



RUDDER INSTRUMENTATION / RUDDER ANGLE SENSORS

MD61 RUDDER ANGLE SENSOR TRANSMITTER

SKU: F061001

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OVERVIEW

The MD61 Rudder Angle Transmitter is a Rudder Angle Transducer for providing steering indication. Mounted in the steering compartment, it transmits the vessel's Rudder Angle to a Marine Data Rudder Angle Indicator. The input shaft is mechanically linked to the vessel's rudder stock by a fully adjustable linkage rod (supplied).

The MD61 has dual outputs:

1. Digital NMEA 0183 and
2. Analogue Variable Voltage (via 5 KΩ geared potentiometer)

The Rudder Angle Transmitter is fully sealed and housed in a robust aluminium alloy enclosure. Finished in Window Grey (RAL7040) Semi-gloss Powder Coat to complement other marine navigation equipment.

The MD61 from Marine Data: flexible in application, easy to install and simple to maintain.

FEATURES

- **Ship's Rudder Angle Sensor and Transmitter**
- **Digital NMEA 0183 Output (IEC 61162-1)**
- **Analogue Variable Voltage Output - 5 KΩ Potentiometer**
- **Built-in Rudder Indication LEDs for easy set-up**
- **Fully Adjustable Rudder Linkage Rod**
- **Proven Rugged Design**

APPLICATIONS

- Transmits Rudder Angle data to a Marine Data Rudder Angle Indicator, VDR or Auto-Pilot at any convenient location

RELATED PRODUCTS

- MD94DDU - Data Distribution Unit with Dual NMEA Inputs for Dual Rudder Installations
- The complete range of Rudder Angle Indicators from Marine Data
- MD/RDI Rudder Indication System – Wheelmark Approved

TYPE APPROVED PRODUCT DNV DNV.COM/AF

Wheelmark 0098

SPECIFICATIONS

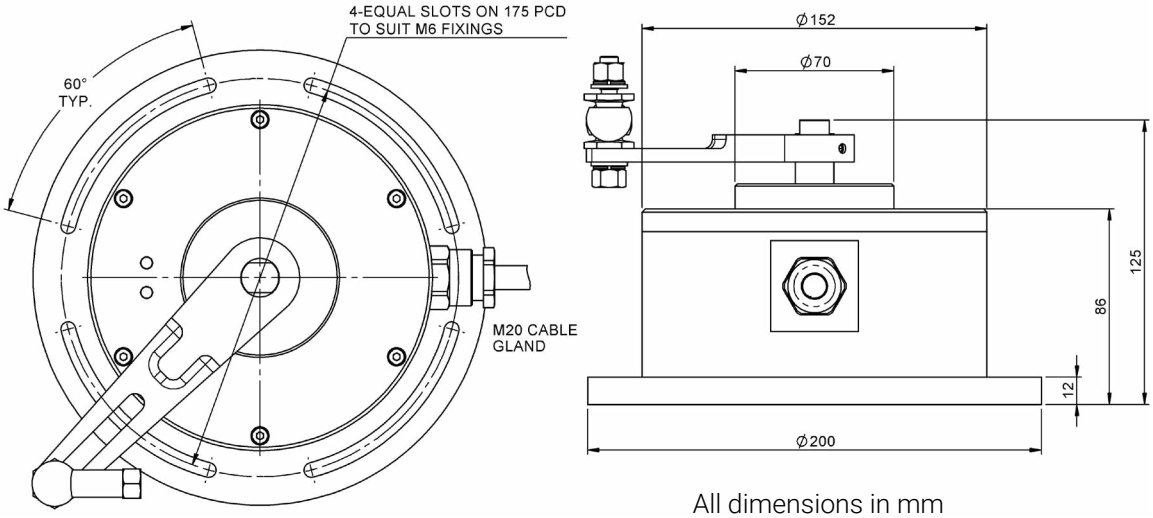
PHYSICAL	
Weight:	4.0 kg (including rudder linkage rod)
Dimensions:	H 125 mm; Ø 200 mm
Linkage Rod:	Adjustment range 270 - 580 mm
Mounting:	4x M6 screws on 175 mm Ø (PCD)
Connections:	12-core captive cable, 2.5 m long
Construction:	Aluminium alloy enclosure
Finish:	Window Grey (RAL7040) Semi-gloss Powder Coat

OPERATIONAL	
Static Accuracy:	± 0.25° accuracy of rudder movement
Working Angular Range:	± 45°
Follow-Up Rate:	>20° per second
Pot. Output:	Midships Position = 2.5 KΩ ± 45° of rotation = 2.38 KΩ (approx.)
Indications:	Red LED = Steering to Port Green LED = Steering to Starboard Both LEDs = Midships Position (000°)

ELECTRICAL	
Power Supply:	24 V dc nominal
Data Input:	Mechanical Linkage to Rudder
Data Sentence:	RSA: ($--RSA, x.x, a, x.x*hh<CR><LF>)
Data Output:	1x NMEA 0183 (IEC 61162-1) 4800 Baud
1 x 5 KΩ potentiometer (volt free)	
Red & Green LED Rudder Position Indicators	

ENVIRONMENTAL	
IEC 60945 Equipment Category:	Waterproofness - Exposed Area Temperature - Protected Area
Operating temp:	-15°C to +55°C
Humidity:	0% to 100%
RoHS:	Compliant
Compass Safe Distance:	Standard: 20cm Steering: 20cm

APPROVALS	
Conforms with:	BS EN 60945:2002 Inc. corrigendum April 2008 (BSI, 2008), BS EN 61162-1:2016 (BSI, 2016) BS EN 62288:2014 (BSI, 2016) ISO 20673:2007, IMO Resolution A.694(17) IMO Res. MSC.36(63) (IMO, 1994) IMO Res. MSC.97(73) (IMO, 2000) IMO Res. MSC191(79) (IMO, 2004)
Type Approval:	DNV Wheelmark (0098) when installed as part of the Marine Data Rudder Angle Indicator System



All dimensions in mm

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