SD230

Double Shell & Missing Tab Detector With
Networking Capabilities For
Fast Moving Can Ends

A COMPLETE SYSTEM REQUIRES:

Control: SD230 (Qty 1)
Probe: P15 Series (Qty 4)
Cable: CBL101 Series (Qty 4)
HMI: MI230 *optional*
Networking: ET230 Gateway EthernetIP
optional

FEATURES:

- Two detectors in one package
- Steel, Tinplate & Aluminum sensitivity
- For single sheet thicknesses ranging from .05mm-1.016mm (.002"-.04")
- Communications for remote capabilities
    - Remote monitoring & control
    - Remote calibration for quick setup
    - Diagnostics for quick troubleshooting
    - Eliminates potential for Arc Flash
- Microprocessor for better measuring resolution and reliability
- LED digital display
- Diagnostic messages quickly isolate errors
- Operating power standard 24 volts DC
- Network ports for easy daisy-chaining of units for ease of installation, wiring and automatic Network ID

ABOUT THE SD230

Prime Controls' versatile SD230 controller provides a simple and dependable way to monitor can ends traveling through a conversion press or at the discharge of curlers and liners. Along with a set of probes installed at the infeed and discharge of each lane, the SD230 detects both double shells and missing tabs.
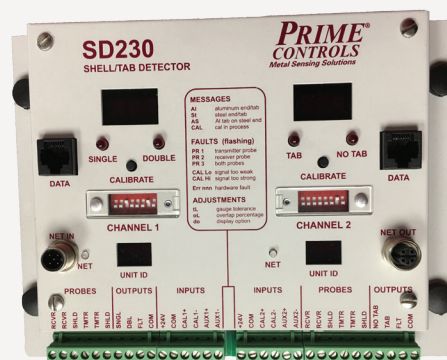
Each channel has three solid-state outputs. The infeed (shell) outputs energize for single end, double end and fault conditions. The discharge tab outputs energize for tab presence, no tab presence and fault conditions. Fault outputs indicate failure of internal components or an external probe failure.

Calibrating the detector is simply done by pushing either of the Calibrate push-buttons on the front of the detector. To calibrate, insert a single shell between the probes and push the button on the infeed channel. The SD230 automatically determines measured values for passing singles and rejecting doubles. The same procedure is followed at the machine discharge for ends with tabs. Calibration for the SD230 is made even easier with the option of being able to perform the process remotely through EthernetIP communication gateway, with HMI connectivity through the MI230 or by the remote calibration inputs. Once calibration is completed, the detector is ready to protect expensive conversion tooling. There are no additional adjustments or fine tuning.

Dual three-digit LED displays report relative thickness, probe signal strength and diagnostic fault conditions. The detectors are housed in rugged metal chassis. Quick disconnect terminals provides fast and easy change-over.

The HMI connectivity feature of the SD230 provides operators with visibility into the unit along with diagnostic information to help improve efficiencies and production. Users have the ability to remotely set up and operate the unit; reducing the potential for Arc Flashes by limiting the number of times operators have to open the cabinets.

PRIME CONTROLS
Metal Sensing Solutions

POWER INPUT: 24Vdc

OUTPUTS: Transistor outputs, Configure to sourcing or sinking current

MAX LOAD: 100 milliamps at 24Vdc

OUTPUT FAIL SAFE: Sinking output opens. Sourcing output current at zero

OUTPUT RESPONSE: < 5mSec.

PROBE FREQUENCY: Optimized for steel or aluminum

PROBE TYPES: P15 series

**CABLE TYPES:** CBL101 series - various cable lengths available

METAL SENSITIVITY: .05mm-1.016mm (.002"-.04")

PROBE SEPERATION: Depends on metal, thickness and probe model

CALIBRATION: Push-button switch on single good sample for each channel. Remote calibration can be performed through EthernetIP communication, HMI touchscreen display or remote calibration inputs.

INDICATORS: Red LEDs for Single, Double, Tab and No Tab indication. Three-digit display for signal strength.
Amber LEDs for Network indication
Two-digital display for network address

THEORY OF OPERATION: Inductive or Eddy Current engery restricts the signal from transmitter to receiver as the metal thickness increases.
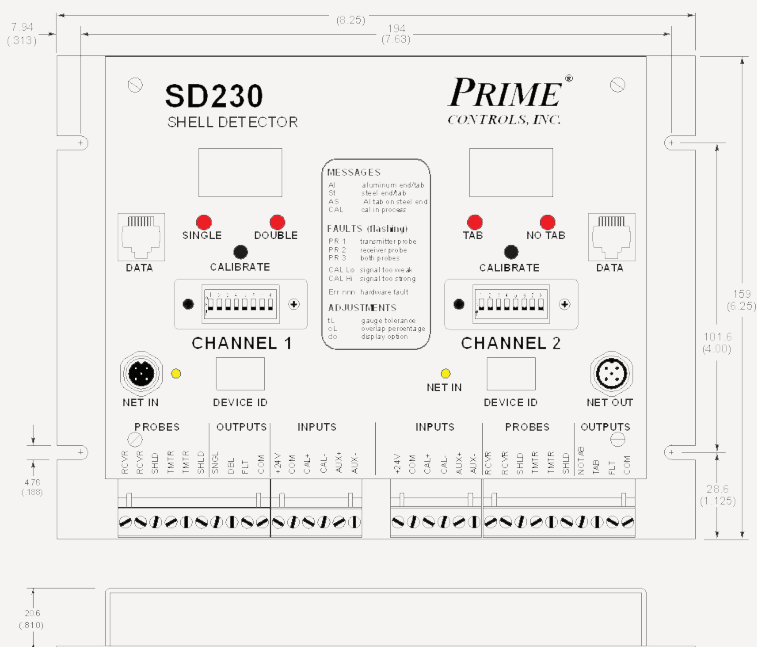
RELATED MODELS:
SD222 - Dual Channel Double Shell Detecor
SD223 - Dual Channel Missing Tab Detector
SD122 - Single Channel Double Shell Detector
SD123 - SIngle Channel Missing Tab Detector

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