DATRIG

EXPERT IN SYNCHRONIZATION AND TRIGGERING OF MEASUREMENT SYSTEMS

DATRIG presents complete all in one solution replacing multi-card systems and expensive engineering software. Intuitive SW application brings easy use for everyone.

- Real-time triggering based on analog or digital input signal as well as independent pulse generator
- Voltage level control for all types of signals and phase control for periodic signals
- Typical applications: measurement and control such as laser and camera systems, thermal, pressure and vibration tests, various material tests and others

Technical parameters:

- Differential input with selectable AC/DC coupling
- Input frequency range 0.1 ÷ 10 000 Hz
- Input signal operational voltage range ±10 V
- Internal gain amplifier with automatic gain detection
- 4 independent output channels (TTL output pulses)
- Precision input frequency measurement
- High accuracy: better than 1° for harmonic input signals, 1 mV for voltage levels
- Time base: 1 µs precision
- Isolated communication interface: USB2.0
- Control SW – dedicated PC application is included
- Nominal supply voltage: 230VAC/50Hz (integrated isolated power source)

Application:

- Laser and camera systems
  - Multi-camera synchronization
  - Event capturing
  - Video extensometry and vibrography
  - Wide frequency range up to 10 kHz allows high speed cameras triggering
- Sensing in time or data logging according to external event from various sensors (temperature, humidity, acceleration, load cell, position, Hall, speed, vibration, gyroscope, PIR, voltage, current, optical barrier and others)
- Capturing signals just in the region of interest
- Audio and light systems – triggering of sound or light effects according to preset voltage levels
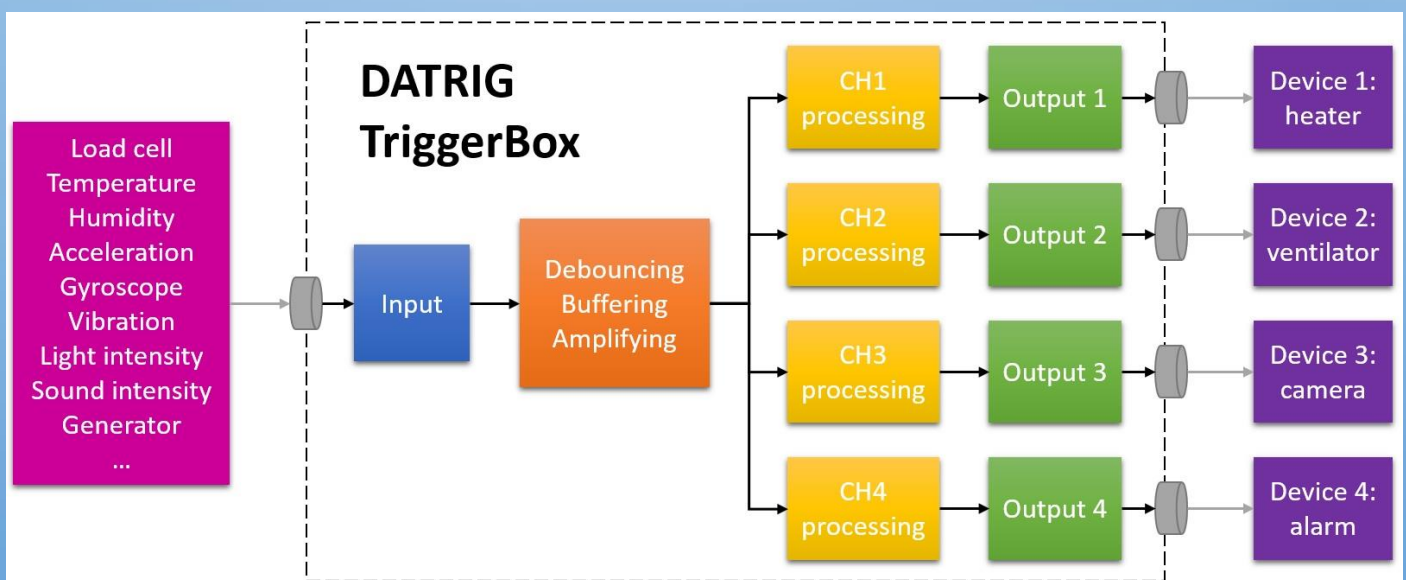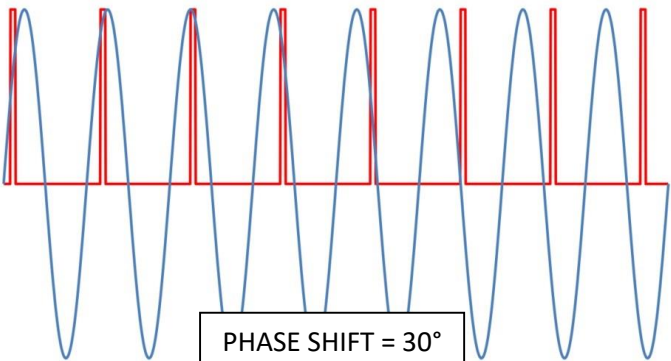
Operational modes:

