

# AUTOMATIC ROUGHNESS MEASURING SYSTEM CODE RBT-ISR01

CUSTOMIZED ACCORDING TO THE  
CUSTOMER'S WORKPIECE

- 6-axis industrial robot for high speed and precision, IP67, triple protection
- The roughness tester is compact and lightweight, making it easy to install in tight spaces
- Data is uploaded to the MES in real time, and reports are generated automatically
- Dedicated communication interface, high speed and high efficiency



## SPECIFICATION

Robot	robot arm spreading	727mm	
	Max working speed	4000mm/s	
	Max weight of workpiece	8kg	
	repeat positioning accuracy	±0.02mm	
	number of control axis	6	
	communication protocols	Ethernet Modbus Tcp	
Roughness tester	parameters	Ra, Rz, Rq, Ry, Rp, Rv, R3z, R3y, Rsk, Rku, Rc, Rpc, Rs, Rz(JIS), Rt, Rmax, Rz1max, Rk, Rpk, Rvk, Mr1, Mr2, Ry5, Rpkx, Rvkv, R5p, R5v, R10z, Rmr1, Rmr2, Rsm	
	range	320µm (-160µm~160µm)	
	accuracy	±10%	
	resolution (Ra)	0.001µm	
	standard probe * (ISR-C002-PROBE)	type	inductive
		stylus radius/angle	5µm/90°
		stylus material	diamond
	measuring force	4mN	
	measuring unit	µm/µin	
cut off	0.25/0.8/2.5mm		
number of cut-off	1 to 5		

## 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 and cylinder 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 grabs the workpiece and places it in the transplanting station.
- Step 5: The transplanting station moves to the roughness tester est position.
- Step 6: The roughness tester initiates a measurement and outputs the results.
- Step 7: The transplanting station moves to the outer handling station and the robot removes the workpiece.
- Step 8: The robot places the workpiece in the OK or NG station according to the measurement results.

\* Different models can be selected according to workpieces

## STANDARD DELIVERY

Robotic system	robt body	1 pc
	robt control cabinet	1 pc
	programming guide	1 pc
Roughness tester	main unit	1 pc
	calibration block and support	1 pc of each
	standard probe (ISR-C002-PROBE)	1 pc
	software and USB cable	1 pc of each
	adapter	1 pc
Control touch screen		1 pc
Control box		1 pc

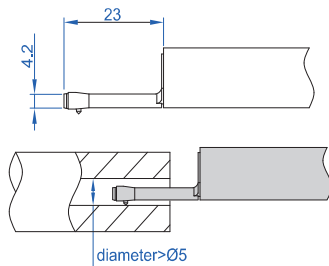
## OPTIONAL ACCESSORY

Tiny hole probe	ISR-C002-SBP
Deep groove probe	ISR-C002-DGP
Deep groove probe	ISR-C002-DGP1

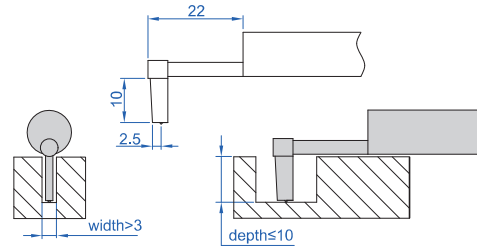
## PROBE PARAMETERS

unit: mm

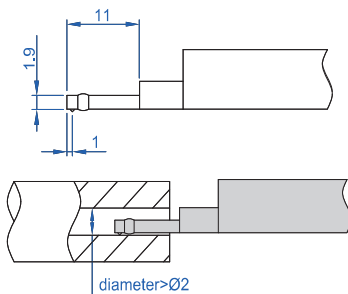
standard probe, 5 $\mu$ m/90° (included),  
code **ISR-C002-PROBE**



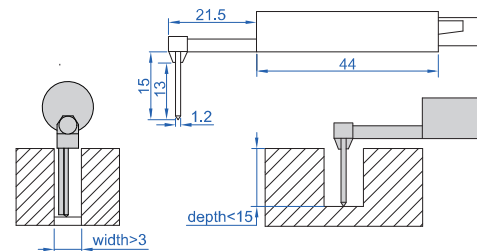
deep groove probe, 5 $\mu$ m/90° (optional),  
code **ISR-C002-DGP**



tiny hole probe, 5 $\mu$ m/90° (optional),  
code **ISR-C002-SBP**



deep groove probe, 5 $\mu$ m/90° (optional),  
code **ISR-C002-DGP1**



recommended for use above Ra 0.1 $\mu$ m