
Road Profiling with a Trans-Tek ADT

The Series 600 ADT is the most accurate device offered by Trans-Tek for angular displacement measurement. Accuracy for this unit is defined as $\pm 0.05\%$ or $\pm 0.10\%$ of full stroke over standard working ranges of 60° and 120° . All integral electronics and mechanical features are housed in a rugged package, suitable for operation in most harsh environments. For added protection, options such as Splashproofing and Vibration Control are also available.

Taking full advantage of the Series 600 ADT is a well known manufacturer of paving quality testers. This long-standing customer has incorporated the Model 0600-0000 and Model 0601-0000 into their Profilograph product line, a sophisticated testing system, used to measure road smoothness and rideability. An on-board computer provides an immediate visual observation of the road profile and instantly tabulates pertinent data, eliminating the need for manual calculations or data reduction. This information is then recorded and saved for further analysis at a later time. It can also be printed as a full report or backed-up on a 3 1/2" computer disk.

As clearly indicated in the illustration on this page, the Profilograph covers a wide portion of the road while riding the surface to detect any abnormalities. When bumps in the road are encountered, deflections experienced by the machine's broad expanse are measured by the ADT located at the centerwheel. With this wheel positioned at the focal pivot point and the ADT

coupled to the hub of the wheel, defects in the road are translated into a complete profile by the ADT's continuous angular feedback, usually not more than 60° as specified by the total stroke of the Model 0600 and Model 0601. As facilitated by the IBM-compatible computer, the "must grind" bumps, station number, elevation and distance are displayed on an easy-to-read LCD screen. The road surface is reworked based on the findings of this high-tech system.

The conditions while traveling miles of pavement can be severe, with parts of the Profilograph being exposed to moisture, vibration, shocks and varying temperatures. The ADT is no exception and must be equipped to, not only survive these

adverse elements, but also perform to specification at all times in the field. To insure top performance, all of these ADT's are supplied with special

options known as Splashproofing and Vibration Protection. Splashproofing - ordered as Sales Option X0015 - involves placing a high-grade o-ring seal around the inside circumference of the housing. Vibration Protection is called out by Sales Option X0016, where RTV is used to encapsulate all components on the main electronics board.

These relatively inexpensive add-ons, available for the entire Series 600, enhance the durability and operating life of this sensor. With or without these options, customers always benefit from our ADT's accurate, reliable angular measurements.

