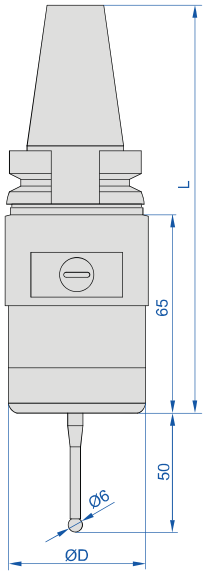
INFRARED TRANSMISSION PROBES FOR CNC MACHINE TOOLS

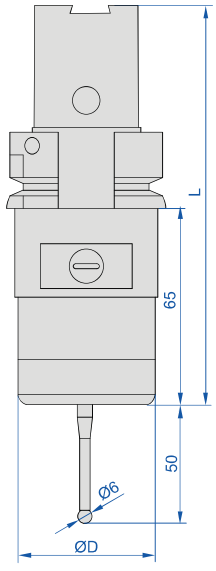
IP68 WATERPROOF

Unit: mm

9413-1



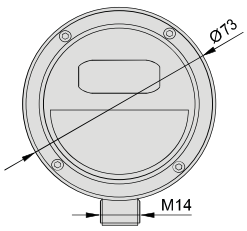
BT30, BT40, BT50, CAT40 spindles



HSK63A spindle

9413-A

Unit:mm



- 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

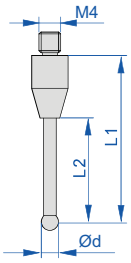
**When battery voltage is low or probe is in wrong state, receiver sends a signal to CNC machine to stop working

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

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

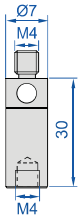
Unit: mm



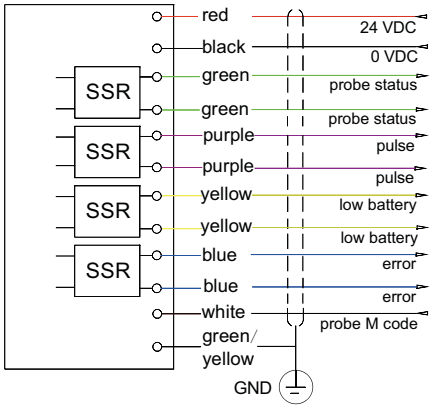
EXTENSION ROD(OPTIONAL)

Code	Material
9410-R1	ceramic

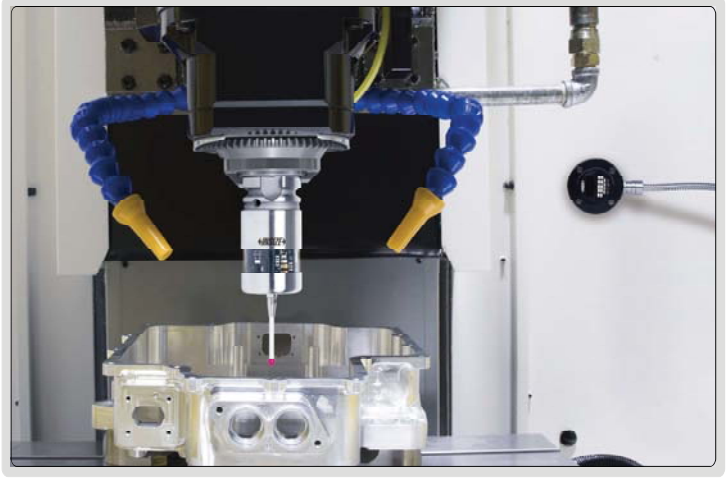
Unit: mm



receiver and CNC machine wiring diagram

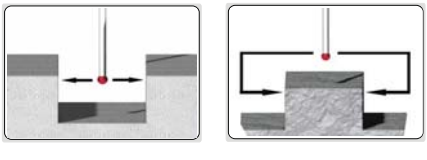


application

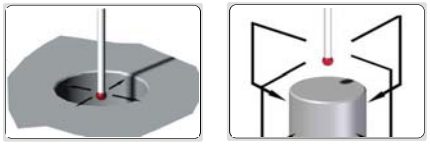


AUTOMATIC MEASUREMENT SOFTWARE (INCLUDED)

1. Stylus automatic calibration
2. Protection of stylus during probe movement (avoid collision)
3. Groove and boss measurement

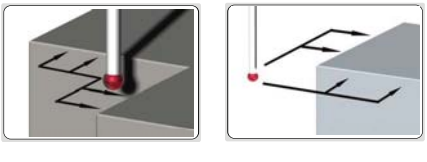


4. Bore and axis measurement



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