
How to interface a Furness PPC500 with COMPASS for Pressure

Summary

This article describes the setup requirements to create a Furness PPC500 DUT and/or Support Device using **COMPASS for Pressure**. A custom modified RS232 cable is required to communicate with the PPC500. The device setup in this article is available in the example database accessed through the COMPASS download page. Use the **[Database][Database Maintenance]** option to import the DUT setup named "Furness PPC500". This application note assumes the user has a basic understanding of COMPASS for Pressure.

Article Topics

- Device Setup
- Serial cable adaptor
- Running a test

See Also

N/A

Requirements

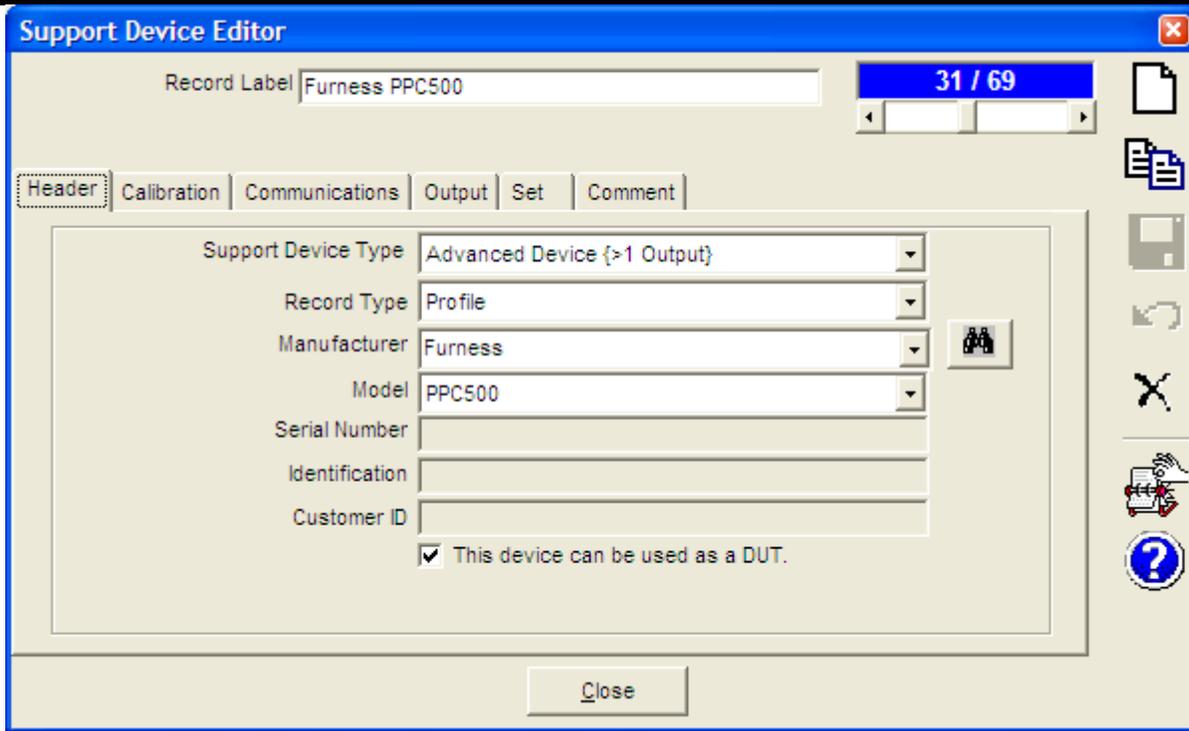
The following items are required to implement this setup.

- **COMPASS for Pressure Basic or Enhanced.**
- Null Modem 9-pin serial cable
- Custom modified 9-pin cable

