



Disconnect and lock out all power sources before installing wires/cables or servicing equipment.

Specifications and Operating Instructions for AP-2983A and AP-2244A Universal Feed Sensor

OPERATING VOLTAGE:	24 Volts to 240 Volts AC or DC
FREQUENCY:	45 Hz to 65 Hz
MAXIMUM LOAD CURRENT:	0.2 Amps AC or DC
CONTACTS:	N.C. - Normally Closed - (Brown and Red Wires) N.O. - Normally Open - (Brown and Orange Wires)
	NOTE: Any wire not used must be taped for protection.
CORD:	18 AWG, 3 Conductor, Type TC, Length - 6'
SENSING DISTANCE ADJUSTMENT:	Sensitivity AP-2983 Factory Setting 4 (Range 1 to 6) Sensitivity AP-2244 Factory Setting 6 (Range 1 to 6)
TIME DELAY RANGE:	0 Seconds to 3 Hours in 1 minute increments
ADJUSTMENT METHOD:	"Min" push button and "Hr" push button
INDICATOR LIGHTS:	Red LED On - Program Mode Yellow LED On - Product Detected Green LED Flash - Delay before Relay is Activated Green LED On - Relay Activated
INSTALLATION:	Rubber mounting grommet (AP-1004) with cable tie to secure sensor to grommet. NOTE: Do not use hose clamp. 1-7/16" Diameter hole required for grommet. Insert sensor through grommet up to "GROMMET INSERTION LINE".



Operating Instructions

Program Mode (To adjust Time Delay)

- Press “Min” and “Hr” button at same time
- Red LED will turn ON and Time Delay is reset to 0
- Press and Release “Min” button to add 1 minute to time delay (Red LED will quick flash)
- Press and Hold “Hr” button to add 1 hour to time delay (Red LED will slow flash)
- To Exit Program Mode, wait 5 seconds
- Red LED will shut off and Sensor is in the Normal Operating Condition

Program Mode (To adjust Sensitivity)

- Press and Hold “Min” and “Hr” button at same time, until Red LED begins to flash
- Red LED will flash Sensitivity Setting from 1 to 6, with 6 being the most sensitive
- Touch the sensor end to change sensitivity, setting 6 will roll over to setting 1
- Wait 30 seconds to exit Program Mode
- Red, Yellow and Green LEDs will cycle for another 30 seconds. Place Sensor back in grommet while LEDs are cycling. If LEDs stop cycling before sensor is back in grommet, repeat Sensitivity programming.
- **NOTE:** *Grain should not be in front of sensor when placed back in grommet.*

When Product is Detected,

- N.C. contacts - open
- N.O. contacts - close
- Yellow LED comes ON and stays ON until Product is Removed

When Product is Removed,

- Time Delay begins (On power up, 1st Time Delay is always 10 seconds)
- Green LED flashes every second until Time Delay expires

When Time Delay expires,

- N.C. contacts - close
- N.O. contacts - open
- Green LED stops flashing and remains on until Product is Detected

Universal Feed Sensor (AP-2983)

