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HazardPRO[™] Insight[⊮] Sensor Tester

Features

- · Easy to use hand-held tool with illuminated display
- · Quick Connect M12 connectors for fast testing
- Battery powered, USB C rechargeable
- Test HazardPRO sensor & system performance
- Dedicated Test Function Buttons for Sensors & System Verification
- Timer Function for System Responsiveness Check



Description

The Insight^{HP} tester is a sensor signal measurement and emulation tool for field testing HazardPRO systems. When connected between a HazardPRO sensor and node input, user-directed tests measure, display and copy the sensor signal, modifying and outputting it to the node for system warning and shutdown tests. TEMP and SPEED tests emulate bearing/rub-block heat-up and conveyor slow-down by ramping the output signal from the sensor input level to the set final level at the set rate. Signal ramps may be paused (signal holds constant), resumed and reversed. Paused output signals may also be manually stepped. CONTACT emulates a plugged chute by inverting the contact output relative to the input. TIMER emulates a stopped conveyor by outputting an abrupt zero speed signal, measuring time to alarm.

How Does the Tester Work?

Analysis with the Insight^{HP} Tester is accomplished using one of the three Sensor Test buttons. Plug the Insight^{HP} into the Node and then into the sensor you wish to test with the provided quick-connect cables. Then initiate whichever test is desired. The Insight^{HP} will now run the sensor test on the connected equipment and verify system response.

Principle of Operation

Two connections are provided: A quick-connect M12 female Sensor input and an M12 male Node output with attached cable providing a quickconnect M12 male Node plug. For sensor tests, the Insight tester connects to a HazardPRO sensor alone. For system tests, the Insight tester connects to both a sensor and its HazardPRO Node input.



Insight^{HP} Tester Running a System Test on a HazardPRO EZ1 Speed Sensor.



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HazardPRO Insight^{HP} Tester Ordering

Insight: Part #: 800-012401

Insight^{HP} tester Plastic case 2m quick-connect cables (Part #: 775-001900, 775-001910) Dielectric grease M12 wrench Charging block Charging cable





Standard Insight[⊮] Tester Kit

Accessory Kit: Part #: 800-012402

Node wrench Dielectric grease 5m quick-connect cables Silicon self fusing tape Spare Node M12 Caps (x10)





Insight⁺ Accessory Kit

Insight^{HP} Sensor Tester

Specifications	
Internal Battery	USB C chargeable. Minimum 48+ operation time per charge
Charging Connector	USB-C port
On/Off	Slide Switch on bottom of unit
Operating Temperature	$\begin{array}{c} -4 \ ^{\circ}F \rightarrow +158 \ ^{\circ}F \\ (-20 \ ^{\circ}C \rightarrow +70 \ ^{\circ}C) \end{array}$
Storage Temperature	$\begin{array}{c} -22 \ ^{\circ}F \rightarrow +176 \ ^{\circ}F \\ (-30 \ ^{\circ}C \rightarrow +80 \ ^{\circ}C) \end{array}$
Measurement Range	-58 → 302 °F 5 → 999 RPM
Enclosure Material	IP 51 ABS Plastic
Dimensions	Length: 8.6" (218mm) Width: 3.9" (99mm) Height: 1.3" Weight: 0.7 lb (1.54 kg)

Additional Information

For more information about HazardPRO bearing temperature sensors, please contact Electro-Sensors.

Tests	
Speed Sensor Test	Verifies sensor operation. Displays RPM from the connected shaft speed sensor.
Speed System Test	Verifies system operation. Receives the signal from a connected shaft speed sensor, outputting it to the connected node; then linearly decreases the output signal, triggering system warning and shutdown.
Temperature Sensor Test	Verifies sensor operation. Displays °F from a connected temperature sensor.
Temperature System Test	Verifies system operation. Receives the signal from a connected temperature sensor, outputting it to the connected node; then linearly increases the output signal, trigger- ing system warning and shutdown.
Contact Sensor Test	Verifies sensor operation. Displays the state (open or closed) from a connected switch contact.
Contact System Test	Verifies system operation. Displays and outputs a CLOSED contact to the connected node; then displays and outputs an OPEN contact to the node for 5s, then CLOSED again.
Timer Test	Measures stopped shaft system response time. Passes the signal from the connected shaft speed sensor to the connected node; then simultaneously stops the signal and starts a timer allowing the user to measure the time until the system alarms.

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