B&G

WTP3 (Wave Technology Processor)

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B&G. Passionate about winning

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B&G instruments have been on board all winning boats in the Volvo Ocean Race, TP52 MedCup and America's Cup, along with setting records around the globe.

B&G understands the requirements of the professional racer – we provide dockside support at the world's most important regattas and events, we support our systems with the best warranty in the business and – most importantly – we understand that great products by themselves are not enough. B&G provides a full package of support through the design stages, configuration, sea-trials, events and upgrades. If our product doesn't meet your exacting requirements, B&G's Custom Projects can work with you to find solutions to suit your specific requirements.

WTP3

WTP3 has evolved from the previous WTP processors which are used by Volvo winners, Jules Verne record holders and top inshore racers. With key input from a wide range of professional racing teams the new WTP3 is faster, lighter and adds significant functionality over its predecessors.

The WTP3 brings new architecture with a central CPU linked to distributed data collection networks – operating at up to 1Mbit on three independent channels – the possibilities for data collection are hugely expanded, supporting recent progression in both high-end racing and superyacht systems. Data is processed in the CPU, which outputs display data, transmits serial and digital data for output via modules, communicates with Deckman via LAN and operates an on-board datalogger for post-sail data analysis.

WTP3, along with B&G's range of displays, sensors and software, is the ultimate Grand Prix instrument system.

Status indicator:
- Power on
- CAN network status

CAN port:
- Micro-C style
- Connects to sensor network

Fastnet port:
- Display connection
- Compatible sensor support
- Pilot

Terminal connection:
- System monitoring

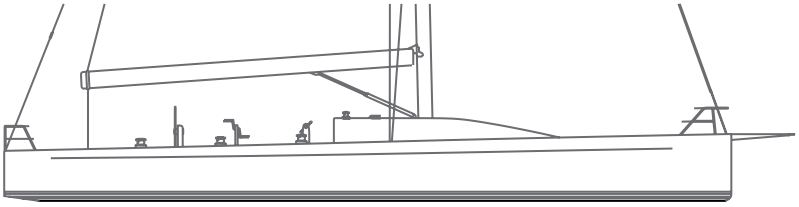
USB port:
- Software updates
- Configuration updates
- Datalog file offload

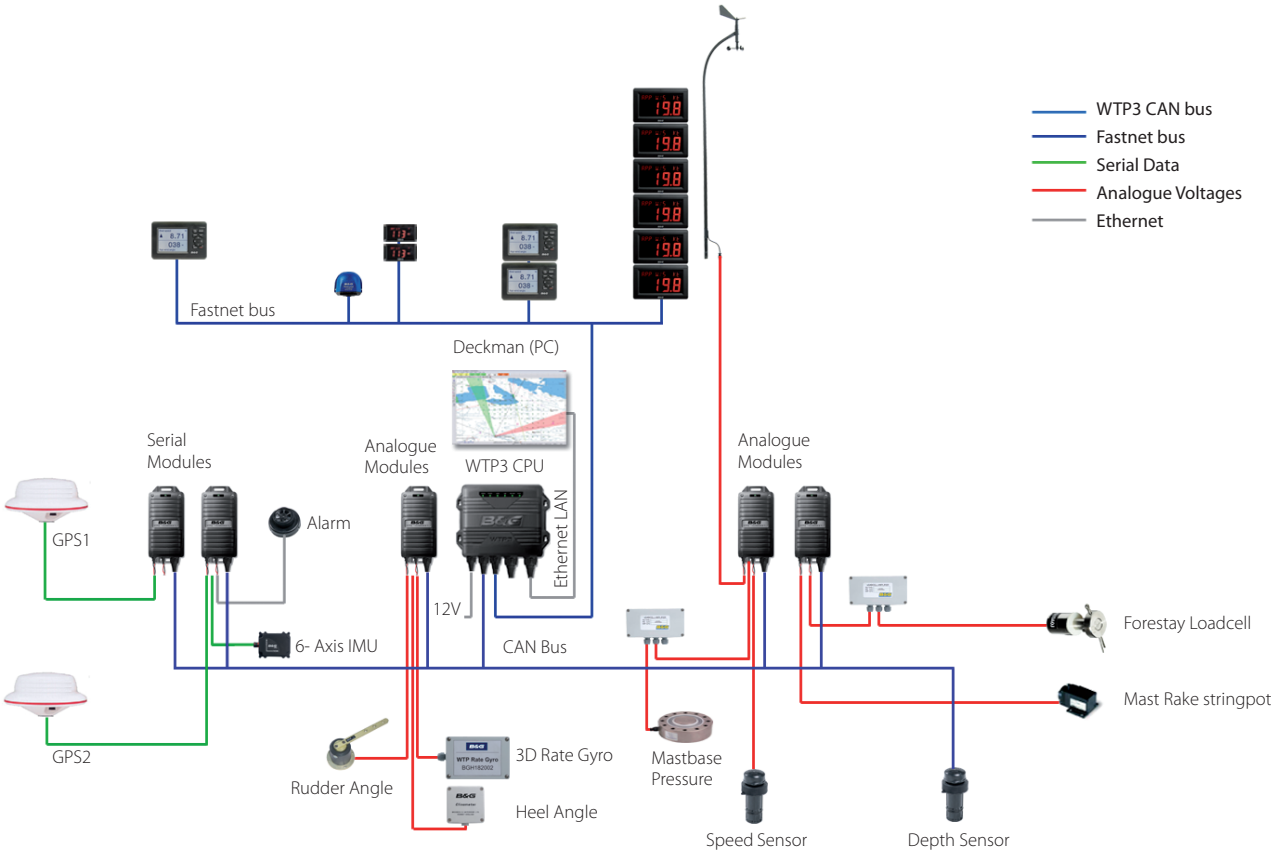
CAN ports:
- I/O module networks
- Independently configurable
- 125 kbit > 1 Mbit speed options

