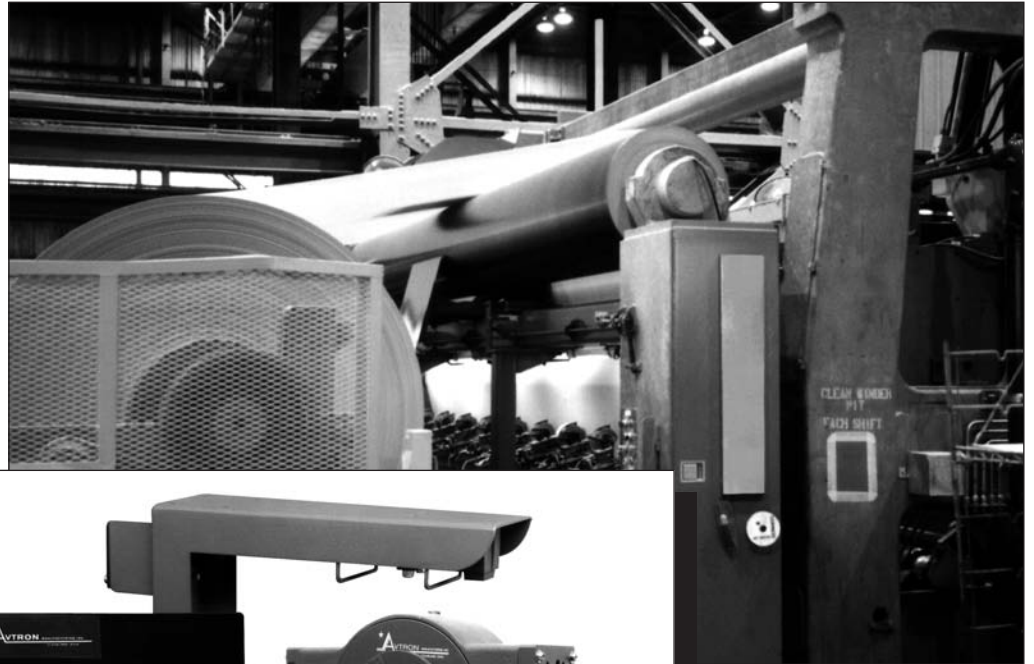


Model K936

Bulletin 281

Digital Length Indicator



- Measures Length with 0.01% Accuracy
- Available in Both Single and Multiple Unit Systems
- Stores Data for Plant Wide Roll Tracking
- Provides Machine Control Contact Outputs

Typical Applications

- Length Indicator
- Machine Controller
- Defect Tracker
- Splice/Weld Tracker
- Position Monitor
- Mill-Wide Loss Monitor

PROBLEM: A paper mill was unable to locate losses occurring between tonnage produced on the paper machine and net shipments.

SOLUTION: Mill purchased Avtron K936 Digital Length Indicators for installation on paper machine, winder, andrewinder.

RESULTS: Production losses were located, not only by machine, but also by shift. Proper training increased awareness of problem and has reduced losses by 14%.



PROBLEM: A steel mill was dissatisfied with unreliable and inaccurate length counters. Up to 1.5% of the steel produced was unaccounted for.

SOLUTION: Mill purchased Avtron Model K936s for use on several machines. Also utilized the RIM to tie K936s into central printers.

RESULTS: Actual roll length compared to calculated roll length was found to be within 0.03%. The net savings per month averaged more than \$10,000.

M185 UNIPULSER™

In situations where tachometer mounting is a problem, the Model M185 UNIPULSER™ can be used. This easy to install, non-contact, non-photoelectric tachometer eliminates the need for belts, pulleys, and couplings.

