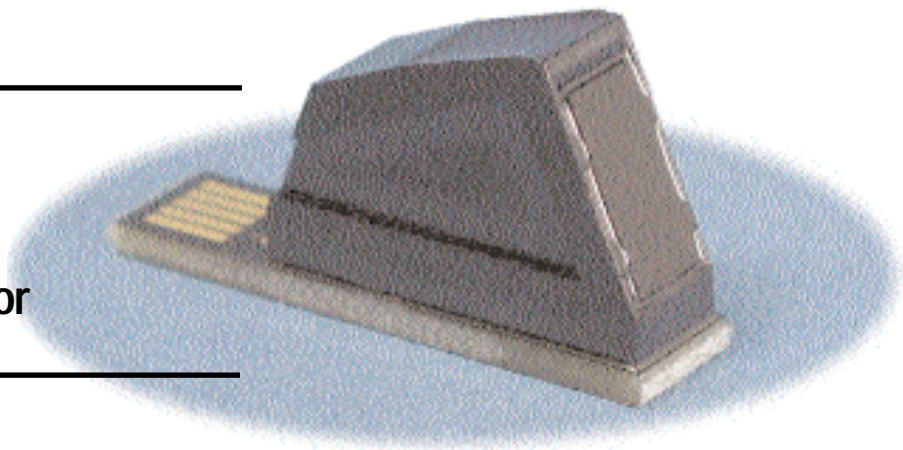


Product Bulletin

Spreeta™-R

TSPR2KXY-R Refractive Index Sensor



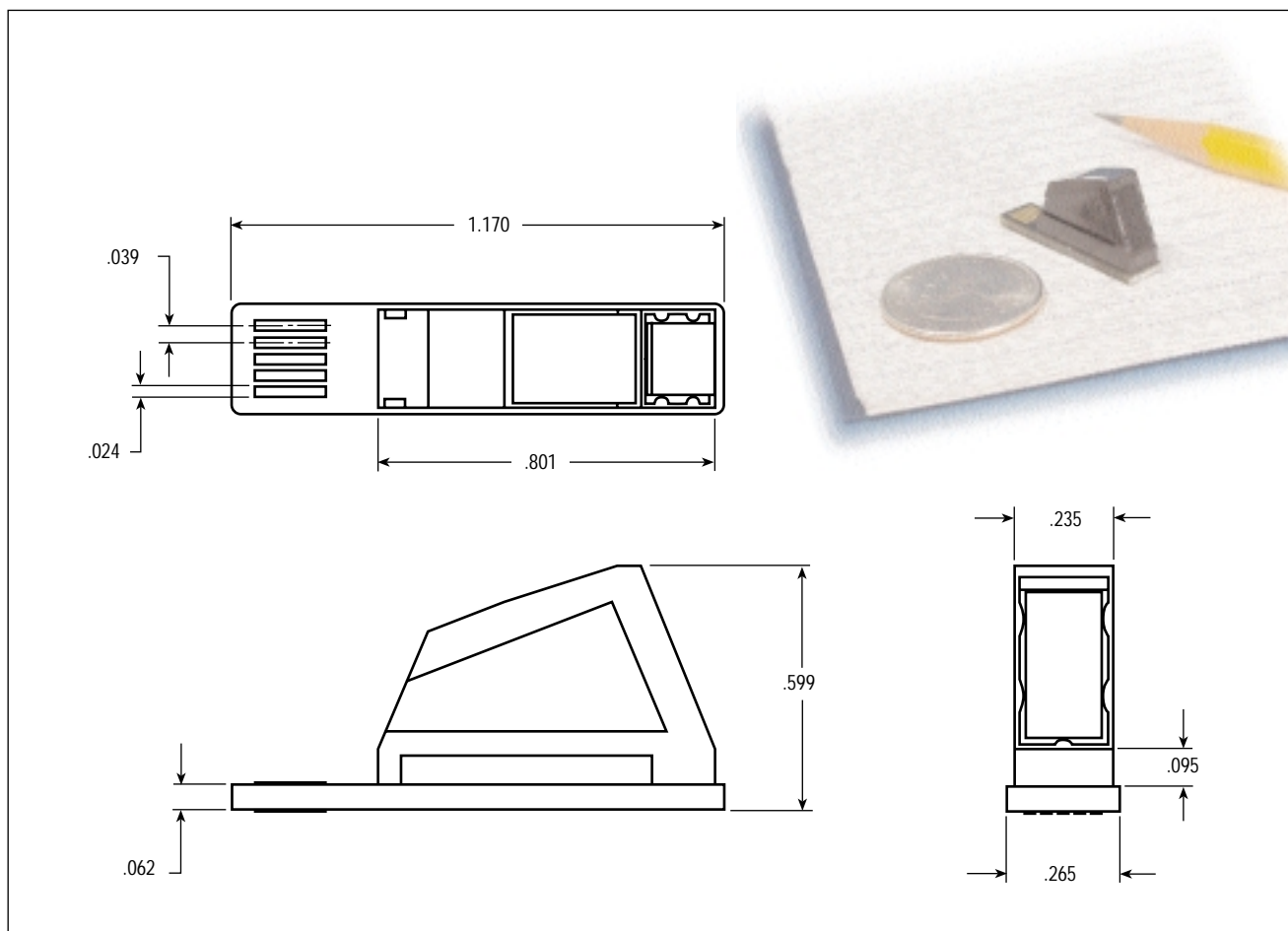
Spreeta-R is an optical based sensing technology for real-time, liquid quality and/or concentration analysis. Spreeta-R is a miniaturized, self-contained optical system that measures the refractive index of liquid samples rapidly and affordably. Spreeta-R's unique design enables the development of refractive index based, high performance and low cost measurement systems. Spreeta-R is an ideal refractive index platform for in-line, tabletop, portable and handheld products.