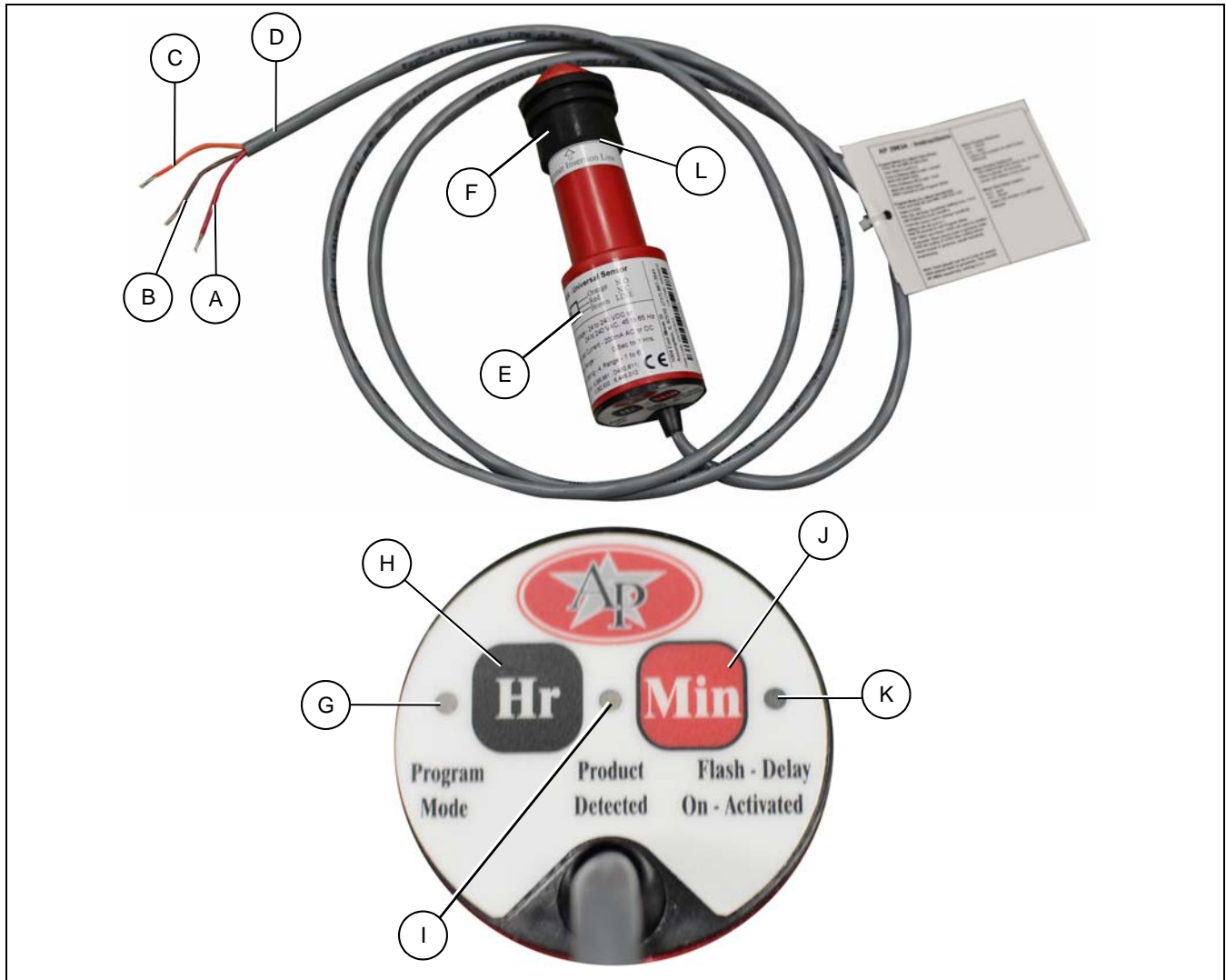
