

AXON J4T Digital Telemetry System For 4 Thermocouples

4 channels in
one rotor unit

linearised

digital data
transmission

-40..125°C
operating
temperature

miniature-
rotor unit



The telemetry system AXON J4T combines smallest possible design with extreme robustness, as it is required in tests everyday. Both, the stator and the rotor unit are sealed against dust and water (excluding solder pads). Up to four thermocouples can be connected to the only 16 grammes lightweight rotor unit which can be used for both inductive and battery operation without additional modules.

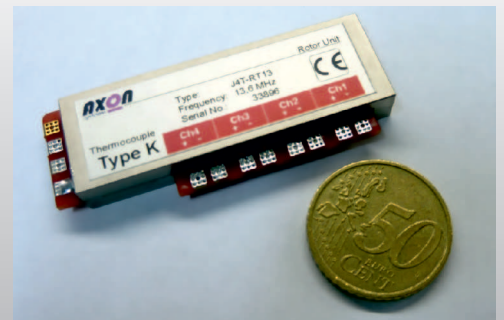
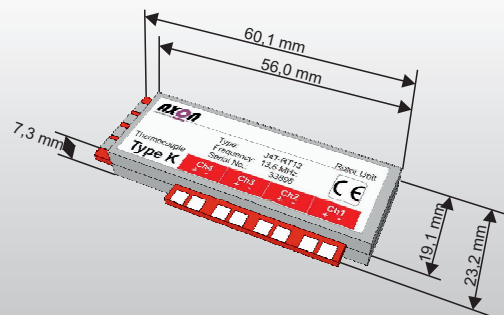
Since up to two rotor units can be operated on one antenna, the system can be expanded to up to eight channels.

Due to the automatic linearisation of the measured values in the range of -80°C to +715°C, the measurement error is less than 1°C. The signals are available as an analog voltage (10mV / °C) on the control unit.

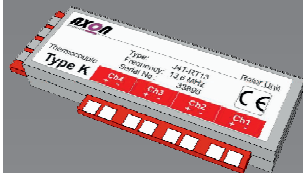
A cold-junction compensation and a sensor break detection are installed.

The system supplies 35 measurements per second per channel. Each of the 35 measured values, is the mean of 64 individual measurements, which are recorded at intervals of 450µs.

Thats one of the reasons why the AXON J4T provides the highest level of accuracy and reliability.



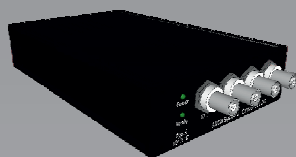
AXON J4T technical data



Rotor Unit

J4T-RT13T

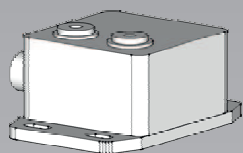
number of channels	4
signal conditioning	thermocouple Type K NiCrNi
measurement range	-80 +715°C
cold-junction compensation	integrated
sensor break detection	integrated
rotor voltage supply	inductive or battery
data transmission	digital, 13,6 MHz, other carrier frequencies optionally
dimensions	60,1 x 19,1 x 7,3 mm (incl. solder pads)
operating temperature	-40...+125 °C
sensor connections	solder pads
resolution	12 Bits
accuracy of measurements	+/-1°C in linearised range
sampling	2222 samples per second per channel; 64 samples are taken to build one mean value --> 35 (mean) samples per second
weight	16,1 grams



Control Unit

J4T-CE13

dimensions (incl. connector)	200 x 105 x 35 mm
supply voltage	9 36 VDC
analog output	4 x BNC; -0,8 7,5V; 10 mV/°C linearised
degree of protection	IP40
operating temperature	-10°C +75°C (option -40°C)
power consumption	app. 15 VA
weight	app. 450 g



Stator Unit

J4T-SR70

transmission distance	0...70 mm (depending on application)
dimensions (including connector)	61 x 50,5 x 33 mm
carrier frequency	wideband (10...30 MHz)
cable length to control unit	5 m, optionally 10, 30 m
degree of protection	IP68 (incl. connector)
transmission coil	copper, free shapeable up to Ø300 mm optionally Ø>300 mm
operating temperature	-40....+125°C