Sync Laser to Polygon Scanner

Precision Laser ON/OFF Controller™

For use in high speed laser cleaning, surface treatment or inspection where the polygon is producing a fast line scan and the target is moving relative to scanner. The Precision Laser On/Off Controller receives the Start-Of-Scan signal which indicates exactly where the beam is prior to entering the work area. The controller turns on the laser precisely at the start of the work area and turns the laser off precisely at the end of the work area.

The Precision Laser On/Off Controller is user programable via USB, RS-232 or optional SPI interface. The user sets the time interval between SOS detection and laser On as well as the time interval between laser On and laser Off.

Our PRECISION SOS DETECTOR is required to provide the trigger signal to the Precision Laser On/Off Controller. It is a simple four wire interface and the Precision Laser On/Off Controller will power the SOS detector as well as the SOS laser. It is all plug and play!

Need polygon speed, but not familiar with how to implement polygon scanning technology? See the Laser Scanning News section of our website for educational information.

Feel free to contact us with questions.
PRECISION LASER ON/OFF CONTROLLER SPECS

RESOLUTION & TIME INTERVALS
Resolution: 0.5 microsecond
Laser on delay range: 3 microseconds to 32.767 milliseconds
Laser off delay range: 3 microsecond to 32.767 milliseconds

USER PROGRAMMABLE VIA
USB
RS-232
SPI interface (optional)

POWER
Controller is powered by 5 VDC from USB or external power supply.
Controller may power the SOS laser and SOS detector

LASER ON/OFF CONTROL
TTL
Open collector
Opto isolator
Controller enable

DIMENSIONS
3” x 1.9” (76.2 x 48.3 mm)

START OF SCAN DETECTION
An SOS detector is required to achieve accurate line to line registration with any polygon scanner. It is used to synchronize a CW or pulsed laser to the scanner. (Galvo scanners need absolute encoders, polygon scanners need Start-Of-Scan detection.) Read more about it here:

The PRECISION SOS DETECTOR™ is the first commercially available Start-Of-Scan detector made for the challenging environment inside a high power Polygon Scan Head. It operates equally as well in low powered imaging systems. It is designed to work with the PRECISION SOS LASER DIODE MODULE™

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Specifications subject to change without notice.