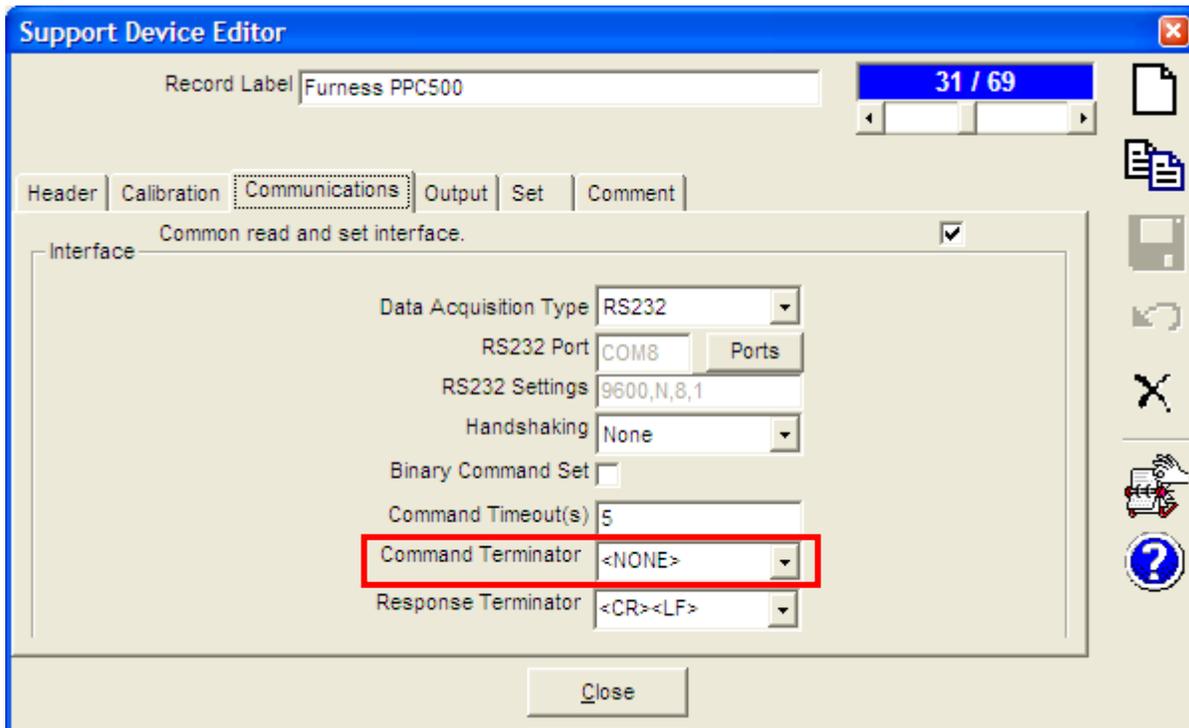
Device setup

The setup of the PPC500 is nearly identical to configuring any other third-party support device in that you specify the Header information, setup the Communications, and define the Outputs. Specific to the PPC500, the command terminator and poll frequency have unique settings.

The example is setup as a Support Device with the "This device can be used a DUT" check boxed enabled. This allows the PPC500 to be used as both a Support Device and as a DUT. The PPC500 is configured as a Profile and has a high range and a low range Output.



For the remote communications the important step is to have no Command Terminators. Select the <NONE> option.



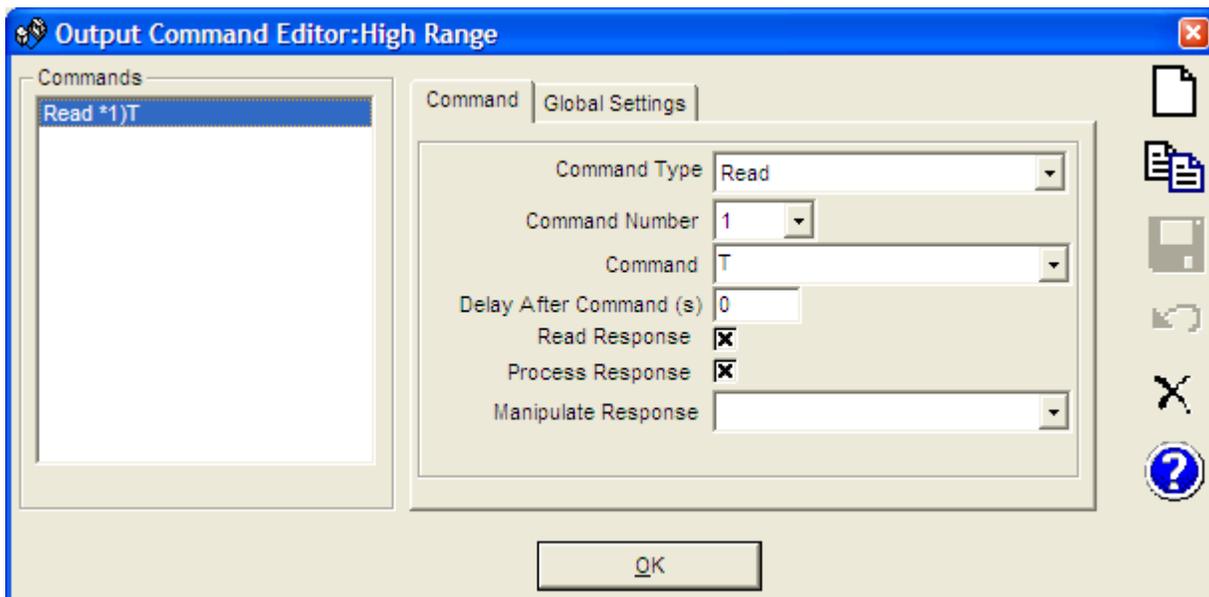
Check the remote interface settings on the PPC500 by pressing the [ENTER] key and scrolling down to the “Set RS232 Format” option. Press [ENTER]. The default parameters should be:

Baud Rate	9600
Parity	None
Auto Line Feed	Yes
Margin	00
Decimal Point	“.”
Send EOF	Yes
Print Format	Chart