PERIODICAL

Periodical input signal is monitored and output pulses are generated with predefined constant phase. Pulse can be generated every x-th period of input signal.
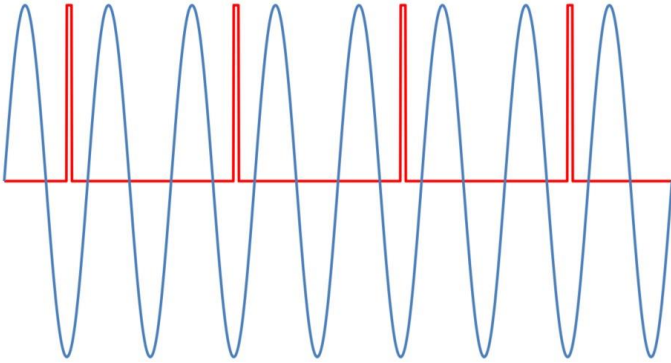
FLOATING PHASE

Each pulse is generated with floating phase shift, which is useful for decomposition of fast periodic events.
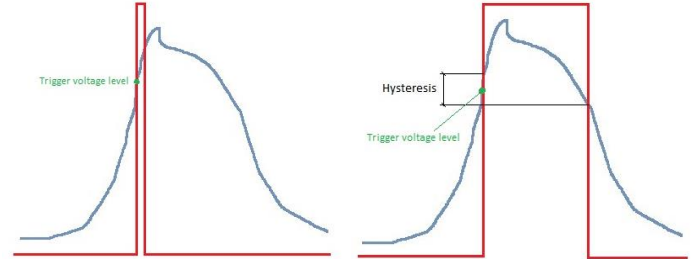

PHASE SHIFT = 30°

INDEPENDENT

Pulses are generated just according to setting (frequency, width, number of pulses).

VOLTAGE LEVEL

Pulses are generated when input signal reaches desired voltage level.

Trigger voltage level

Hysteresis

Trigger voltage level

This mode can be used for both periodical and non-periodical input signals. Triggering voltage level can be set for rising, falling or both edges of input signal. Hysteresis can be set. One defined pulse or defined series of pulses can be generated after crossing of voltage level. One lasting pulse or lasting series of pulses can be generated during time when voltage is above/below voltage level.

Trigger voltage level
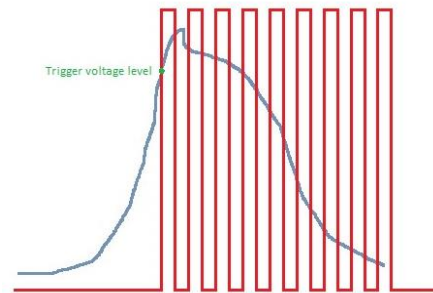
MULTIPLE SAMPLING

Desired number of pulses are regularly generated during each single period.

DELAY GENERATOR

It generates predefined delay between input and output pulses