

# Renishaw multi-axis periscope (3-axis) RMAP-3A

### For the fibre optic laser encoder

The multi-axis periscope has been designed to enable three RLD10-X3-DI detector heads to measure the linear position, pitch and yaw along a single axis. To achieve this, the multi-axis periscope uses a series of mirrors to minimise the beam foot print from the three detector heads to reduce the size of the target mirror required for these applications. This compact periscope, which can be mounted directly onto the exterior of the vacuum chamber, increases the measurement flexibility of the RLD10-X3-DI detector head.

# General outline and dimensions

Dimensions in mm

**Overall dimensions:** 

231

41.5

137.6

Length:

Width:

Height:

94





#### System specification

Linear range	With RLD10-X3-DI	0 m to 0.65 m
Angular range	Pitch	± 30 arcsec
	Yaw	
Analogue signal period	Linear	Same as standard RLD10-X3-DI
	Pitch	2.3 arcsec
	Yaw	
Thermal drift coefficient	Linear	Same as standard RLD10-X3-DI
	Pitch	1.8 arcsec/°C
	Yaw	
Beam steerer adjustment range	With RLD10-X3-DI	Reduced to $\pm 0.5^{\circ}$
Change in signal strength though periscope (relative to linear)	Linear	No change
	Pitch	< 10%
	Yaw	

#### **Operating environment**

Pressure	Normal atmospheric (650 - 11	Normal atmospheric (650 – 1150 mbar	
Humidity	0 – 95% RH (non-condensing)	0 – 95% RH (non-condensing)	
Temperature	Storage	-20 °C to 70 °C	
	Operating	10 °C to 40 °C	

For more information on the Multi-axis periscope see www.renishaw.com/rmap.

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## Dimensions and beam foot prints

### Beam foot print dimensions



#### For worldwide contact details, visit www.renishaw.com/contact

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