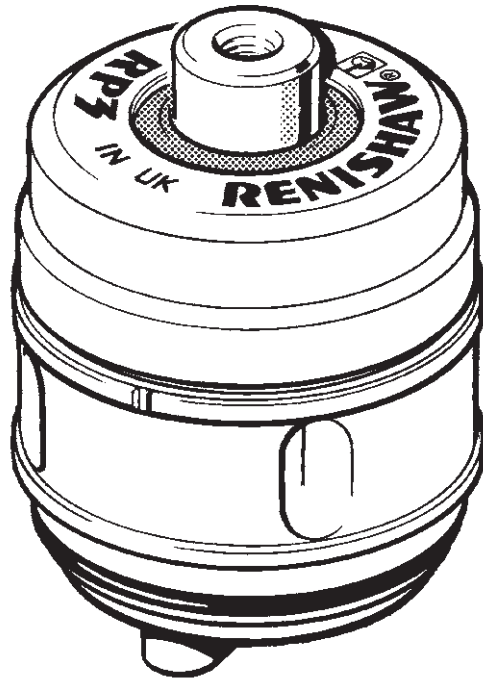


# RP3



Compliance information for this product is available by scanning the QR code or visiting [www.renishaw.com/mtpdoc](http://www.renishaw.com/mtpdoc)



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# Before you begin

## Warranty

Unless you and Renishaw have agreed and signed a separate written agreement, the equipment and/or software are sold subject to the Renishaw Standard Terms and Conditions supplied with such equipment and/or software, or available on request from your local Renishaw office.

Renishaw warrants its equipment and software for a limited period (as set out in the Standard Terms and Conditions), provided that they are installed and used exactly as defined in associated Renishaw documentation. You should consult these Standard Terms and Conditions to find out the full details of your warranty.

Equipment and/or software purchased by you from a third-party supplier is subject to separate terms and conditions supplied with such equipment and/or software. You should contact your third-party supplier for details.

## CNC machines

CNC machine tools must always be operated by fully-trained personnel in accordance with the manufacturer's instructions.

## Care of the system

Keep system components clean and treat the unit as a precision tool.

## Patents

Features of the RP3 and features of similar Renishaw products, are the subject of one or more of the following patents and/or patent applications:

EP 1537376

## Intended use

RP3 is hard-wired 3D kinematic probe that can be used for part set-up and tool setting. It is mostly used in tool setting arms.

# Safety

## Information to the user

In all applications involving the use of machine tools, eye protection is recommended.

## Information to the machine supplier/installer

It is the machine supplier's responsibility to ensure that the user is made aware of any hazards involved in operation, including those mentioned in Renishaw product literature, and to ensure that adequate guards and safety interlocks are provided.

If the probe fails, the probe signal may falsely indicate a probe seated condition. Do not rely on probe signals to halt the movement of the machine.

## Information to the equipment installer

All Renishaw equipment is designed to comply with the relevant UK, EU and FCC regulatory requirements. It is the responsibility of the equipment installer to ensure that the following guidelines are adhered to, in order for the product to function in accordance with these regulations:

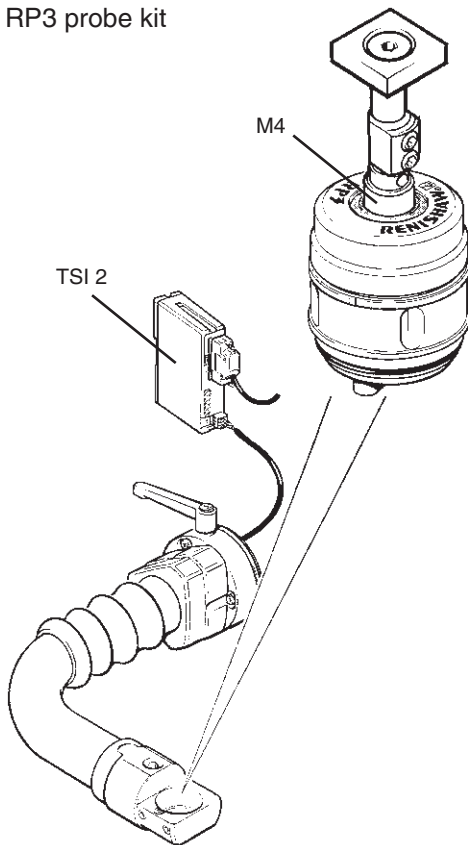
- Any interface MUST be installed in a position away from any potential sources of electrical noise, for example, power transformers, servo drives etc.;
- All 0 V/ground connections should be connected to the machine "star point" (the "star point" is a single point return for all equipment ground and screen cables). This is very important and failure to adhere to this can cause a potential difference between grounds;
- All screens must be connected as outlined in the user instructions;
- Cables must not be routed alongside high current sources, for example, motor power supply cables etc., or be near high-speed data lines;
- Cable lengths should always be kept to a minimum.

