ELECTRICAL

SENSORS & SWITCHES

PARTNERING TO ADVANCE THE FUTURE OF FLIGHT THROUGH SENSING SOLUTIONS

RELIABILITY. ACCURACY. PERFORMANCE.

At Unison, a GE Aviation owned subsidiary, we design, manufacture and supply customized sensor solutions. Our product range includes a full suite of advanced Temperature and Speed Sensors, Pressure and Limit Switches and Bellows capable of harsh on-engine, airframe and industrial applications. We offer strong field-tested sensors design pedigree, a full spectrum of applicable engineering and testing capabilities with a problem-solving, service-oriented, partnering mindset. We strive to be our customer's partner and one-stop supplier of choice for advanced sensing.

With more than 35 years of experience, Unison has designed over 230 distinct sensor-types and shipped over 160,000 sensors over the last 10 years. We serve all the major global OEMs and MROs within commerical and miltary aerospace, marine, and industrial applications.

SENSORS

Our Temperature and Speed sensors are designed to withstand harsh environmental conditions for both high altitude, high performance aircraft to marine and ground-based turbine and industrial applications. We continually invest in advanced sensing solutions, pushing the boundaries of our capabilities in service of our customer's critical Sensing needs.

SWITCHES

Unison offers precision absolute and differential pressure switches, as well as high temperature mechanical position or limit switches for harsh environment applications.

BELLOWS

Unison manufactures tightly controlled, thin-walled, precision hydroformed bellows as a stand alone assembly or for use in switches serving as either a flexible mechanical seal or a precision pressure sensing element.

TYPICAL CHARACTERISTICS

THERMOCOUPLE SENSOR

Temperature	Up to 2300°F
Response Time	2.5s @ 0.45 Mach
Advanced Materials	Inconel™ 600, Inconel™ X - 750, Haynes 188, RENE N5
Accuracy	± 6°F @ 1500°F, ± 4.4°F @ 1100°F

RTD SENSOR

Temperature	-123°F – 1400°F
Response Time	<5s @ 9lb/s/ft^2
Accuracy	Per IEC 60751 Class A or B typical
Resistance	100, 200, 500 Ohm typical
Common Applications	Air, Oil, Fuel temperature sensing

SPEED SENSOR

Speed Range	50 to 30,000 RPM
Output Amplitude	0.5 to 125 volts peak to peak
Pulse Shape	Approximately Sinusoidal Symmetrical around zero
Physical Air Gap	.015 to .050 inches
Operating Temperature	-65°F to 500°F

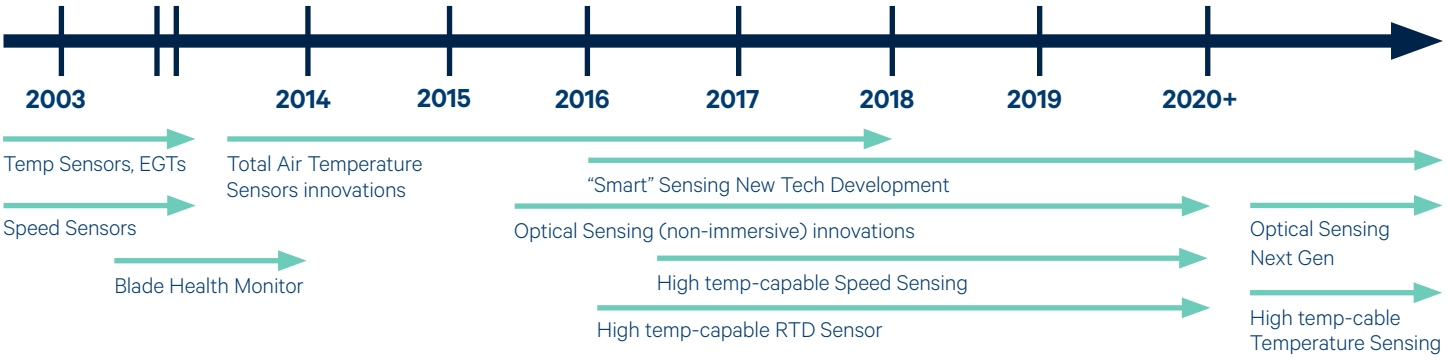
LIMIT/POSITION SWITCH PERFORMANCE

Electrical Rating	0 - 10 amps at 0 - 32 volts (Logic Level Available)
Temperature Range	-65°F to 650°F
Endurance Life	50,000 - 100,000 cycles
Vibration Resistance	20Gs 10 - 20,000 hertz
Shock Resistance	50Gs
Dielectric Strength	>1000 volts

BELLOWS PERFORMANCE

Temperature	-125°F to 350°F (Oil filled up to 800°F)
Operating Pressures	200-300 psia internal, 2-22 psia external, 180 - 300 psia differential, Up to 1050 psig max
Materials	Inconel™ or 300 series Stainless Steel
Vibration and life	Per MIL-E-8595 150,000 cycles
Working Stroke	.005 to .250+ in

UNISON INNOVATIONS



UNISON

WHY UNISON?

As a global leader in aviation performance solutions, we have the products and experience to solve your toughest aviation problems.

To learn more our team is ready to help! Contact us for additional information:

Contact.Us@UnisonIndustries.com

Visit us at www.UnisonIndustries.com

Call your Unison sales representative