NAVITRON SYSTEMS LTD

NT777 SMALL VESSEL AUTOPILOT

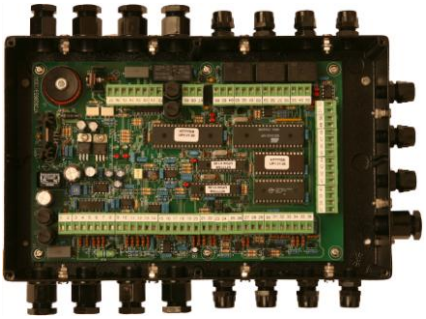
Purpose developed for small professional vessel use spanning workboats, pilot and patrol craft, fishing vessels and motor yachts to 25m LOA, the NT777 model is the first of a new digital Autopilot generation designed and manufactured by Navitron Systems Ltd.

Accordingly, the NT777 Autopilot System provides Navitron steering expertise in a robust and compact package with the following standard features:-

- **Dual NMEA Heading Inputs**
- **Mag Sensor Coil Heading Input**.
- **Multi Waypoint Track Steering**
- **Multiple Control Unit Options**
- **Integral Off Course Alarm**
- **Integral Watch Alarm**
- **Custom Turn & Dodge functions**
- **NMEA & Furuno Heading Outputs**
- **11-40Vdc Power Supply**
- **11-40Vdc/5A rated solid state switch Outputs to Solenoids**

Model NT777 Autopilot Control Unit ***(192 x 120 x 62.4mm)***

Fully equipped yet simple to operate- and suitable for hull forms from conventional displacement to fast planing vessels - the NT777 Autopilot System can support a maximum of 3 Control Units which connect to a central Distribution Unit.



Model NT777 Distribution Unit ***(270 x 175 x 66mm)***

Optional Equipment Input/Outputs:–

These functions are available from the standard Distribution Unit and allow a range of equipment and services to be added which include:-

Combined with full PID intelligence, auto rudder stability, Auto Trim (APH), integral Alarm & Reset functions, the NT777 is equipped for precision performance and reliability.

The LCD display presentation mode can be positive or negative as selected at installation. Automatic display graphic change will occur when Track Steering Mode is selected and includes regular (18 sec.) performance and source data updates.

Suitable for console or bracket mounting, the NT777 Control Unit can be externally located and the overall system is normally supplied complete with Heading Sensor Coil and Rudder Reference Unit for installation to solenoid hydraulic systems (11-40Vdc/5A max).

Alternative Distribution Units may also be employed to provide ±10Vdc/4-20mA outputs for analogue steering machines.

■Rudder Angle Indicators ■Analogue and Digital Heading Repeaters ■NMEA Heading Outputs (Radar etc.) ■Power Steer Controls ■ Universal Relay Box

NAVITRON SYSTEMS LTD *(Registered in England No. 2607869)*
17 The Tanneries, Brockhampton Lane, Havant, Hampshire PO9 1JB
TEL: (UK) 023 9249 8740 FAX: (UK) 023 9249 8783
(INT) +44 23 9249 8740 (INT) +44 23 9249 8783
E-mail: sales@navitron.co.uk Web: www.navitron.co.uk

NT777Outline Specifications

NT777 Autopilot Input/Output Specifications

Inputs: -

Supply Voltage Range	11-40Vdc	
Power Consumption	12V	24V
Off	4.2W	4.3W
Standby	4.6W	4.8W
On	5.1W	5.3W
Illumination (max)	+1.5W	+1.5 W

Mag Heading Input Ports	
Navitron Heading Sensor Coil mounted above/below Existing Mag Compass	Coil type HSC1 or HSC2
Resolution	0.25°
Dual NMEA 0183 Heading Sentences from Electronic Compasses etc. (Priority as shown)	XX HDM XX HDG XX HCC XX HDT
Resolution	0.1°

Cross Track Error Signal Input (GPS etc)	
NMEA 0183 Sentence types	XX APA XX APB XX RMB XX XTE
NMEA 0180	(CTE only)

Heading to Steer Track Data (GPS etc.)	
NMEA 0183 Sentence types	XX HTC XX HSC XX APB

Operating Temperature Range	-20 to +60 °C

Operator Controls
Course Selector (rotary)
Yaw (keypad + rotary)
Rudder (keypad + rotary)
Counter Rudder (keypad + rotary)
Autopilot Mode (Off/Standby & On keys)
Track (keypad)
Autotrim (keypad)
Illumination (rotary)

Unit Weights	
NT777 Control Unit	1.2kg
NT777 Distribution Unit	1.5kg

Outputs: -

NMEA 0183 (Isolated RS422)			
Update Rate	Selectable @ 1Hz, 11Hz or 22Hz		
Sentence types (Mag/Gyro v Update Rate)	Hz	Mag	Gyro
	1	$HCHDG $HCHCC $APHDG $APHCC	$HEHDT $AGHDT
	11	$HCHDG $HCHDM	$HEHDT
	22	$HCHDM	$HEHDT
Resolution	0.1°		

Solenoid Switching	
Polarity	Selectable Common +VE/-VE
Max Rating	5A @ 40Vdc

Furuno Format	
Update Rate	Selectable @ 5Hz or 40Hz
Resolution	Selectable @ 0.166° or 0.1°
Signal Amplitude	Selectable @ 5Vdc or 12Vdc

Operational Display Data (Prog LCD)	
Actual Heading	XXX.X º Mag / True
Set Course	XXX.X º Mag / True
Rudder Angle	Bar graph + 2 digit
XTE Track Data	nM Left/Right + dat type
HTS Track Data	Hdg/Err to WP + dat type
Rudder Setting	Value 1-9
Yaw Setting	Value 1-9
Counter Setting	Value 1-9

Alarm Display Data (Prog LCD)	
Watch Alarm	Sample shown of total 33 alarm types
Off Course Alarm	
Heading Data Fail	
Track Data Fail	
Steering System Fail	

Compass Safe Distance	
NT777 Control Unit	0.4m
NT777 Distribution Unit	0.4m