



Rotational Torque Sensor (RTS)

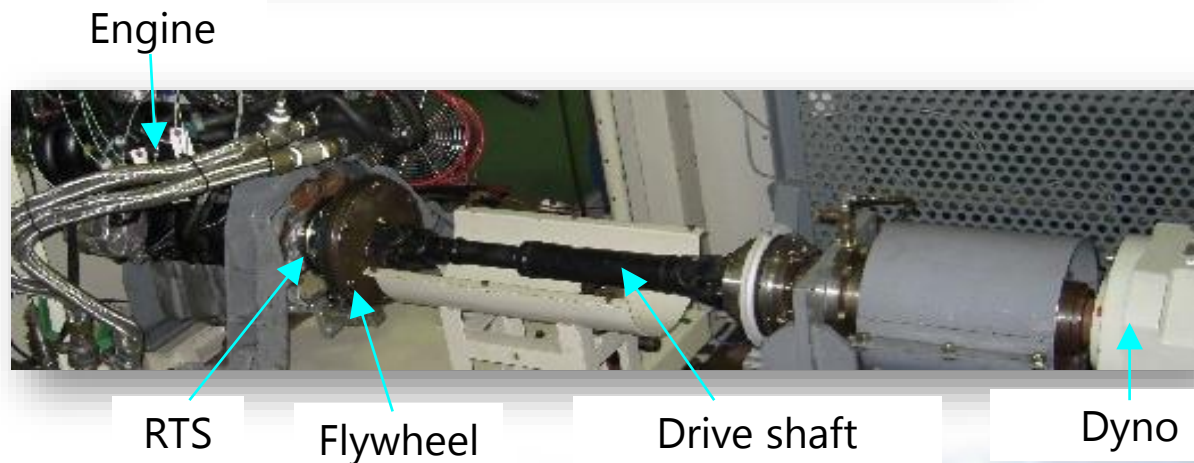
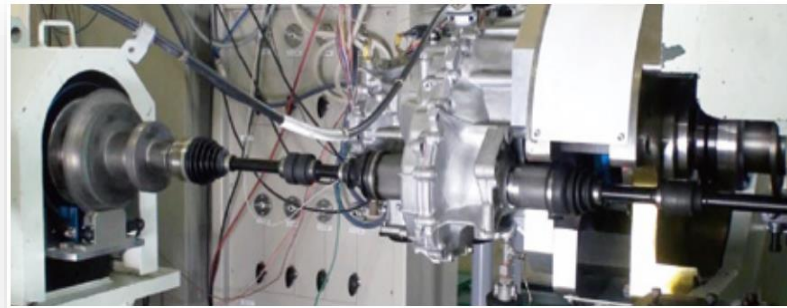
TEST CELL AUTOMATION | LABORATORY MANAGEMENT | COMBUSTION ANALYSIS | SIMULATION | EMISSIONS
ENGINE | TRANSMISSION | ELECTRIC MOTOR | BATTERY/EV SYSTEMS | VEHICLE DYNAMICS



**Test with
Confidence**

Overview

The RTS is suitable for inline torque measurement in engine, transmission and driveline testing. Some RTS models can also measure rotational speed and rotational angle.



