



Installation & Operation Manual

CROSScourseV

Magnetic Variation Converter

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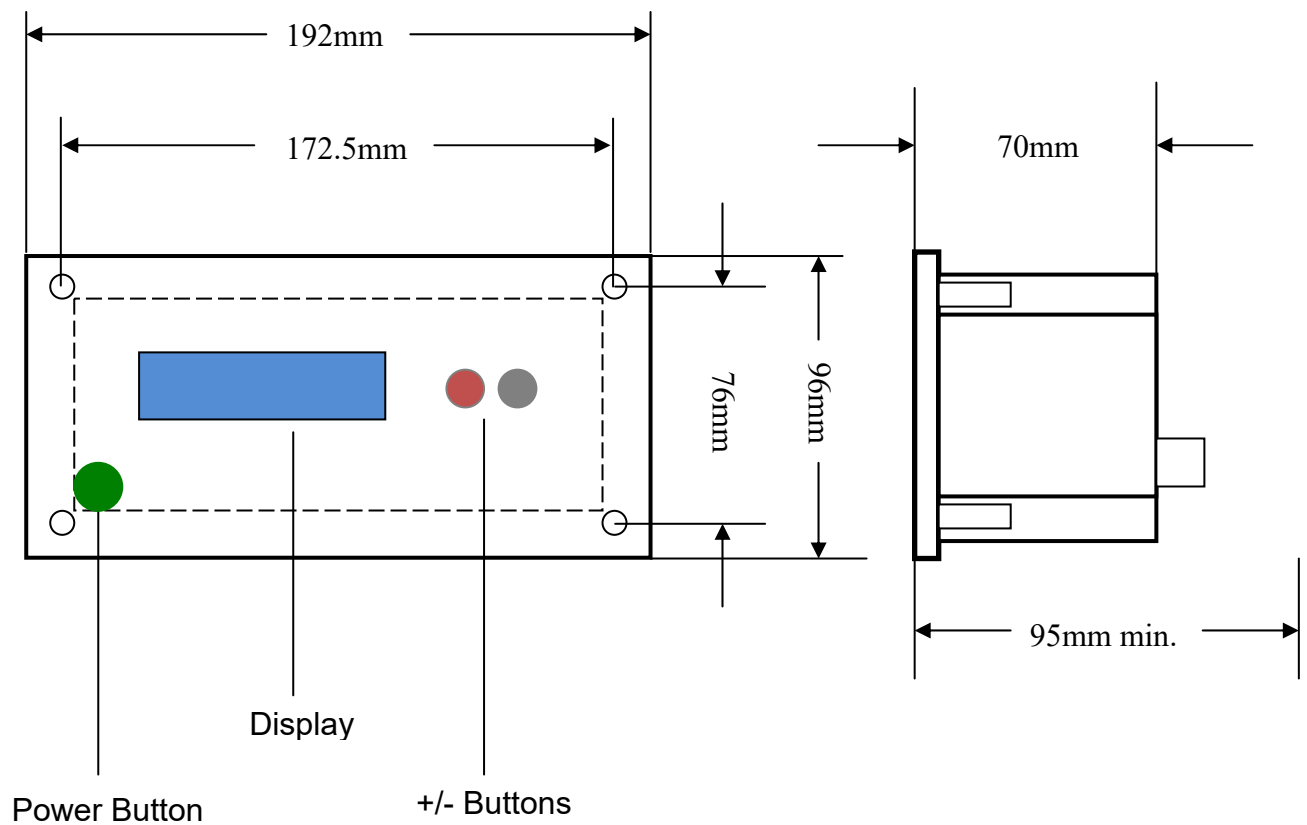
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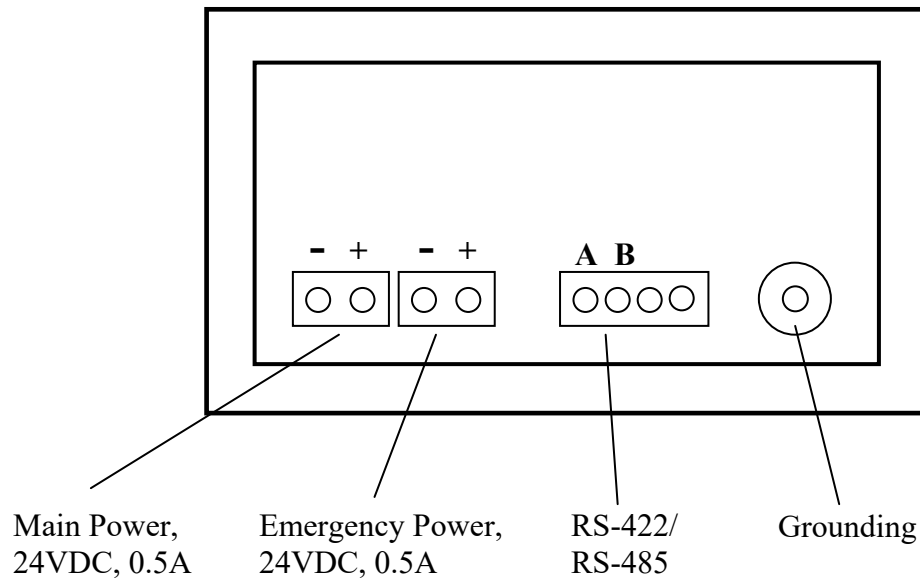
1) Dimensions and Mounting (Front View of Unit)