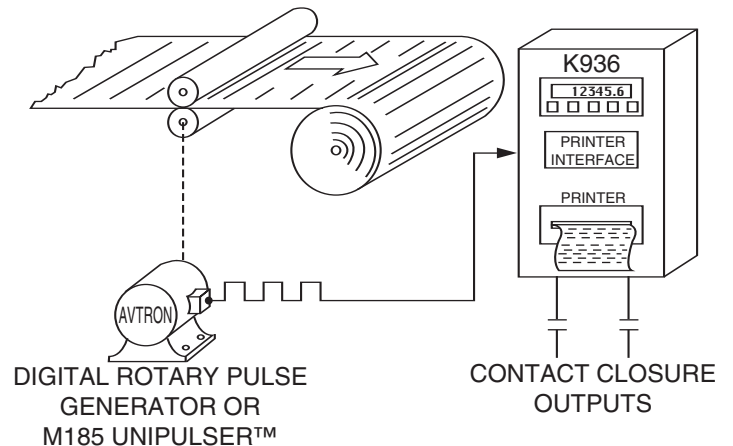


K936 Digital Length Indicator with Printer

The K936 Digital Length Indicator is a microprocessor based counter designed for many applications. In its basic configuration, the K936 receives a frequency input from a rotary pulse generator, calibrates it into engineering units (feet, meters, etc.), and then displays it on the six-digit LED readout.

To improve machine performance, contact closure outputs can be activated at predetermined counter values to initiate other action on the machine. A typical use of these contacts is for “slow-down” and “stop” commands in winder/rewinder applications.

To eliminate errors that can occur when data is recorded by machine operators, Avtron offers a data logging system which automatically transfers length information to a printer. Usually, the K936 and printer are located in the same enclosure.

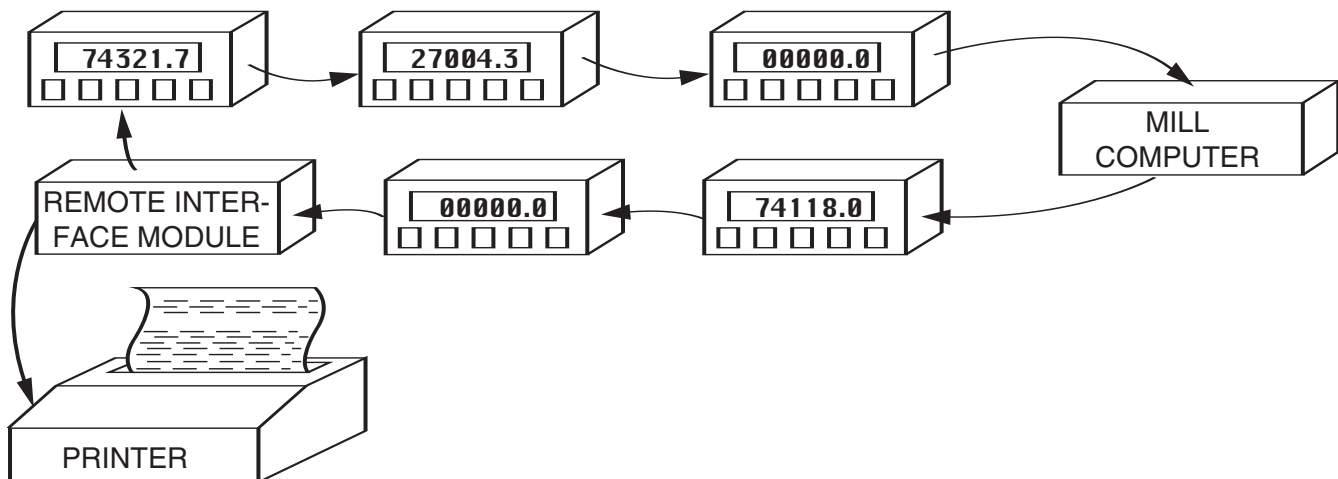


Plant Wide Length Monitoring with Printer

Multiple locations can be monitored simultaneously by using K936 Length Indicators and one Remote Interface Module (RIM). Each K936 sends the length and its location number to the RIM. The RIM then processes this data and sends it to a printer along with the date, time, and event number, for hard copy confirmation of machine production.

The serial link output can also directly feed customer computers with RS422 serial link capability.

A system that can track losses or “shrinking” plant wide can help to pinpoint inefficient areas and initiate steps to improve them. Savings from such programs can total hundreds of thousands of dollars per year.



K936 Specifications

Operating Power: 115VAC, 50/60Hz, 0.25Amp Typical, 0.5Amp Max.

Operating Temperature: 32-140°F (0°-60°C)

Operating Humidity: 5-95% RH

Signal Inputs: Tach inputs are quadrature or single phase which are transformer isolated and designed to accept signals from Avtron zero-speed tachometers.

Operator Display: 6-digit, 0.8" memory display, with seven-segment characters.

Calibration: Compute and enter a calibration number or enter machine data (roll diameter, tach PPR, gear ratio).

