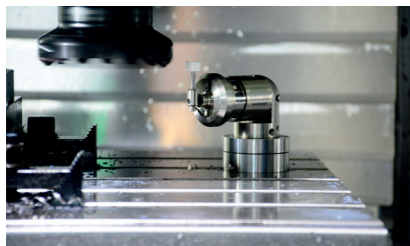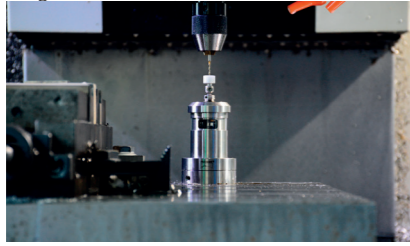## Composition of Probe System

OTS-40 series optical tool setter system include two pieces of hardware and one software package, the two pieces of the hardware are:
1) OTC200 series optical tool setter;
2) OSI-30 optical receiver(the standard cable length 8m/the optional lengthened cable).

（OTC200-V）

Technical Parameters
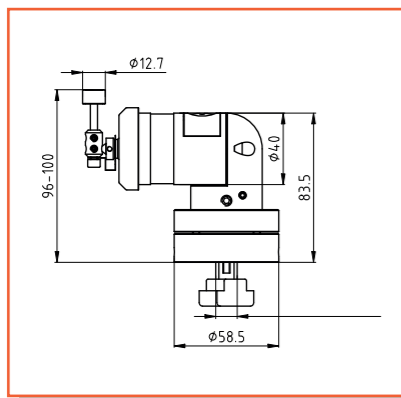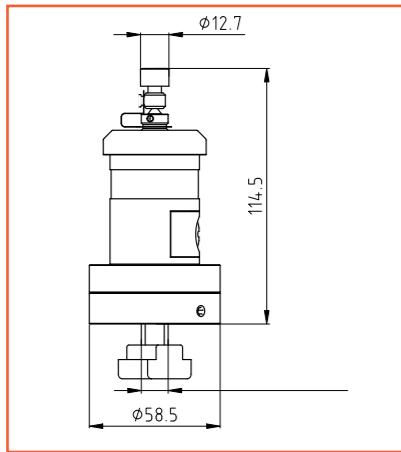
1) The technical parameters of OTC200 series optical probe :
◆ Sensing direction of the pillar: ±X, ±Y, -Z;
◆ The pillars sensing over-travel : X-Y±5mm, Z -8 mm;
◆ The diameter of the touching pillar(for cutting tool touching): 12.7±0.005 mm; the pillar's hardness : HM8.5 ;
◆ The trigger repeatability of the pillar(2σ): ≤ 1 μm;
◆ Working days of new batteries (5% utilization rate in a single shift):90- 140 days;
◆ Seal grade: IP68.
2) The technical parameters of OSI-30 optical receiver:
◆ Optical signal receiving/sending distance: 3 m;
◆ Input voltage: 24V±10%(DC);
◆ Output load current: 50 mA;
◆ Seal grade: IP68.

Technical Characteristics

◆ Tool setter switch on/off method: M code on/off;
◆ Infrared coded signals are used to transmit information between th etool setter and the receiver;
◆ OTC200-V can be selected based on actual operating conditions;
◆ The position of tool setter pillar can be roughly and precisely adjusted by the connecting link of the pillar and the adjusting link of tool setter for mounting.
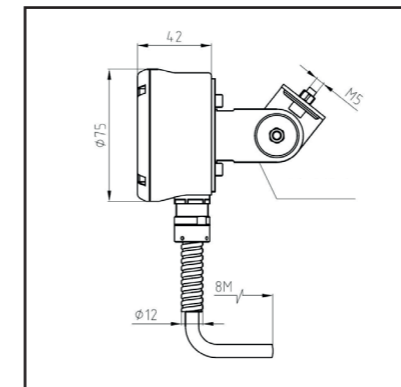
Application

◆ Set lengths parameter of cutting tools automatically before CNC processing;
◆ Detect wear and breakage of cutting tools automatically between two processes or after the CNC processing;
◆ Through checking cutting tool parameters to control the change of machining precision from the temperature change of the machine;

Basic configuration of the probe system

1) OTC200 Series tool setter
◆ Standard tool setter pillar model: M0-S31.5-CP12.7;
◆ Battery specification: 14250, 3.6V, 1000mAh; 2 ps.;.
2) OSI-30 receiver
◆ The cable length usually is 8 meters;
◆ Fixed bracket with universal adjustment function is equipped.

Notes:

◆ If the square pillar of tool setter is needed, customers should give special instructions when ordering the products.
◆ As for the cable length, verify if the 8-meter cable equipped with the OSI-30 receiver is enough for installing it in the machine tool. If it is not, the additional instruction is required when ordering the product;

OSI-30		
Red	24 VDC	
Black	0 VDC	
Green	Probe status	
Green	Probe status	
Purple	Pulse	
Purple	Pulse	
Yellow	Low battery	
Yellow	Low battery	
Blue	Error	
Blue	Error	
White	Probe1 (M code)	
Brown	Probe2 (M code)	
Grey	Common terminal	
Green/yellow		

GND