

TP200 product care guide



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Care of equipment

Renishaw probes and associated systems are precision tools used for obtaining precise measurement and must therefore be treated with care.

Changes to Renishaw products

Renishaw reserves the right to improve, change or modify its hardware or software without incurring any obligations to make changes to Renishaw equipment previously sold.

Warranty

Renishaw Plc warrants its equipment for a limited period (as set out in our Standard Terms and Conditions of Sale) provided that it is installed exactly as defined in associated Renishaw documentation.

Prior consent must be obtained from Renishaw if non-Renishaw equipment (e.g interfaces and/or cabling) is to be used or substituted. Failure to comply with this will invalidate the warranty.

Claims under warranty must be made from authorised service centres only, which may be advised by the supplier or distributor.

Your Renishaw probe and accessories are precision instruments. Please use and maintain the products in accordance with these instructions.

Please retain the transit box for storing the components when not in use.



Caution: The TP200 probe contains sensitive silicon strain sensors.

Permanent damage may be caused if the probe is dropped or subjected to severe shock as may be cause misuse.

Patents

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EP 0243766
EP 0293036
EP 0388993
EP 0392660
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US 5,918,378
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WO 97/35164

TP200 Installation procedure

1. Mounting the probe body on the probe head with M8 connection (see figure 1)

- Take great care not to drop the probe when installing. Mount the probe body on the probe head before fitting the stylus module.
- Screw the threaded end of the probe body into the M8 connector, on the probe head, until it is finger tight. Do not over tighten with your fingers.
- Fit the S1 'C' spanner (supplied) to the location holes and tighten by hand.
- The recommended tightening torque is 0.3Nm – 0.5Nm.

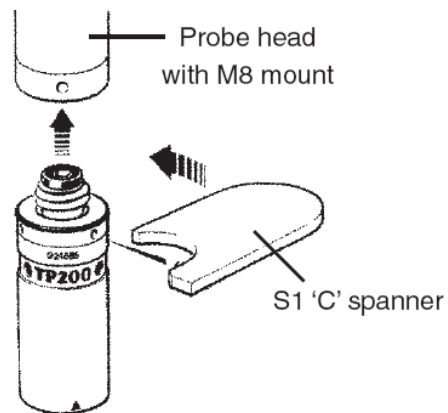


Figure 1: Fitting TP200 sensor to a M8 probe head

2. Mounting the probe body on the probe head with Renishaw autojoint (see figure 2)

- Before fitting to the probe head, screw the probe body to a PAA series adaptor, as instructed for M8 heads.
- Locate the adaptor on the probe head and lock autojoint using S10 key

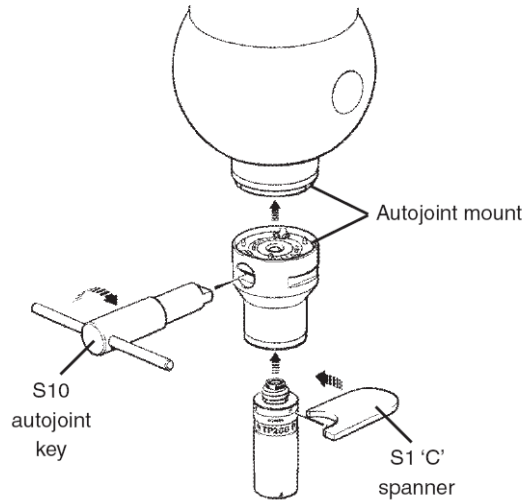


Figure 2: Fitting the TP200 probe sensor to a probe head with an autojoint

3. Assembling a stylus on a stylus module.

- Styli should always be screwed on to the module with the module removed from the probe body. Failure to do this can cause damage to the TP200 sensor.

