

## Upload-template description:

```
1;Date-stamp (yyyy-mm-dd)
2;Time-stamp (hh:mm:ss: UTC)
3;sensor;variable;unit;depth_from;depth_to;sensor_position(horizontal/vertical)
4;sensor;variable_oqf;unit;depth_from;depth_to;sensor_position(horizontal/vertical)
5;sensor;variable;unit;depth_from;depth_to;sensor_position(horizontal/vertical)
6;sensor;variable_oqf;unit;depth_from;depth_to;sensor_position(horizontal/vertical)
7;sensor;variable;unit;depth_from;depth_to;sensor_position(horizontal/vertical)
8;sensor;variable_oqf;unit;depth_from;depth_to;sensor_position(horizontal/vertical)
$
2011-01-01;01:00:00;8.70;U;8.80;U;8.90;U
2011-01-01;02:00:00;8.70;U;8.80;U;8.80;U
2011-01-01;03:00:00;8.60;U;8.70;U;8.80;U
...
```

Header and data are separated by a “\$” sign. The header contains all relevant information concerning the in situ measurements. A list of station coordinates has to be send separately to the ISMN team.

The first line of the header gives information about the first data column which should contain the date. The second line gives information about the second column which holds the time in UTC. The third line describes the meta information of the measured variable of which the data is stored in the third column and so on.

The order of the header lines does not matter but the order of the header lines have to refer to the correct order of columns.

The following list gives a short description of the meaning of each value of a header line:

sensor	name of the sensor
variable	sm = soil moisture ts = soil temperature ta = air temperature p = precipitation sd = snow-depth sweq = snow water equivalent
	if the specific column contains your quality flags then you can add “_oqf” to the variable (for example “sm_oqf”)
unit	% volume for sm mm for psd,sweq degree C for ts,ta
depth_from	The top of the depth range represented by the sensor.
depth_to	The bottom of the depth range represented by the sensor.
sensor_position	horizontal or vertical, depending on the position of the sensor (if horizontal then depth_to=depth_from)

Single entries in the data section should be separated by a semicolon (“;”). In any case the same separator as in the header should be used.

A point should be used as a comma for floating-point numbers.

Entries which should not be added into the ISMN database (e.g. because a sensor malfunction occurred or some parts of sensor readings were made during a calibration or testing phase) should be indicated by “-99.90”.

Thanks for participating and sharing your data with us!

Your ISMN team