

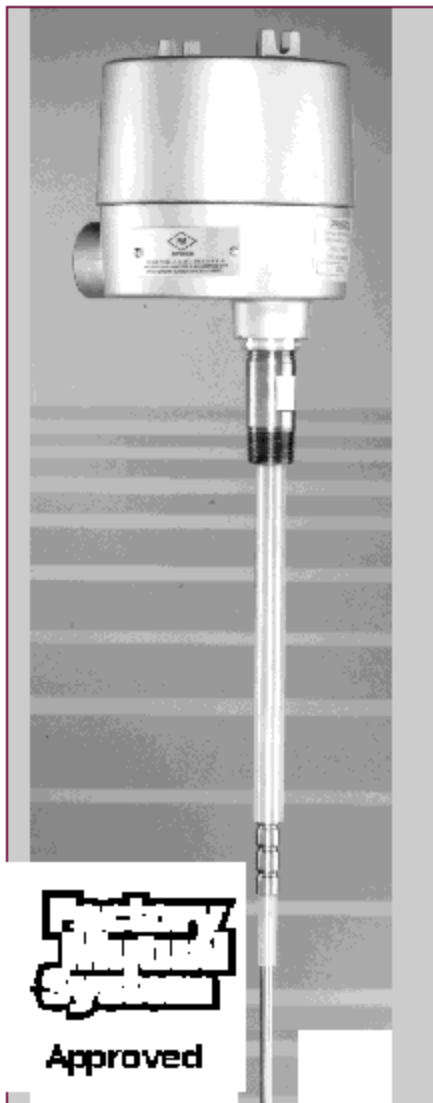
Instrumentation designed  
with the user in mind.

# NULL-KOTE™ RF Impedance, High-Perform-X™, Point Level Controllers

Excellent sensitivity and stability with innovative NULL-KOTE™ circuitry, which ignores product build-up on the probe

## Features

- ❑ **Universal** – Wide Range of Point Level Applications – detects the level of powders, granules, conductive or non-conductive liquids ... even the sticky ones.
- ❑ **NULL-KOTE™ Circuitry** – Makes the sensor immune to adverse effects from conductive coating build-up.
- ❑ **High Sensitivity and Stability** – For critical low response applications.
- ❑ **Designed to Survive** – RF immune, vibration-proof, all circuit boards are conformally coated (tropicalized) for extra protection - at no extra cost.
- ❑ **Ten-Year Warranty** – The only level instruments available with this unique assurance of quality.
- ❑ **Easy-On Probe Connection** – Automatically provides simple, fast installation and reliable operation without wires, connectors, or terminal strips. Simply screw probe into the housing.
- ❑ **Unique Status Indicator** – (two color) Shows presence or absence of material and also indicates power "on".
- ❑ **Heavy Duty Relay** – 10A 115 Vac (resistive) control contacts.
- ❑ **High or Low Fail-Safe** – Field selectable.
- ❑ **Factory Mutual System Approval** – Class I, II, III, Div.1, Groups C, D, E, F, & G/NEMA 4.
- ❑ **Wide Temperature Range** – Standard process temperature range: -300 to 500°F (-184 to 260°C).
- ❑ **ROLLOCK™ PROBES** – No part of the probe can fall into the process or be blown from the mounting. No re-tightening of seals required.
- ❑ **Time-Delay Included** – 0-30 second delay at no extra charge.



## Description

PRINCO's *High-Perform-X™* L3520 Series level controllers give you the optimum combination of reliability, sensitivity, features, and cost.

Conformally coated electronics, NULL-KOTE™ circuitry, explosion-proof/weatherproof enclosures, ROLLOCK™ probe construction and our unique 10 Year Warranty means the ultimate in reliability.

Excellent sensitivity, coupled with stability of 1 picofarad over the entire operating range, gives you a true set and forget installation.

With Factory Mutual Approval 10 amp control relay contacts, 0-30 second time delay, coarse and fine sensitivity adjustments, field selectable hi-lo failsafe, and our exclusive probe status indicator, you get all the features you need at a price which makes the L3520 Series an outstanding value.

In millions of installations, spanning 85 years of experience, PRINCO process instruments have provided accurate, dependable, long lived service for all types of industries.