CNC enclosure:
- CNC machined enclosure
- Lightweight & Robust
- IP67 protection

LAN port:
- 100Mbit Ethernet
- Deckman comms
- FTP access (file system)
- Datalog access

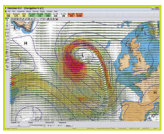
Diagnostic LEDs:
- Power
- CAN status
- Fastnet
- Logging
- USB

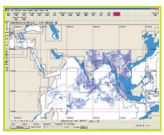




Deckman

The world's leading tactical software package, Deckman is also the primary control software for WTP3 systems





Vertical MHU

High-modulus carbon spar, combined with the high-accuracy provides the best wind sensor available for WTP3 systems

HV Displays

Rapid update, ultra-clear. HVision bonded display technology provides the clearest instrument displays available, crystal clear, zero condensation and incredibly durable

3D Rate Gyro

Utilising three of the best available axial rate gyro sensors allows the 3D Rate Gyro to supply WTP3 with highly accurate pitch, roll and yaw rate data for wind stabilisation and heading compensation

IMU

The IMU is a 6-axis heading sensor in an incredibly lightweight, robust package. Provides the WTP3 with Heading, Heel and Trim – the IMU can also be used to supply pitch, roll and yaw data as a secondary source to the 3D Rate Gyro

Pilot

The fastest sailboat Pilot in the world. Used to steer monohulls and multihulls to record breaking performances around the globe. Now integrates closely with WTP3 for ultimate performance

Loadcells

Utilised for performance settings and safety monitoring, loadcells can be integrated into WTP via Fastnet, analogue or serial inputs depending on application

Specifications

CPU

Electrical

Supply Voltage	12 vDC	Nominal
Power consumption	<500mA	CPU only, excludes modules, displays etc

Physical

Dimensions	193 x 164 x 65mm/ 7.6"x6.5"x2.6"	Including mounting lugs
Weight	950g/2.1 lb.	
Environmental protection	IP66, IP67	

Interfaces

Sensor networks	CAN (3 independent networks)	All ports independently configurable 125k-1Mbit 2A power available per channel
Display network	Fastnet	GFD, FFD, HV displays Also supports some sensors (e.g. Halcyon 2000)
PC connectivity	Ethernet, 100Mbit	
File offload	USB, Ethernet (FTP)	
Terminal/Diagnostic	Serial port	RS232, 9 pin connector supplied with IP67 cover

I/O Modules

Electrical

Supply Voltage	12 vDC via CAN	Nominal
Power consumption	<500mA	Excluding sensors powered from module
Sensor supply	5V and 12V, max 300mA/module	5V regulated, 12V nominal (bus voltage)

Physical

Dimensions	61 x 131 x 45mm/ 2.4"x5.2"x1.8"	Including mounting lugs
Weight	170g/6 oz.	
Environmental protection	IP66, IP67	Assumes installation of cables as per instruction

Interfaces

Network Interface type	CAN	
Baud Rate	125k-1Mbit	User selectable – higher speeds limit CAN cable length

Network

Nodes	Up to 16 per channel	ID set manually via DIP switch
Hot-swapping	Yes	

Analogue/Pulse Module specific

Analogue Inputs		
Number of inputs	6 per module	
Voltage range	0 to 5V, -5 to +5V	
A-D Resolution	12-bit (4), 10-bit (2)	
Sample rate	100Hz	
Output rate	20Hz	5x oversampled

Pulse Inputs

Number of inputs	2	
Input type	0-5V TTL	

Serial Module specific

Serial Ports

Number of ports	2 bi-directional	
Interface Baud Rate	4,800 - 115,200	
Compatibility	RS422, RS232, NMEA0183	

Digital I/O ports

Number of ports	2	Use for buttons, relay inputs etc

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To discuss your requirements please contact either your local B&G Race Specialist, or contact B&G directly on racing@bandg.com

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