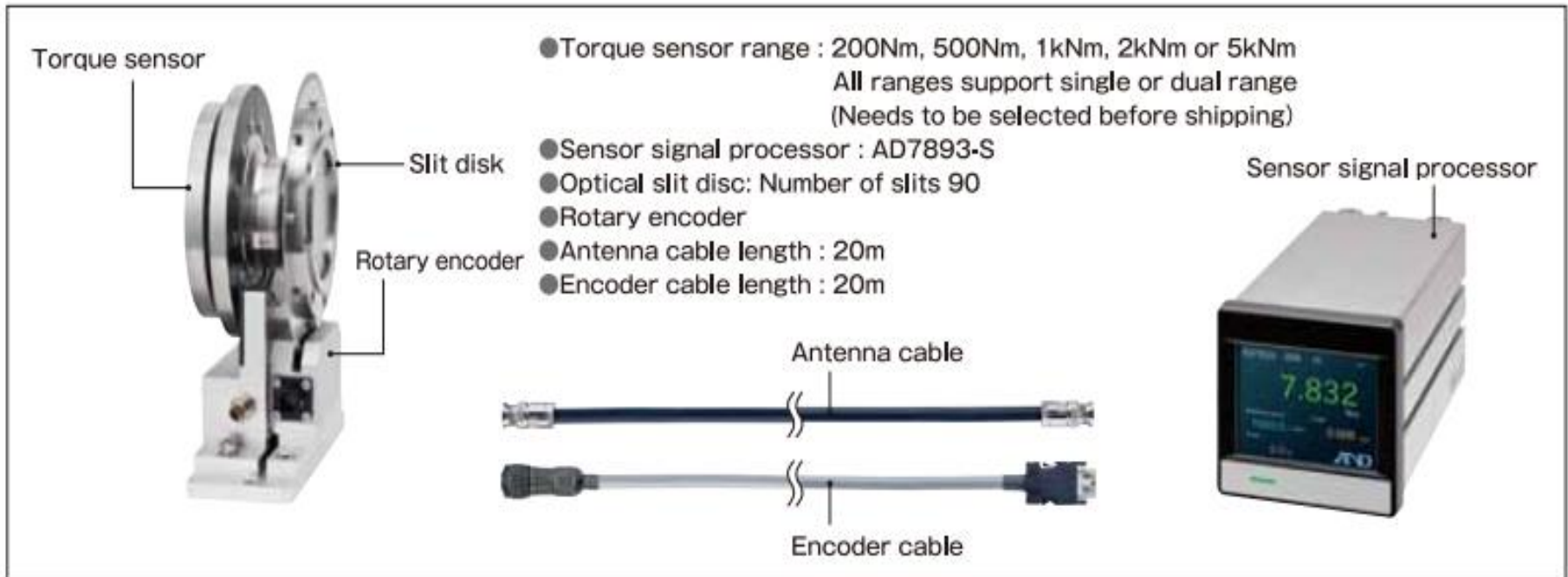
RTS Overview

- Enables non-contact torque measurement at high speed with high accuracy.
 - Nominal torque: 200 – 5k Nm
 - Combined error: 0.03% full scale
 - Maximum speed: 12000rpm (≤ 1 kNm) / 10000rpm (> 1 kNm)
- Designed to withstand harsh conditions of torsion and bending, as well as severe radial and thrust load conditions.



