

## Calibrations

### 1. Calibration before shipment:

Done at the factory with a calibration system. Calibrates shared force composition matrix and coordination transfer matrix. All the calibration is done with deadweights.

### 2. Periodic calibration

Periodic calibration has to be done at the A&D factory using a calibration system. All calibration is done with deadweights and a calibration certificate can be issued.

### 3. Periodic check at the vehicle

Sensor check can be done by jacking up the vehicle, lifting the WFS above the ground with the wheel, and confirming/checking the Fz.

## DSP System

### AD7891 DSP system

The AD7891 DSP system supports a variety of applications with highly customized measurement and control.

#### ● High speed real-time processing

The two on-board processors perform separate functions to achieve high speed, real-time processing.

- 1.5 GHz Celeron M CPU for model execution
- 200 MHz SH4 CPU for user interfaces

#### ● Measurement, control, and simulation

Models made using MATLAB/Simulink and Stateflow can be executed on the AD7891, resulting in an optimal model-based calculation in real-time.

#### ● Combination of multiple I/O

AD7891 has 7 slots for the external I/O boards. I/O boards are selectable from the standard I/O board lineup according to the application demands.

#### ● Equipped with touchscreen

5.7-inch color TFT LCD (with backlight) touchscreen is provided for easy and flexible user interfaces.



Safety Warning!

● For proper use, read the instruction manuals carefully before use.

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● Appearances and/or specifications subject to change for improvement without notice.  
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\*WFS datasheet-ADCC-02-BP1-1 1402

# WFS

## Wheel Force Sensor



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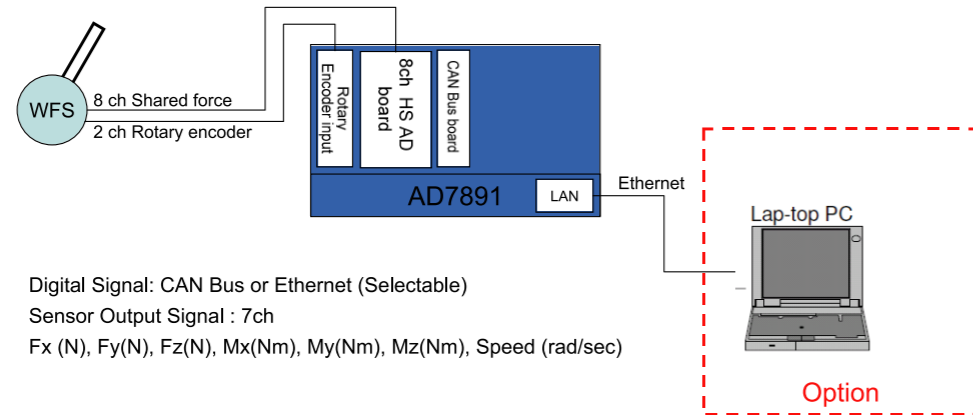




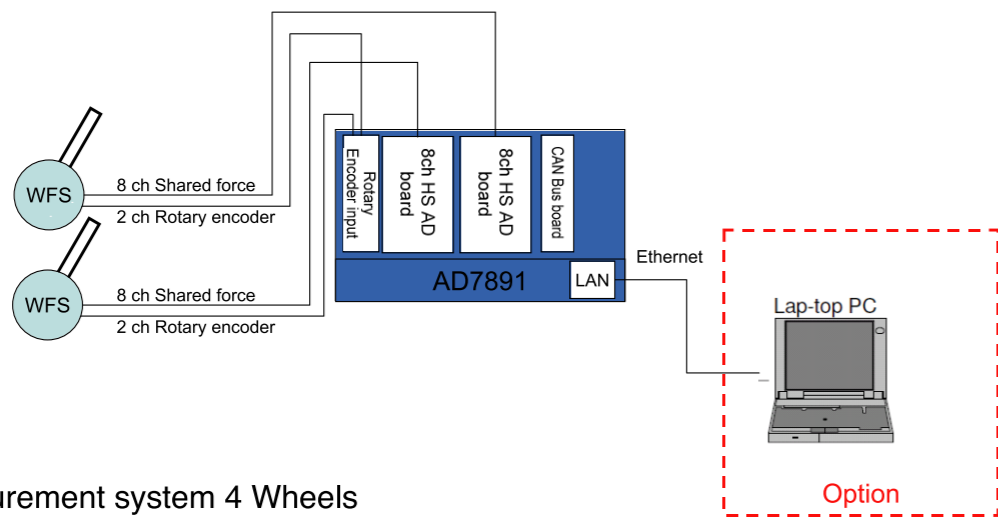


### WFS System Configuration (3)

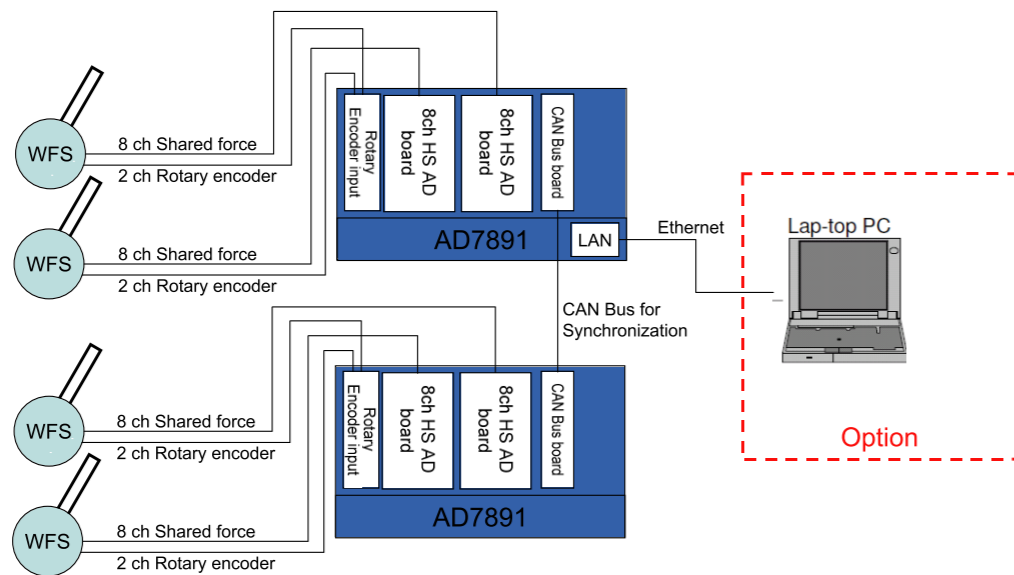
#### Option Measurement system 1 Wheel



#### Option Measurement system 2 Wheels



#### Option Measurement system 4 Wheels



### WFS Specification

#### Sensor Specification

Item	Specification	Note
Method		
Coordinate direction		
Fx		
Fy		
Fz		
Mx		
My		
Mz		
Acceptable rim size		In the case of other customer needs, please contact us.
Acceptable hub size		In the case of other customer needs, please contact us.
Acceptable offset		Depends on customer's specification request.
Total error		Includ
Modulation error		
Sensitivity		
Angular resolution		
Speed		
Temperature guarantee range		
Operating temperature range		
Zero temperature effect		
Span temperature effect		
Wet/dust condition		
Weight		