

Instructions

RF25N Rudder Feedback

GENERAL

The RF25N is designed for connection to any NMEA 2000 network with Micro-C connector backbone. It is equipped with transmission link and 5.5 m (18 feet) of cable with connector. It transforms the angular travel of the rudder to a digital signal and broadcast it to compatible devices connected to the NMEA2000 network.

INSTALLATION

The RF25N Rudder feedback unit mounts close to the rudder, and is mechanically linked to the rudder tiller arm or rudder quadrant. Refer to the figure below for recommended mounting arrangement.

Do not remove the transmitter lever from the feedback unit. The unit is factory adjusted and need no further adjustment at installation than described below.

Turn the helm to set the rudder tiller arm to approximate centre position.

Set the mounting location to be in accordance with the figure. The centre of the feedback unit should be in line with the centre of the rudder post. Mount the feedback unit to a suitable platform using the screws provided. If necessary, add blocking material under the feedback unit to adjust the height of the transmitter lever to be level with the rudder tiller arm.

Due to space limitations, it may be necessary to cut the length of the transmitter rod to move the feedback unit closer to the rudder post.

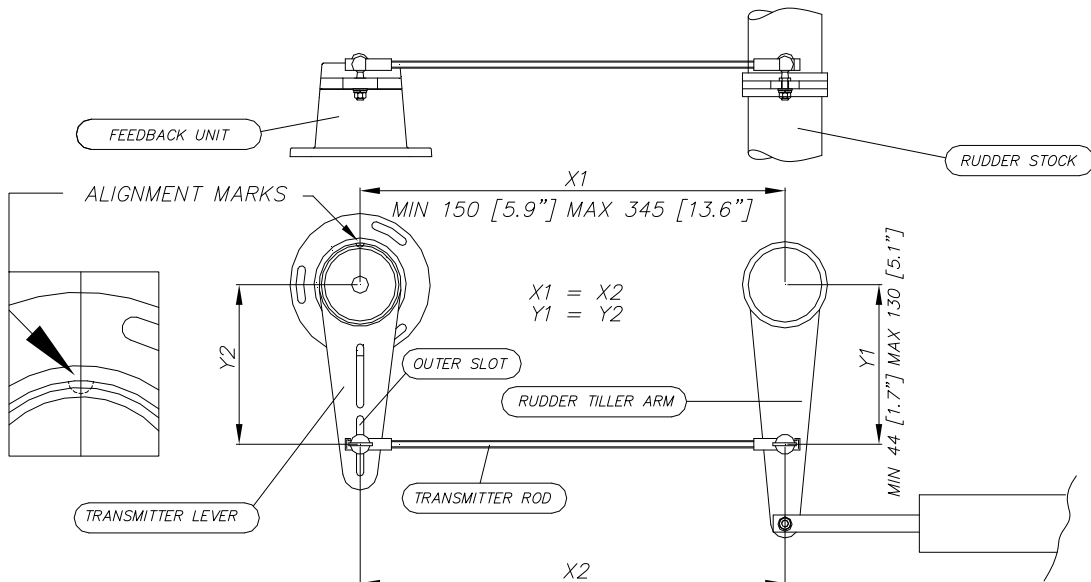
Rotate the feedback transmitter lever to centre position. (Use the alignment mark to line up the transmitter lever to be opposite the cable entry into the feedback).

Carefully observe the alignment marks. A rudder feedback alarm may be the result if the alignment instructions are neglected.

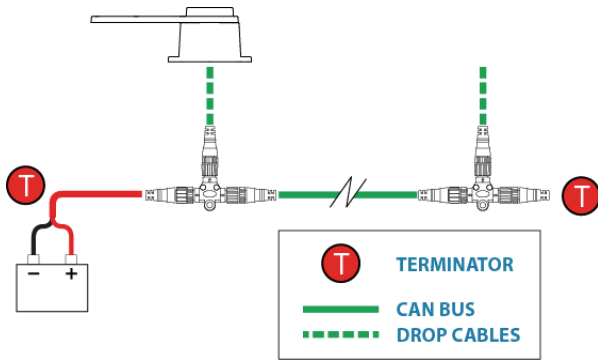
Note that the transmitter lever has two slots for the transmitter link. The slots enable maximum flexibility to provide the 1:1 mechanical linkage relationship. As a starting point, set the transmitter rod to the inner limit of the outer slot if possible. Drill and tap the rudder tiller arm so that the Y1 dimension is equal to the Y2 dimension (Use 4.2 mm drill and 5 mm tap). Attach the ball joint to the tiller arm, and connect the transmitter rod to the ball joint at the rudder tiller arm.

