

TNG3DTM005a - Fiber Optic Communications with Group3 DTMs

The Group3 Teslameter (serial versions) may be connected to a host computer using fiber optic cables. This has the advantage of electrically isolating the DTM and is particularly advantageous when using the DTM in electrically noisy or high voltage environments. For the communications link, there are two different methods to choose from:

1. The first method is to use a Group3 FTR, a Fiber Optic to RS-232 Serial Converter. To use the FTR, simply connect it to the host computer via a standard RS-232 cable, and connect it to the DTM using two fiber optic cables. With this, the DTM may be controlled using Windows Terminal, or control software written in C, BASIC, or LabVIEW etc.
2. The second method is to connect to the host computer via a Group3 Control Loop Controller. When using this method, the Teslameter is connected to Loop Controller installed in the host computer. The Loop Controller channel must be fitted with version 3.3 firmware or later, and the Loop Controller channel being used is set to ASCII mode. Note that in this mode the Loop Controller channel can only communicate with one or more Teslameters, and not with other Group3 Control devices. If communications with Group3 Control devices is also required, it is possible to install an 'F' type I/O board in to the Group3 Control DI, and then connect the DTM to the F board, or one may use a multiple Loop Controller and connect the DTM to one loop, and the Group3 Control devices to one of the other loops. Information on running the Loop Controller in ASCII mode is available in the Group3 Control Users Manual.

If you have any questions, please feel free to contact GMW Technical Support at:

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