**What is the MTBF (Mean Time Before Failure) for Renishaw optical encoders ?**

Please refer to the example below for RGH24/RGH25 readhead reliability:

MTBF ($M$) = $\frac{pt}{n}$

Where $p$ installed population of readheads

 $t$ average length of service

 $n$ total relevant failures

From our records (yearly production figures and failure data), readhead MTBF in continuous use is 2,013 years

As a practical example, if a customer has 28 three axis machines, the installed readhead population ($p$) is 84. The mean interval ($t$) between any readhead failure (i.e. n = 1) may be calculated by rearranging the MTBF formula:

$t$ = $\frac{Mn}{p}$ = $\frac{2,013 years\*1}{84}$ = approximately 24 years

Therefore with a total of 84 readheads running 24 hours per day, this customer could expect a single readhead failure approximately once every 24 years.

This information is not a guarantee of product reliability and does not represent a condition of warranty.

For MTBF data for other Renishaw encoder series, please contact your nearest Renishaw representative.