

AUTOMATIC ONLINE SPECTROPHOTOMETER SYSTEM CODE RBT-5715

CUSTOMIZED ACCORDING TO THE
CUSTOMER'S WORKPIECE



- Lightweight SCARA robot for high-speed and precision
- One-click automatic measurement with real-time feedback of test results to the control system
- Control system Modbus Tcp via bus communication, high speed, high efficiency and easy to extend

OPERATION PROCESS

- Step 1: Place the workpiece manually on the positioning block in the loading area and position it on the right side against the edge.
- Step 2: Press the reset button to return the robot to the initial position.
- Step 3: Press the start button, the system prompts whether the workpiece is correctly placed and click OK.
- Step 4: The robot equipped with an online spectrophotometer, moves as a single unit to the inspection area above the workpiece to be tested.
- Step 5: Robot adjusts its position to bring the workpiece into focus, with the lens perpendicular to the surface to be measured.
- Step 6: The online spectrophotometer launches the preset program and outputs the measurement results.
- Step 7: Robot lifts the online spectrophotometer, exits the workpiece inspection area, and moves to the standby position or the next workpiece inspection position based on the signal.

SPECIFICATION

Robot	robot arm spreading	400mm
	Max. working speed	7000mm/s
	Max. weight of workpiece	4kg
	repeat positioning accuracy	±0.01mm
	number of control axis	4
Online spectrophotometer	communication protocols	ethernet modbus tcp
	wavelength range	400nm~700nm
	wavelength interval	10nm
	measuring aperture	Ø8mm
	illumination method	45/0
	light source	full spectrum LED light source
	sensor	silicon photodiode array (20 groups in two rows)
	display accuracy	0.01
	reflectivity resolution	0.01%
	reflectance range	0~200%
	non-contact distance	7.5mm (±0.15mm)
	trigger method	instrument trigger, online control trigger
	observer angle	2°/10°
	illuminant life span	more than 3 million measurements in 5 years
	data port	USB, RS485, RS232, ethernet, analog signal output

STANDARD DELIVERY

Robotic system	robot body	1 pc
	robot control cabinet	1 pc
	programming guide	1 pc
Online spectrophotometer	main unit	1 pc
	calibration bracket	1 pc
	white calibration plate	1 pc
	black calibration box	1 pc
	software	1 set