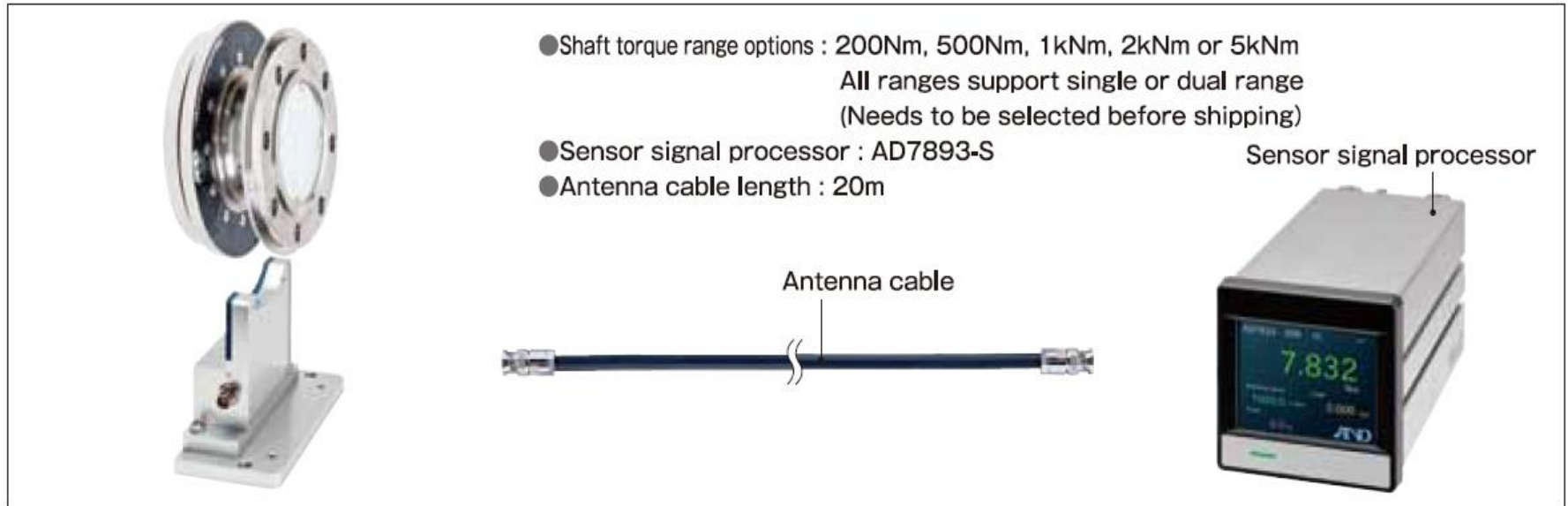
AD7832A Series

- Measures torque, speed, and angle
- Rated capacity: 200, 500, 1k, 2k, 5k Nm



AD7832B Series

- Measures torque only
- Rated capacity: 200, 500, 1k, 2k, 5k Nm



Built on core A&D expertise

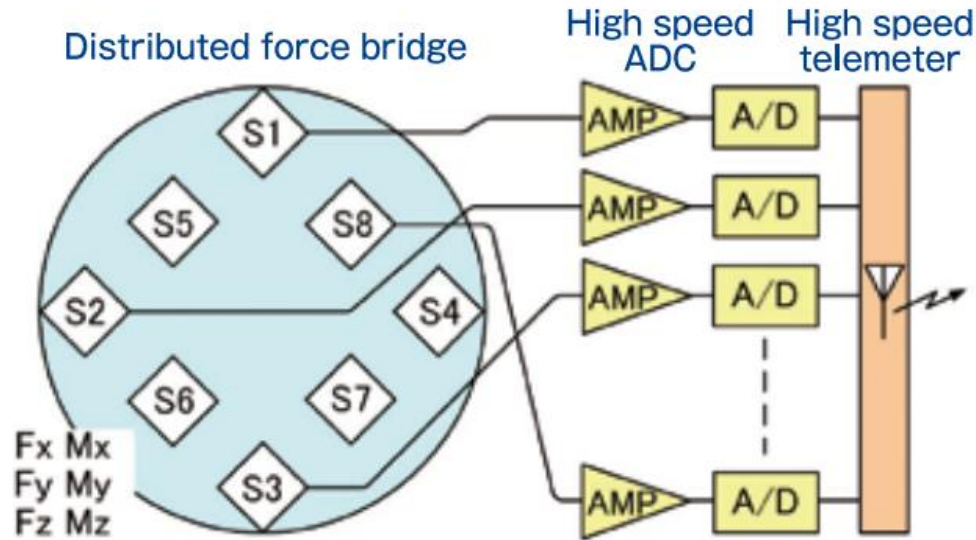
- Distributed force detection technology
- High-speed telemetry technology
- DSP technology



Distributed Force Detection Technology

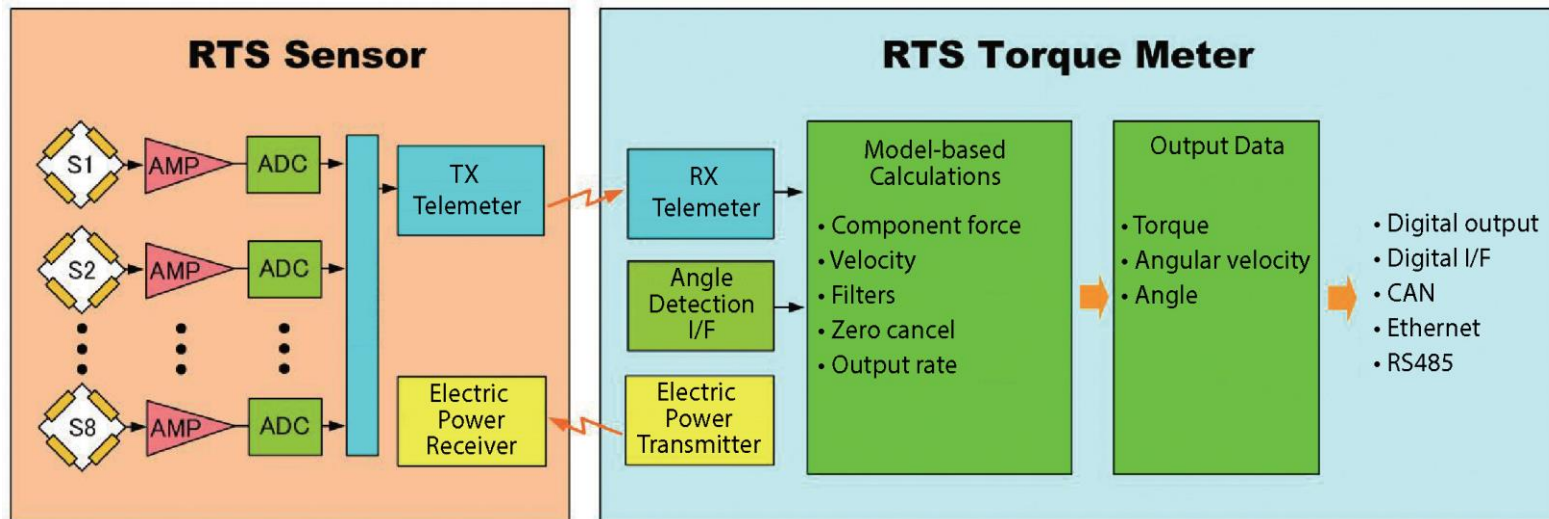
- Utilizes a distributed force system with dedicated four-element strain gauges evenly distributed on the sensors.
- Enables model-based calculations to be performed.

