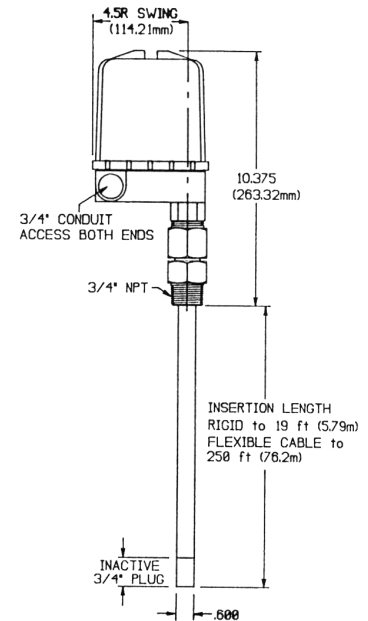




CAPTROL 514 R. F. Capacitance Multi-Point Level Switch

Engineering Specification Sheet



Product Features

- **On board MICROCONTROLLER**
- Built-in system "Auto-Test"
- Built-in "Self Diagnostics"
- Easy to read 8 character Alpha Numeric L.E.D. Display
- RS 485 Communication Data-link
- Removable terminal strip
- 4 independently selectable failsafe modes
- 4 independently selectable Time-Delay modes
- Menu Driven Keypad user interface
- Built in driven shield/guard-designed to eliminate false signals caused by material build up/coating
- 4 independently adjustable setpoints/differential setpoints
- 4 setpoint status L.E.D.'s
- 4 relay status L.E.D.'s
- **TWO YEAR PRODUCT WARRANTY**

Purpose

Delavan's CAPTROL 514 is a superior integral mount MICROCONTROLLER based R.F. Capacitance "multi-point" level switch used in liquids, and powder bulk solid applications.

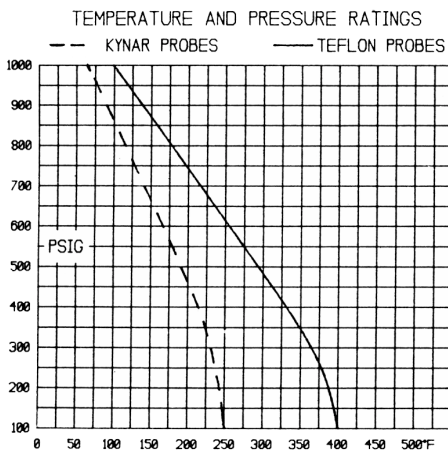
Principle of Operation

The CAPTROL 514 microcontroller based multipoint level switch consist of solid state electronics mounted in a cast aluminum explosion proof enclosure. The integral unit utilizes a driven guard designed to eliminate the effects of material build-up or coatings that may cause false signals.

The sensing element section is energized with a RF(radio frequency) signal approximately 2MHZ. When the process level changes, a change in capacitance occurs resulting in a change in frequency. The change in frequency is compared to each of the previously established user setpoints. Depending upon the result of these comparisons, the microcontroller will adjust (on or off) each relay.

Specifications:

Supply Voltage	Nominal	Absolute Limits
	115 VAC	95-135 VAC
	230 VAC	180-270 VAC
	or	
	24 VDC	18-28 DC
Power	Less than 12-Volt-Amperes	
Frequency, AC Power	50-60 Hz	
Output	(4) Relay - 5 amp SPDT	
Ratings	5 A @ 115 VAC Non-Inductive	
	2.5 A @ 230 VAC Non-Inductive	
	3 A @ 26 VDC Non-Inductive	
Time Delay	Adjustable: .1 to 30 seconds	
Failsafe	Programmable -High Level or Low Level	
Display/ Indicators	8 character Alpha Numeric (4) red setpoint status LED's (4) yellow relay status LED's (1) green power status LED	
Temperature Range (Electronics)	-40° to +160° F (-40° to +71° C)	
Housing Cast Aluminum with Fused Polyester Paint Finish	Meets NEMA 4,5,7,9 & 12	
	NEC Class I Groups C, D	
	NEC Class II Groups, E,F, & G	
Stability	0.01%/ °F	
Sensitivity	0.5 pF to 25,000 pF	
	Bulk solids - 10 lbs./cu. ft. or greater	



Ordering Information

CAPTROL

514 - - - - -

Special Features

X = No special features
H = High Temperature
Lagging ext. (>200° F)

Process Mounting

NPT = Nat'l pipe thread process connection
3A = Food-grade Tri-Clover fitting
T3A = Teflon faced food-grade Tri Clover fitting (specify size)
K3A = Kynar faced food-grade Tri-Clover fitting (specify size)
FC = Flange C.S. (specify size)
FSS = Flange 316 SS (specify size)

Sensing Probe Type

THD = Teflon Insulated Heavy Duty 1/2"
KHD = Kynar Insulated Heavy Duty 1/2"
TCP = Teflon Probe with Concentric Pipe and Flange
TCT = Teflon Probe with Concentric Tube 3/4" NPT
BF = Bare Flexible Cable
T = Teflon Insulated 1/4"
BHT = Bare Probe - High Temperature Packing
TF = Teflon Insulated, Flexible SS Cable
KF = Kynar Insulated Flexible SS Cable
DWW = Polypropylene Flex Probe, 1/8" cable, 3/4" NPT
THDD = Teflon Insulated with Insulated Ground Reference 3" Flange
KHDD = Kynar Insulated with Insulated Ground Reference 3" Flange
BHS = Bare Probe - High Sensitivity

Enclosure Type

G = General Purpose
H = Hazardous Locations

Model 514 Four Point R.F. Capacitance Point Level Switch

TWO-YEAR PRODUCT WARRANTY

Delavan control products will be replaced, put in good operating condition, or the purchase price refunded, at the option of Delavan, free of charges except transportation, if defective in their manufacture, labeling, packaging, or shipping, and if notice of said defect is received by Delavan within two years from the date of shipment. The cost of such replacement, repair or refund or purchase price shall be the exclusive remedy for any breach of any warranty, and Delavan shall not be liable to any person for consequential damages for injury or commercial loss resulting from any breach of any warranty of fitness for a particular purpose, and makes no other warranty.



DELAVAN

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