

TECHNICAL SPECIFICATIONS

Analogue Input: 8 independent Channel 24 BIT data inputs. All inputs are Differential with transient protection. ± 20 V standard, (40V PP). Options: 40 V,20 V,10V,5V,1V without (PGA). Other options are available depending on signal source characteristic.

Analogue Input Impedance: 51 K Ω , Other options are available. With 1 Pole Low-Pass antialiasing Filter.

Configurable Preamplifier (PGA): Gain settings *1, *2, *4, *8 *12. Each channel independently controlled.

Analogue Input Signal Source:

- Active broadband seismometers,
- Electromagnetic seismometers: (Short period-Geophones),
- Rotational seismometers, Microbolometers, Strain Stress sensors. Multidisciplinary-sensors.

The spare input channels can be allocated to either broad band sensor or other sensors requiring high resolution measurements.

Can be used for high resolution tilt meters and Infrasound sensors.

Suitable to digitise broadband velocity sensor mass position outputs.

State of health signal Inputs: Up to 9 further analogue input Channels are available. Full scale ± 20 V standard. Selectable sample rates.

Digital Inputs/Outputs:

CAN Bus: Control Area Network (CAN) Allows communication without a host computer. Many digitizer modules can be connected in series for array network.

RS232 Serial input: Control and acquire digital data. Interface to e.g.: Weather stations, digital infrasound sensors, digital strain/stress gauges.

Logic Control Lines: Calibration enable, Lock--Unlock—Center

Independent latching relays: Used to switch (ON-OFF) Machinery, as a Seismic Switch. Analogue Output Signal Source.

24 bit buffered output DAC with adjustable amplitude.

Wave forms: Square, Sine, Step, Pulse with duty cycle and frequency control and Pseudo random signals. Generated with an internal synthesizer.

Operational Performance: Independent 8--24 bit Delta Sigma Digitizer

Dynamic Range:

Sample rate: Sample rate: 1K Hz: -122.2dB, at:100 Hz:-136.3 dB, at: 10 Hz -138.4dB.

(Full scale P-P to RMS Shorted input Noise)

Gain Accuracy: $\pm <0.5\%$, each channel calibrated.

Sample rates: User selectable sample rates: 1 2,5,10,20,40,50,100, 125,200,250,500,1000.

Four separate same rates are available concurrently.

Decimation Filter Options: Causal (minimum phase) and a-causal (linear phase) filters, Applicable to all the sample rates and concurrently available. Four separate same rates are available concurrently and can be mixed with Causal and a-causal output options.

Digital filters: User selectable, high pass and band pass digital filters.

DATA STORAGE

Format: MiniSEED and PCF (Proprietary data Format)

Internal Memory: 8 G byte

Removable Media: SD Card 32 G Byte.

TRIGGERS:

Threshold trigger with high-pass filter. User selectable high pass filter.

STA/LTA: Band passed ratio-metric trigger. Concurrently available in addition to continuous data streams.

PHYSICAL:

SD card, removable, behind a waterproof storage cavity.

LED Indicators: TCP/IP activity.

Time Synchronization

Time Source: GPS, GNSS, NTP or internal source.

The product specifications and the stated data are subject to change without prior notice.

GPS: Maximum 50 meters cabling.

NTP: NTP option software selectable.

Timing Accuracy: $\pm < 50$ Nanoseconds

GPS Unit: External GPS Receiver with RS232 Interface, 1 pps output. Powered through digitizer, 9 to 36 Volt Operation.

Format: NMEA

USER INTERFACES:

Available interfaces: 10/100 Base-Ethernet, USB, Serial.

IP Addressing: Static, dynamic (DHCP) or local IP.

Protocols: UDP/IP unicast/multicast.

Power Supply: +9 - +36 V DC, Galvanically Isolated analogue input stage. Polarity protected, over voltage protection with transient suppression.

Know Blue Tooth, WIFI

Integrate Bluetooth, WiFi

Power Consumption: Average 1.8 W with max 1000sps, GNSS and TCP/IP. <1.3 Watt without TCP/IP No communication, GNSS duty cycle

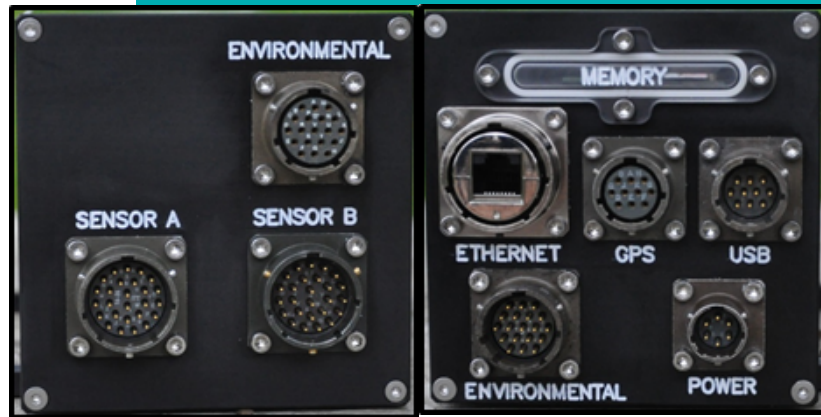
PHYSICAL CONNECTION:

Analogue sensor: Male 26 Way. Mil.circular/ Shell size: 16

Power Connector: Male 10 Way. Mil. circular/ Shell size: 12. Also used for USB and Serial coms.

GPS Connector: Female 10 Way. Mil. circular/ Shell size: 12

Ethernet Connector: RJ-45, RJN2200 Mil. Circular.



Mechanical Parameters

Enclosure: Anodized Aluminum and engineering plastics.

Humidity: 0 to 100%

Rated to IP 68 with potted and mated connectors.

Operating temperature: -20 to 80 °C

GPS temperature specification: -40 to 80 centigrade.

Weight: 1.95 Kg

Dimensions: 200x100x100 mm

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