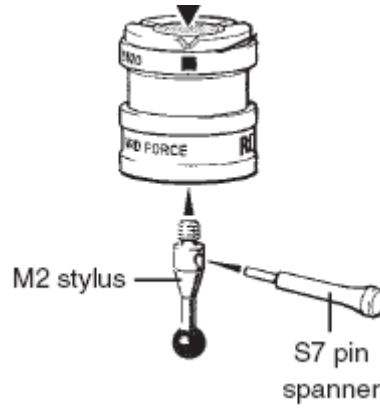


Figure 3: Assembling stylus on to stylus module

4. Mounting the stylus module on the probe body.

- Visually examine the mating faces of the stylus module and probe body for dirt or other contamination. Clean if necessary using CK200 cleaning material (supplied).
- Offer up the stylus module to the probe body ensuring that the alignment symbols are matched. Allow the stylus module to engage under the pull of the magnetic force. It is suggested the module is rolled onto the contacts and not snapped into place as severe shock can damage the TP200 sensor.
- Reset the probe by pressing the RESET button, on the front panel of the PI 200 interface, for 2 seconds to reset the probe to the seated (armed) state.

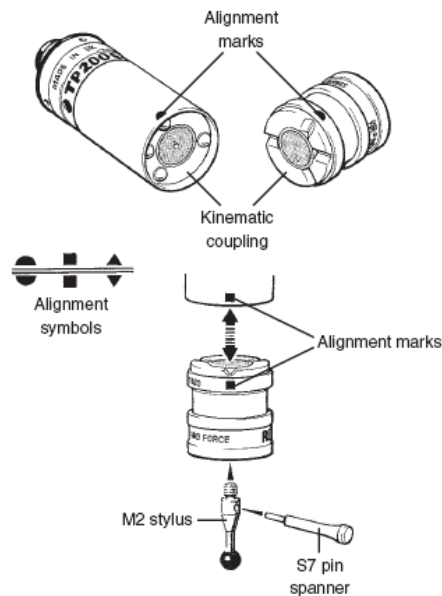


Figure 4: Assembling the stylus on the stylus module and mounting the stylus module on the probe body

Note: An automatic change rack (SCR200) is available which will reduce the risk of damage of the TP200 probe sensor when changing the modules.

5. Stylus module selection

- The SF module is satisfactory for the majority of applications and provides the maximum stylus carrying capability.
- The EO module is recommended for use when increasing the speed of the CMM may lead to stopping distances which exceed the over travel range provided in the SF/LF modules. It is also suggested that this module should be used when the majority of measurements are in the Z axis of the probe. The extra over travel protection of the EO module may prevent damage to the probe if a crash occurs in the Z axis of the probe.

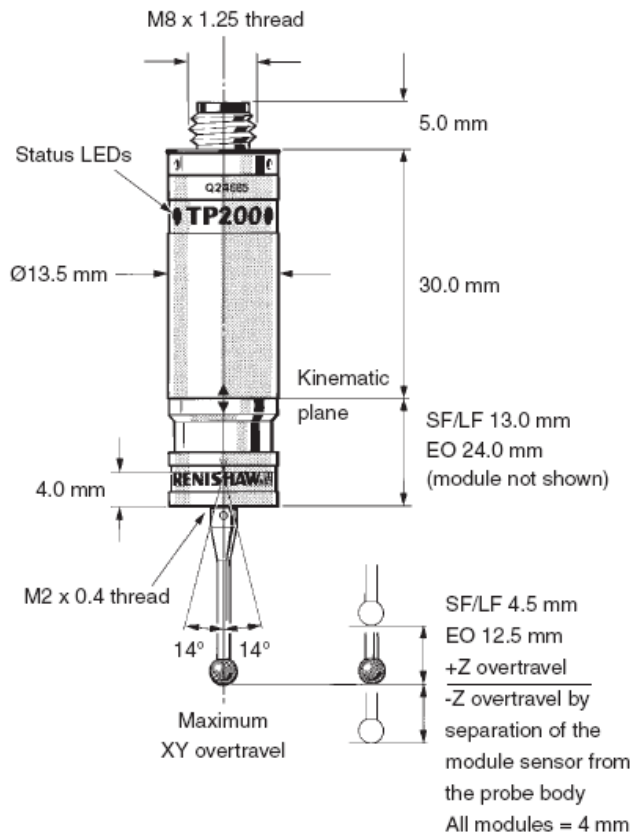


Figure 5: TP200 technical specification

Maintenance

- See figure 6
- Before cleaning the probe body, please ensure either the power is off or that the probe body is removed from the probe head.
- After cleaning the probe body and module re-attach the module following the instructions in the attaching stylus module section above



Figure 6: Cleaning the probe body and stylus module

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