Philtec Application Note

Nov 2003

Ink Jet Printers

The Problem

How to determine the optimum distance between the print head and the paper.

Paper will curl when wet ink is applied. The amount of curl depends upon the type and thickness of the paper, the inking rate, and the drying time of the ink. For the best print quality, the ink head must be kept as close to the paper as possible.

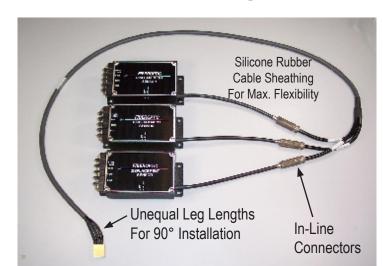
The Solution

Use Philtec RC fiberoptic sensors installed in the print head cartridge to measure the distance from the print head to the paper.

Tests conducted by leading manufacturers of ink jet printers have shown that Philtec's RC sensors accurately measure the distance to paper coated with wet or dry, or drying ink. Because they are reflectance compensated, they measure distance with 98% success as high sheen wet ink dries to a less reflective state. One engineer reported that he could virtually "measure the change in thickness of the ink as it dried". With multiple sensors in the head, alignment and distance can be measured.

Triple Sensor System for Mounting In Print Head Cartridges





Custom Solutions To Customer Specifications

PHILTEC®

www.philtec.com

Fiberoptic Sensors for the Measurement of Distance, Displacement and Vibration