# RP3 basics

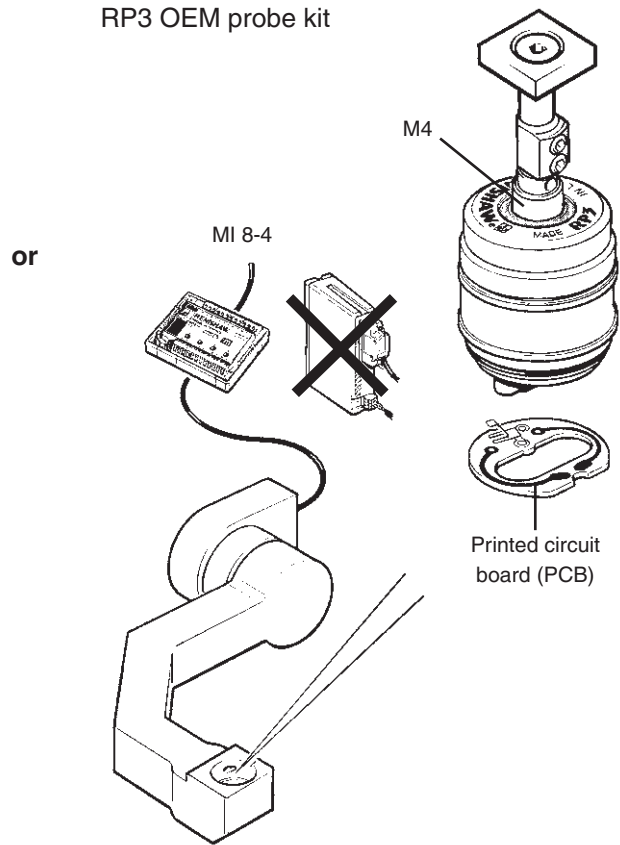
## RP3 system kit

Renishaw arm (HPRA configuration shown)

