

## Tele thermo R – Rotating Telemetry *Customization Examples*

[Induction Power Transfer to Test Systems]

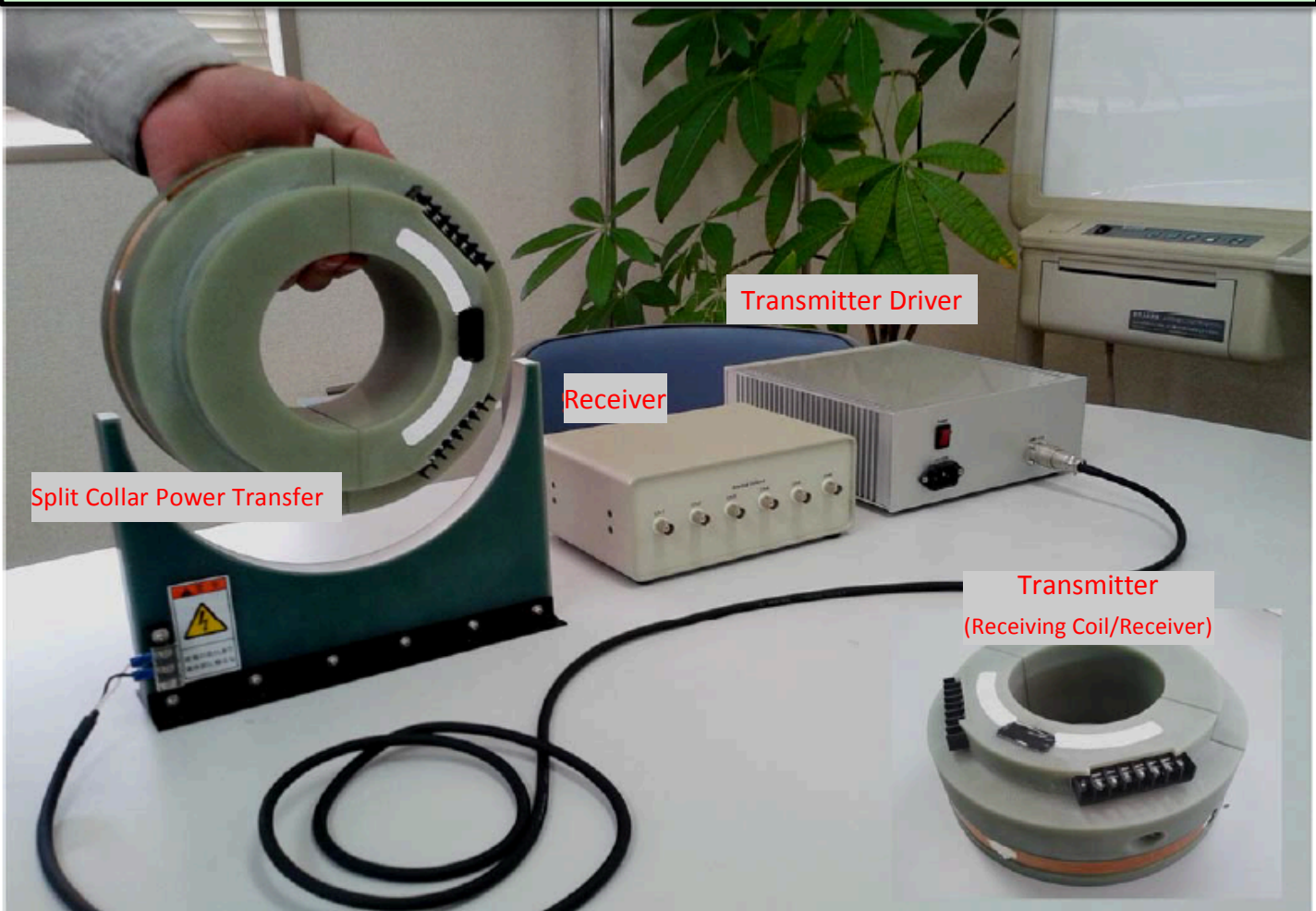
# Easy Measure

**【Measurement Made Easy】**

Ready to use  
Easy to use for anyone  
Carry & use anywhere

### [General]

Easy Measure's rotating telemetry, **Tele thermo R**, has been used in wide industry areas for its easy installation, excellent wireless performance, and high precision & strong noise resistance. Conventionally, the split ring has been used for data acquisition, but there are various problems, such as "noisy", "not durable", "expensive (hollow type in particular)." Easy Major has been developing various products to solve these problems.



### [Customization Examples]

- Input selection  
Multiple channels and mixture of different sensors.  
Strain: from  $\pm 10,000\mu\epsilon$  [standard] to  $\pm 50,000\mu\epsilon$   
1 gauge/2 gauges/4 gauges  
Thermocouples: N/K/E/J/T/R/B/S. High-accuracy temperature measurement.  
Terminal block input connection
- Split collar power transfer for long and stable operation
- CAN / LAN outputs for measured data
- Transmitter design for high-speed rotation and high centrifugal forces.  
Structural design software for design verification.

