INSTRON®

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EXPANSION CHANNEL MODULE

2210-920

The Expansion Channel Module allows 6800 and 5900 Series Electromechanical Testing Systems users to add up to eight channels of signal conditioning and control.The Expansion Module provides up to a total of 13 transducers for simultaneous monitoring, feedback, and control.[1]

THE BENEFITS OF EXPANDABILITY

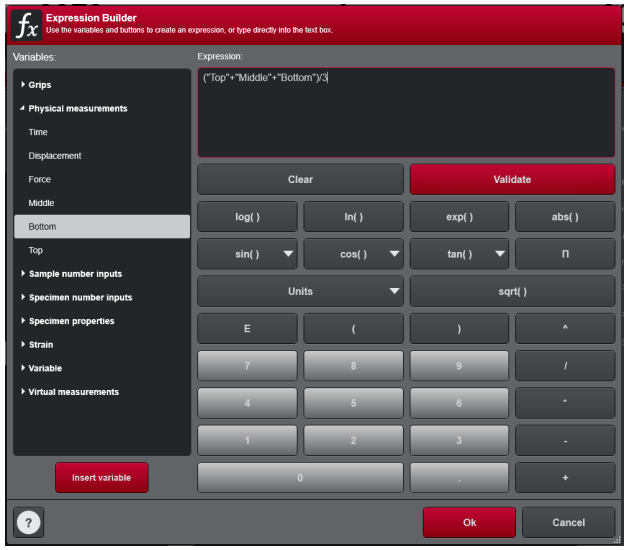
Advanced mechanical testing applications often require additional channels of data acquisition or control. In composites testing, it is not uncommon for strain gauges to be applied to the specimen for axial, lateral, or 45° strain measurement during tensile, compression, bending, or shear testing.[2] Additional inputs may include temperature, pressure, or other user-defined transducers.

The Expansion Channel Module allows up to eight additional channels to be synchronously brought into a single test data file for ease of analysis and reporting. All signals are monitored simultaneously and in parallel without any reduction in overall system performance or data collection capability.

The Expansion Channel Module works by housing up to eight Instron® Signal Conditioning Modules (SCMs) in a chassis that is connected to the 6800 or 5900 Series testing system by a short cable.

The expanded channels include features such as:

- Same accuracy specifications as SCMs in test frame (refer to 6800 or 5900 frame documentation)
- Adjustable data sampling rates and bandwidth
- Automatic recognition and electrical calibration of Instron load cells and extensometers
- Fully-synchronized data acquisition and logging across all machine sensor channels
- Test control across any channel
- Advanced capabilities using Bluehill® Universal's Expression Builder that include mixing channel calculations to derive Virtual Measurements such as averages of multiple channels



Bluehill Universal's Expression Builder can be used to create calculations and measurements based on multiple channels.

Notes

1. The 13 total channels includes load and extension, excluding the 2310-907 I/O board. If the I/O board is installed, one slot in the machine is consumed and the total number of available channels is reduced to 12.
2. Instron SCMs are intended for Instron force or strain sensors (load cells or extensometers), high level DC signals (0-10V), and low level input with AC excitation (2.5 mV/V). The SCM's can provide excitation and accept direct input from half-bridge and full-bridge strain gage configurations, but do not include bridge completion for single strain gages (quarter-bridge); in these cases external bridge completion is required.

COMPATIBILITY AND SPECIFICATIONS

The 2210-920 Expansion Channel Module is compatible only with 6800 or 5900 Series Electronics configured with Bluehill® Universal Software. Addition of the 2210-920 Expansion Channel Module to previously installed systems requires a visit by an Instron Field Service Engineer.

The Expansion Channel Module includes:

- 68-way connection cable (connects module to the 6800 or 5900 Series controller panel)
- External power cable available in various power cord options to accommodate voltage requirements

AVAILABLE OPTIONS

2210-920A1	4 channels available for 5900 controller
2210-920A2	8 channels available for 5900 controller
2210-920A3	4 channels available for 6800 controller
2210-920A4	8 channels available for 6800 controller

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