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RCS PK1 hard-wired robot probe

Designed for industrial automation

The RCS P-series PK1 is a Renishaw hard-wired probe specifically designed for use on industrial robots. This robust probe can be used for varied robot applications and can be mounted alongside any end-of-arm tooling, including spindles, grippers, welding torches, and spray guns. The RCS PK1 probe provides fast, accurate part frame alignment, allowing you to set up and recover robot cells efficiently and reliably.

Features and benefits

- **Increase throughput** — remove the need for manual robot reteaching after cell relocation, maintenance, or collision, resulting in less robot downtime.
- **Easy mounting** — designed with a direct robot mount to easily fix the probe to a robot, with an ISO 9409 bracket or M4 threaded fixturing.
- **Robot specific** — Renishaw's first line of probes designed for use on robots, suitable for harsh environments and conforming to IPX8 rating.
- **Value for money** — offers our most affordable probe option for robots.
- **Hard-wired** — provides a reliable and trustworthy connection type for easier set up and reduce loss of transmission.
- **Reduce waste** — calibrated probes produce more accurate product resulting in less waste and support lean manufacturing.





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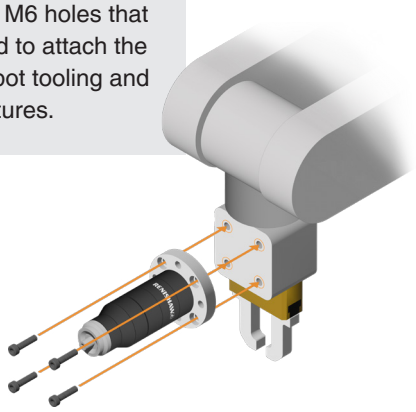
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Mounting method

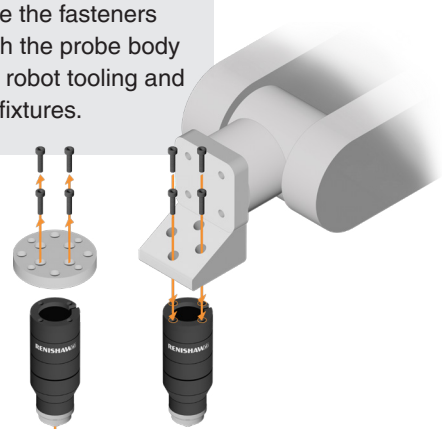
ISO bracket mount

Featuring 8 M6 holes that can be used to attach the probe to robot tooling and fixtures.



Direct mount

Remove the fasteners and attach the probe body directly to robot tooling and fixtures.



Specification

Recommended styli		M4 50 mm to 100 mm stylus. Material of the stylus depends on the application. Use of an in-line break stem is advised.
Weight		480 g
Sense directions		Radial (XY) / Axial (Z)
Unidirectional reliability		1.00 µm (40 µin) 2s 1
Stylus trigger force 23 **Radial low force** **Radial high force** **Axial direction**		 1.00 N, 102 gf (3.59 ozf) 1.85 N, 188 gf (6.65 ozf) 7.40 N, 754 gf (26.61 ozf)
Stylus overtravel limits radial plane		14.87 mm (0.55 in) ±12.5°
Stylus overtravel limits axial plane		6.5 mm (0.26 in)
Mounting		ISO 9409-1-50-4-M6
Environment	**IP rating**	IPX8, BS EN 60529:1992+A2:2013
	Storage temperature	–10 °C to +70 °C (14 °F to +158 °F)
	Operating temperature	+10 °C to +40 °C (+41 °F to +131 °F)
Cable		4 core screen cable with polyurethane sheath. Each core 7/0.2 insulated. Ø 4.35 mm X 1.0m (3 ft 3 in).
Contact type		Normally open or normally closed.
Supply voltage		12 Vdc to 30 Vdc
Supply current		18 mA nominal, 25 mA max
Output current		50 mA max
Protection		Short circuit.



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