SYDOR TECHNOLOGIES



INTEGRATED RANGE INSTRUMENTATION SYSTEM (IRIS)

COMPLEX MEASUREMENTS—CRITICAL RESULTS

FEATURES

- Desktop & notebook systems available
- Multiple pressure & velocity channels
- Suitable for EPVAT, SAMMI, NIJ, CIP, etc.
- Data analysis & presentation

APPLICATIONS

- Ballistic Data Acquistion
- Pressure Measurement Collection
- Velocity Measurement Collection
- Action Time Collection

ABOUT THE INTEGRATED RANGE INSTRUMENTATION SYSTEM (IRIS)

The Integrated Range Instrumentation System (IRIS) is a high speed data acquisition system for use in testing to NATO EPVAT standards. The unit is modular to permit testing across a range of different ballistic assessments. The primary purpose of IRIS is to record and report on pressure, velocity, action time, and accuracy.

IRIS is controlled by a compilation of Hardware and Software in specifically configured to the needs of the end user. It is an open system allowing possibilities for the user to extend the system capabilities. The standard control software allows the system to be pre-configured for a number of separately identifiable tests. A user friendly operator interface including Help screens is incorporated. Data is displayed on a high resolution graphics display. The acquired data may be displayed, printed or plotted during or after the trial or series.

Additionally, all acquired data together with trial configuration details (and data etc) may be saved in a fixed format file on an external hard drive. Alternatively, data may be transferred by modem or network to a separate computer system. The standard system is assigned to a laptop of choice.

The IRIS system can be readily expanded with additional hardware or software to suit particular specialist needs. Motion kinematics, strain gauge and ricochet analysis are some examples of additional measurements that the system has undertaken. Bar code entry of serial numbers or ammunition lot numbers can be readily added for traceability purposes.

PRODUCT SPECIFICATIONS

Pressure Measurement

- Transducer Supported: All Piezo types
- Charge Amplifier: Single-channel amplifier fitted as standard
- Digitization: 12 bit sampling or better
- Digitization Time-based Accuracy: 0.01%
- Data Output: Pressure time curve display, peak pressure, integral Pdt, ignition delay (T2), transition time (T3). Shot time (T4), etc. and comparison against reference
- Measurement Initiation: Pressure change or contact closure (Cap Strike)

Velocity Measurement

- Sensor Format: Remote Control Unit type 414, other optical ddetectors/coil etc. may be specified
- Chronometers: Chronometer cards
- Data Output: Customer requirement dependent
- Sydor's Velocity Measurement Product: See Compact Velocity Screen Datasheet

Accuracy

- Automatic Target: Standard system supports either Sydor Acoustic or Optical Tarets. Digital camera image handing optional
- Data Output: Horizontal & vertical co-ordinates, mean point of impact, covering rectangle, radial distribution, etc.
- Sydor's Accuracy Measurement Product: See Optical Target Datasheet