

# Marine Data

## Rudder Angle Transducer - MD61

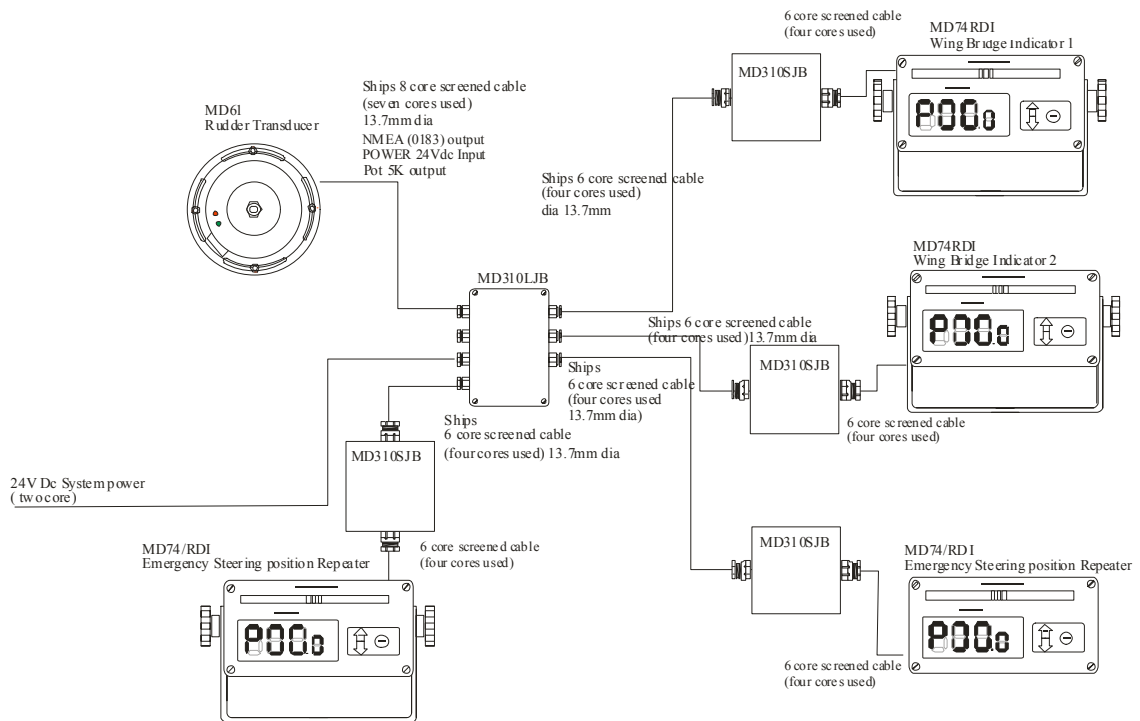


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The Marine Data MD61 is a Rudder Angle Transducer, which is mechanically connected to a rudder and transmits NMEA 0183 and a potentiometer outputs to reading devices via a junction box (MD94/RDI). This transducer is part of the Marine Data Rudder Indication family

This system is suitable for most military and commercial vessels.

**Figure I.2 Rudder Angle Transducer System Block Schematic**



## SPECIFICATION FOR MD61

### Physical

#### Overall Dimensions

Height : 133mm  
Width : 200 mm (DIA)

Weight (nominal) : 3Kg.  
Mounting options : Bulkhead.  
Finish : Light Weather-work Grey (BS3816-676).  
Connector : 9 way 'TRIAD' type connector 1x 8 way screened cable  
Construction : Aluminium splash proof.

### Electrical

Power supply : 24V Dc 10 Watts (for PEC).  
Data input : Mechanical linkage to rudder  
Data Output : 1x NMEA Type.(RS422/RS485)  
4800 Baud 8 data bits, 1 start bit. 1 stop bit,  
no parity Data Word \$XXRSA,X.X,A,X.X,A\*HH<CR><LF>  
1x potentiometer (volt free) 5kohms for  $\pm 35^\circ$  shaft movement.

### Operational Features

Dynamic performance : accuracy to  $1/2^\circ$  of rudder movement

### Environmental

Splash proof to : IP67.  
Temperature :  $-15^\circ\text{C}$  to  $45^\circ\text{C}$ .  
Humidity : 0% to 95% at  $40^\circ\text{C}$ .  
Vibration : 1-12.5Hz  $\pm 1.6\text{mm}$   
12.5Hz - 25Hz  $\pm 0.38\text{mm}$ .  
25Hz - 50Hz  $\pm 0.1\text{mm}$ .

Magnetic Permeability: Cat. A (Acceptable for embarkation within volumetric allowances.

MECHANICAL SPECIFICATION.

