TUNNEL SYSTEM SOLUTION



SSH0803W 3D Laser Scanner

Function description

- · Universal architecture design for various engineering applications;
- Construction machinery grade anti-seismic, waterproof and dust-proof design, can be directly installed on the platform of construction vehicle to ensure the working ability in engineering environment;
- · High-precision scanning measurement of tunnel and three-dimensional point cloud modeling can be realized by two-axis linkage;
- · High-precision visible light measurement, high positioning accuracy, high directivity accuracy ;
- · Self-positioning function, with the control point to achieve equipment self-positioning and orientation, to ensure data consistenc;
- · Self-calibration function, simple on-site calibration function to ensure measurement accuracy ;
- · Optional manual operator or upper computer operating mode, which can provide enough operation convenience for engineering environment;
- · Real-time data acquisition and processing capabilities to provide feasibility for real-time data applications ;
- · Meet the needs of long-term measurement.

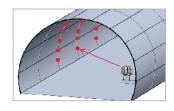


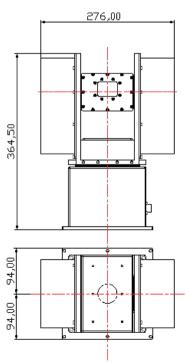
- · Stable dual-axis structure, automatic continuous scanning, no dead angle in scanning range;
- · 16-bit encoder with servo control accuracy up to 0.01°, high precision measurement;
- · Red light ranging, maximum distance 40m;
- · Directivity measurement optimization, orientation and single-point high-precision positioning;
- · High cost performance ratio;
- · Horizontal base installation, convenient and stable, with good seismic capacity;
- · No need for human intervention after measurement begins ;
- · Optional handle operator;
- · Standard Ethernet communication protocol.

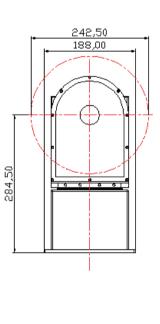
Typical applications

- · Location of Engineering trolley boom
- · Intelligent application of trolley
- · Intelligent application of wet spraying machine
- · Tunnel section monitoring











SSH0803W 3D Laser Scanner

| | Parameter | Specific index |
|----------------------------|--------------------------------------|--|
| Equipment overall | 3D scanning | Measuring distance : 40m; Infrared ranging : resolution 0.1mm, repeatability≤±1mm Relative measurement error ±1mm; Scanning mode : Vertical and Horizontal two-axis equidistant stepping Sampling frequency : ≥ 75Hz; Spot diameter : 30mm@30m distance; Data interface : Ethernet; Output data : 3D point cloud and surface model (Standard) Applied data analysis results (Optional) |
| | Positioning accuracy | Absolute accuracy 1cm |
| | Protection level | IP66 |
| | Operation temperature | -20~65℃ |
| | Power consumption | 24VDC , max power 100W |
| | Shock | 100g@0.5ms , three-axis (half-sine) |
| | Vibration | 4grms , 20 ~ 2000Hz |
| | Dimensions | 276*243*365 mm |
| | Protection | With anti-polarity power supply protection, over-current self-recovery protection, automatic lock-in protection after power failure, |
| Biaxial characteristics | Horizontal axis rotation angle range | ±180° |
| | Vertical axis rotation angle range | ±170° |
| | Horizontal axis rotation speed | ≥30°/s |
| | Vertical axis rotation speed | ≤60°/s |
| | Angular acceleration | ≥30°/s² |
| | Absolute encoder | 16-bit single-loop absolute value |
| Ranging laser | Laser wavelength | 660nm , Visible red light |
| | Laser class | class 1 |
| | Spot diameter | 30mm @ 30m distance |

Shanghai Vigor Technology Development Co., Ltd.

021-58404921

027-86659860

Shanghai Head Office | Wuhan Branch Office | Changsha Branch Office 0731-85653080

www.vigordigital.com