

Single Channel Telemetry Systems



Automotive, Aerospace, Defense, Lab, Wind Energy, Marine, and Industrial Applications

RTM GmbH telemetry systems provide a means of accurately transmitting signals from a moving or rotating component. The strain, thermocouple or voltage signals are conditioned and transmitted completely wireless from the rotating antenna to the stator and then to the control unit. The control unit converts the transmitted signal back to an analog value. This data can be read on the control unit display and can be connected to an external data acquisition system. The system can be powered by a battery on the rotating side or inductively powered from the standard stator. The inductive powered installation can provide a completely maintenance free operation for many years.

The compact and lightweight design of the rotor electronics makes the system ideal for limited space installations without influencing the dynamic properties of the component under test.

The "one winding" technology allows for quick and easy installations where the power is transmitted to the rotor electronics and the conditioned signal is transmitted back through the same antenna. This flat antenna band permits a generous axial and radial distance between the stator and the moving part.

The telemetry systems offer a remote shunt calibration feature which allow strain gage applications to be verified even during measurement.



Single Channel Telemetry

FEATURES

- Extremely robust, compact and light weight
- Dust and waterproof
- Maintenance free operation through wireless data transfer and inductive power supply
- Battery or inductively powered applications
- Simple installation via "one-winding" technology
- From very small to large shaft diameters
- Factory configurable for thermocouple, strain, voltage
- Capable of very high accelerations, speed and temperatures
- Use up to 10 systems within close proximity
- All products CE certified
- Adjustable analog output
- Frequency output
- Optional CAN output

APPLICATIONS

- Assembly Line Testing
- Brake Testing
- Powertrain Testing
- Steering Component Testing
- Industrial Process Monitoring
- Bearing Temperature and Drag Monitoring



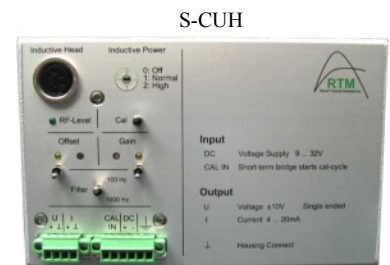
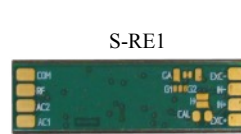
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Rotor Electronics		
	S-RE1	S-RE1P
Sensor type	Strain, Thermocouple, PT100, Voltage [1]	Strain, Thermocouple, PT100, Voltage [1]
Strain Gage Configuration	Full / Half Bridge	Full / Half Bridge
Bandwidth	1kHz	1kHz
Dimensions	1.57 x 0.47 x 0.14 in. 40 x 12 x 3.5 mm	1.61 x 1.14 x 0.35 in. 41 x 29 x 9 mm
Weight	0.1 oz, 3 gm	0.5 oz, 15 gm
Operating Temperature	-40 to +248 °F -40 to +120 °C	-40 to +248 °F -40 to +120 °C

[1] Must specify sensor type when ordering.



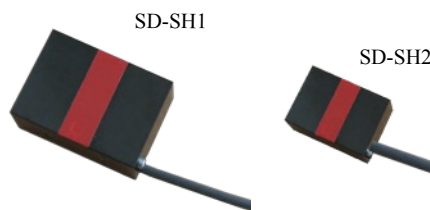
With over 25 years of experience in the telemetry field, RTM GmbH is a world leader of telemetry systems and offers superior products for automotive, aerospace, defense, wind energy, rail, marine, test bench, industrial and other testing and monitoring solutions.

In addition to the single channel telemetry systems, RTM produces various multi channel systems.



Control Units		
	S-CU0	S-CUH
Housing type	Compact housing	Din rail mount
Display	Yes	No
Dimensions	7.08 x 4.13 x 2.52 in. 180 x 105 x 64 mm	6.46 x 4.13 x 3.50 in. 164 x 105 x 89 mm

Optional CAN output available with S-CU0 Control Unit



Stators					
	SD-SH1	SD-SH2	SD-SH3	SD-SH4	SD-SH5
Transmission Distance	1.57 in. 40 mm	.39 in. 10 mm	3.9 to 78.7 in. .1 to 2 m	19.7 in. 500 mm	2.4 in. 60 mm
Inductive Power	Yes	Yes	No	Yes	Yes
Dimensions	1.38 x 1.97 x 2.76 in. 35 x 50 x 70 mm	0.98 x 1.18 x 1.77 in. 25 x 30 x 45 mm	0.94 x 0.47 x 2.2 in. 24 x 12 x 5.5 mm	0.98 x 1.18 x 1.77 in. 25 x 30 x 45 mm	1.57 x 0.47 x 0.14 in. 40 x 12 x 3.5 mm
Operating Temperature	-40 to +248 °F -40 to +120 °C	-40 to +248 °F -40 to +120 °C	-40 to +248 °F -40 to +120 °C	-40 to +248 °F -40 to +120 °C	-40 to +248 °F -40 to +120 °C

Specifications are subject to change without notice due to continuous product improvements.

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