

Tele thermo R – Rotating Telemetry
Customization Examples
[Shaft-mounted]

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.

Different types of shafts are used in automotive industry – such as drive shaft or propeller shaft - and the rotating telemetry needs to be attached to different shaft sizes. Easy Measure has responded to this requirement by using spacers and rubber sheets.



[Customization Examples]

- For various shaft sizes
The transmitter can be mounted to different shaft sizes using spacers and rubber sheets.
- Input
Multiple channels and mixture of different sensors.
Strain: from $\pm 10,000\mu\epsilon$ [standard] to $\pm 50,000\mu\epsilon$
Thermocouples: N/K/E/J/T/R/B/S
- Transmitter Power
Battery: Replace or charge type.
Operation in high/low temperature (replace type)
Continuous measurement: inductive power transfer (ring antenna)
- Level of protection: IP52
- Sampling: 2,400 times/s [standard] or 4,800 times/s

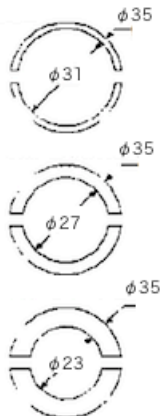
1-ch Strain Telemetry - Customization Examples

[Specifications]

Number of Channels	Strain: 1 channel (bridge connection)	
Input	Measurement range	$\pm 10,000\mu\epsilon$ (wider range can be manufactured)
	Auto-zero range	$\pm 5,000\mu\epsilon$
	Resolution	1.0 $\mu\epsilon$
	Accuracy	$< \pm 0.05\%$ FS
	Gauge resistance	120 – 1,000 Ω
Bridge power	1.25V output	
Connection	Direct soldering to a terminal pin	
Different shaft sizes	$\Phi 20 - 35$ mm with 1mm step (using two spacers and rubber sheets)	
Sampling	2,400 times /s (option: 4,800 times/s)	
Antenna	Built-in	
Power	Chargeable built-in lithium ion polymer battery	
Power switch	Built-in (the light turns on while charging)	
Battery charge time	About 2 hours	
Power consumption	3.6V/25mA (with 120 Ω gauge)	
Battery run time	About 7 hours	
Operating temperature	-20 to +80 deg.C (0 to +45 deg.C while charging)	
Operating humidity	10 to 85%RH (no condensation)	
Dimensions	$\Phi 55 \times 50$ [H] mm (excluding protruding parts)	

[Configuration]

Use the following three spacers (A, B, C) and rubber sheet in three different sizes (1.5mm/1.0mm/0.5mm) to fit to the shafts of different sizes. Please cut the rubber sheet in appropriate sizes.

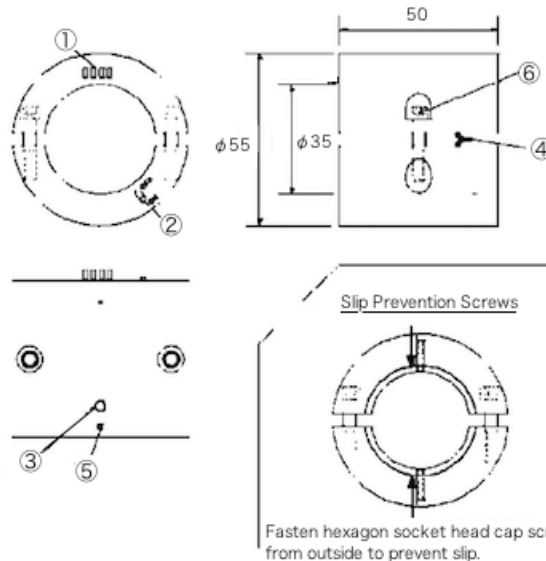


Spacer	Shaft Diameter (mm)	Rubber Sheet (mm)
No Spacer	35	-
	34	0.5
	33	1.0
	32	1.5
Spacer A	31	-
	30	0.5
	29	1.0
	28	1.5
Spacer B	27	-
	26	0.5
	25	1.0
	24	1.5
Spacer C	23	-
	22	0.5
	21	1.0
	20	1.5

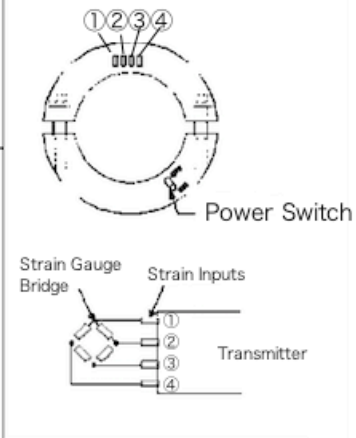
NOTES:

- 1) Material: PEEK Resin
- 2) Antenna (Built-in)
- 3) Lithium Ion Polymer Batteries and Battery Charger (Built-in)
- 4) Power Switch (Built-in)

#	Name	Description
①	Sensor Connection Terminal	
②	Power Switch	Lamp turns on only during charging.
③	Charge Port	Connection to AC Adaptor
④	Power Cable	
⑤	Slip Prevention Screw	M2 Hexagon socket head cap: 10mm
⑥	Transmitter Fixing Screw	M4 Hexagon socket head cap: 20mm



#	Inputs
①	+BV (Bridge Voltage Plus)
②	-SIG (Signal Out Minus)
③	-BV (Bridge Voltage Minus)
④	+SIG (Signal Out Plus)



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