

PIEZO STRAIN SENSOR

For crimp force monitoring applications



High Sensitivity Dynamic Sensor

High Performance

- Excellent sensitivity and repeatable performance.
- Ideally suited for general purpose crimp monitoring applications.

Integration

- Simple and low cost installation – The sensor is mounted on the frame of the press with 1 bolt.
- Designed for installation onto existing or new presses

Compatibility

- Universally adaptable to a wide range of press models and sizes from 2 to 25+ tons.
- Electrically compatible with most Crimp Force Monitor systems.

Reliability

- Piezo-based sensor technology with a high level of resolution, repeatability, and reliability.
- Mounting arrangement eliminates mechanical failures typically experienced with direct impact force ring sensors.
- Hermetically sealed sensor unaffected by lubricants.
- Built-in IEPE electronic circuit facilitates signal output transmitted over long cable distances using standard coax cable with no degradation from electrical or magnetic noise.

Patents
2000 US Patent No. 7,216,625 B1

OES Strain Sensor

High Performance and Reliability

Strain exerted through the press frame during the crimping process is converted into high resolution electrical signals

TECHNICAL SPECIFICATIONS		
Sensitivity	40	mV/ $\mu\epsilon$
Dynamic Range	120	$\mu\epsilon$
Low Frequency Limit	0.1	KHz
Resonance Frequency	14.7	KHz
Temperature Frequency (Operating)	-40 to +85	°C
Supply Current	2 to 20	mA
Supply Voltage	18 to 30	VDC
DC Bias Voltage	8 to 12	VDC
Electrical Connector	Coaxial 10-32 UNF	type
Mounting Screw	M6 x20, conical head	type
Mounting Torque	10	Nm
Size	17 x 46 x 15.2	mm

OES Strain Sensor

OES strain sensors interfaces with OES's crimp force monitors

FORCEWorx™



FORCEView™



Typical Piezo Strain Sensor Mounting locations – Steel Frame and Cast Iron Frame Presses

OES Strain Sensor was introduced by OES for crimp force monitoring applications. Now widely adopted by the wire processing industry as a proven and effective sensor for assurance of crimp quality.

About OES Technologies

OES Technologies products and technologies are developed specifically for the wire processing industry to monitor and inspect 100% of parts produced during the manufacturing process, and prevent part defects from entering the supply chain. OES's dedication to innovation enables them to deliver a steady stream of cutting-edge technologies that meet the exacting demands of this ever-changing market.