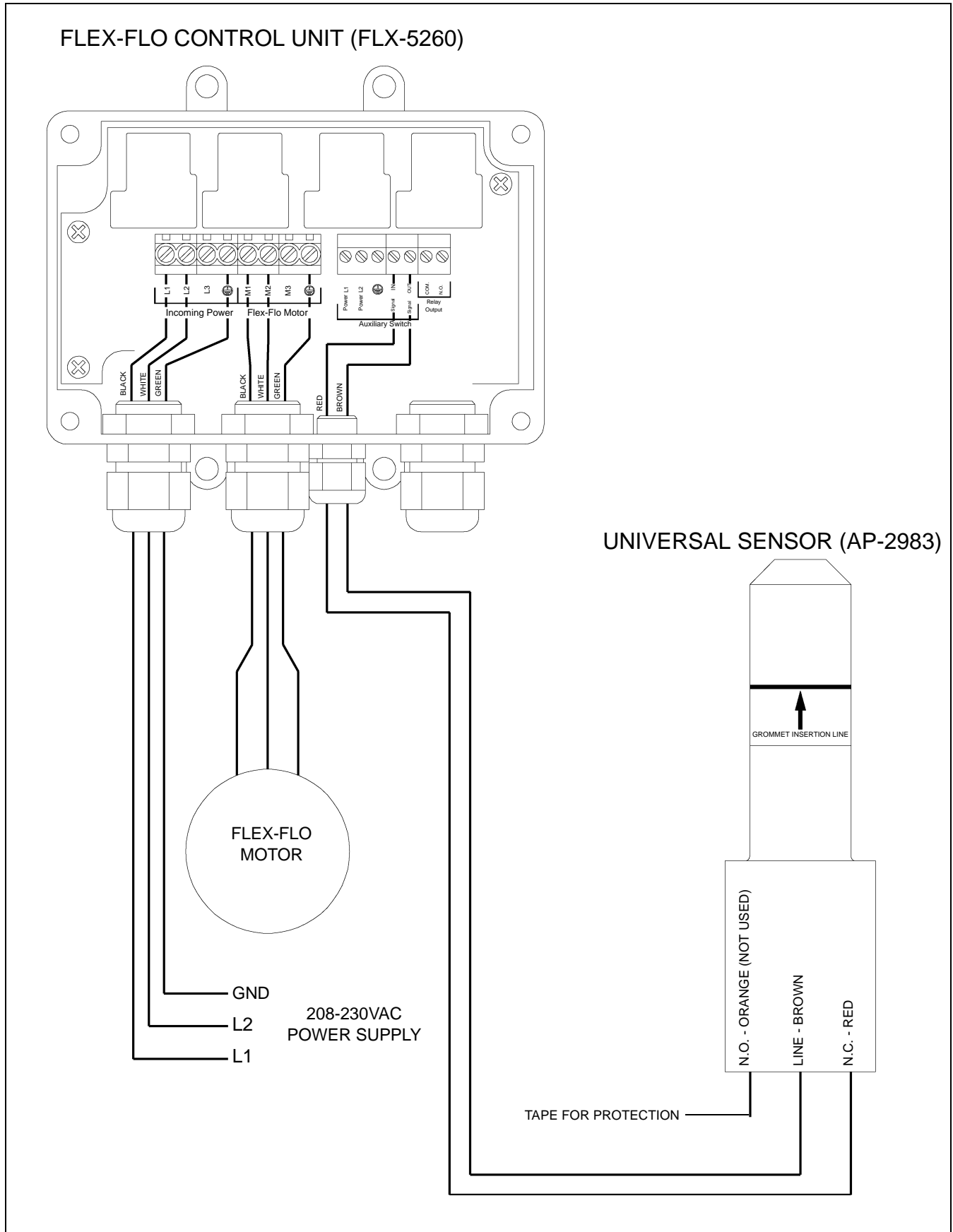