RP3 probe kit

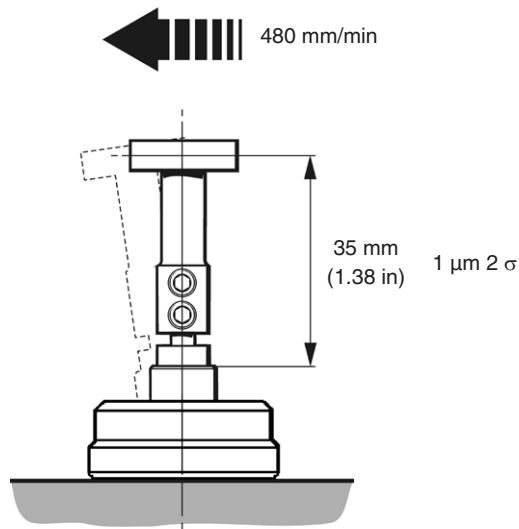


RP3 OEM probe kit

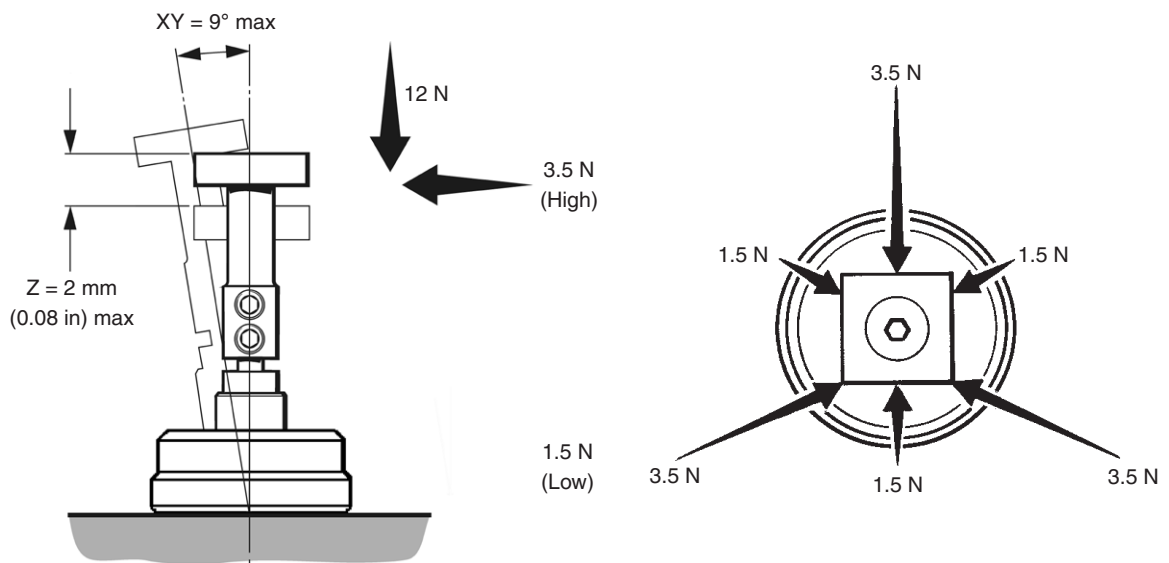


# Specification

## RP3

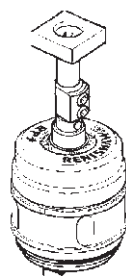
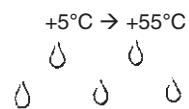


