



DT Series Dataloggers Installation Guidelines

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1 INTRODUCTION

RST DT Series dataloggers are mounted inside NEMA 4X (IP66) weather-resistant enclosures which are dust-tight and water-resistant. The dataloggers can be exposed to elements such as rain and splashes of water, but they are not waterproof and are not suitable to be submerged.

It is not recommended that the dataloggers be installed in traffic-rated well covers or flush-mount covers where flooding may occur. Refer to Figure 1-1.



FIGURE 1-1 DATALOGGERS SHOULD NOT BE INSTALLED IN WELL COVERS

DT dataloggers should be installed inside secondary enclosures for additional protection and against harsh environmental occurrences, such as snow.

RST DT Series dataloggers can also be installed indoors. No special ventilation or cooling is required for these circumstances.



FIGURE 1-2 RST INSTRUMENTS DT SERIES DATALOGGERS

1.1 WIRELESS DATA COLLECTION SYSTEMS

RST DT Series dataloggers are compatible with RSTAR and DT Link wireless data collection systems. When RST dataloggers are equipped with radios to wirelessly retrieve data, the entire datalogger should be installed above ground to maintain a clean line-of-sight between the attached antenna and the remote hub. Refer to Section 3 for examples of specific secondary enclosures that have been designed for this type of application. Contact RST Instruments for further information and options.

2 INSTALLATION

2.1 INSTALLATION TOOLS AND MATERIALS

- Phillips #2 screwdriver;
- Flat-head 2.5mm screwdriver;
- Two 20mm open wrenches or small crescent wrenches;
- An optional Cable Gland Nut Wrench (DT100) may be purchased from RST Instruments for effortless cable gland access. The Cable Gland Nut Wrench improves access to the glands when compared to a standard wrench. Contact RST for more details.



FIGURE 2-1 CABLE GLAND NUT WRENCH

2.2 VIBRATING WIRE SENSOR AND THERMISTOR CONNECTION

Refer to Section 4 of the ELM0080 DT Logger Host PC Platform Manual for vibrating wire sensor and thermistor connection information.

3 MOUNTING OPTIONS

A variety of options are available for mounting RST DT Series dataloggers.

- Pole-mounted, using a Unistrut bracket and a gear clamp appropriate for the selected pole size. The Pole Mount Kit includes a stainless-steel pair of brackets and adjustable clamps. Refer to Figure 3-1.



FIGURE 3-1 POLE MOUNTED ENCLOSURE

- Secondary enclosure for enhanced protection. The enclosure shown in Figure 3-2 is a DT2011-SE Secondary Enclosure that houses the DT2011B and requires a 1 mm nut driver to secure the removable cover.



FIGURE 3-2 SECONDARY ENCLOSURE

- Custom enclosures are also available. Custom options include larger enclosures for big dataloggers (such as the DT2040), tamper resistant protection from vandals or wildlife, and protection from natural, weather related elements. Contact RST Instruments for more information.



FIGURE 3-3 CUSTOM ENCLOSURE

- Installation directly onto walls or panels. DT logger enclosures are fitted with holes on the back. Refer to Table 3-1 for appropriate screw types per logger. Direct drywall installations will require drywall anchors appropriate for the screw size and drywall type.

TABLE 3-1 CORRESPONDING SCREW TYPE PER DATALOGGER

Datalogger	Corresponding Screw Type
DT2011B, DT2485, GAA2820, DTSAA	#8-32
DT2306, DT2350, DT4205, DT2055B	#10-32
DT2040	1/4"-20
DTL201B, DTL202B	M6-1

4 SERVICE AND REPAIR

The product contains no user-serviceable parts. Contact RST for product service or repair not covered in this manual.