ENCARDIO RITE
METASENSING FOR MEGA STRUCTURES

DIGITAL DATALOGGER

NEXAWAVE DIGILOG

DATASHEET

OVERVIEW

NexaWave Digilog Datalogger is designed to accurately log data from digital sensors with an SDI-12 serial interface output. This versatile device supports wide range of sensors, including those based on vibrating wire, thermistors, resistance strain gage, and MEMS technology. It is ideally suited for remote monitoring and data collection in applications such as metro tunnels, underground cavities, dams, high-rise buildings, historical monuments, bridges, landslide-prone areas, and structural foundations.

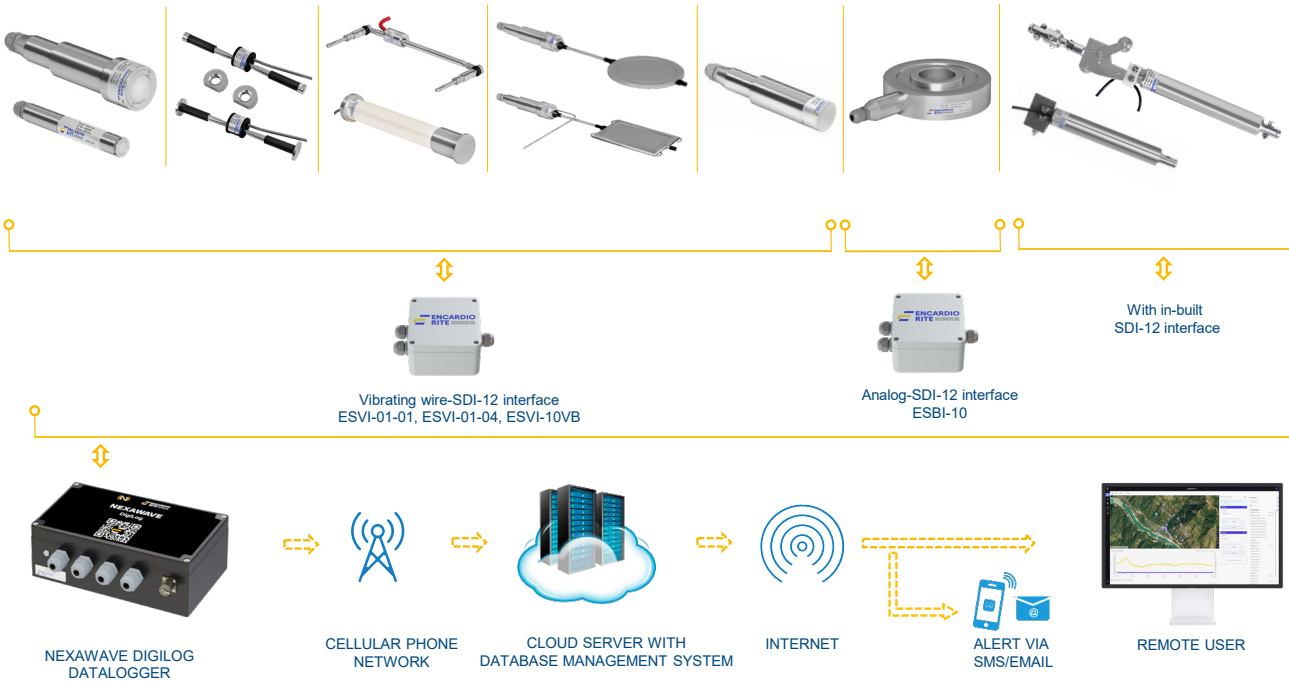
The NexaWave Digilog is a multichannel unit that can connect up to 61 digital sensors in each of its 3 channels, including multi-parameter sensors like vibrating wire sensors that provide both frequency and temperature measurements. A single 3 core cable can interconnect all the sensors and the datalogger in a serial bus. The logger offers programmable measurement intervals ranging from 5 seconds to 168 hours, providing flexibility to meet diverse monitoring needs. Note that as the primary power mode is battery-operated, higher measurement frequencies can drain the battery more quickly.

Multiple options facilitate data retrieval and transmission, including telemetry via GSM/GPRS modem for remote access and direct download using a laptop for on-site data management.

FEATURES

- **Plug and play**: Effortless sensor installation and configuration with an intuitive setup process using a laptop.
- **Full compliance**: Compliant with the latest SDI-12 interface standards for seamless integration with any manufacturer's sensors with SDI-12 output.
- **Adjustable measurement intervals**: Data measurement intervals are programmable from every 5 seconds to every 168 hours.
- **Remote data collection and wireless data transmission**: Utilizes a GSM/GPRS modem for remote data transmission to central systems, requiring only a data SIM card for operation.
- **Local data retrieval facility:** Data can be downloaded directly to a laptop or PC in the field and transferred to other systems via USB or the Internet for further analysis.
- **Extensive data storage**: Offers significant data storage capacity for up to 2 million data points. Stores calibration coefficients and x-parameter units, with data stored in engineering units. Each reading is date and time-stamped for precise tracking and analysis.
- **Two-way communication**: Allows remote configuration and management, significantly reducing field costs.
- **Infrastructure data intelligence platform**: Transmit data to a local or cloud server hosting the **Proqio** platform for 24/7 insights. **Proqio** enables efficient data processing, analysis and real-time visualization. Benefit from instant alerts for critical events and automated reports, supporting informed decision-making.

  Also compatible with any manufacturer's data management system for continuous monitoring.
- **Robust weather-resistant housing**: Engineered to IP 67 rating to withstand harsh environmental conditions, ensuring reliable operation in diverse settings; suitable for unattended applications.
- **Low power consumption**: Designed for efficient energy use to prolong battery life, ideal for extended stand-alone field usage.
- **Versatile power options**: Choose from battery, mains, or optional solar power (model ESP-12V1A). For remote sites, mains or solar power is advised.



Typical scheme

SPECIFICATIONS

NEXAWAVE DIGILOG (MODEL ESDL-30)	
Input	Sensor with SDI-12 signal interface
No. of channels	3
No. of sensors per channel	61
Scan/upload interval	5 seconds to 168 hours
Memory capacity	Flash Memory (64-Mbit); 2 Million data points
Internet connectivity	In-built 4G/LTE modem
Data output format	CSV text file. Can be easily imported in many third party applications like Microsoft® Excel
SDI-12 version	Version 1.3
Communication port	RS-232 (Standard) 115 kbps
Temp. measurement range	-20 to +70°C with 0.1°C resolution
Operating temperature range	-30 to 70°C
Humidity	100 %
Power supply	2 x D size 3.6 V/19 Ah Lithium cells, or 2 x D size 1.5 V Alkaline high power cells, or 12V SMF battery chargeable from AC mains or solar panel
Housing	Corrosion resistant weather proof enclosure.
Protection	IP67
Antenna (in telemetry option)	Built-in or separately mounted antenna
Dimensions LxWxH	220 x 140 x 90 mm

ORDERING INFORMATIONS

Model code	No. of sensors to be connected
ESDL-30-1	1-5 sensors
ESDL-30-2	6-10 sensors
ESDL-30-3	11-24 sensors
ESDL-30-4	25-60 sensors

Contact factory if more sensors to be connected.

*All specifications are subject to change without prior notice

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Encardio-Rite Electronics Pvt. Ltd. A-7, Industrial Estate, Talkatora Road, Lucknow, UP-226011, India | info@encardio.com | T: +91 522 2661039-320