



Installation & Operation Manual

digital:mag NEMAcourse

Magnetic Heading Repeater

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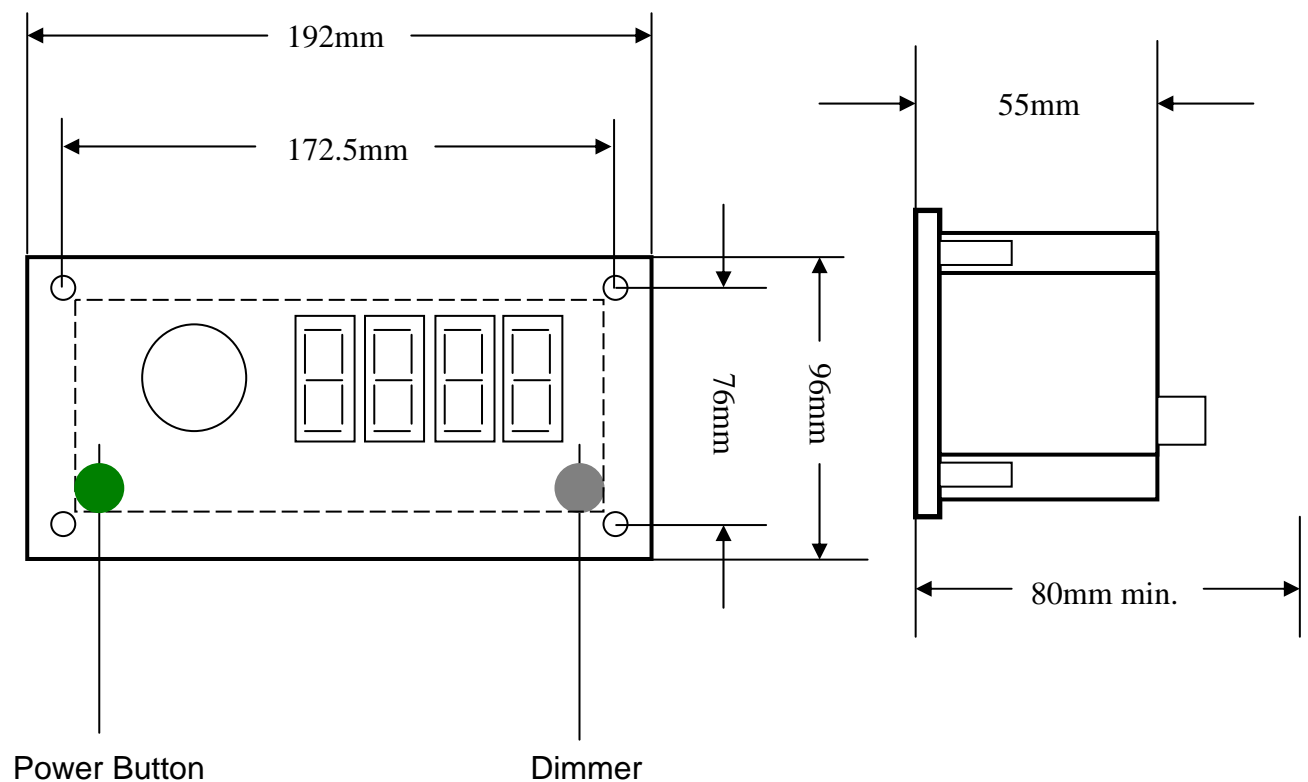
« Digital:mag NEMA course » displays in digital figures the magnetic heading. Included is a rate of turn indicator by circular LED. Input source is NMEA. Sentences are “\$HCHDG” and “\$HCHDM” according to IEC61162-1 with checksum.

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1) Dimensions and Mounting – Front View

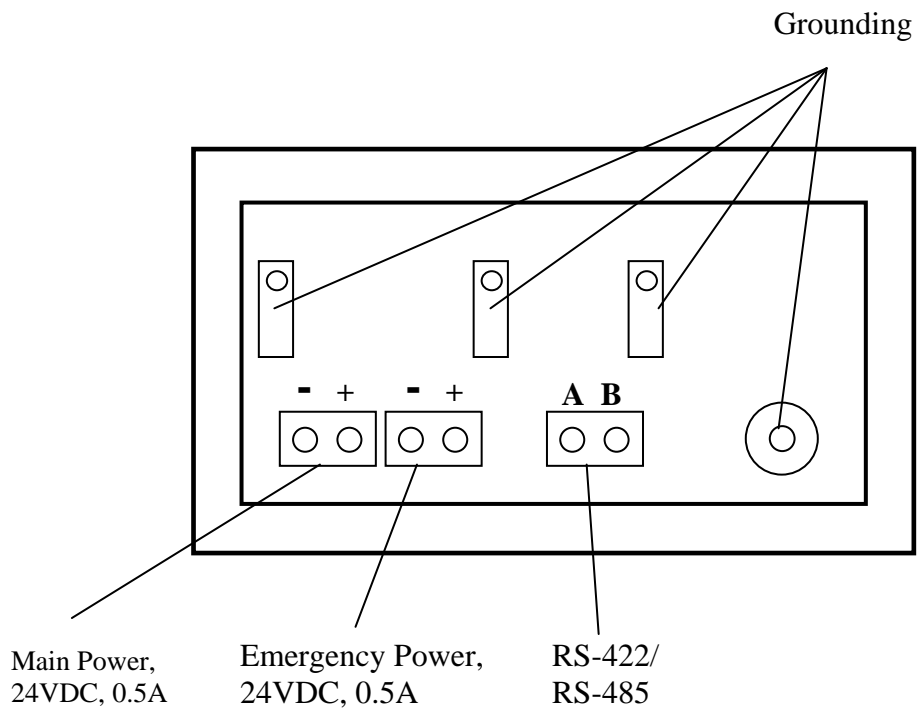
Flush mounting (cut-out: 182 mm x 85 mm)



