

Construction Lasers

Construction Lasers are used extensively in the building, general construction and civil engineering industries. They are the perfect tools for leveling, grading, aligning and positioning for exterior, interior and underground work.



For layout, these devices allow workers to accurately measure and align forms, footers and foundations. For building construction, interior lasers allow for the positioning of

ceilings, finished floors and interior walls accurately and quickly. And for underground utilities, pipe lasers allow for the accurate alignment of pipe work even in the harshest of environments.

In order for these lasers to produce a properly positioned beam/target, they must first have an accurate reference to true level. Realizing that these lasers are used to project beams over long ranges, relatively minute leveling errors at the instrument will equate to large absolute beam positional errors, which will continue to increase with distance (example: 5 arc-seconds = 1/32" error @100 ft.). Hence the need for an accurate, repeatable and reliable true level reference. This application is commonly fulfilled by use of a high accuracy *'tilt sensor'*.



Depending on the exact type of laser, the quantity of tilt sensors required will vary. For pipe lasers, which simply project a beam in one plane for sloping purposes, only one is needed. For interior (rotating) lasers, which can project a 360° beam, two are required. Some lasers combine multiple functions, and will require three.

Spectron proudly supplies this market with both the *RG Series* and *SH Series Electrolytic Tilt Sensors*. The *RG Series* sensor is by far the best performing, providing repeatability, and stability, which exceeds industry requirements. The *SH50054* or *SH50055 Ceramic Sensors* are a cost effective alternative, and offer easy mounting.