

MODEL 2535 1622T7 / 1521T / 1521N

Non-Contact Laser Doppler Measurement System

Laser Doppler Velocity Meter For Vehicle Speed Measurement



This MODEL 2535 is a Non-Contact Laser Doppler type velocity meter, which is a specific instrument to the measurement of ground speed and travel distance of vehicle or railway train. By fluctuation range of measurement distance from $\pm 80\text{mm}$ to 100mm , a ground speed is measured with a high degree of accuracy even if a measured track or road is bumpy, for example which has ballast, rail, extension rail, ATS or others. This non-contact laser Doppler measurement system makes the accurate measurement from a stop point (0 velocity), without errors from slip, idling, or abrasion of wheels.

Features

- * Non-contact measurement system with high accuracy
- * The accurate measurement even if a measured track has any rail, sleeper, ballast, bracket or others
- * Also available for a measurement in a tunnel or other indoor places
- * Available for a measurement of travel distance from 0 velocity with high accuracy
- * The true acceleration and deceleration performance is measured in a test of actual vehicle
- * A measurement result is displayed on the indicator and also output as a data file via USB interface or other external output

Basic Specifications: MODEL 2535/MODEL 1622T7/1521T/1521N

【Doppler Sensor】		MODEL1622T7	MODEL1521T	MODEL1521N
Velocity range		From -750 to +750km/h (at SF=0.6)	From -560 to +560km/h (at SF=0.8)	From -500 to +500km/h (at SF=0.9)
Distance (focus)		700mm±100mm		500mm±80mm
		* The fluctuating range may varies depending on the surface of measured object.		
Accuracy		Within ±0.2%		
Laser		690nm, 5mW or less (Class-3B)	780nm, 38mW at the maximum (Class-3B)	
Demensions and weights		187(W)×44(H)×97(D) mm Approx. 0.95kg	170(W)×42(H)×97(D) mm Approx. 0.8kg	90(W)×40(H)×140(D) mm Approx. 0.6kg
【Signal Processor: MODEL 2535】				
Display	Velocity Update rate	7-decimal digits, The minimum resolution: 0.001km/h, Update rate: 2ms		
	Distance range	From 0.001 to 999999.999m Displayed resolution: 1mm		
Velocity voltage output		16-bit D/A output Output voltage: 0±4V, with selectable full scale Accuracy: within ±0.5%		
Pitch output		A and B, 90 degrees Phase difference output Interval: 0.1 ~ 1000.0mm (the resolution of 0.1mm) Format: Open collector, RS-422		
External I/O terminal		External monitor output or External switch input		
Options	External monitor	For displaying the measurement result of velocity, travel distance or others		
	External switch	For controlling the operations of start and stop (acceleration and deceleration)		
Interface		USB, RS-232C		
Power		From DC10V to 30V, or depending on the dedicated AC adapter		
Demensions and weights		199(W)×74(H)×140(D) mm, excluding projections Approx. 1.4kg		

The Output Terminals of MODEL2535



Pulse Distributor MODEL 5452 (Optional)

The Model 5452 is a pulse distributor for ACT vehicle speed measurement system, to distribute pitch-plus signal of travel distance from ACT Laser Doppler Vehicle Velocity-Measurement System among 6 devices.



【Applications】

Brake and Crash Test



Location Measurement an Inspection Car

- ① Cavities in a road
- ② Cracks in a tunnel
- ③ As a camera shutter clock to take a picture



Appearance Inspection System

Accurate consecutive images is taken by using a line sensor camera with the pulse of moving distance



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NOTES: Specifications, design and descriptions are subject to change without notice for further improvement.

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