RTS exclusive 4 element torsion gauges



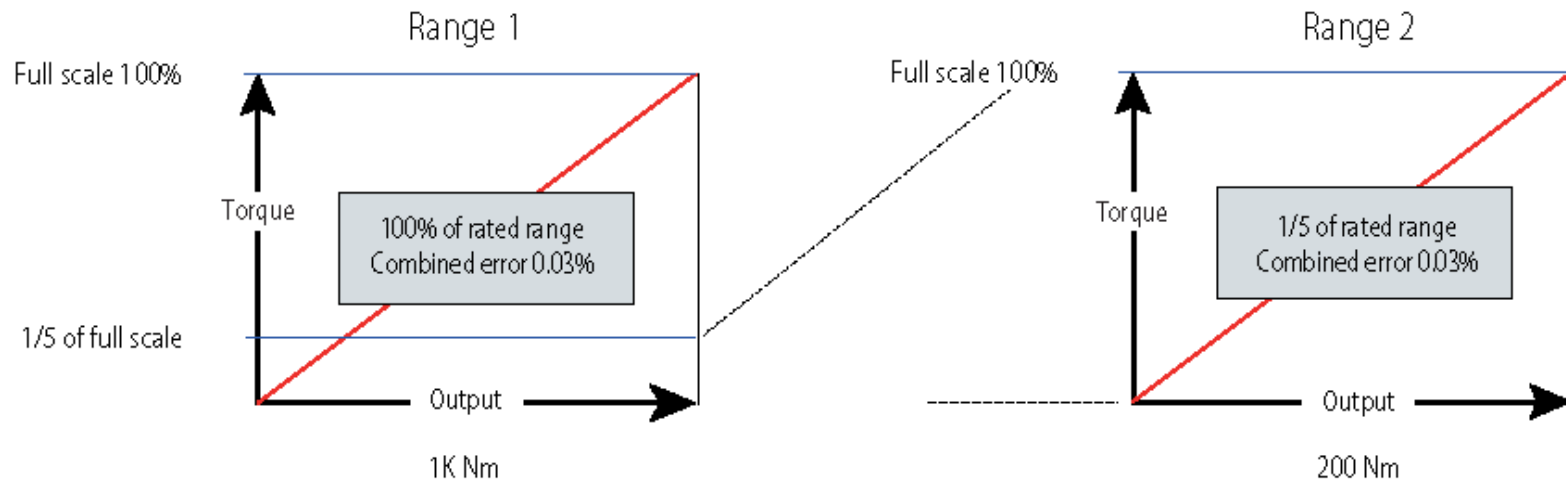
Non-contact high-speed telemetry

- High-speed large capacity telemeters enable non-contact, simultaneous and highly accurate measurements.
- The detected distributed forces are A/D converted inside the sensor. A large amount of distributed force data is transmitted by high-speed serial communication.



Dual range models available

- Full scale at 1/5 the rated capacity.
- Guaranteed combined error of 1/3000 for the reduced range.
- Suitable for applications where the maximum torque encountered is much smaller than the rated capacity.



High speed digital signal processing

- 10KHz sampling capability
- High speed output rate
 - Analog Torque output: 10kHz
 - Digital Torque output: 5kHz

A&D Value and Advantages

- A&D's unique capability in test cell integration - One Stop Solution
- Robust torque measurement at high speed with high accuracy
- Dual range capability, providing more value for customer's investment.

Thank You!