## [Split Collar Induction Power Transfer – Customization]

### Wireless Common Specifications

Items	Specifications
Configuration	1 Transmitter, 1 Receiver
Wireless	2.4GHz advanced low-power data communication
Diversity	Yes
Distance	5m (free space)

### Transmitter Specifications

Unit	Items	Specifications	
Wireless Transmitter	Channels	Temp. 4 channels Connection: Cageclamp terminal Model: 218-104 (WAGO)	
	Input	T.C.	N/K/E/J/R/B/S
		Resolution	0.1 deg.C
		Accuracy	< ±1.0 deg.C
	Power	Induction Power Transfer	
	Consumption	3.6-6.2V/about 50mA	
	Antenna	Built-in in collar	
Sampling	50 times/s		
Rectifier	Output	6VDC/>100mA	
Receiving Coil	Configuration	Resin mold after wrapping a copper tape	
	Up/down connection	Via screw terminal after fastening the collar	
Collar common spec	Max. rotation	> 3,000rpm	
	Op. Temp.	-20 to +80 deg.C	
	Op. Humidity	10-85%RH (no condensation)	
	Material	PEEK	
	Filling resin	Epoxy	
	Up/down connection	4X M6 cap screws (SCM435)	

### Sending Coil Specifications

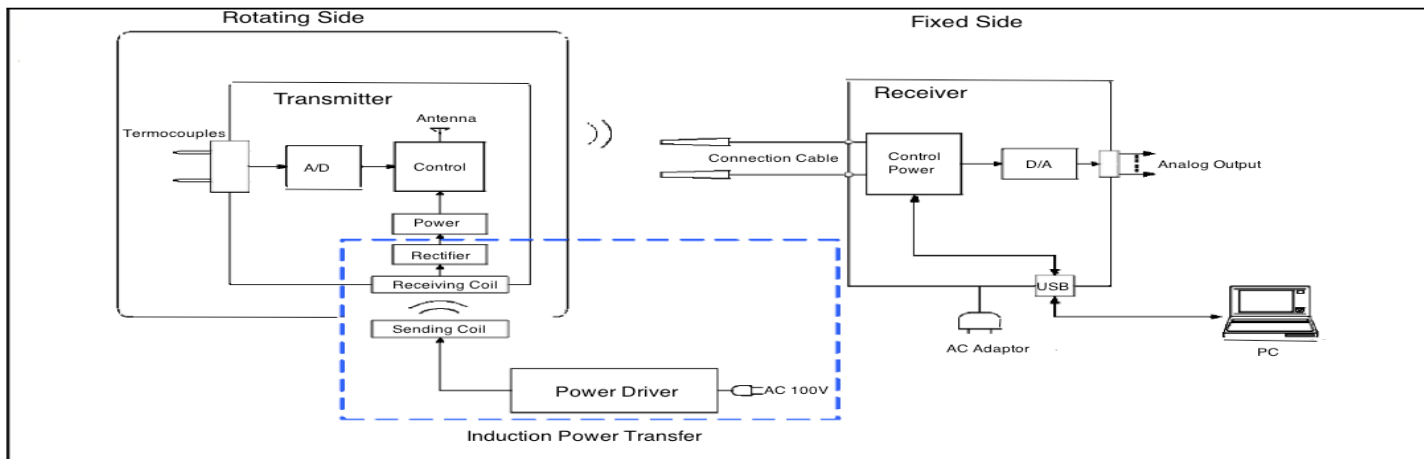
Items	Specifications	
Material	GFRP resin	
Connection	Circular push-pull connector	
Transmission Cable	Diameter	7mm
	Length	10m
Op. Environment	-20 to +80°C/ 10-85%RH (no condensation)	

### Receiver Specifications

Items	Specifications
Signal Input	Measured values sent from the transmitter
Channels	Total 8 channels (transmitter can operate independently)
Output Format	Analog voltage output, USB digital output
Output Range	±10V maximum. Range can be set by software.
Output Terminal	BNC Connector
Allowable Load Resistance	2kΩ
Output Impedance	< 100Ω
DA Conv. Resolution	14bit.
DA Conv. Accuracy	±0.05%FS (typ.) (@±10V full scale)
Data Updates	20ms
PC Interface	USB2.0
Burnout Detection	Yes (scales out to +2,000 deg.C at burnout)
Thermocouple Type	Setting by PC software all at once
External Display Output	Yes
Data Retention	Keeps previous data when transmission stops.
Output Range	Setting by PC software
Wireless Channel	Setting by PC software
Input Power	DC 12V or dedicated AC adaptor (12V/2A)
Power Consumption	15W (typ.) when dedicated AC adaptor is used.
Operating Temperature	0 to +50 deg.C
Operating Humidity	10-85%RH (no condensation)
Dimensions	206[W] x 160[D] x 86[H] mm (excluding protruding parts)
Weight	1506g

### Transmitter Driver Specifications

Items	Specifications	
Frequency	1.5MHz	
Connection	Sending coil	Circular push-pull connector
	AC Power	3P inlet
Power	AC100V±5%/ <150W	
Op. Environment	0 to +50 deg.C/ 10-85%RH (no condensation)	



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**Sensor is source of technology**  
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