Spreeta-R's patented approach to refractive index measurements enables key instrument activities such as: ease of instrument design, ease of instrument use and low overall cost of ownership. Texas Instruments can provide assistance with electronics, software and fluidics to facilitate instrument design.

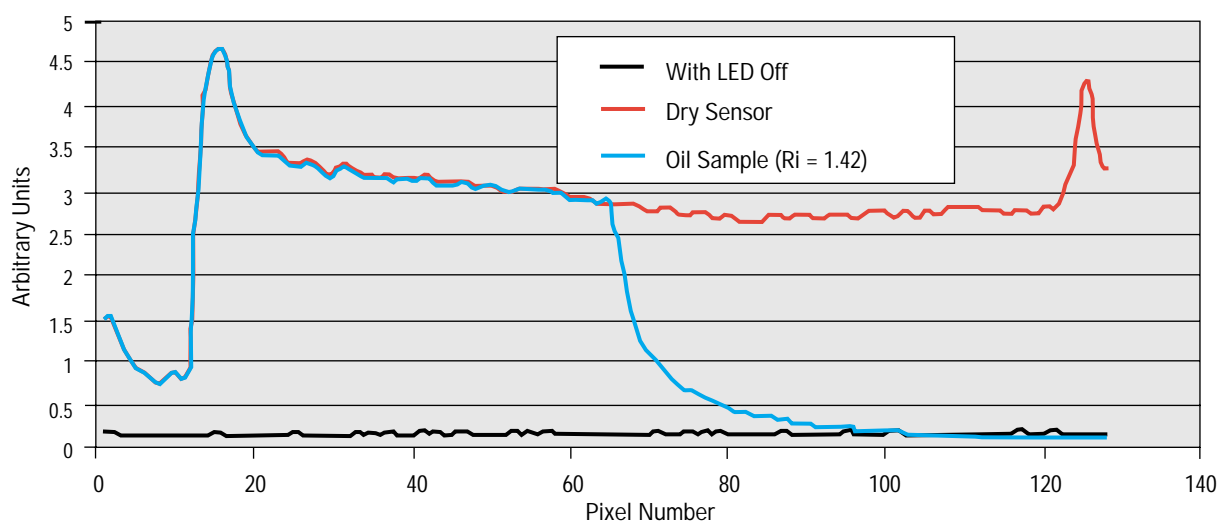
A Spreeta-R based instrument enables affordable quality control information any place liquids are produced, mixed or degraded:

- Concentration Measurements
 - food
 - beverage
 - syrup production
- Fluid Quality
 - cutting fluids
 - automotive fluids
 - oils

Refractive Index Range:	1.333 to 1.50
Resolution:	5e-6 RIU (minimum)
Drift:	Application specific a function of instrument design
Accuracy:	better than 1% of calibrated range (application specific)
Electrical Connection:	10 pin card edge connection
Operating Voltage:	5Vdc
Input Current:.....	<100mA when LED's in use; <5mA when LED off
Sensor Dimensions:	Length: 3 cm Width: 0.7 cm height: 1.5 cm
Operating Temp. Range:	-10°C to 70°C
Temperature Compensation:	Application specific
Other Features:.....	Customized software/hardware designs internal memory chip to enable "smart sensor" functions



Typical Response Curve



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