



Receiver



Transmitters

Multi Digital Telemeter

MT-100 Series NEW

4-channel wireless system with a signal receiver

- ☐ CAN/CAN FD compatible
- ☐ High temp. (Transmitter: 100°C)
- ☐ Max. 16 channels can be synchronized
- ☐ Cup terminals simplify sensor wiring

Outline

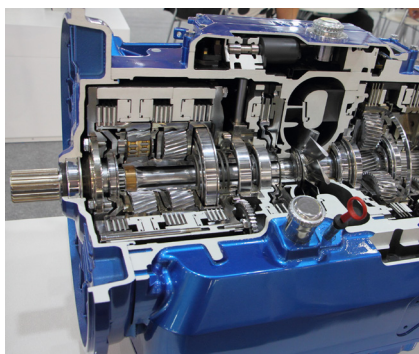
MT-100 Series is a strain measurement telemeter that can receive data from 4 transmitters using a single receiver.

MT-100 Series eliminates the need for a cable - which can inhibit the movement of an object to be measured - so the unit can be utilized in various fields.

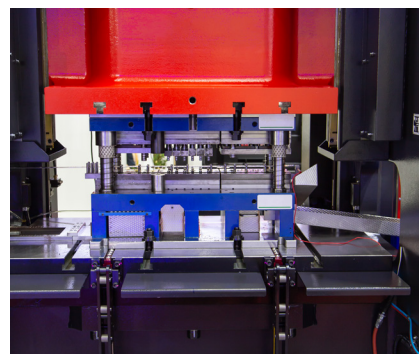
Application



Torque measurement of drive shaft



Torque measurement of speed reducer



Strain and load measurement of Production equipment

Comparison

Model	MT-100 Series	MRS-100 Series (Conventional 1-channel model)
■ Transmitter		
Output Data Rate	Max. 8000 Hz (Selectable)	4.8 kHz
Measuring Range	Max. 50000 ×10 ⁻⁶ Strain	Max. 25000×10 ⁻⁶ Strain
Operating Temperature	-25 to 100°C	-25 to 75°C
Display	Status LED	None
■ Receiver		
Pair Setting Transmitters	4	1
Output Interface	Voltage Output, CAN/CAN FD, Error Output	Voltage Output
Communication Interface	USB2.0, Ethernet	USB2.0
Data Recording to PC	✓	(Simple recording function for operation check)

Main Specifications * For details, please see our website.

Strain Transmitter MT-101A-S

Measuring Targets	Strain gage ^{*1} , Strain gage transducer
Channels	1
Sampling Frequency	8000 Hz
Output Data Rate	50, 100, 500, 1000, 2000, 4000, 8000 Hz ^{*2}
Measuring Range	Max. 50000×10 ⁻⁶ strain
Accuracy	Within ±0.15% FS
Operating Temperature and Humidity	-25 to 100°C, 20 to 85% (Non-condensing)
Display	Status LED
Power Supply	2.2 to 4.4 VDC (Current Consumption: Approx. 38 mA)
Vibration Resistance	294.2 m/s ² (30 G), 5 to 500 Hz
Shock Resistance	980.7 m/s ² (100 G), 11 ms or less, Half sine wave
Centrifugal Acceleration Resistance	29420 m/s ² (3000 G)
Dimensions	47 (W) × 19.6 (H) × 7 (D) mm ^{*3,4}
Weight	Approx. 17 g ^{*3}

Control Software MT-10A

OS	Windows®11 Japanese/English
Functions	Settings, Operations, Display, Measurement Data Saving (KS3), Condition File

Multi Digital Telemetry Receiver MT-100A

Pair Setting Transmitters	4
Synchronized Receivers	4 (Connect with sync cables)
Communication Interface	USB2.0, Ethernet
Display	0.96-inch 128x64 OLED, Transmitter Status LED
Analog Output	4 (± 5 V/Range FS)
CAN Communication Speed	Max. 1000 kbps
CAN FD Data Phase	5, 4, 2, 1, 0.5 Mbps and OFF
Error Output	4 (Open collector, NPN)
Dimensions	180 (W) × 70 (H) × 120 (D) mm ^{*4}
Weight	Approx. 800 g

RF Specifications

Radio Frequency Channel	16
Radio Frequency Band	2.4 GHz
Radio Certification	Japan, USA, China, India, Thailand, and Taiwan
Communication Distance	50 m (Max. line of sight distance)

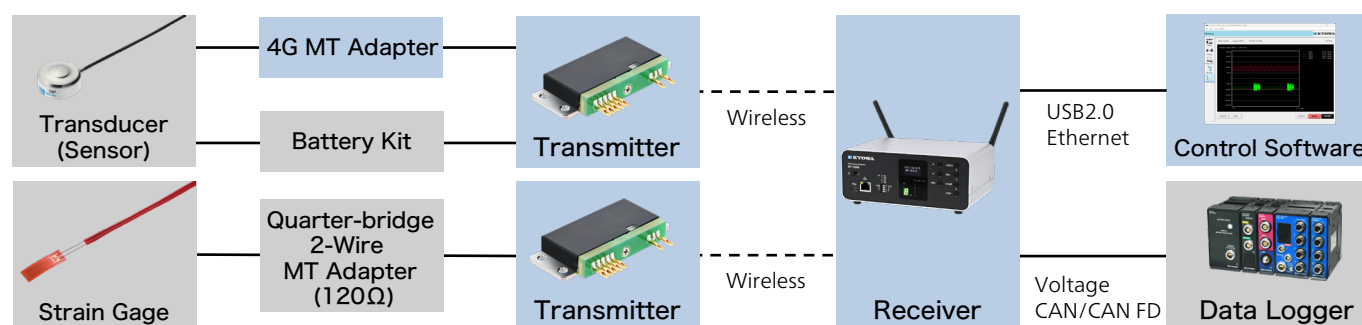
*1 Full-bridge system. Other bridge systems need bridge box or bridge adapter.

*2 Configurable output data rates are subject to the number of paired devices and the output data rate settings of other transmitters.

*3 With the 4G MT Adapter (MT-AD-S1).

*4 Excluding protrusions

System Configuration Example



*Transmitter and receiver require a power source.

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Safety Precautions

- Be sure to observe the safety precautions given in the instruction manual, in order to ensure correct and safe operation.
 - Do not use in locations subject to significant water, dampness, steam, dust, or flammable gases.
- Doing so may lead to fire, electrical shock, or malfunction.

- Specifications and designs are subject to change without notice.
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 - The warranty details can be found on the "Product Warranty" attached to the product and on our website.
 - Unauthorized use or reproduction of contents of this catalog are prohibited.
 - All dimensional drawings use "millimeters" as the standard unit.
- "mm" has been omitted for convenience.



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