Automotive Engineering 2. Measurement Systems



Wheel Load Sensor

Kistler RoaDyn S635

- · Highly dynamic detection of wheel forces and moments
- 6-component wheel force sensor allows the measurement of multi-axis loads
- Complete assembly of the measuring wheel on the vehicle (as replacement for the standard wheel)
- Mounting on the tire trailer for the analysis of the behavior of the tire / road contact
- Mounting at the corner-module test stand for the analysis of the behavior under laboratory conditions



Measurement Range:

Fx	–35 35 kN
Fy	–20 20 kN
Fz	–35 35 kN
Mx/y/z	–5 5 kNm

Emission Analysis Systems

HORIBA MEXA – 2100 SPCS and SMPS

- Solid Particle Counting System (CPC) + Scanning Mobility Particle Sizer (SMPS)
- Enlargement of the surface of the particles by heterogeneous condensation makes optical detection possible (the particles are passed through saturated alcohol / n-butanol)
- · Counting by means of optical scattered light detection

Specifications:

- Particle count range: 10 2500nm (CPC modified)
- Dilution Factors: 150: 1 3,000: 1 (two dilution steps)
- Size distribution by SMPS: 2.5 150nm and 10 1000nm over 167 channels



Source: HORIBA



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