

# Datasheet

## Navigation Controller Unit (NCU)



### Description

The Type 8020 Navigation Controller Unit (NCU) forms part of a Data Fusion Engine, a 'one-box' solution designed to meet the complete on-board requirements of any acoustic operation.

The NCU is the interface between the in-water acoustic instruments, sensors and the Navigation Computer which runs the acoustics positioning software. In addition to accurately time stamping incoming data from external devices such as GPS, the NCU also provides power and communications for ship-borne acoustic transceivers.

A range of hardware interface cards are available for interfacing Sonardyne transceivers and external sensors. By simply plugging these cards into the rear of the unit, the role of the Navigation Controller Unit can be transformed from supporting simple to complex acoustic operations.

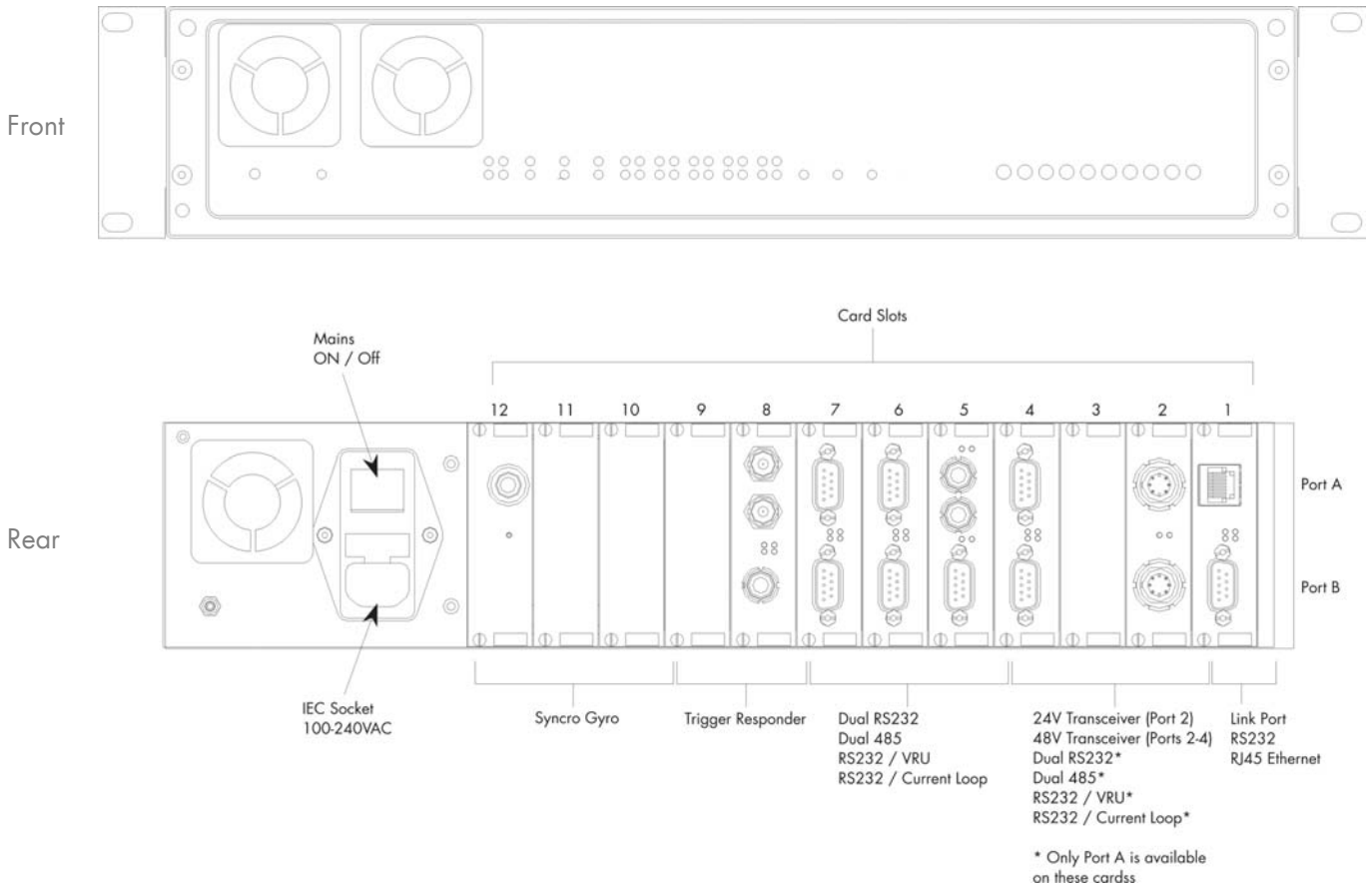
For certain DP and drilling operations, the NCU can be configured to offer dual and triple redundancy.

### Key Features

- Interfaces all sensors and acoustic transceivers
- Accurate time stamping for next generation tracking methods
- Houses sensor specific interfaces
- Provides power and communications to acoustic transceivers
- Configurable for dual and triple redundancy

# Specifications

## Navigation Controller Unit (NCU)



Feature	Type 8020								
Processor	Motorola Coldfire MCF5307 running at 70 MIPS								
Memory	One single Date Rate(SDR) DIMM Socket fitted with 32MB SDRAM								
Motherboard	Proprietary Sonardyne Type 8020-046								
Ports and Connectors	AC mains IEC power connector socket 12 x Interface card connectors								
Power Supply	Auto sensing AC input voltage 100-240V, 50-60 Hz Max current : 0.5A @ 240V, 1A @110V Ave. operating current: 0.32A @ 240V								
Environmental Specifications	<table border="0"> <tr> <td>Operating</td> <td>0° to 35° C (32° to 95°F)</td> </tr> <tr> <td>Storage</td> <td>-40° to 65° C (-40° to 149° F)</td> </tr> <tr> <td>Relative Humidity</td> <td>20% - 80% (non-condensing)</td> </tr> <tr> <td>Shock</td> <td>10G acceleration peak to peak 5-17Hz, 0.1" double amplitude displacement 17-640Hz, 1.5G acceleration peak to peak</td> </tr> </table>	Operating	0° to 35° C (32° to 95°F)	Storage	-40° to 65° C (-40° to 149° F)	Relative Humidity	20% - 80% (non-condensing)	Shock	10G acceleration peak to peak 5-17Hz, 0.1" double amplitude displacement 17-640Hz, 1.5G acceleration peak to peak
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Shock	10G acceleration peak to peak 5-17Hz, 0.1" double amplitude displacement 17-640Hz, 1.5G acceleration peak to peak								
Safety	Complies with EN61010-1								
EMC	Complies with Immunity & Emission requirements of RN60945								
Dimensions (LxWxH)	384mm (15.1") x 482mm (18.9") x 88mm (3.4")								