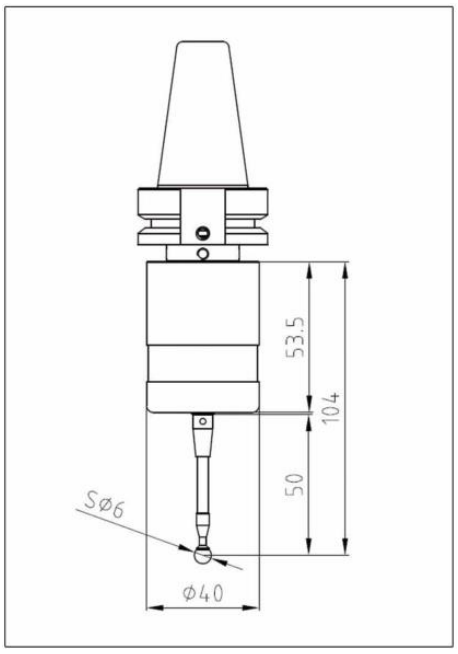
OP400 Optical Probe

Technical Parameters of probe

◆ Stylus sensing direction: ±X, ±Y, +Z;
◆ Stylus sensing over-travel： X-Y±12°, Z +5 mm;
◆ Trigger force in Z direction: 500g -1000g;
◆ Trigger force in X-Y surface: 50g -100g; ◆ Unidirectional repeatability（2σ）: ≤ 1 μm; ◆ Optical signal receiving/sending distance： ≤ 5 m;



Technical Parameters

◆ Working days of new batteries (5% utilization rate in a single shift): 90-140 days;
◆ Seal grade: IP68.

Composition of Probe

◆ Standard stylus model: M4-P50-RB6-S36A;
◆ Battery specification: 14250, 3.6V, 1000mAh; 2 ps.;
◆ Usually, the probe shank is 7:24 taper shank with the BT or ISO standards , the common models are 30#,40#,50# and etc.; the shank with the HSK or other standards can also be used.

Technical Characteristics

◆ Probe switch on/off method:： Spin on/off;Range on/off;M code on/off;
◆ Infrared coded signals are used to transmit information between the probe and the receiver,it can work with OSI-20M and OSI-30 receiver.

Application

◆ Setting work-piece coordinate system and machining zero points automatically before processing;
◆ Detect and control the key dimensions, position coordinates and their precision automatically between two processes;
◆ Detect precision of the key dimensions, shapes, position after processing.

Applicable equipment

◆Various specifications of machine center, CNC boring-milling machine, drilling machine center and 5 axis machine.
◆Various specifications of CNC lathes, turning machine center, CNC turning-milling machine center.

Notes

◆Verify the specifications of the taper of machine tool before ordering the probe,Unusual shank will lead to the probe price increase and the delivery time extend, The shank we provided for the probe does not include the pull stud;
◆When purchasing the probe system, you should figure out whether there are spare M codes in the CNC control system cabinet for the probe to use;

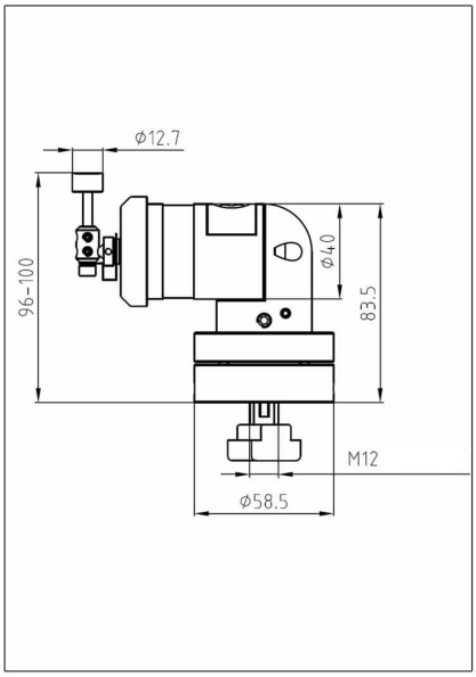
Notes

◆Check whether the standard stylus equipped with probe can meet the requirements and thinking whether it is necessary to order a special stylus;
◆As for the software package, please consult the our sales staff about whether the CNC system of the machine tool can be equipped with probe; Some CNC systems needs additional settings to use probe;

OTC200 Optical tool setter

Technical Parameters of tool setter

◆ Stylus sensing direction: ±X, ±Y, +Z;
◆ Stylus sensing over-travel： X-Y±5mm, Z -5 mm;
◆ Repeatability（2σ）: ≤ 1 μm;
◆ Optical signal sending distance :3-5m;
◆ Working days of new batteries (5% utilization rate in a single shift): 90-140 days;
◆ Seal grade: IP68.



Composition of tool setter

◆ Tool setter pillar (model number): M0-S31.5-CP12.7;
◆ Battery specification: 14250, 3.6V, 1000mAh; 2 ps.;
◆ Tool setter pedestal

Technical Characteristics

◆ Tool setter switch on/off method:： M code on/off;
◆ Infrared coded signals are used to transmit information between the probe and the receiver,it can work with OSI-20M and OSI-30 receiver.
◆ The position of the tool setter pillar can be roughly adjusted and finely adjusted through the connection link of the tool setter pillar and the adjustment of the tool setter pedestal.

Application

◆ Set tool lengths and diameter parameter automatically before CNC processing;
◆ Detect tool wear and breakage automatically between two processes;
◆ Detect tool wear and breakage automatically after the CNC processing.

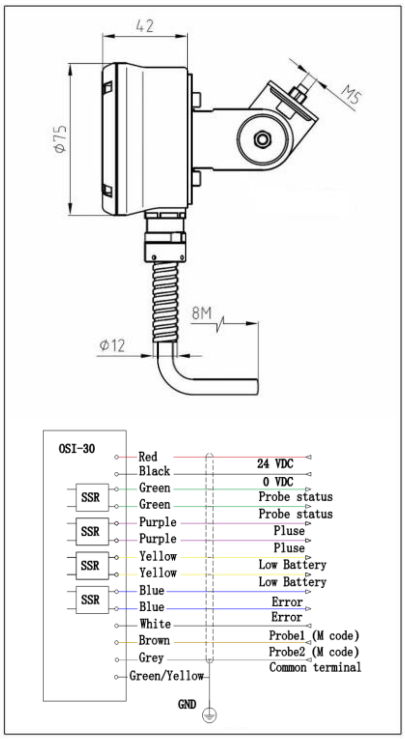
Notes

◆ If the user needs a square tool setting block, it should be specifically mentioned when ordering.

OSI-30 Optical receiver

Technical Parameters of receiver

◆ Optical signal receiving/sending distance : ≥ 5m;
◆ Input voltage: 24±10% (DC)
◆ Output load current :50 mA
◆ Seal grade: IP68.



Technical Characteristics

◆ The receiver can realize the inversion of the logic state of the output signal by setting (dip switch);
◆ The OSI-30 receiver can be compatible with many of our company's optical communication probes or tool setters by setting;
◆ The receiver's LED indicator shows the working status of the probe.

Composition of receiver

◆The cable length usually is 8 meters with14 cores' shielded cable;
◆ Equipped with 1.5m long stainless steel metal sheath;
◆ Fixed bracket with universal adjustment function is equipped.

Notes

◆ 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;