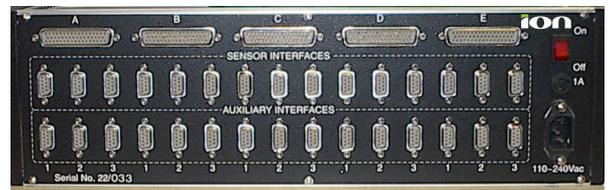


Command and Control Hardware | Data Distributor

The Data Distributor (DDII) is a 3U high, 19 inch wide, rack-mountable unit capable of providing full electrical and optical isolation between 15 sensors (RS232 or RS422) and the range of ION navigation units. It can also provide one auxiliary RS232 output. Header outputs from navigation units can also be sent through the Data Distributor, with the transmit signal being optionally routed to the auxiliary output receive pin. The DDII has all external data connectors accessible from the rear of the unit.

KEY FEATURES

- Five interface cards (3U High), each with a card front panel, handles, screws and fixings
- Each 3U card can handle serial interface data associated with three sensor channels.
- Front panel data-in and data-out switches select which data direction the Aux interface monitors
- Ability to set the switch to 'IN' position to allow the Aux connector to monitor RX data from sensor connector (data 'IN' to the Navigation Unit)
- Data activity LEDs indicate Transmit (TX) and Receive (RX) with respect to the navigation unit.
- LEDs are situated directly above the data switch for each channel, and provide a hardware indication of interface signal status
- Channels/Ports can be configured for RS232 or RS422 sensors by removing the applicable 3U card from the chassis, setting the switch on the card to the appropriate position, and replacing the card in the chassis
- All system and auxiliary outputs are to RS232 standard, enabling easier interfacing and diagnostics
- Cables to Navigation Units are supplied - for PowerRTNU/PowerMicro use PowerRTNU/DDII Serial Cable
- All rear panel serial data connectors are 9-way, D-type, female
- RoHS Compliant



Rear Panel



Front Panel



PowerRTNU & DDII Installation



CHANNEL DATA

Signals available for each channel

- RS232 sensor: RX, TX, RTS, CTS signals opto-isolated. GND is electrically isolated.
- RS422 sensor: RXD+, RXD-, TXD+, RXD- signals
- Two auxiliary outputs: RX/TX (Pin2) & GND (Pin5) ONLY connected
- LED indication:
 - Green - transmit data from Nav Unit
 - Amber - receive data from Sensor
- Maximum guaranteed baud rate is 38400

FRONT PANEL

- Five cards with three channels each
 - Two data activity LEDs for each channel
 - Power indication LED
- The plug-in cards handle all the signal interfacing and display signal activity. These cards are interchangeable and slot into the rack via the front panel.

INTERNAL DETAILS

- The 9-way, D-type sockets and the 50-way, D-type socket on the Data Distributor rear panel, and associated with the 3 x Navigation Unit ports, are fixed onto a PCB and mounted on the interior of the unit's rear panel.

INTERNAL BACKPLANE

- Internal backplane provides an interface between the connectors at the rear of the unit and the cards at the front

PCBs

- Five PCBs on the rear panel route the input signals to a 50-way PCB transition connector allowing for easy connection, via ribbon cable, to a backplane PCB which connects to the five front panel 3U cards

PSU

A universal power supply module is mounted on the backplane PCB. The supply is fused through an external bayonet fuse on the rear panel with an IEC connector as a power-in socket.

- 85-264V AC Universal Input → -10°C to +70°C
- 5V DC Output → Approved to UL1950, IEC950
- 47-440 Hz Input Frequency and EN60950

REAR PANEL

- Ability to handle fifteen Nav Unit interfaces (in order to accommodate the maximum 23 PowerRTNU interfaces two DDIIs are required)
- Labels are provided on the rear panel in order to identify individual sockets

ION has been delivering solutions to the oil and gas industry for over 40 years, and is the leading provider of real-time, multi-vessel positioning and control systems. For further information contact csl-sales@iongeo.com.

About ION

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