TP400 cable probe

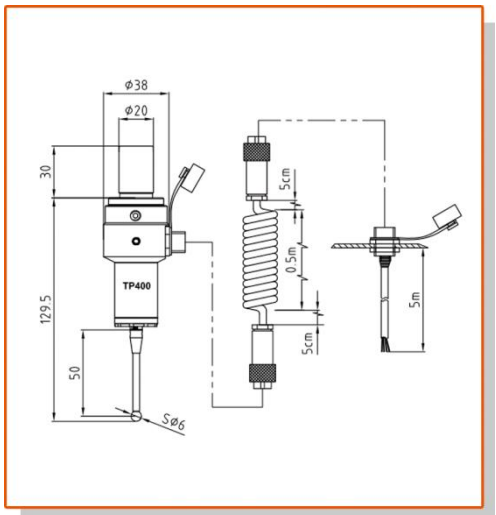
Composition of Probe

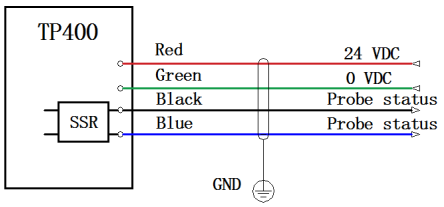
TP400 cable probe consist of three pieces:

1）TP400 trigger probe unit(with integrating interface);

2）Two four-core, oil proof shielded cable, one of them is a spiral cable with aviation plugs at both ends. The total length of the two cables is 8 meters;

3）Stylus(standard model: M4-P50-RB6-S36).





Technical Parameters for probe and interface

- ◆ Stylus sensing direction: ±X, ±Y, +Z;
- ◆ Stylus sensing over-travel : X-Y±15°, Z +5 mm;
- ◆ The trigger force in Z direction: 1000 g;
- ◆ Trigger force in X-Y surface (standard stylus) : 65-130g;
- ◆ Unidirectional repeatability（2σ）: ≤ 2 μm;
- ◆ Input voltage is 24±10% V DC and output load current is 50 mA.
- ◆ Seal grade: IP68.

Technical Characteristics

◆ The signal interface of probe is integrated inside the probe, and the trigger signal is transmitted by cable;

◆ By changing the power supply's polarity at the probe interface, the logic state of the output signal can be reversed;

◆ The stylus connector of the probe is protected by double layers of rubber seal.

◆ The probe uses two pieces of cable to transmit signals, one of spiral cable has aviation plugs at both ends , which can be quickly installed and discounted, providing convenience for the application of the probe in different equipments.

Notes for purchase

◆ As for special stylus, check whether the standard stylus equipped with the TP300 probe can meet the requirements and whether it is necessary to order special stylus;

◆ About sealing protection of the connectors for stylus and probe: for TP300 probe applied in CNC lathe, it is recommended that the customer give protecting instruction to use metal cover + rubber sealing cover when ordering the probe.

Basic configuration

◆ The standard: M4-P50-RB6-S36;

◆ The cable: 4 cores' shielded, oil - proof sporting cable, length:6m.

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 equipments: various specifications of CNC grinding machines, CNC lathes and specially measuring devices.

TP400电缆通讯测头

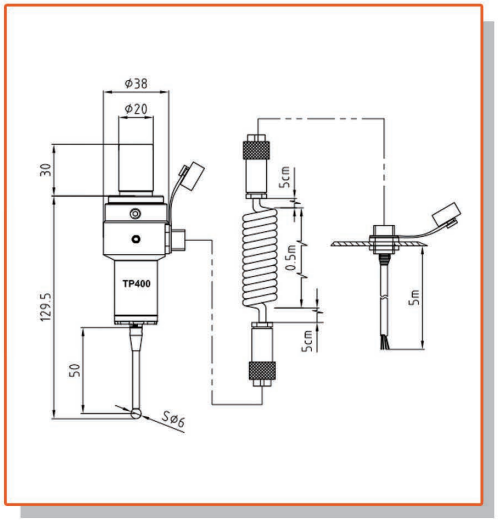
测头的组成

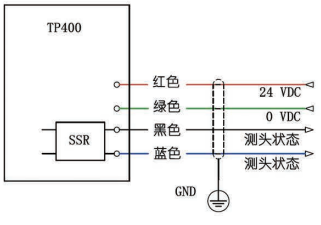
TP400电缆通讯测头由三个部分组成

1）TP400型触发式测头主体（包含测头集成接口）；

2）两条四芯防油屏蔽电缆，其中一条为螺旋电缆两端带航空插头，两条电缆总长度8米；

3）测针（ 标配型号：M4-P50-RB6-S36 ）。





测头及接口的技术参数

◆测针触发方向：±X，±Y，+Z；
◆测针各向触发保护行程：X-Y±15°，Z +5 mm；
◆测针Z向触发力调整范围：1000 g；
◆测针X-Y平面触发力（标准测针）：65-130g；
◆测针任意单向重复触发精度（2σ）：≤2 μm；
◆输入电压：24±10% V DC；
◆输出负载电流：50 mA；
◆防护等级：IP68。

测头的技术特征

◆测头信号输出接口集成在测头内部，触发信号通过电缆传输；
◆测头接口输入电源极性反接可实现输出信号逻辑状态的翻转；
◆测头的测针接口采用双层橡胶密封罩的防护方式；
◆测头采用两段电缆传输信号，其中一段螺旋电缆两端带有航空插头，可以快速安装和拆卸电缆，为测头在不同设备的应用提供了便利。

测头的应用

◆在数控加工工序之前自动设定工件坐标系和加工基准点；
◆在数控加工工序之间自动对关键尺寸和位置坐标及其精度的检测和控制；
◆在数控加工工序之后对工件的关键尺寸、形状和位置精度的检测；
◆测头适用的设备：各种规格的数控磨床，数控车床，数控铣床以及专用测量装置。

测头的基本配置

◆本公司为TP400型测头配备的标准测针型号为： M4-P50-RB6-S36；
◆两条四芯防油屏蔽电缆，其中一条为螺旋电缆两端带航空插头，两条电缆总长度8米。

选购注意事项

◆本关于特殊测针，核实TP400型测头配备的标准测针是否能满足需要，是否需要订购特殊规格的测针；
◆关于测头测针接口密封防护：对于在数控车床上应用的TP400测头，建议客户在订购测头时提出采用金属罩+橡胶密封罩防护的说明。