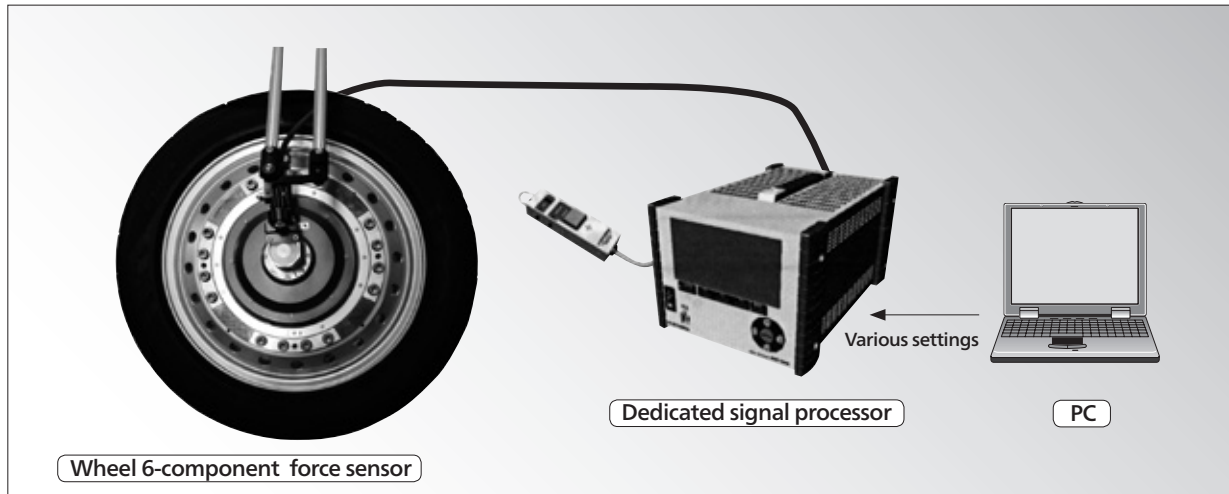


Wheel 6-component Force Measuring System

● Slip-ring Type



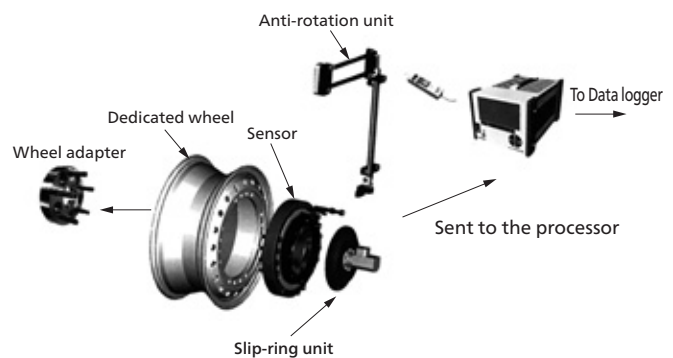
High reliability and accurate transmission of slip-ring signals

- Thin and lightweight sensor
- The sensor using slip rings ensure easy handling
- Signal processors for four wheel are in the one unit.
A high-speed DSP improves the processing capability.
- Dedicated signal processor contains an indicator which is easy to view in the field with a user-friendly remote controller.

This system enables measurement of 3-component force (F_x , F_y , F_z) acting on 3 orthogonal axes to the running axle at the wheel mounting part and 3 moments (M_x , M_y , M_z) around the axle. The wheel itself is made to act as the sensor to detect the 6-component force and output signals are transmitted by the slip-ring to the measuring instrument.

Specifications

Measurement channels	8 (Force 3, torque 3, sensor temperature 1, and rotary signal 1)																					
Rated Output	± 10 V (Analog)																					
Capacity (Standard)	<table border="1"> <thead> <tr> <th colspan="2">Measuring components</th> <th>(Standard) Rated Capacity</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Load</td> <td>F_x (Longitudinal force)</td> <td>± 20 kN</td> </tr> <tr> <td>F_y (Lateral force)</td> <td>± 12 kN</td> </tr> <tr> <td>F_z (Vertical force)</td> <td>± 20 kN</td> </tr> <tr> <td rowspan="3">Torque</td> <td>M_x (Yaw moment)</td> <td>± 2.4 kN-m</td> </tr> <tr> <td>M_y (Torque)</td> <td>± 4.0 kN-m</td> </tr> <tr> <td>M_z (Roll torque)</td> <td>± 2.4 kN-m</td> </tr> <tr> <td>Rotary Speed</td> <td>N (Rotary Speed)</td> <td>± 2000 rpm</td> </tr> </tbody> </table>		Measuring components		(Standard) Rated Capacity	Load	F_x (Longitudinal force)	± 20 kN	F_y (Lateral force)	± 12 kN	F_z (Vertical force)	± 20 kN	Torque	M_x (Yaw moment)	± 2.4 kN-m	M_y (Torque)	± 4.0 kN-m	M_z (Roll torque)	± 2.4 kN-m	Rotary Speed	N (Rotary Speed)	± 2000 rpm
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Note: For other rated capacity, please contact us.																						
Data Processing	Real-time processing, and converting the still coordinate system to the output voltage																					
Installation	Using the hub adapter to install sensors. With exchanging wheel adapters, various of PCD are applicable.																					



System Components

- 6-component force sensor
- Slip-ring unit
- Signal processor