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



Weight: 0.5 Kg
Front: IP44, Rear IP22

2) Wiring and Pin Connection (Rear View of Unit)



Cables have to be screwed to the removable terminals.
Screening (grounding) has to be fixed with clamp at unit.
Grounding has to be connected to the ships superstructure or grounding terminal of ships electric wiring.

Cable Requirements, to be supplied by yard:

2 piece of data cable:
Min. 2x0.14mm², twisted pair, screened, max. 100m

2 pieces of power cable:
Min. 2x0.25mm², screened, max. 20m

1 piece of grounding cable:
Min. 1x1mm², max. 2m

3) Operation

During operational mode, illumination can be adjusted by pressing “+” or “-“ button. “+” will brighten illumination, “-“ will darken illumination.

To set up deviation press “+” and “-“ simultaneously. “Set Variation” will be displayed and variation can be changed in steps of 0.1 degrees starting from 0.0 in the limits of -45.0 east to +45.0 west with “+” and “-“ buttons. When required variation is reached press again “+” and “-“ buttons simultaneously.

4) Data Formats

All data formats accepted by CROSScourseV have to be RS-422/ RS-485, 4800 or 38400 Baud, 8 databits, 1 stop bit and no parity.

Accepted data sentences are “\$HCHDG” and “\$HCHDM” (refers only to magnetic compass data sentences and no true/gyro data sentences will be accepted!) according to IEC61162-1 with checksum and without leading zeros. CROSScourseV will autodetect these data sentences during start up, after changing data sentence CROSScourseV has to be switched off and switched on again. CROSScourseV will check data sentence by checksum.

5) Error Messages/ Error Removing

No or wrong data sentence:

If CROSScourseV receives no data sentence for more than 5 seconds, red alarm LED turns on and “No Valid Input Data” will be displayed. The same will appear when CROSScourseV receives wrong data sentences more than 5 times consecutive.

In this case check:

- Wiring okay? (Ref. to chapter 2)
- Data lines A and B are interchanged? (Ref. to chapter 2)
- Was data sentence protocol of transmitting unit selected properly? (Ref. to chapter 3 and manual of transmitting unit)

After removing the failure or changing data sentence CROSScourseV has to be restarted again.

Power failure:

If main as well as emergency power supply voltage will drop below 16V, red alarm LED turns on and “Power Failure” will be displayed.

In this case check:

- Is wiring okay? (Ref. to chapter 2)
- Is power voltage okay? (Check with voltmeter if both main and emergency supply are powered by 24VDC)

CROSScourseV will return to normal operation when error was eliminated.