Weight: 0.5 Kg

IP from front IP54 and IP from rear IP22

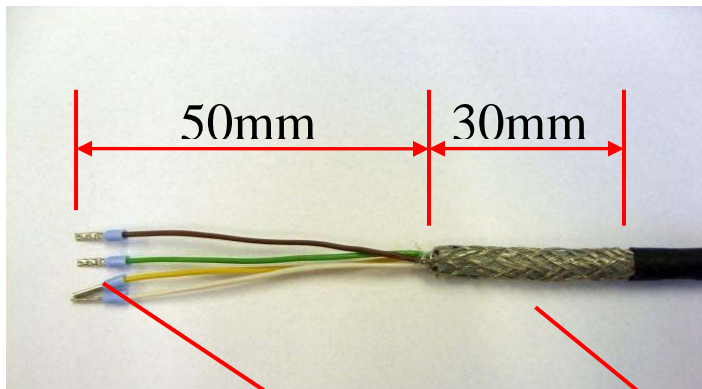
2) Rear View



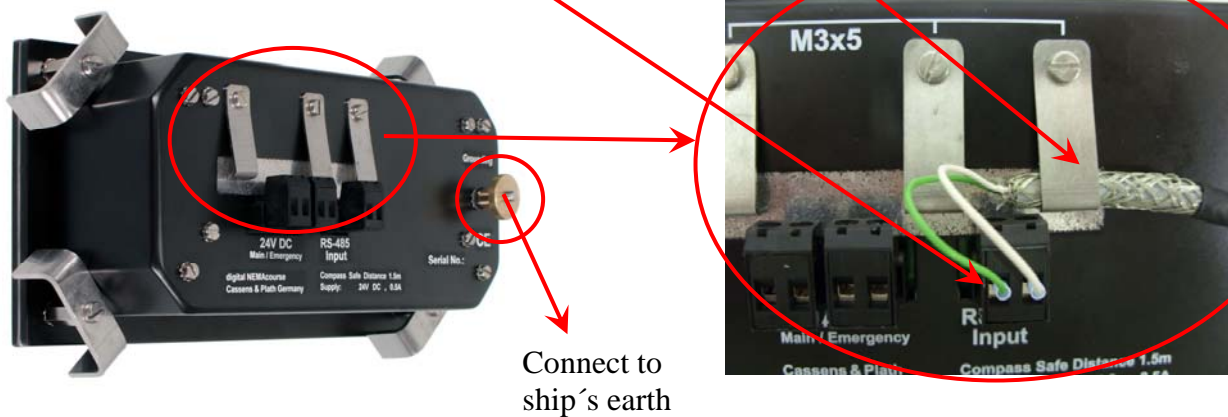
Fix cables within terminals by screw.
For grounding see following page.

3) Incoming Cables:

Prepare cable as below



4) Grounding



5) Cables, Yard Supply:

1 piece of data cable:

Min. 2x0.14 mm², twisted pair, screened, max. 100 m

2 pieces of power cable:

Min. 2x0.25 mm², screened, max. 20 m

1 piece of grounding cable:

Min. 1x1 mm², max. 2 m

6) Input Data Format

All data formats are according to RS-422/ RS-485, 4800 or 38400 Baud, 8 data bits, 1 stop bit and no parity.

Valid data headers are only "\$HCHDG" and "\$HCHDM" (magnetic) according to IEC61162-1 with checksum and without leading zero.

Data will be detected during start up.

When changing any data sentence restart instrument.

7) Errors

No or wrong data sentence:

If invalid or no data sentences are received for longer than 5 seconds, display will show "err.".

In this case check:

- Correct Wiring? (Ref. to chapter 2)
- A and B lines are interchanged? (Ref. to chapter 2)
- Source of data sentence is according to chapter 5 above?

Restart indicator .

Power failure:

If supply voltage drops below 16V, display shows "fail".

Check:

- Correct Wiring? (Ref. to chapter 2)
- Power supply? (Check with voltmeter that supply voltage is not less 24VDC)

Normal operation starts automatically after power was removed.