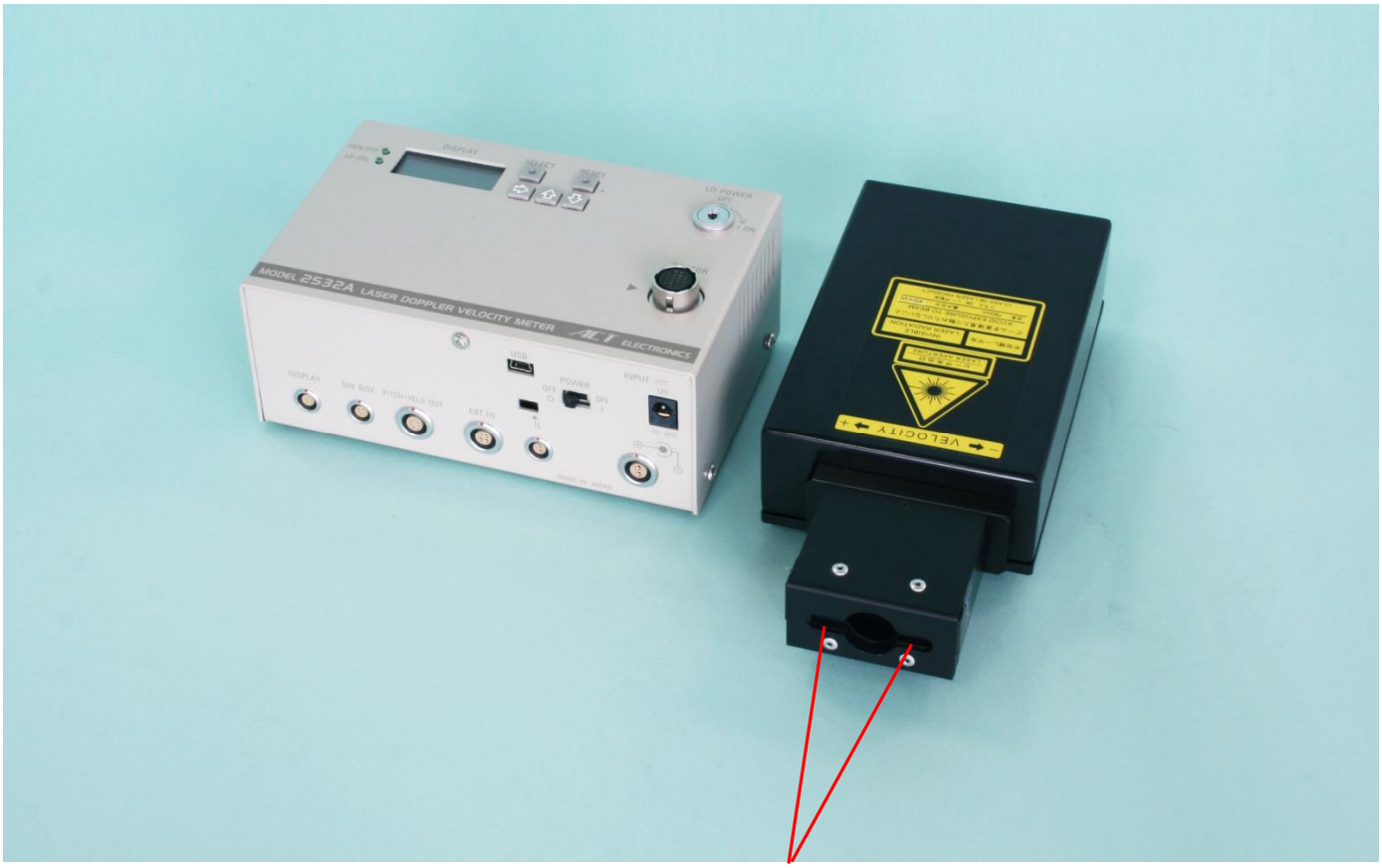
MODEL 2532A／1521N

Non-Contact Measurement System

Laser Doppler Velocity Meter for Vehicle Speed Measurement



This MODEL 2532A 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. This system makes the accurate measurement in a normal test of driving, acceleration and deceleration even if a measured track or road is slippy or a wheel spins or bald. Furthermore, this accurate measurement is also available from a stop point (0 velocity) in rain, snow, or bumpy road.

