NET1100M Motorised 3-D Station for MONMOS

Sokkia (Japan) has introduced the new NET1100M 3-D Station for the 3-D Coordinate Measuring System MONMOS (MONo MObile 3-D System), offering an extended range and motor drive mechanism.

The NET1100M features timesaving semi-automatic control when used in conjunction with control terminal SDR4000 and realises precision 3-D measurement for deformation of landslides, tunnels, ships, dams, buildings and road surfaces; tunnel profiling, construction supervision, shape and dimensional measurement of domes or train bogies, large-scale part installation in factories, and more. NET1100M also features Sokkiaâ€™s original servo-motor drive mechanism and control algorithm using angle information obtained directly from the angle-measuring encoders, and the full benefit of MONMOS is realised by using the wide range of application programs included in the SDR4000.

The measuring range using a sheet target is the longest to date for MONMOS at 300m (984ft.) (using a 50 x 50mm target) with an accuracy of +/-(1 + 2ppm x D) mm, enabling the 3-D measurement of larger objects from further away. The need to constantly relocate the instrument is minimised, increasing the total 3-D coordinate accuracy.

NET1100Mâ€™s reflectorless measurement capability can accurately measure hard to reach places without using any target. The measuring range is 100m (330ft.) with white surfaces (90% reflective) and accuracy is +/-(3 + 2ppm x D) mm. NET1100M has an extended range providing +/-(2 + 2ppm x D) mm accuracy up to 3,000m (9,842ft.) with Sokkiaâ€™s AP surveying prism. Distance is measured every 0.9 seconds (initial 4.8s).

The NET1100M achieves 1â€ (0.3mgon) angle accuracy, which is equal to 0.5mm (0.02in.) at 100m (330ft.) and 1mm (0.04in.) at 200m (650ft.). Accurate angle measurement remarkably improves total 3-D coordinate accuracy.

The EDM beam can be used as a laser pointer, and a white LED is built into the telescope housing allowing easy long-range target sighting even in poor lighting conditions.

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