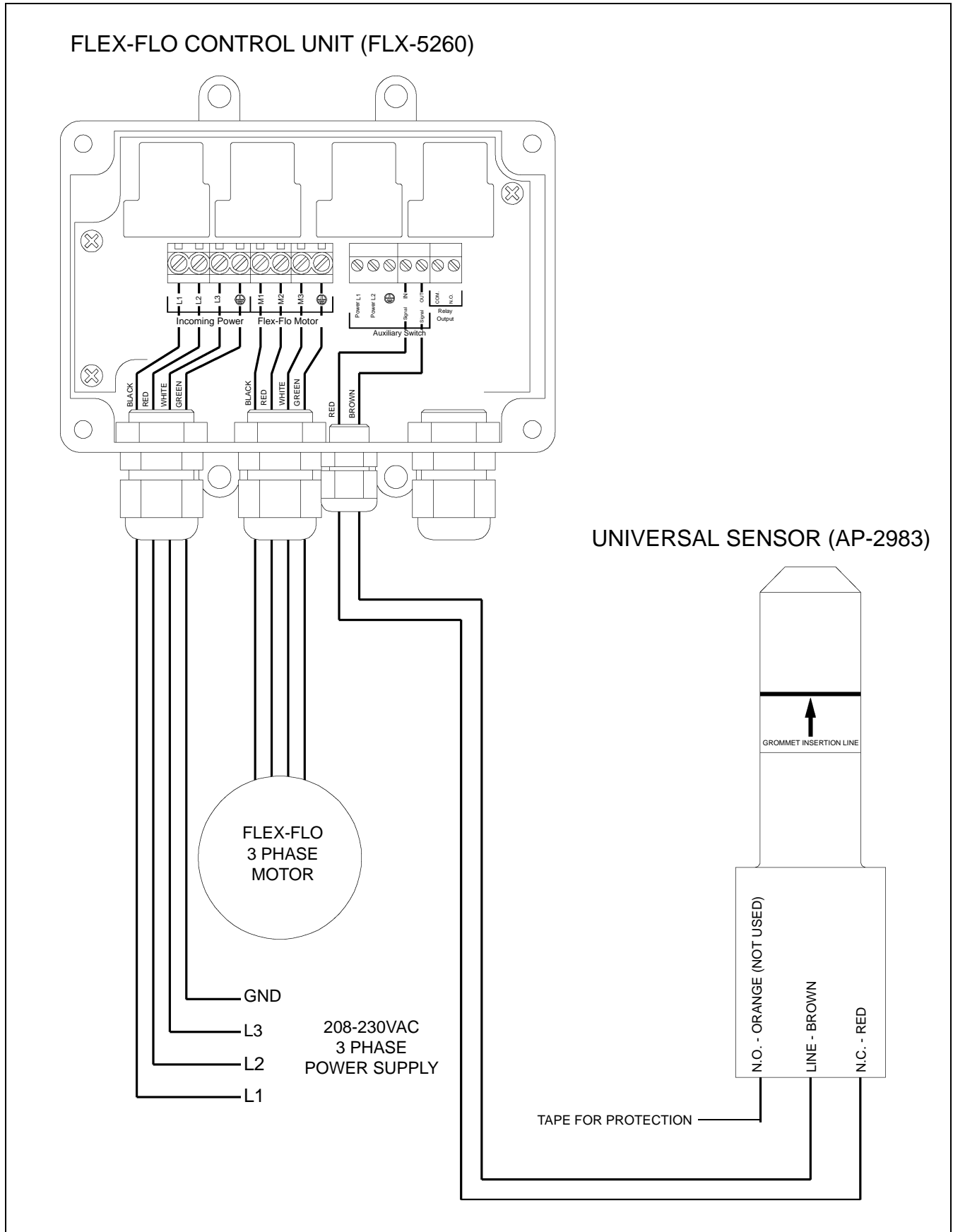
Figure 1

Ref #	Description
A	Red - N.C. (Normally Closed)
B	Brown - Line (Common)
C	Orange - N.O. (Normally Open)
D	Cord
E	Sensor
F	Grommet
G	Program Mode Indicator Light (Red LED)
H	Hour Time Delay Push Button
I	Product Detected Indicator Light (Yellow LED)
J	Minute Time Delay Push Button
K	Relay Activation Indicator Light (Green LED) Flashing - Time Delay
L	Insert Sensor Through Grommet up to "Grommet Insertion Line as shown

