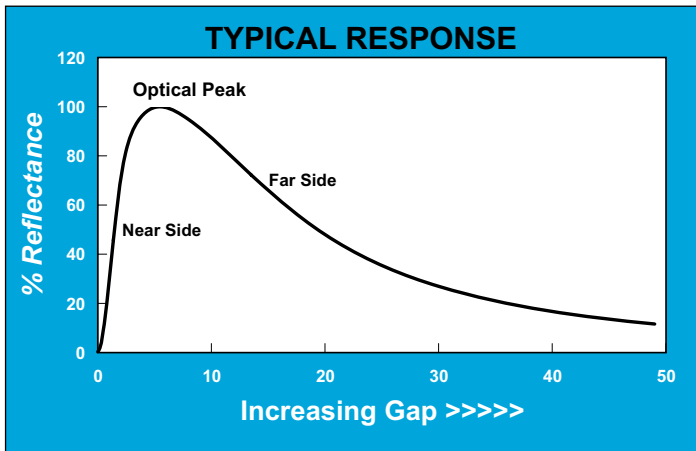


CUSTOMIZING SENSOR PERFORMANCE

D Reflectance Dependent - D model sensors - have a doubled valued output function: a positively sloped near side and a negatively sloped far side. This can give rise to a problem in an automated gaging system, where the reading from the sensor does not provide a unique measure of the sensor to target gap.



APPLICATION

The Problem

In the measurement of precision gear profiles, the gear to be measured is mounted on an arbor and loaded against a reference gear of known geometry. Deflections of the arbor are then recorded for subsequent analysis. The model D63 far side provided the customer with the required values of range, standoff and resolution. However, the double-valued response was undesirable.

The Solution

Build a custom sensor tip with the fiberoptics recessed so the near side response is eliminated.

The Sale

The customer purchased 10 pieces each of the following unit:

model DMS-D63-T7

These units have custom tips to eliminate the near side response from the sensor. The chart below shows the resulting sensor output function.

