

# Low power RLD detector heads

## For the fibre optic laser encoder

Renishaw's RLE fibre optic laser encoder uses interferometry to provide high resolution, high linearity position feedback.

The RLE system comprises an RLU laser unit and one or two RLD detector heads. This data sheet describes the low power variants of the RLD detector head.

Detector heads are available in low power options for applications requiring a power dissipation lower than the specified < 2 W of the standard RLD. To minimise power dissipation the internal circuitry has been changed and the power LED has been removed; its location has been blackened to avoid confusion.

All deviations from the standard RLD10 are covered in this data sheet - other parameters can be assumed identical to the standard RLD10 as detailed in *RLD10 0° detector head data sheet* (Renishaw part no. L-9904-2348) and *RLE fibre optic laser encoder installation guide* (Renishaw part no. M-5225-0568).

## Specification deviation

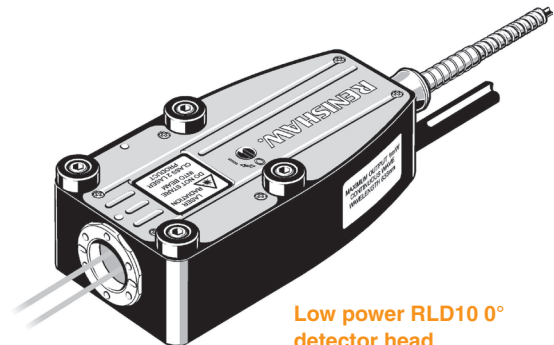
Heat dissipation	0.14 W
Nominal data age*	2.9 $\mu$ s
Maximum speed**	23.7 mm/s (PMI / DI)
	47.4 mm/s (RRI)

- \* This has an estimated axis-to-axis variation of  $\pm 3\%$
- \*\* This applies to all available digital quadrature output resolutions and analogue quadrature output.

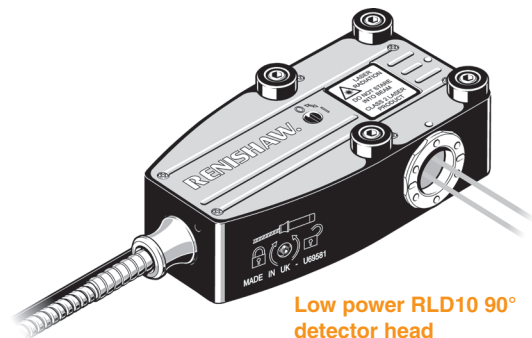
## Legislative - Laser safety:

In accordance with IEC/EN60825-1, IEC/EN60825-2 and US standards 21CFR 1040 and ANSI Z136.1, Renishaw RLE lasers are Class II lasers and safety goggles are not required, since the blink reaction of a human will protect the eye from damage. Do not stare into the beam or shine it into the eyes of others. It is safe to view a diffuse-reflected beam. Do not dismantle the unit in any way; doing so may expose laser radiation in excess of Class II limits.

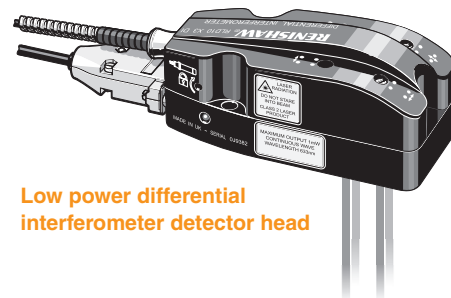
Renishaw reserves the right to change specifications without notice.



Low power RLD10 0° detector head



Low power RLD10 90° detector head



Low power differential interferometer detector head

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