Tighten the mounting screws for both the feedback unit and the transmitter rod ball joint.

Observe the feedback unit while someone turns the helm wheel through the complete rudder travel H.O. to H.O. and verify that the mechanical linkage moves freely.



ELECTRICAL CONNECTION



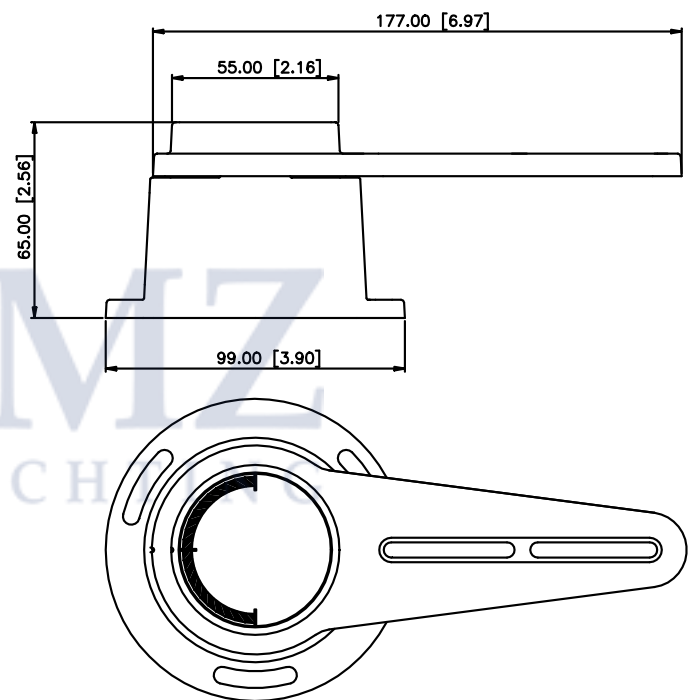
RF25N connection to Micro-C/NMEA2000

SPARE PARTS

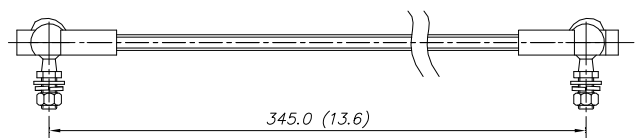
- 20193454 Transmitter link
- 44133122 Transmitter rod M5x325mm
- 20193624 Ball joint Ass'y (2)

TECHNICAL SPECIFICATIONS

Dimensions: See figure
 Weight: 0.5 kg (1.1 lbs)
 Material: Arnite T06 200 PBT
 Environmental Protection: IP56
 Safe distance to compass: 1.0 m (3.1 ft.)
 Temperature range:
 -Operation: -25 to +55 °C (-13 to +130 °F)
 -Storage: -30 to +70 °C (-22 to + 158 °F)
 Mounting: Horizontal, vertical,
 or upside down
 Supply and interface: 8-16V via NMEA2000
 Power consumption: 0.4W
 NMEA2000 Load Equivalence Number (LEN):1
 NMEA2000 ports (input/output):1
 Cable supplied: 5.5 m (18 feet) NMEA2000
 cable with connector
 Rudder angle: ±120 degrees
 Output signal: NMEA2000 PGN127245
 Accuracy: ±0.25° within ±5°,
 otherwise ±0.5°
 Repeatability: ±0.1°
 Transmitter link: Stainless 345 mm (13.6")
 with 2 ball joints
 Ball joint stud for rudder arm requires 4.2
 mm diameter hole and 5 mm tap.



RF25N Dimensions



Transmitter Link – dimensions

