dataTaker DT90 Series data loggers
All-in-one monitoring of remote applications

Compact, long-lasting, data loggers

A cost effective, easy to deploy solution for long-term environmental and industrial applications

dataTaker®

Data Logging
Data readout via USB or remote data transmission via 4G network.

Connect Any Sensors
Analog: voltage, current, RTD; Digital: SDI12, MODBUS, pulses

Notifications
Automatic alarms via SMS

Technical Support
Supporting you all the way from choosing a logger to your solution

Cloud Enabled
Access your data anywhere, anytime via DataTaker Live

Waterproof
IP67 Waterproof enclosure

Hydrology – Monitoring surface and ground water conditions, the occurrence and movement of water, the physical and chemical properties of water, and its relationship with the living and material components of the environment.

Meteorology – Monitoring changes of atmospheric conditions to forecast weather and the presence of air pollutants.

Industrial – Monitor and control process parameters from temperature profiling to design validation.

Compact, all-in-one monitoring

The DT90 series of data loggers are compact, all-in-one monitoring modules with an integrated modem, specifically designed for remote applications. The rugged design and wide operating temperature range provides reliable operation in virtually any environment. These are low-power and cost-effective data loggers with a dedicated mounting handle for a simple and quick installation process.

Data retrieval and device configuration are available via USB interface for on-site communication. You can also use the automatic data delivery feature to send logged data to an FTP server at regular intervals. Alarm configurations can trigger SMS messages to multiple mobile phones.

DT90 programming software can easily take you through the setup of your logger and how you want the system to work, customised for you.

- **Ease of deployment:** Simple connectivity via USB on-site makes it easy to configure and test the deployed monitoring module

- **Universal:** Connects to any sensor. This universal logger can connect to any type of sensor. Analog*: voltage, current, RTD; Digital: SDI-12, MODBUS, pulses

- **Rechargeable lithium ion battery:** Up to 300 days run time on one charge and the ability to connect directly to solar power, making this logger the best solution for your remote monitoring applications

- **Robust:** With its solid aluminium case and fully waterproof probe (IP68 rated), this logger is suitable for harsh environments

- **Cost effective:** Low maintenance product. Minimal attention needed after setup

* Only DT90L

General Specifications

Scheduling of Data Acquisition
Number of channels: 26 (each has independent schedule setting)
Schedule Rates: 1 second to 24 hours

Alarms
Conditions: High or Low Threshold
Number of conditions: 3
Action: Send SMS, increase/ decrease transmission rate

Data Storage
Internal Non Volatile
Capacity: 16 MB (min 500,000 data points)

Integrated Cellular Modem
Network selection 4G

Power Supply
External power: 5-25 Vdc
Solar panel: 9V or 12V

Physical and Environment
Construction: Black anodized cast aluminium
Working temperature: -40°C - +70°C
Humidity: 0-100% RH (when the lid is closed)
Ingress of Protection: IP67

Included Accessories
Resource USB (software + user manual)
USB communication cable

Note: SIM Card and Dataplan not included

DT90 Series Options

The DT90N is perfect for setting up small stations that require multiparameter sensors that only have a digital output. The DT90L is designed for multiparameter applications and can interface with both analog and digital sensors. Both options share the same core functionality.

DT90L (Lite)
This version uses a large 48 Wh integrated rechargeable lithium battery pack, and features both analog and digital inputs, with the whole design being fitted in a miniature 160 x 100 x 80 mm black powder-coated aluminum cast enclosure.

Work time example: sampling 1min – rain gauge, transmission 1h, solar panel 2W. Ability to work all-year round.

DT90N (Nano)
The dataTaker nano option uses a smaller 16Wh integrated rechargeable lithium battery pack when compared to the DT90L. It is all digital (no analog inputs), with the whole design being fitted in a miniature 100 x 70 x 38 mm black powder-coated aluminum cast enclosure.

Work time example: sampling 1min – rain gauge, transmission 1h, solar panel 2W. Ability to work all-year round.

