as there is no need for through hull penetrations.

Dual axis movement is presented on clear easy to read displays, combined with an optional portable displays make SMIDS the docking system of choice.

SMIDS is a type approved Speed and Distance Measuring Equipment and is fully compliant with IEC 61023 as required by SOLAS V/19 2.9.2 for vessels over 50,000gt.

- Accurate to 0.01 knots
- Reliable and accurate globally in any sea state
- Easy retrofit while at sea
- No through hull fittings
- Unaffected by water conditions
- Cost effective and reliable – no on-going maintenance



KW995  
Hand Held Display



KW991-ND  
Navigator's Display



KW991-HR  
Heading Tape Display

## SPECIFICATIONS

### SMIDS MAIN ELECTRONIC UNIT (KW990)

**POWER:** 115/230v DC  
**INPUT:** NMEA 0183 Raw Data  
**OUTPUT:** NMEA0183 Processed Data  
**DIMENSIONS:** 400 x 450 x 150mm

### NAVIGATOR'S DISPLAY (KW991-ND)

**POWER:** 24v at 12w. Switch on surge 2 amps.  
**INPUT:** Raw Data  
**OUTPUT:** NMEA 0183 Processed Data  
**DIMENSIONS:** 280 x 160 x 90mm

### HEADING TAPE DISPLAY (KW991-HR)

**POWER:** 24v DC. Switch on surge 2 amps.  
**INPUT:** DC and rectified unsmoothed DC stepper, 4 to 90v. 360:1 Synchro up to 115v/90v. 50/60 400/500Hz. 90X 400 Hz contactless transmitter. Tracking rate = Frequency/3deg/sec. (DC step 333 deg/sec) NMEA 0183 input, so both input channels are NMEA. Input 1 must be \$HEHDT, x.x, T NMEA0183, all heading sentences, with gyro priority.  
**OUTPUT:** NMEA 0183 Heading & ROT  
**DIMENSIONS:** 280 x 160 x 90mm

### HEADS UP DISPLAY (KW991-SD)

**POWER:** 24v at 12w. Switch on surge 2 amps.  
**INPUT:** Raw Data  
**OUTPUT:** NMEA 0183 Processed Data  
**DIMENSIONS:** 280 x 160 x 90mm

### GRACIE BOW AND STERN (KW993)

**POWER:** 24v DC INPUT: RTCM (optional)  
**OUTPUT:** NMEA 0183  
**DIMENSIONS:** 160 x 160 x 90mm

### SATELLITE ANTENNA BOW AND STERN (KW900-A)

**POWER:** 5v DC  
**OUTPUT:** Satellite Signal  
**DIMENSIONS:** 150 x 150 x 96mm

**APPROVALS:** IMO Resolution A.824(19), A.694(17), MSC.96(72), MSC.36(63), MSC.97(73), MSC.191(79), IEC 61023(2007), IEC 61162 series, IEC 60945 (2002) incl. Corr. 1(2008), IEC 62288(2008)

