

# 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

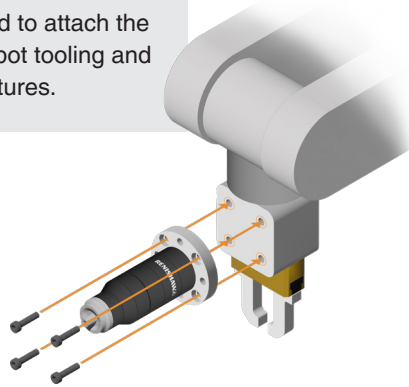
- **Increase throughput** — remove the need for manual robot reteaching after cell relocation, maintenance, or collision, resulting in less robot downtime.
- **Easy mounting** — designed with a direct robot mount to easily fix the probe to a robot, with an ISO 9409 bracket or M4 threaded fixturing.
- **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.



## Mounting method

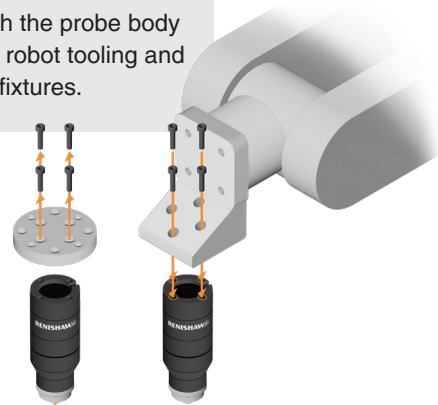
### ISO bracket mount

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

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



[www.renishaw.com/industrial-automation](http://www.renishaw.com/industrial-automation)



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