## Trigger force

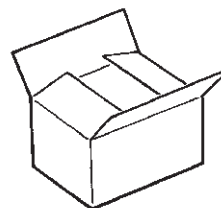


1.5 N = 150 gf/5.3 ozf 3.5 N = 350gf/12.3 ozf 12 N = 1200 gf/42.3 ozf

## IPX8



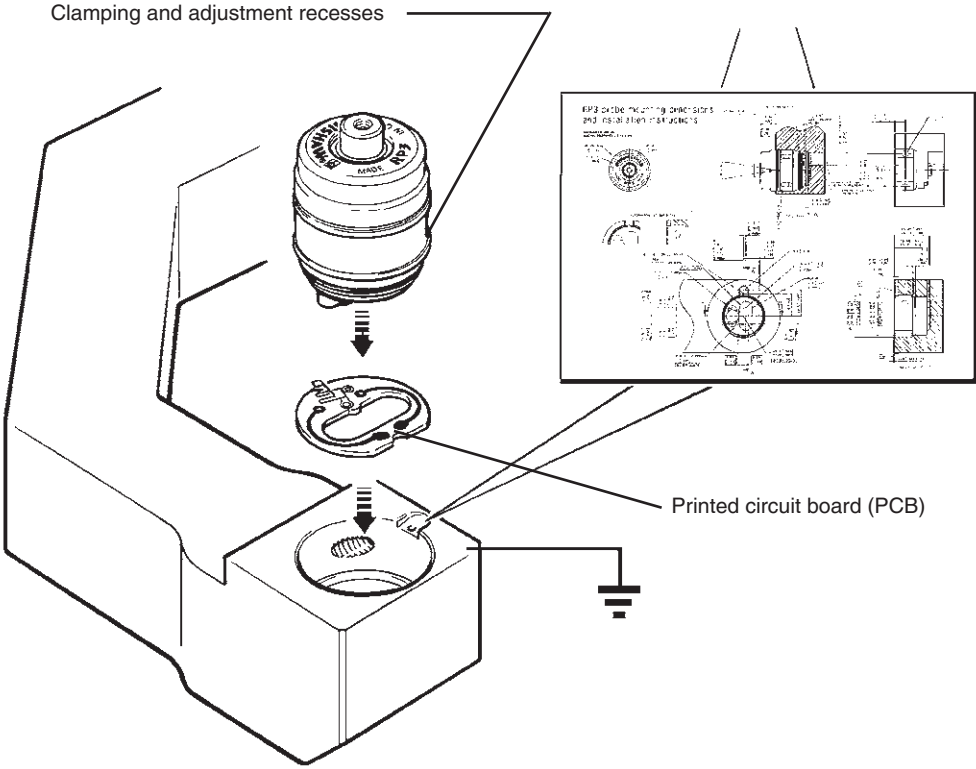
-10°C → +70°C



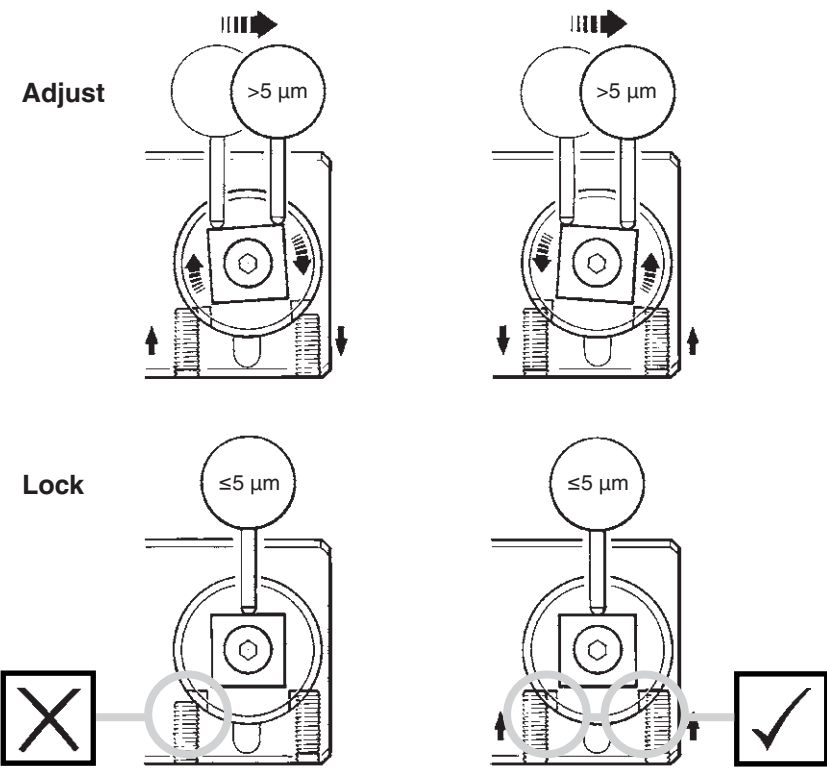
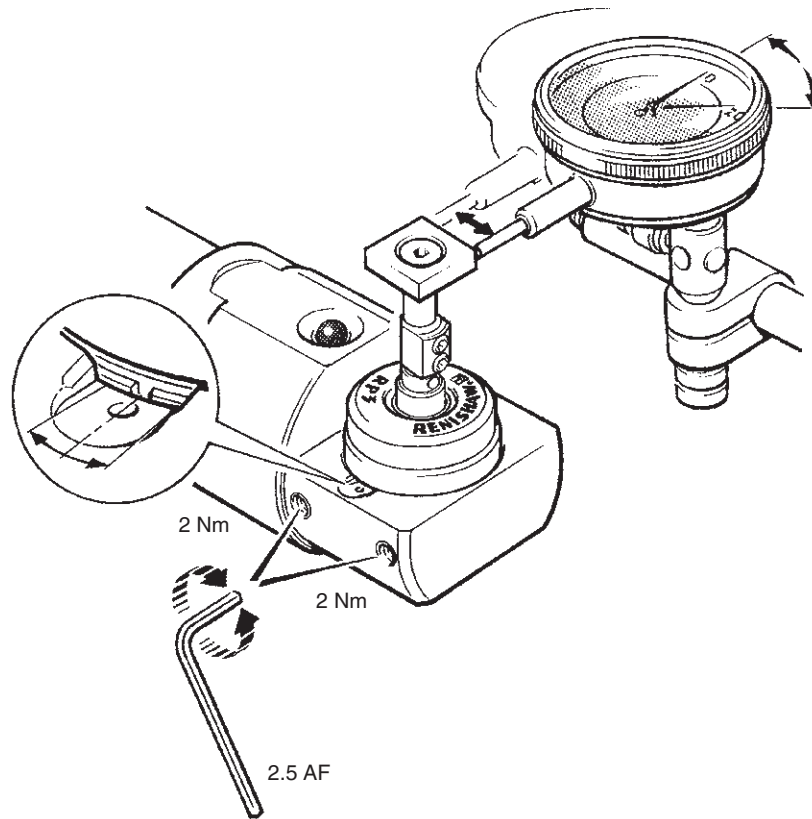


