

Technical Note

Logging Capacity of TROLL® Instruments

Aqua TROLL, Level TROLL, BaroTROLL, Rugged TROLL, and Rugged BaroTROLL Instruments

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Overview

This technical note outlines the data log capacity of TROLL® instruments. Use the tables provided to help plan long-term logging deployments. Note that the tables provide the minimum number of data records that can be stored under the specified conditions. In some conditions, instruments may store additional data records; however, those conditions cannot be guaranteed.

Wrap Condition Disabled

When the wrap condition is disabled, the instruments will stop logging data when the data log memory is full. This mode provides the largest number of stored data records. See Table 1. Identify the instrument in the left-hand column, then identify number of parameters to be logged. The value in the table is the minimum number of data records that can be stored.

Wrap Condition Enabled

When the wrap condition is enabled, the instruments will overwrite the oldest data records with the newest data records once memory becomes full. Some memory overhead is required to implement this feature, which slightly reduces the number of data records that can be stored. See Table 2. Identify the instrument in the left-hand column, then identify the number of parameters to be logged. The value in the table is the minimum number of data records that can be stored.

Calculation Example

Consider, for example, a Level TROLL® 500 that will be deployed to record all three of its parameters (pressure, temperature, and level). Use the wrap condition to eliminate instrument reprogramming steps when data is retrieved. At least 93,600 data records can be stored (see Table 2). If a 5-minute recording interval is used, the instrument can be deployed for 325 days before it fills and begins to wrap its log.

Table 1. Minimum number of data records that can be stored when wrap condition is disabled

Instrument	Memory	Parameters								
		1	2	3	4	5	6	7	8	9
Rugged BaroTROLL®	1 MB	89,355	61,425	—	—	—	—	—	—	—
Rugged TROLL® 100	1 MB	89,355	61,425	46,800	—	—	—	—	—	—
Rugged TROLL® 200	1 MB	89,355	61,425	46,800	—	—	—	—	—	—
BaroTROLL®	1 MB	89,355	61,425	—	—	—	—	—	—	—
Level TROLL® 300	1 MB	89,355	61,425	46,800	—	—	—	—	—	—
Level TROLL® 500	2 MB	184,667	126,945	96,720	—	—	—	—	—	—
Level TROLL® 700	4 MB	375,219	257,985	196,560	—	—	—	—	—	—
Aqua TROLL® 100	4 MB	375,219	257,985	196,560	158,760	133,119	114,660	100,674	—	—
Aqua TROLL® 200	4 MB	375,219	257,985	196,560	158,760	133,119	114,660	100,674	89,712	80,892

Table 2. Minimum number of data records that can be stored when wrap condition is enabled

Instrument	Memory	Parameters								
		1	2	3	4	5	6	7	8	9
Rugged BaroTROLL®	1 MB	83,398	57,330	—	—	—	—	—	—	—
Rugged TROLL® 100	1 MB	83,398	57,330	43,680	—	—	—	—	—	—
Rugged TROLL® 200	1 MB	83,398	57,330	43,680	—	—	—	—	—	—
BaroTROLL®	1 MB	83,398	57,330	—	—	—	—	—	—	—
Level TROLL® 300	1 MB	83,398	57,330	43,680	—	—	—	—	—	—
Level TROLL® 500	2 MB	178,710	122,850	93,600	—	—	—	—	—	—
Level TROLL® 700	4 MB	369,334	253,890	193,440	—	—	—	—	—	—
Aqua TROLL® 100	4 MB	369,334	253,890	193,440	156,240	131,006	112,840	99,076	—	—
Aqua TROLL® 200	4 MB	369,334	253,890	193,440	156,240	131,006	112,840	99,076	88,288	79,608



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