- **Analog Channels** – Up to 8 inputs with 16 bit resolution

- **Voltage** – Switchable range: 0-50 mV, 0-2.5 mV *4 – 20 mA Current Loop*

- **RTD** – PT100

- **Sensor Excitation** – Outputs: 5V or 12V

- **Digital Channels** – *Dedicated Counter Inputs* 3 pulse counters inputs

- **SDI12** – 1 SDI12 input, up to 8 sensors @ 32 parameters

- **MODBUS Client** – Read data from MODBUS sensors/ devices on RS485 port

- **Power Supply & Physical Info** – Internal Battery: Lithium 48 Wh Dimension: 160 x 100 x 80 mm Weight: 1.1 kg
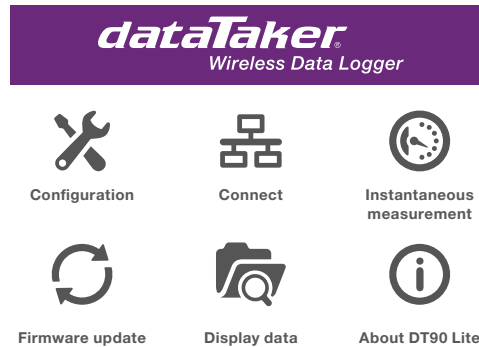
- **Digital Channels** – Dedicated Counter Inputs 3 pulse counters inputs

- **SDI12** – 1 SDI12 input, up to 2 sensors @ 32 parameters

- **MODBUS Client** – Read data from MODBUS sensors/ devices on RS232 port

- **Power Supply & Physical Info** – Internal Battery: Lithium 16 Wh Dimension: 100 x 70 x 38 mm Weight: 700 g

Configuration Software

DT90 configuration software is an intuitive graphical interface that allows you to configure your data logger, view real-time data in charts and retrieve your historical data for analysis. The application runs on your PC and interfaces the logger via USB port.

Features:

- Simple Interface for programming
- Easy alarm setup
- USB connection
- Ability to download historical data
- Display data in chart or table
- Export data into a CSV file
- Firmware upgrade interface

dataTaker®
Wireless Data Logger

| Configuration | Connect | Instantaneous measurement |
| Firmware update | Display data | About DT90 Lite |

Interface for programming

With a user-friendly interface for programming the logger, you can easily select the connected sensor location and enter the channel name and measurement unit. Following that, the setup is practically completed.

Further enhancement on this channel can also be done by adding scaling or enabling an SMS alarm for up to 3 numbers.
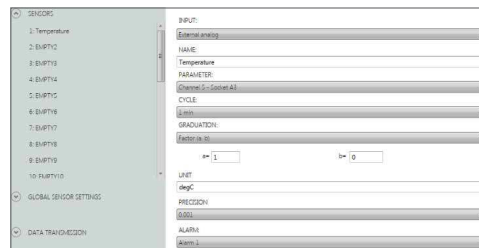
Display data in chart format

Data can be downloaded and plotted directly on a chart interface using the product software. Customise your data points and axis by modifying the date/time range using either a horizontal slider or zoom in/out option. Functionality to export data into a CSV file is also available.
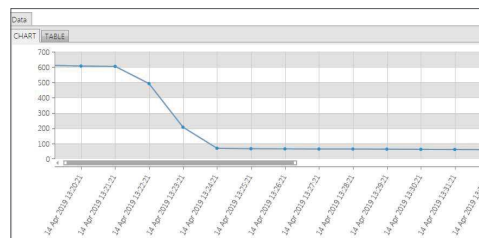
Collect, Share, Process.

dataTaker Live

This powerful and versatile cloud service makes collecting, monitoring, analysing, sharing and storing information from your dataTaker easier.

- Monitor: Real-time remote access to measurements from anywhere at any time and allowing configuration changes for dataTaker loggers from your PC, smartphone or tablet
- Store & Share: Synchronise and save data to your personal cloud account. dataTaker Live dashboard lets you collaborate and share data
- Collect: Automatic data uploading from sensors, loggers or industrial gateways to your personal cloud service account
- Analyse: Data analysis with standard and custom scripts

Find out more at **thermofisher.com.au/datatakerlive**

Optional Accessories

Solar Panel with brackets and 1 m cable
Rating: 2W, 5W or 10W

Power adaptor 230 V
Cable length: 1 meter or 5 meter

Mounting bracket
Type: pole mounting or DIN rail mounting

Antenna

- Straight antenna with screw

- Straight antenna with magnetic base

- Dome antenna

CE △ IP67

Thermo Fisher
SCIENTIFIC