



## TECHNICAL DATA SHEET

# ZeroWear™ Multifinger Caliper Sensors

ZeroWear™ multifinger caliper sensors offer a unique and innovative approach to well integrity data acquisition in hostile environments. Designed and engineered by READ, these pioneering sensors achieve a much higher level of accuracy in harsh logging conditions, compared to standard tungsten carbide coated sensors.

ZeroWear™ presents an entirely new approach to sensor design. It replaces the traditional spray-on coating with a patented method of construction, using a metal matrix infused with spherised tungsten that is fused directly to the beryllium copper sensor body. This creates a virtually indestructible bond between the materials, and gives the multifinger caliper sensor a solid tungsten carbide tip that can withstand the harshest of well environments.

### APPLICATIONS:

- Data acquisition in typically benign well conditions allowing the de-risking of the survey
- Robust logging in harsh environment sour service wells where H<sub>2</sub>S and CO<sub>2</sub> degrade traditional spray-on coatings
- Highly accurate measurement of badly corroded tubulars which are extremely abrasive to standard caliper fingers
- Long logging intervals (typically long horizontals)
- Slotted liner / perforated intervals where sharp burrs occur

### BENEFITS

- Highly durable downhole solution for well interventions in high temperature and high H<sub>2</sub>S / CO<sub>2</sub> conditions
- Improved understanding of well integrity from high-density, high-precision measurements of tubular dimensions
- De-risk your data acquisition and ensure data accuracy first time
- Improved decision making
- Suitable for all well deviations, including horizontal
- Comprehensive range of log analysis and report services available from READ



# Specifications

	Compact fingers	Extended fingers
Temperature rating	430°F (220°C)	
Pressure rating	20,000 psi (137.9 MPa)	
Tool compatibility	MFC 24 / 40 / 60 / 80	
Measurement range	1.75 - 14 in (44 - 355 mm)	1.75 - 20 in (44- 508 mm)
Accuracy, radial	±0.03 in (0.76 mm)	
Resolution, radial	±0.005 in (0.127 mm)	
Finger tip width	0.063 in (1.60 mm)	
Finger contact force	0.75 - 1.25 lbf (3.4 - 5.7 N)	
Logging speed	Recommended: 30 ft/min (10 m/min) Maximum: 60 ft/min (20 m/min)	
Nominal Casing/Tubing range	2 <sup>3</sup> / <sub>8</sub> - 13 <sup>5</sup> / <sub>8</sub> in	2 <sup>3</sup> / <sub>8</sub> - 20 in
Materials	Corrosion resistant throughout	