

122 Helpsheet



World Leaders in Computer Controlled Testing
Systems for Geotechnical Engineers and Geologists

Hardware

Spider8 Datalogger

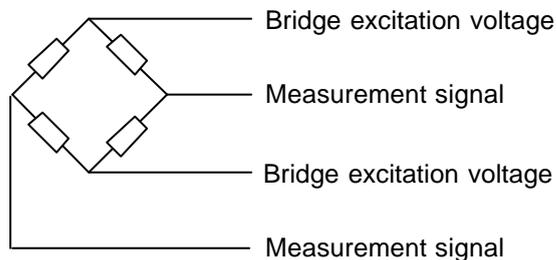
Using GDS transducers with the Spider8

1 Introduction

The Spider 8 datalogger uses fixed 4.8kHz carrier-frequency amplifier modules for channels 0-3 and interchangeable carrier-frequency amplifier modules on channels 4-7. The modules on channel 4-7 are either 4.8kHz or DC amplifiers. The type of amplifier used will depend on the type of transducer used.

The Spider 8 datalogger has settings for a number of different types of transducers. The transducers used by GDS use the following settings:

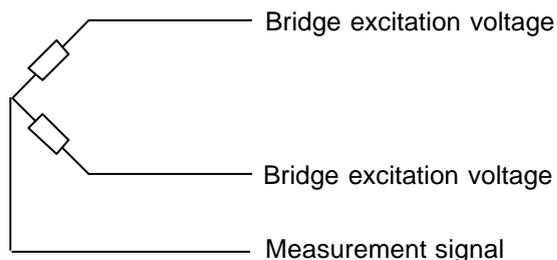
- **Strain/Gauge Full Bridge**



Load Cells - These are full bridge transducers and work with a 4.8kHz carrier-frequency amplifier module.

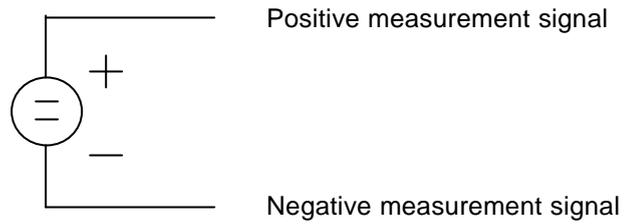
Pressure Transducers (including Differential & Mid Plane) - These are full bridge transducers and work with a 4.8kHz carrier-frequency amplifier module.

- **Strain/Gauge Half Bridge**



Linear Potentiometers - These are half bridge transducers and work with a 4.8kHz carrier-frequency amplifier module.

- **Direct Current**



Both the 4.8kHz carrier-frequency amplifier module or the DC module can be used to give a DC excitation and to read a DC input.

Hall Effect Transducer - These are DC excitation voltage transducers and work with a DC amplifier module. ***Connecting the Hall Effect Transducer to the 4.8kHz carrier-frequency module AC excitation outputs will destroy the transducer!***

To use Hall Effect transducers and other DC transducers with the 4.8kHz carrier-frequency module use the following connections:

Pin 2 - positive excitation voltage

Pin 4 – negative excitation voltage

Pin 7 – positive input

Pin 14 – negative input for a 4 wire transducer or link to Pin 3 for a 3 wire transducer