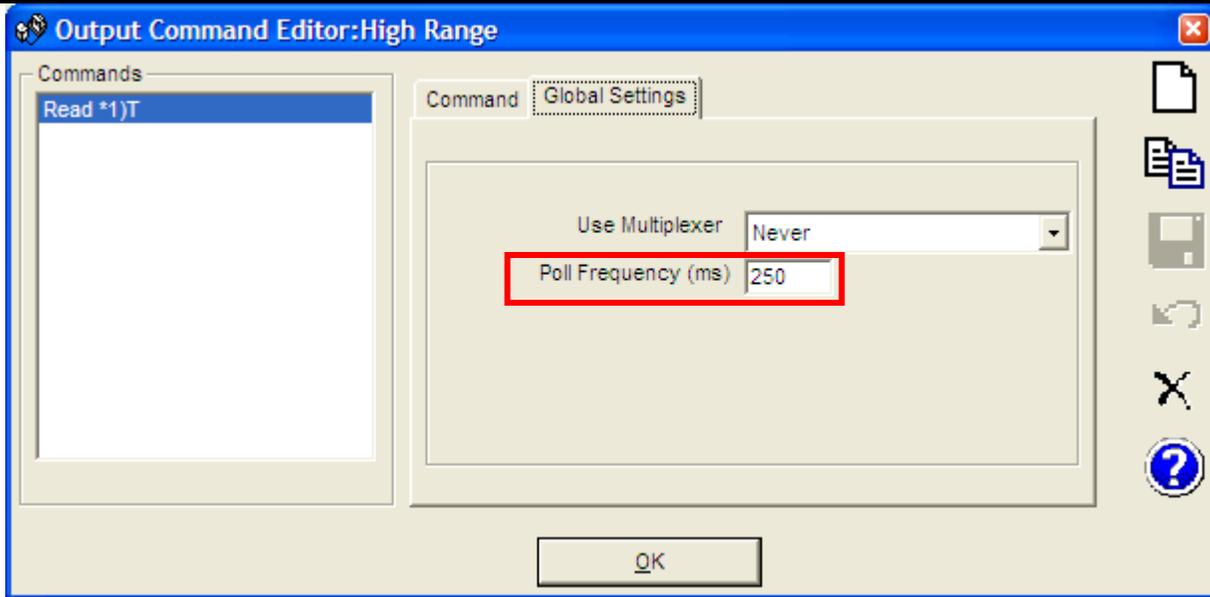
“RS232 Port” refers to the COM port on the computer, and “RS232 Settings” must match the settings on the PPC500.

Create a High Range output. Press the [Add] button to add/create a new output and configure the Raw and Final Outputs and the Tolerance as appropriate. The Raw Output to Final Output Relationship selection should be selected as “Same”.

Edit Commands: The remote Command is a capital “T”. The command is case sensitive.

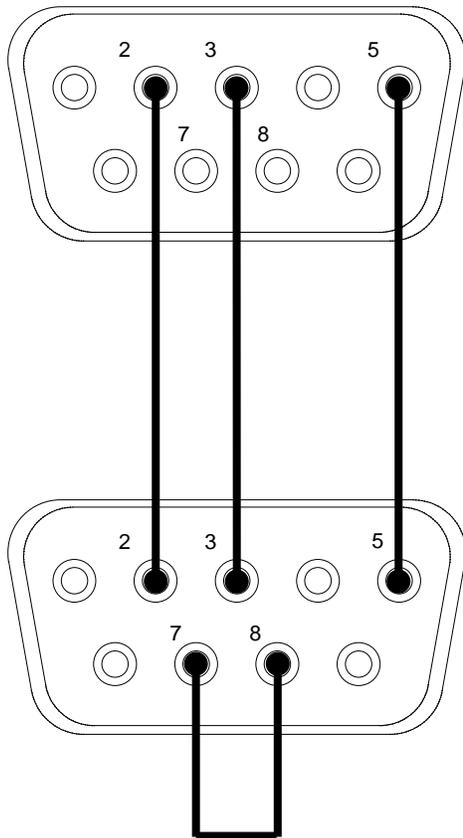


The PPC500 requires a short delay between repeated issuing of the Read command. This is specified as the Poll Frequency which is on the Global Settings tab. *NOTE: the Poll Frequency specifies the interval at which a command is sent and it does not halt the I/O on the COM port as happens with the Delay After Command setting.*



Serial cable adaptor

A custom serial cable adaptor is required. Wire the pin outs as detailed.



Male pins; connect to NULL modem cable that goes to the PC.

Female pins; connect to PPC500 RS232 COM port.
Jumper pins 7 and 8.

Running a test

Connect the PPC500 to the PC using a NULL modem cable from the PC to the custom serial cable adaptor.

To use the PPC500, from the front panel select the desired range by pressing the [RANGE] button and then press the [=/READ] button to close the internal equalization valve.