



## DIGITAL TO SYNCHRO OR RESOLVER INTERFACE

The KW960 interface converts serial NMEA 0183 data to a low power Synchro, resolver, or sine-cosine output signal with ratios from 1:1 to 360:1. Applications include refitting a ship with a new gyro, whilst retaining the existing systems such as an Autopilot.

The output will drive a single synchro motor or numerous electronic interfaces such as Gyro heading repeater, autopilot, wind direction, pitch and roll and speed log.

Applications include when retrofitting with a new instrument without a synchro output.

Specialist applications are to re-generate synchro from recorded data. The KW960 has numerous modes of operation, and is able to produce a sine-cosine or resolver output. Therefore it can be used in military coarse-fine servo loop applications, on some gyro retrofits.

The adjustable voltage output is 35 volts maximum, so it can be used for many applications such as driving Anschutz repeaters or even some higher voltage synchros, which will follow at lower voltages. The sine-cosine or resolver type of output can be used (e.g. 400 Hz) to feed an autopilot, which provide their own reference. Provision is made for an external reference input.

In addition to the options already available, this interface can be programmed to a specific customer requirement. (price on enquiry).



## SPECIFICATIONS

**INPUT:** INPUT: NMEA 0183. Heading or wind sentences. (Default version software)

**POWER:** POWER: 115v/230v 50/60Hz nominal at 25 VA approx. (Transformer secondary 2 x 25v)

**OUTPUTS:** OUTPUTS:  
SYNCHRO: Nominal 10 to 35 volts maximum line to line. Adjustable. 5VA total.  
S1, S2, S3, with virtual centre at ground plane of Interface.

**RESOLVER:** RESOLVER: Nominal 20 volts maximum.  
S1, S2, referenced to ground plane.  
S1, S2, AC relative to sine and cosine of angle.

**REFERENCE:** REFERENCE: Nominal 25v or 50 v from main transformer, or from an external reference input  
Jumper selected. (May be 50 - 500 Hz)  
**ACCURACY:** Within 1 degree of synchro or resolver output. Approx. to 9 bits.

**NMEA INPUT OPTION:** NMEA INPUT OPTION: Jumper J3 = 0 = Heading.  
True has priority over Magnetic.  
Wind angle from \$WIMWV true or relative sentence.

**RATIO OPTION:** RATIO OPTION: Jumper J2 = 0 = 1:1 ratio.  
Jumper J3 = 1 = Wind angle from \$WIMWV input. Other options available.  
Available ratios 9:1, 10:1, 30:1, 36:1, 90:1, 180:1, 360:1

**ENCLOSURE:** ENCLOSURE: Electrical enclosure with door. 300 x 250 x 155 mm.

**APPROVALS:** APPROVALS: Complies with IEC60945