INFRARED TRANSMISSION PROBES FOR CNC MACHINE TOOLS

IP68 WATERPROOF
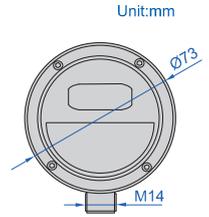
Unit: mm

styli
(code **9410-P10**,
included)

BT30, BT40, BT50,
CAT40 spindles

HSK63A spindle

9413-1

Unit:mm

Ø73

M14
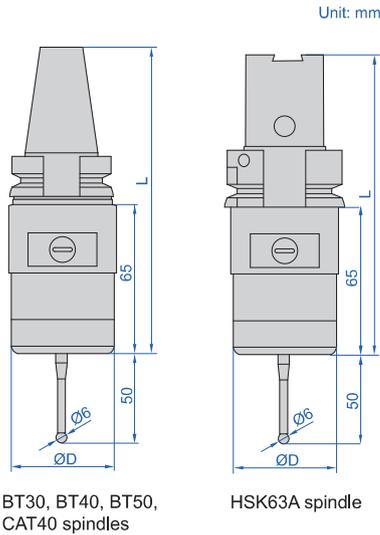
9413-A

- On-machine measurement of all kinds of small and medium-sized machining centers, CNC boring, milling machines and five-axis CNC machine tools
- Automatically set the workpiece coordinate and machining reference point before CNC machining process
- Automatically measure dimension and position coordinate during CNC machining
- Measure dimension, shape and position after CNC machining is completed
- Four kinds of SSR signals such as probe status, error, low voltage and pulse are transmitted to CNC machine tools
- M code is used to control on or off of probes
- Infrared transmission, strong anti-interference
- Infrared transmission/reception range: 5m
- Supplied with automatic measurement software
- Optional accessory: styli

BT30, BT40, BT50, CAT40	HSK63A

PROBE SPECIFICATION

Code	9413-1	9413-2	9413-3	9413-4	9413-5
Probe length (L)	140mm	166mm	216mm	168mm	136mm
Probe diameter(ØD)	48mm	48mm	48mm	48mm	48mm
Applicable spindle*	BT30	BT40	BT50	CAT40	HSK63A
Trigger accuracy of styli in any direction	1μm				
Protection stroke triggered by styli in all directions	X and Y axis stroke: ±12.5°, Z axis stroke: 5mm				
Trigger force of styli in all directions	X and Y axis: 1-1.6N, Z axis: 5-10N				
Dust/waterproof	IP68				
Power supply	2xLS14250 lithium battery				

*SK and ISO spindle probes also can be customized

RECEIVER SPECIFICATION

Code	9413-A
Protection function	low battery voltage or probe transmitting signal all the time**
Applicable probe	code **9413-1, 9413-2, 9413-3, 9413-4, 9413-5**
Cable length	8m
Dust/waterproof	IP68
Power supply	input voltage: 24V±10%(DC), load current: 50mA

**When battery voltage is low or probe is in wrong state, receiver sends a signal to CNC machine to stop working

STYLI(OPTIONAL)

(mm)

Code	L1	L2	Ød	Material of rod***	Material of ball
9410-P1	18	13	4	stainless steel	ruby
9410-P2	18	13.5	5	stainless steel	ruby
9410-P3	18.5	13	3	stainless steel	ruby
9410-P4	19	8	2	carbide	ruby
9410-P5	19.5	4	1	carbide	ruby
9410-P6	50	40	2	carbide	ruby
9410-P7	50	34	5	ceramic	ruby
9410-P8	100	86	6	ceramic	ruby
9410-P9	40	30	4	ceramic	ruby
9410-P10	50	36	6	ceramic	ruby

Unit: mm

***For stainless steel or carbide rods, it is recommended to use extension rods to protect spindles in case of break
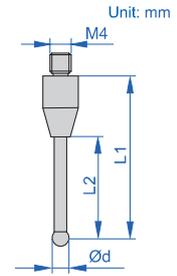
EXTENSION BAR (OPTIONAL)

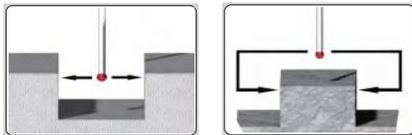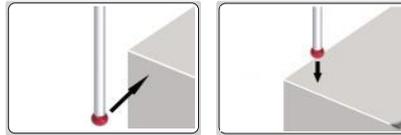| Code	Material
9410-R1	ceramic

Unit: mm
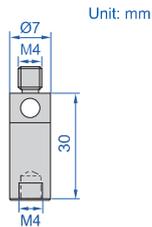
application

AUTOMATIC MEASUREMENT SOFTWARE (INCLUDED)

1. Styli automatic calibration
2. Protection of stylus during probe movement (avoid collision)
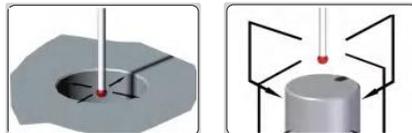3. Groove and boss measurement
4. Bore and axis measurement
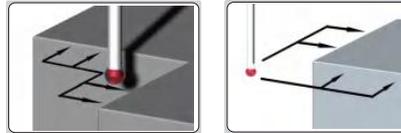5. X or Y single-surface measurement
6. Internal and external corner measurement
7. 4th axis measurement
8. Angle on X and Y plane measurement
9. Three points measurement of arc
10. Measure the distance between two holes