### 10-YEAR WARRANTY

All PRINCO level control instruments are backed by a 10-year warranty. PRINCO will repair or replace, at our option, any instrument that fails under normal use for up to 10 years after purchase.

# L3520 Series Specifications

## Type

Point (on/off) level control, radio frequency (RF), impedance sensing, NULL-KOTE™ circuitry.

## Sensitivity

0.1 pF to 1000 pF capacitance.

## Operating Temperature

-40 to 150°F (-40 to 66°C).

## Temperature Stability

Less than .1 pF/20 F.

## Delay Time/Mode

0 to 30 second/delay on and off.

## Fail-Safe Mode

Fail-Safe low level or high level. Field changeable.

## Dead Band

10:1 adjustable range to 1000 pF maximum.

## Power Requirements

Standard Models:

95/135 Vac, 50-60 Hz, 1.3 watts

12/34 Vdc, <1 watt

Optional Model:

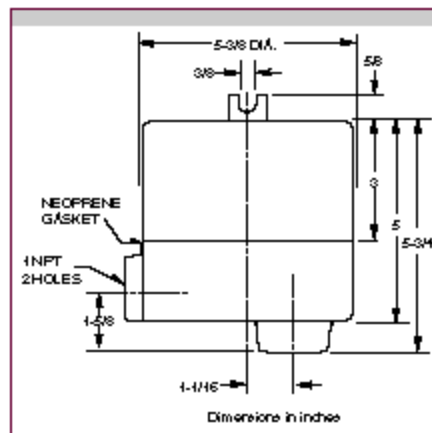
230 Vac

## Electronics Housing

Explosion-proof Class I, II, III, Div. 1, Groups C, D, E, F, & G/NEMA4.

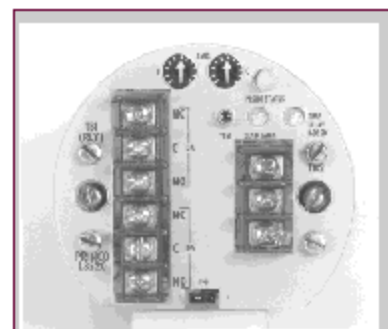
## Agency Approval

Factory Mutual Research Corporation System Approved when used with PRINCO probes listed below.



### NOTE:

Explosion-proof cases must be installed to satisfy National Electrical Code, Section 501, and applicable local codes.



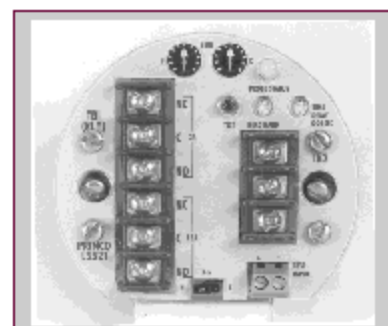
## MODEL L3520

### Test Function

Pushbutton tests control relay.

### Relay Contacts

DPDT (2 form C) rated at 10A, 115 Vac or 26 Vdc resistive.



## MODEL 3521

### Self-Check Function

Locally or remotely operated self-check.

### Relay Contacts

Two sets provided: One data set SPDT (Form C) rated "dry" (0 mA) to 2A, and one power set SPDT (Form C) rated at 10A, 115 Vac or 26 Vdc resistive.

All PRINCO level instruments are designed and manufactured in the UNITED STATES OF AMERICA



## NULL-KOTE™ Point Level Probes

Model L853, L854, L855, L857, L861, L862, and L863 probes are Factory Mutual Approved Explosion-proof Class I, II, & III, Division 1, Groups A, B, C, D, E, F, & G for use with all L3500 series controllers.

These probes are three element devices, which employ a bare sensor rod, guard section, and NPT mounting hub. All wetted parts are type 316 stainless steel or Teflon®.

All PRINCO L800 Series point level probes use PRINCO's pioneering

ROLLOCK™ construction. Featuring rolled seals and welded assembly, the ingenious ROLLOCK™ design locks all elements of the probe in position and insures that no part of the probe can fall into the process or be blown from the mounting.

### Operating Temperature

-300 to 500°F (-184 to 260°C).

See PRINCO's Point Level Probe Bulletin for complete information.

# PRINCO

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