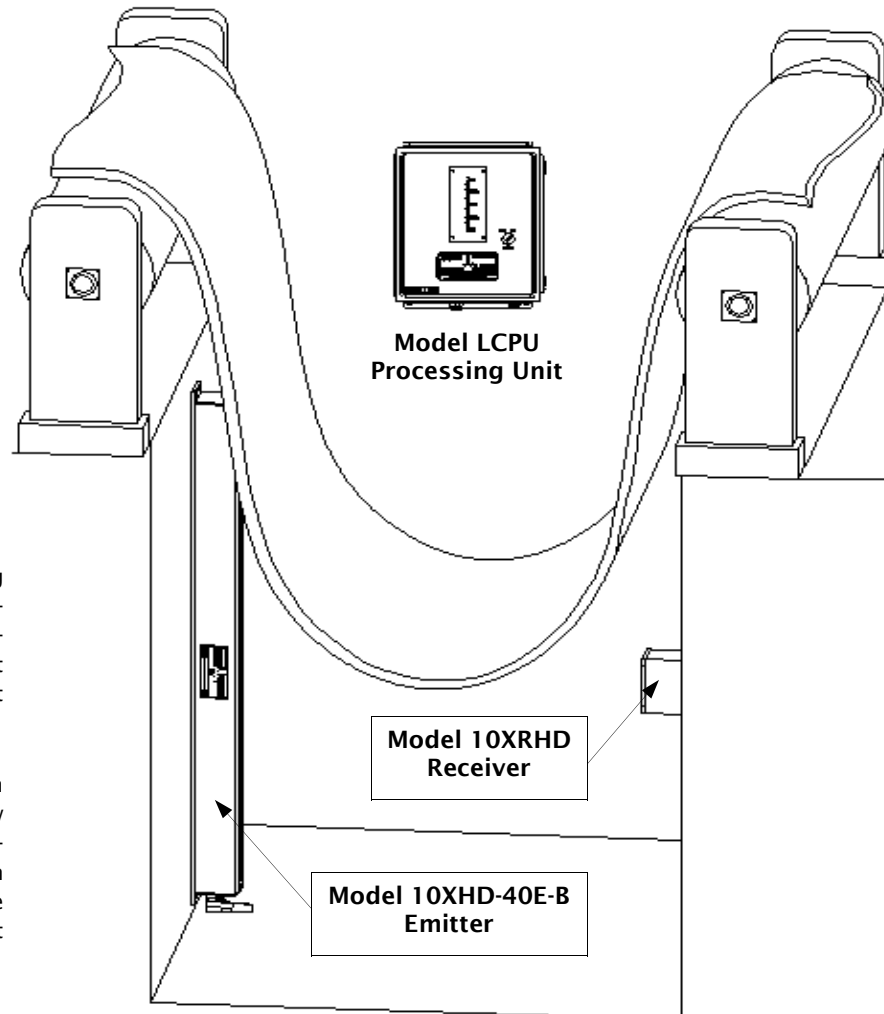


Accumulator Loop Control System



Accumulator Loop Control System

Many industries, such as plating and tinning, hot dip metals, rubber, plastics, textiles and non-wovens, require a continuous input of material for proper and efficient operation.

In many of these operations, an accumulator pit is used to allow temporary storage of extra material. It is important to know when the pit is nearly full so the line speed can be adjusted to prevent an overflow.

Most accumulator control systems rely on a combination of incandescent lamps and photo detectors to report that the accumulator pit is filled. Although the accuracy of these systems may be adequate, reliability is often deficient for the demands of modern production schedules. A lamp failure may cause the pit to overflow, spilling material onto the floor of the accumulator pit. The harm to the strip and possible damage to precision rollers from foreign material contamination increases downtime and reduces overall productivity.

The SCAN-A-LINE™ method of position sensing using Light Emitting Diode (LED) scanning technology overcomes the problems associated with older accumulator loop control sensors. The LEDs in SCAN-A-LINE's™ patented sensor technology specify a 275-year mean-time-between-failure (MTBF). The light sources should never need replacing if the sensor is properly protected. Our exclusive fail-safe detection circuitry will prevent catastrophic system failure by immediately alerting the operator of a system malfunction.

- **Special Fail-Safe Circuitry Helps Prevent Accumulator Overflow**
- **SCAN-A-LINE™ Solid State Reliability**
- **NO MOVING PARTS**
- **Low Maintenance**
- **Dust, Mist, and Vibration Tolerant**
- **Easy to Install and Simple to Maintain**
- **Unipolar or Bipolar Analog Outputs**

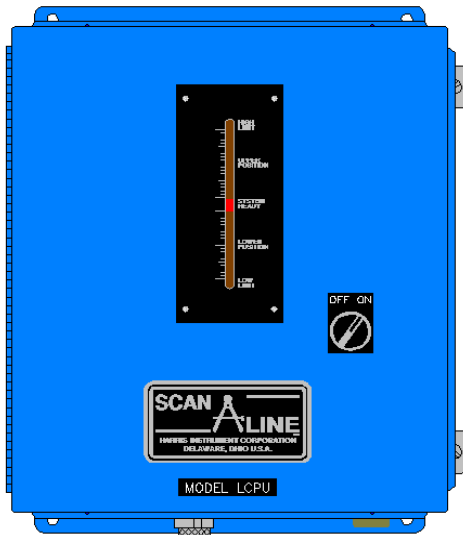


Model 10XHD-40E-B Emitter

Accumulator Loop Control System Components:

- SCAN-A-LINE™ Model 10XAHD-40 inch [1.02 meter] Emitter
- Model 10XLR Long-Range Infrared (IR)
- Model LCPU Loop Control Processing Unit

The Accumulator Loop Control System (ALC System) functions in accumulator pits up to 40 feet [12.2 meters] long to provide a 20 inch [50.8 cm] position control range.



Model LCPU
Loop Control Processing Unit



Model LCPU Processing Unit Features:

- Power and signal processing for the sensor
- Vertical bargraph display, mounted on the enclosure door, displays the loop position, fail-safe status, and positive or negative excess error limits. (BGAV/50 Option provides remote mounting for easier operator access)
- Fail-safe circuitry monitors sensor scan rate and system power to alert the operator to a system compromise
- Fail-safe system monitor connects to relay outputs with normally-open (NO) and normally-closed (NC) contacts. NO relays also provided for error limits on display
- Two loop position analog outputs easily interface with most line control systems:
 - Unipolar (0VDC to +10VDC) analog output: +5VDC when the emitter is half blocked or +10VDC when it is completely covered
 - Bipolar (-10VDC to +10VDC) analog output signal is -10VDC when the emitter is uncovered and +10VDC when the emitter is completely blocked

Harris Instrument Corporation

155 Johnson Drive Delaware, OH 43015
 Voice: 740-369-3580 Fax: 740-369-2653
 info@harris-instrument.com www.harris-instrument.com