Sentinel I-21/B-21/F-21/C-20 Instrument Communication with a DataMyte

A DataMyte (product of Rockwell Automation) data collection system can be connected to the Sentinel I-21/B-21/F-21/C-20 instrument to obtain charted leak test data. This document provides information on configuring the DataMyte line of equipment (3055 portable, 953 workstation, and personal computer based systems) for the Sentinel I-21/B-21/F-21/C-20 instruments. Cincinnati Test Systems does not sell the DataMyte products specified herein. The reader is encouraged to contact his local DataMyte representative for this equipment.

This bulletin is directed at connection to a DataMyte Model 953 system. Other DataMyte models program slightly different than the sequence shown below. With the help of this bulletin, however, you or your local DataMyte representative should be able to configure your data collector.

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Discussion

DataMyte provides a line of products designed to automatically collect gage measurement data from many types of gages and present this data in x-bar type charts. The Sentinel product line can be connected to a DataMyte using the 9 pin RS-232 port on the front or back (B21) of the instrument. The following DataMyte equipment is needed:

1. **91785 cable (or a standard modem cable if you are plugging <u>directly</u> into a Quantum personal computer system).**
2. **A 912 Multiplexer may be needed if you do not have available ports.**
   You may already have this item.
3. **A DataMyte system (model 3055, model 953, etc.).**
   You probably already have this item.

To connect the DataMyte system to the Sentinel instrument, plug one end of the cable into an available DataMyte gage port and the other into the Sentinel RS232 port. This completes the hardware installation.

Both the Sentinel instrument and DataMyte need to be configured to communicate. For the Sentinel I-21/B-21/F-21/C-20 instruments, perform the following steps:

1. **Press the "COMM" key on the Sentinel I-21/B-21/F-21 keypad ("MENU"/"Inst" on the Sentinel C-20 keypad).**
2. **Use the arrow keys to select "Connect To: Printer or RS485 Network" ("Ser Port" on Sentinel C-20) and press the "ENTER" ("MENU") key.**
3. **Use the arrow keys to select "Xfer Data: EACH TEST (Push Enter to Send)" and press the "ENTER" ("MENU") key.**

To configure the DataMyte, you will need to create a "part setup" and then configure the gage communications. The following example illustrates one way of performing these tasks.

Create Part Setup
1. **From the main menu, select PARTS and CREATE SETUP.**
2. **Select NEW PART SETUP and enter the gage name.**
3. **From the CREATE PART DIMENSIONS screen, set "Variable Characteristics" to 1.**
4. **From the CREATE PART SETUP screen, select "Characteristic" and enter the setups as desired.**
5. **The I21 supplies a string at the end of each test consisting of four fields. The second of these fields is the *pressure loss* data. The fourth is *leak rate* data. To record pressure loss data, set the "Source" to (G1*0)+G1+(G1+G1)*0. To record the leak rate, set the "Source" to (G1+G1+G1)*0+G1**

Configure Gage
1. **From the main menu, select OPTIONS and CONFIGURE GAGES.**
2. **Select the proper port and arrow to CONFIGURE.**
3. **Enter the following configurations:**
   Type: Serial
   Data Type: Any Numeric
   Baud Rate: 9600
   Data Bits: 8
   Show Additional Parameters: N
4. **Push the menu key and save this configuration.**

This completes the setup procedure.

Once you have completed this setup, each test run on the Sentinel instrument will be logged to the DataMyte. If you have questions about viewing or printing the collected data, please contact your DataMyte representative.