

Evaluation Test of the Motors in Industrial Robots

Since the industrial robot is equipped with several motors, to achieve more efficient operation, the servo drive must be adjusted to the best status to reduce power consumption. The WT1800E High Performance Power Analyzer is capable of observing the input power of the controller and the change of the output power to control the motors. In addition, the WT1800E can measure the transient RMS value of voltage and current and the power data in the repeated acceleration /deceleration motion process of the motor. The WT1800E can also achieve the mechanical power by measuring the torque and rotation speed, so as to measure the comprehensive efficiency. The acceleration and deceleration timing of the motors of the industrial robots is very short, usually within hundreds of milliseconds to seconds. The WT1800E can acquire the data with high speed up to 5ms interval as a standard function, and it can be effectively applied in all kinds of high speed data acquisition. Furthermore, you are able to measure large current, for example, 200A, by using current sensor <u>CT series</u>.

One action of the servo motor takes about 10ms to 1s, and it will carry out multiple actions. Not only the power consumption of each action of each motor, the WT1800E can measure all the power consumption from the beginning to the end of the process with 5ms interval (HS data capturing). It's very helpful for energy saving design.