# System installation

## Mounting design for a non Renishaw arm

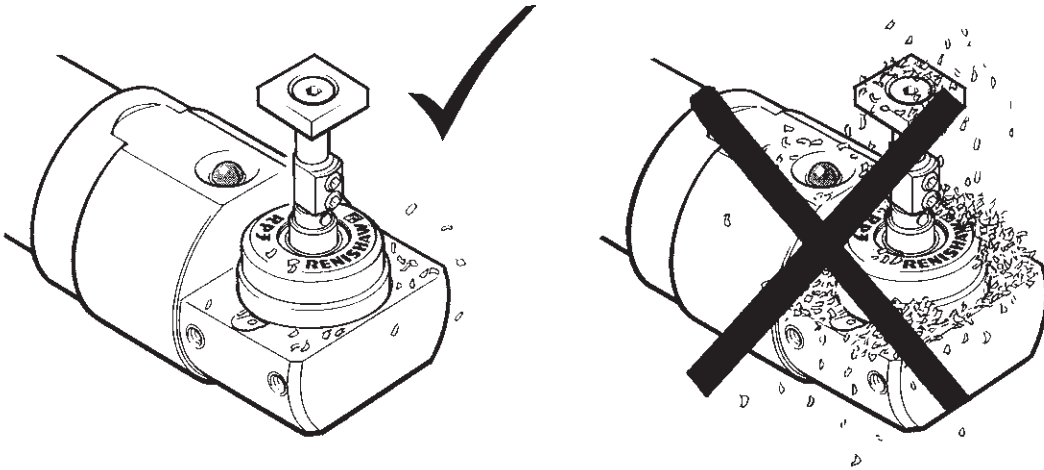


# RP3 probe adjustment

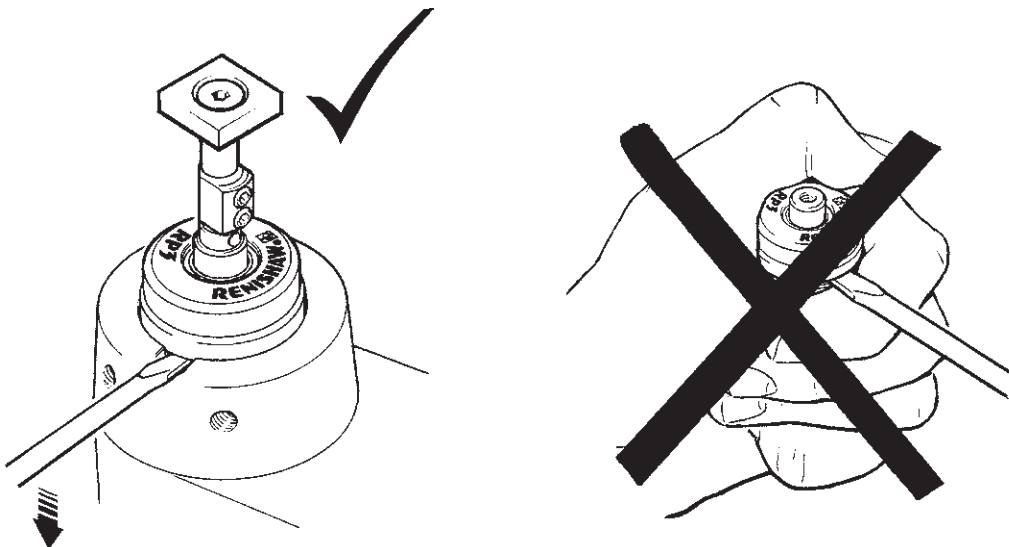


# Maintenance

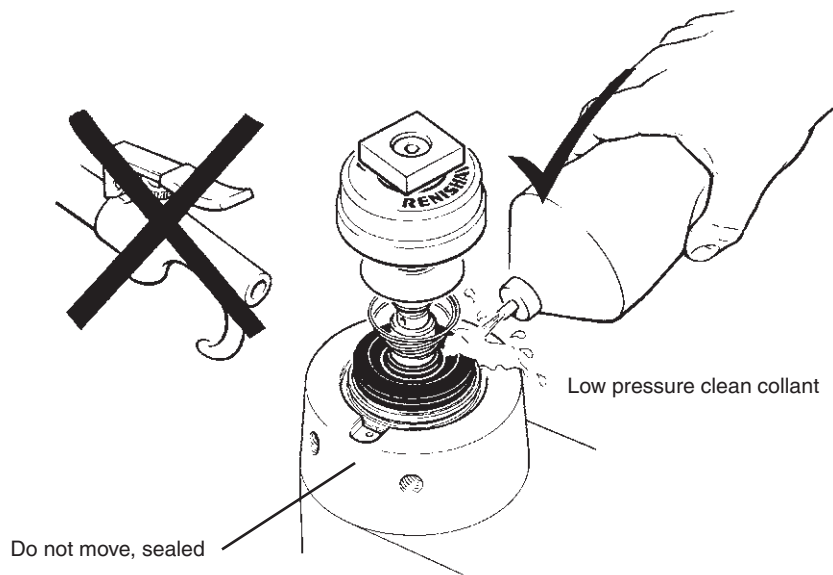
## Probe care



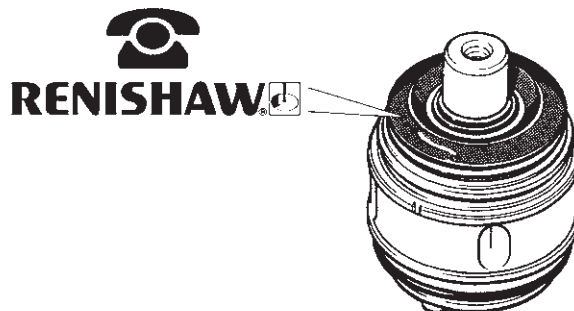
## Cover removal



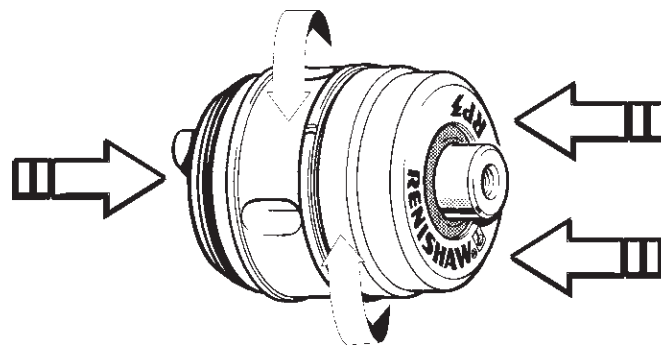
## Cleaning



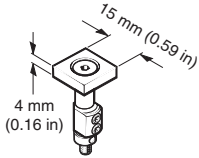
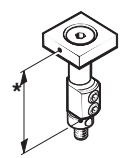

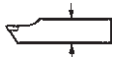
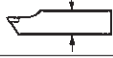
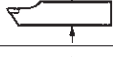



## Diaphragm inspection



## Refitting the cover



# Parts list

Recommended for:	 Stylus assembly	 * Stylus length	 Break stem
 16 mm	A-2197-0157	14.2 mm (0.56 in)	M-2197-0156
 20 mm	A-2197-0158	19.5 mm (0.77 in)	M-2197-0156
 25 mm	A-2197-0159	29.5 mm (1.16 in)	M-2197-0150
 32 mm	A-2197-0160	34.5 mm (1.36 in)	M-2197-0150
 40 mm	A-2197-0161	39.5 mm (1.55 in)	M-2197-0150
 50 mm	A-2197-0162	49.5 mm (1.95 in)	M-2197-0150

Type	Part number	Description
