

# AUTOMOTIVE FORCE TRANSDUCERS

In automotive measuring system, TML strain gauges are used to measure forces on engine cylinder blocks, chassis, exhaust manifolds, engine management etc. with temperature. For power train system, automotive force transducers are lined up with 6-component Wheel Force Transducer SLW-NC, Wheel Torque Transducer LTW and Pedal Force Transducer with the relevant instrumentation such as Multi-component Force Analyzer MFT, Smart Dynamic Strain Recorder DC-104R, Multi-Recorder TMR-200.

## Multi-Recorder TMR-200

Multi-channel data acquisition system with maximum 80 channels for strain, temperature, DC voltage, number of rotation, etc.



## Multi-Component Force Analyzer

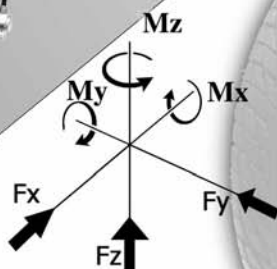
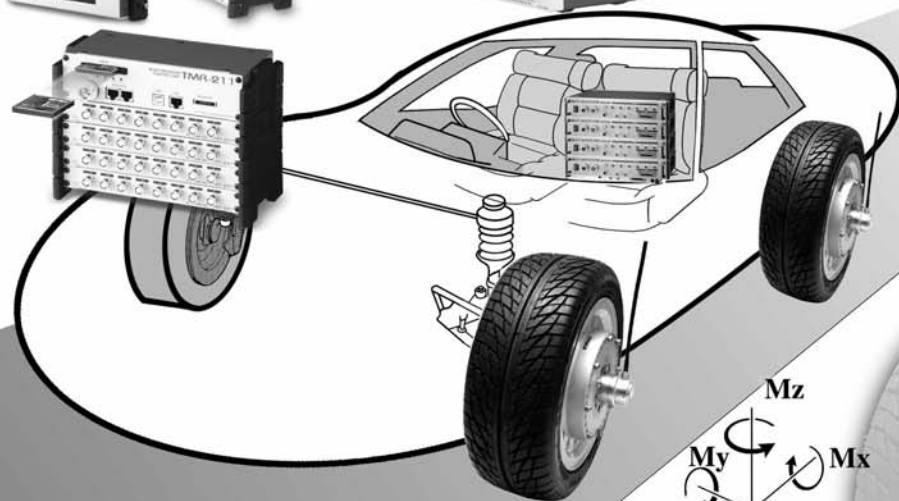
Simultaneous control of 4 transducers with a personal computer  
 Max. 24-channel digital monitoring  
 Compact and light weight  
 Designed for on-board car on the road

## Smart Dynamic Strain Recorder DC-104R

4-channel ultra-small size and on-vehicle measurement expandable up to 32-ch.  
 Upgraded model DC-104Ra offers analog output 5V.



Vehicle Onboard measurement



## 6-Component Wheel Force Transducer

Detects 3-directional loads  $F_x$ ,  $F_y$ ,  $F_z$  and 3 moments  $M_x$ ,  $M_y$  and  $M_z$



## Wheel Torque Transducer

With built-in slip-ring and encoder for wheel torque measurement

## Wheel Torque Transducer

With built-in telemeter for wheel torque measurement



# AUTOMOTIVE FORCE TRANSDUCERS

## Vehicle onboard measurement system

### Wheel 6-Component Force Transducer **SLW-NC**

with built-in Slip-ring and encoder



### Multi-Component Force Analyzer 2 models

#### **MFT-306**



Analog output: Load, rpm  
Ultra-miniature size

#### **MFT-206**



Analog output:  
Load, rpm, Angle

### Smart Dynamic Strain Recorder 2 models

#### **DC-104R/DC-104Ra**

DC-104R

DC-104Ra

Analog OUT 5V



### Multi-Recorder **TMR-200**



### Wheel Torque Transducer with built-in telemeter

#### **LTW-NC**



### Receiver

#### **TR-90**



### Wheel Torque Transducer with built-in Slip-ring and encoder

#### **LTW-NA**



### Dynamic Strainmeter

#### **DA/DC series**

Torque measurement



### Multi-Recorder

#### **TMR-200**

R.P.M. measurement



### Pedal Force Transducer

#### **MLA-NA**



### Smart Dynamic Strain Recorder

DC-104R

DC-104Ra

Analog OUT 5V