All calibration data is entered through a 5-key keyboard with range of 0.00001 to 999999. If power is lost, data is retained in memory.

Preload: Keyboard entered preload with full display range (-99999, through 999999).

Preset: Eight keyboard entered presets with full display range. Two form C contacts on rear terminal block are programmed from the front panel for momentary or latched operation.

Lock Feature: Selected keyboard calibration functions can be locked out by connecting a jumper on the rear terminal block.

Tach Supply: A +12 Volt, 250mA tach supply is available on rear terminal block.

Serial Link: Two standard modes of RS422 link:

Mode 0: Serial Link disabled.

Mode 1: Serial Link enabled-sends length down link (1) when a request is received over link, (2) when the transfer or reset transfer inputs on rear terminal block are activated, (3) at selected intervals, or (4) in response to preset activity.

Baud rate – Keyboard selectable, 110, 150, 300, 600, 1200, 2400, 4800, 9600, or 19,200 Baud.

Parity – Keyboard selectable, even, odd, none, mark, or space.

Control Inputs: **Reset** – High to low transition resets the counter to the preload value.

Reset/Transfer – High to low transition sends the current footage down the serial link and then resets the counter to the preload value.

Transfer – High to low transition sends the current footage down the serial link.

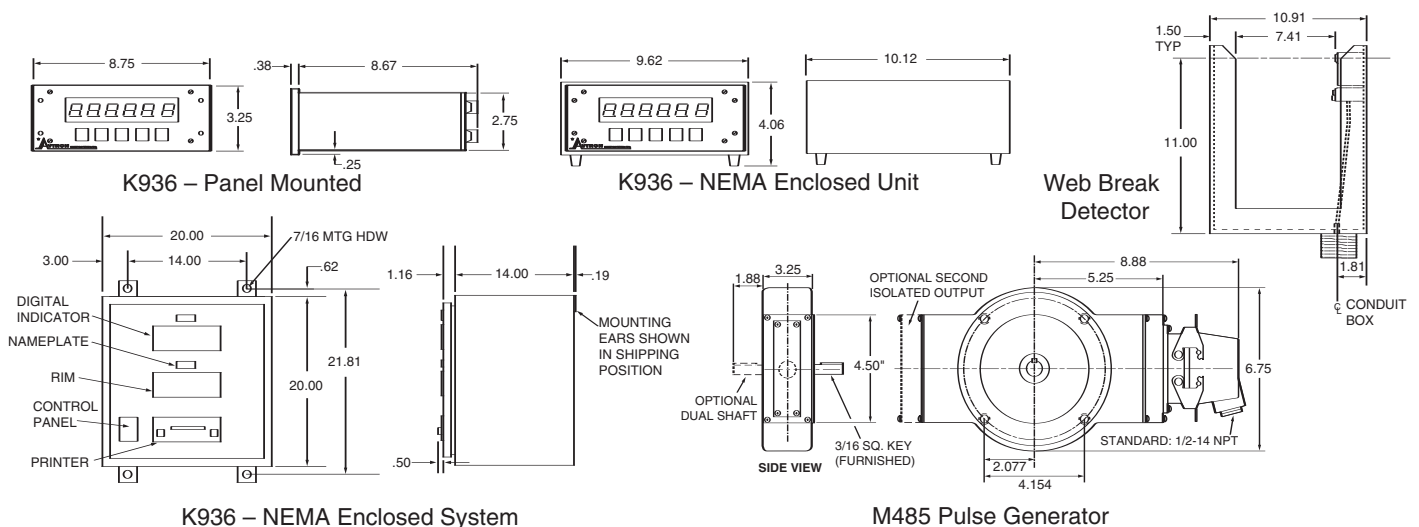
Hold – When low input, the display is frozen. The internal counter continues to operate.

Web Break/Inhibit – When low input, the display and the internal counter are frozen.

Relay Reset – Resets tripped relays.

Installation: All connections are on two rows of 14 terminals on two blocks with 3/8" centers. All units are thermal cycled for 48 hours to ensure reliable operation. Potentially weak components are therefore eliminated prior to shipment.

K936 Outline Drawings



UNIPULSER™ is a trademark of Avtron Mfg., Inc.
 Specifications and features subject to change without notice.
 All dimensions are in inches.
 Printed in U.S.A. Rev. B

