



What size data plan do I need?

When selecting a mobile data plan to use with your dataTaker modem-logger it is important to fully understand how you are going to use it, otherwise you may be over spending for a high-data plan or charged exorbitant amounts for excess usage for a low-data plan.

There are four main tasks that will require consideration during this process:

- Data retrieval
- Email alarms
- Email SMS
- Accessing the dEX web interface

1 Data Retrieval

Data retrieval can be performed manually through dEX or automatically via FTP push or Email. Regardless of the method chosen, the amount of data that needs to be retrieved is determined by the number of channels being recorded and the rate of this recording. The table below lists the approximate MB/Month required to transmit data for various combinations of sample rates and number of readings.

Sample Rate	No. Readings	MB/Month ⁽¹⁾
5 seconds	50	325
5 seconds	10	90
5 minutes	50	5.5
5 minutes	10	1.5
1 hour	50	0.5
1 hour	10	0.1

(1) MB/Month value shown is approximate.

2 Email Alarms

Email alarms will not contribute much to the total amount of data that you will use, however if you are using a very low-data plan then the frequency that alarms can be sent should be limited. It is recommended to allow for at least 10KB transmission data for each Email alarm, therefore if you have three alarm recipients receiving three emails per day then you may be using close to 2.7MB of data per month (270 emails).

3 SMS Alarms

SMS messages may or may not be included in a particular mobile/cellular plan, and can cost upwards of 25c each. If we were to use the same example as above then SMS alarms alone would cost nearly \$70. For this reason it is advisable not to use SMS where many messages need to be sent because data is often less expensive.

4 Accessing the dEX web interface

Accessing the dataTakers internal web interface (dEX) requires varying amounts of data, depending largely on usage. Each time the dEX application is loaded from the logger, up to 2MB of download is used (unless the application is stored in the browser cache). Data is also used during the applications use. It is wise to overestimate the data usage for dEX and allow for 5MB data transfer per session, potentially more if charts and mimics are used for extended periods of time. If you intend frequent, remote use of dEX you should allow at least 300MB/month. You should note that you do not need to access dEX remotely to configure and operate the logger as this can be done locally before deployment or in the field.



5 Other considerations

If your SIM is configured to provide a public IP address then you should be aware that there exists a potential for other people and computer systems to access your logger and its web services, which can contribute an unknown amount of data traffic. To minimise the risk of this you can either:

- Use the low-power features of the logger so that the modem is not online for long periods of time
- Disable or hide the web services (including dEX)

The information provided in this document is to be used as a guide only. You should be very careful when selecting a data plan as often there are excess charges when monthly data allowances are exceeded. If you are uncertain what size plan you need it can be wise to get a plan with a larger data allowance, then monitor your bills for a period to determine worst case usage then adjust the configuration of your data plan.