【Test of Acceleration and Deceleration】

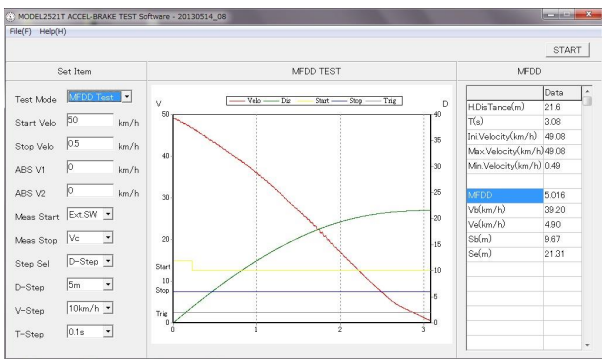
- **Start acceleration test（SS400，SS1000）**
- **Over taking accelaration test（ACCEL Test）**
- **Brake test （MFDD Test）**
- **ABS brake test （ABS Test）**
- **Repeat measurement**
  (Automatic measurement as the specified times)

【Normal travelling performance test】

- **Display on velocity grajectory and travel distance, and FFT analysis**

***The application software is provided as standard**

The Example of Application Software
【Brake test: MFDD automatic measurement】



Features

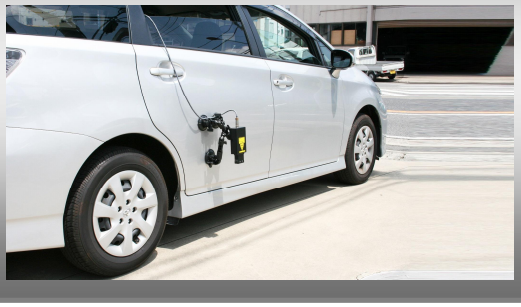
1、 Uses non-contact measurement system which makes high accurate measurement without any slip, idling, and abrasion of wheels.
2、 With the fluctuation range of measurement distance within ± 80mm, which makes the accurate measurement even if in rain, snow, ice, or bumpy track or road.
3、 Makes accurate measurement of velocity and travel distance from a stop point.
4、 Available for efficient measurement and obtaining data of a test with the provided application software.
5、 The accuracy of measurement is unaffected by measurement place or environment change.
6、 Has the output function of velocity or pulse of travel distance for comparing a conventional method.
7、 Also used as a high-accuracy fuel economy indicator with an existing flowmeter by using the pulse input terminal from a fuel flowmeter.

Basic Specifications: MODEL 2532A/MODEL 1521N

【The Doppler Sensor: MODEL 1521N (500mm)】		
Velocity range		-250～+250km/h or -5～+500km/h (at SF=0.8)
Distance (focus)		500mm±80mm or more, acceptable distance variation: 200mm (actual)
Accuracy		Within ±0.1%, depending on conditions Repeatability: Within ±0.05%
Laser		Semiconductor Wave length: 780nm Power: 40mW at the max. (class 3B)
【The Signal Processor: MODEL 2532A】		
Display	Velocity range Update rate	-250～+250km/h or -5～+500km/h, in 7 decimal digits/ The min.resolution: 0.001km/h 2 ms
	Distance range	0.001 ～ 999999.999m, with the displaying resolution of 1mm
Velocity voltage output		16-bit D/A 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
External I/O terminal		External monitor output, External switch input, Fuel flowmeter input (optional)
Options	External monitor	For displaying the measurement result of velocity, travel distance, period, and calcurations
	External switch	For controlling the operations of start and stop
	Fuel flowmeter input	0-12V logical input or contact input (open collector/ pulse output) Frequency range: 0 to 10kHz, Setting unit: mL/p, g/p
Interface		USB
Power		DC10V～30V, or depending on the dedicated AC adapter
Demensions and weights		Doppler sensor: 90(W)×40(H)×140(D), excluding projections Approx. 0.6 kg Signal processor: 160(W)×60(H)×101(D), excluding projections Approx. 0.6 kg

【System Configuration】

【Example of Setting】



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