RP3 probe kit	A-2197-0049	RP3 probe and packaging.
RP3 OEM kit	A-2197-0007	RP3 probe, RP3 OEM PCB, and packaging
RP3 front cover kit	A-2197-0006	RP3 front cover, eyelid, and eyelid spring
MI 8-4 interface	A-2157-0001	MI 8-4 interface
HSI interface	A-5500-1000	HSI interface
HSI-C interface	A-6527-1000	HSI-C interface
TSI 2 interface	A-2176-0010	TSI 2 interface
TSI 3 interface	A-2181-0465	TSI 3 interface
<b>Publications.</b> These can be downloaded from our website at <a href="http://www.renishaw.com">www.renishaw.com</a> .		
RP3	H-2000-2014	Tool setting/inspection probe data sheet.
HSI	H-5500-8554	Installation guide: for set-up of the HSI.
HSI-C	H-6527-8501	Installation guide: for set-up of the HSI-C.
MI 8-4	H-2000-5008	Installation guide: for set-up of the MI 8-4.
HPPA and TSI 2 / TSI 2-C	H-2000-5186	Installation guide: for set-up of HPPA and TSI 2 / TSI 2-C
HPMA and TSI 3 / TSI 3-C	H-2000-5347	Installation guide: for set-up of HPMA and TSI 3 / TSI 3-C

[www.renishaw.com/rp3](http://www.renishaw.com/rp3)



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