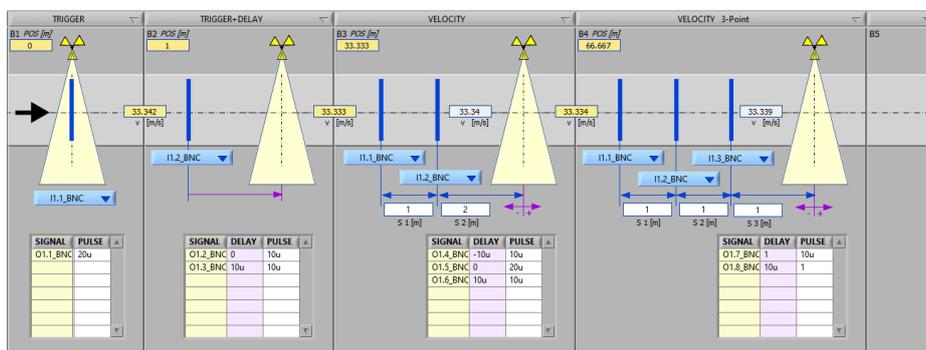


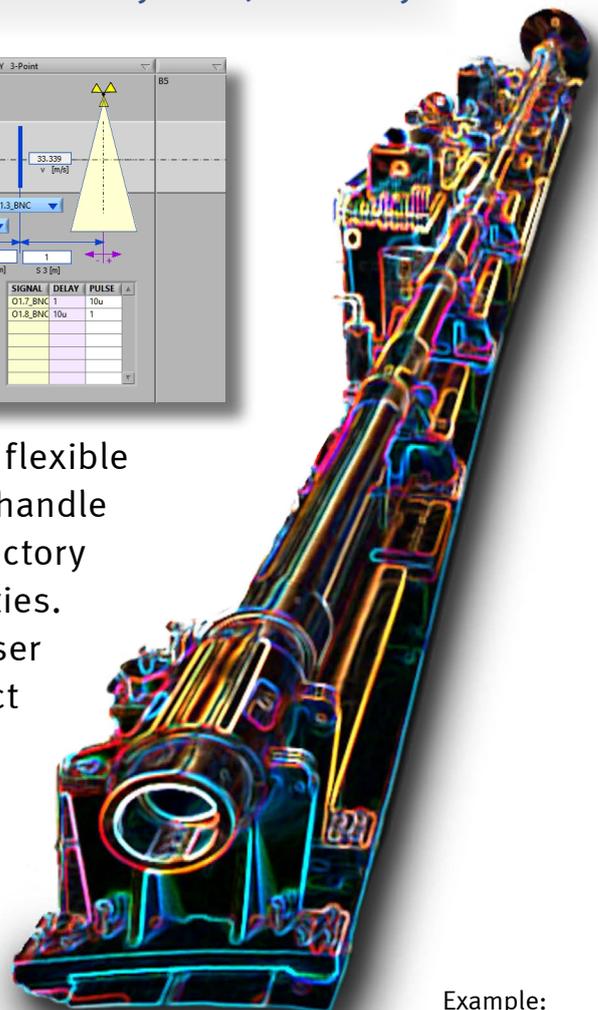
REAL-TIME DIAGNOSTICS AND CONTROL

for HYPERVELOCITY & IMPACT TESTING

Simplify the recording of relevant events while operating light-gas guns, accelerators & ballistic test facilities! Catching the moment of impact or any waypoint with high-speed cameras and X-ray flashes is a challenging task for the test engineer. Supported by AMOTRONICS' Trigger Prediction System, it's easy.



The **Trigger Setup Manager** software is a flexible control panel that allows test engineers to handle multiple diagnostic positions on the trajectory of accelerated objects, at varying velocities. Analog and digital inputs such as laser barriers, screens or other sensors detect the object during its flight. Based on this data the system calculates the time the object will pass specific positions at given distances. The real-time results are then used to trigger high-speed cameras μ s before reaching these positions or the expected impact. A series of X-ray flashes



Example:
light-gas gun
(up to 10km/s)

Never miss an impact
with AMOTRONICS
in your lab or in the field.



TRIGGER PREDICTION HIGH-SPEED CAMERAS & X-RAY FLASHES

for HIGH ENERGY TEST FACILITIES

can be fired in an accurately timed sequence, e.g. exactly coinciding with the moment of impact. The digital outputs can be fiber-optic or electrical signals. Each output can be configured with individual timing to reliably capture multiple moments of interest.

Raw sensor data and calculated digital control signals are recorded in parallel and stored automatically for display and in-depth analysis.

- Flexible solution - **READY-TO-USE** - customizable to individual needs
- Trigger **prediction** in real-time: prediction accuracy **<40ns**
- Multiple **independent diagnostic positions**
- Redundant **multi-sensor** velocity detection
- Symbiotic combination of **digital & analog** inputs and outputs
- **>200 input channels** from **kS/s to GS/s** single-ended / differential / isolated / sensor / digital
- up to **192 trigger outputs** with individual pre-trigger and delay settings per channel
- Mixed **fiber-optic & electrical** outputs electrical / optical / relay / high-voltage solid state relay
- Support of various **trigger screens** with unique diagnostic features
- Input and output **signal logging**

The modular concept supports highly flexible solutions: Customized user interfaces optionally handle environmental sensors and actuators within the same system. A unique routing solution allows alternating operation of several accelerators from one control room. Fiber-optically coupled sub-systems enable bridging of long distances not only but in particular for large firing ranges.

Contact us:
Roermonder Strasse 594
52072 Aachen
Germany

Web: www.amotronics.de
E-Mail: info@amotronics.de
Phone: + 49 241 169780 28
Fax: + 49 241 169780 55