Flex-Flo Control Unit Used with Universal Sensor

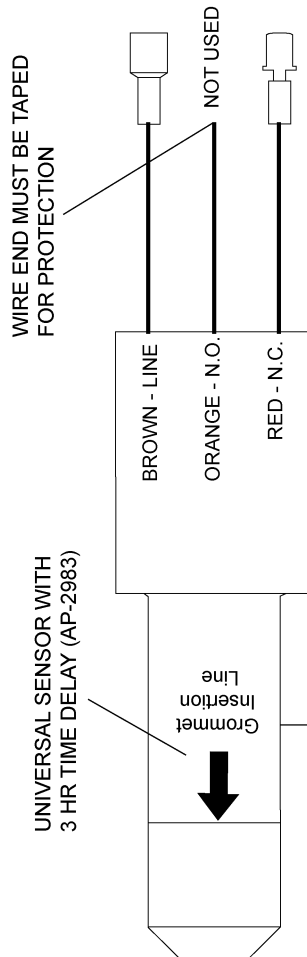
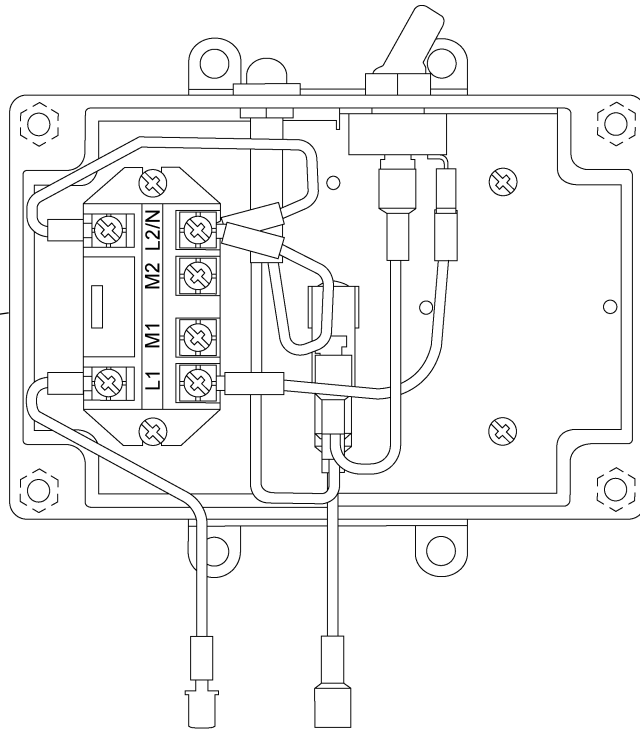
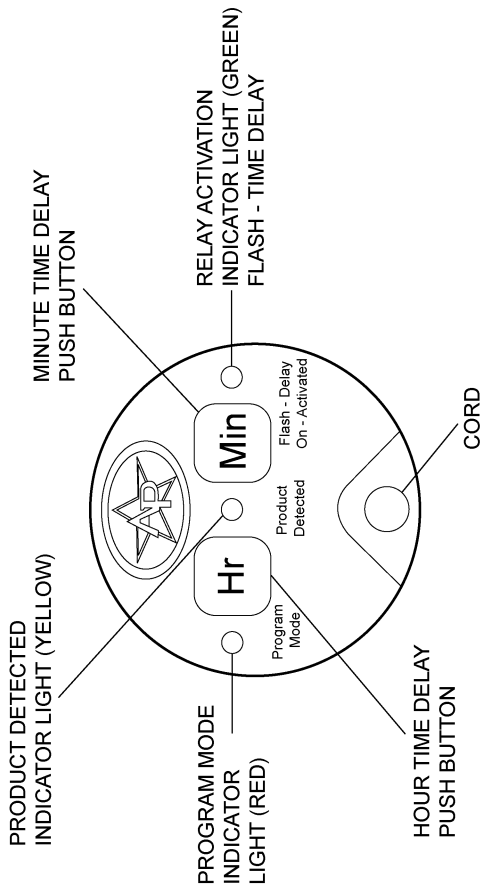


Flex-Flo Control Unit Used with 3 Phase Power



Sensor Wiring Diagram for Flex-Flo Control Unit

- FLX-4496: Model 220, 300 and 350 Control Unit (220V)
- FLX-4497: Model 500 Control Unit (220V)
- FLX-4520: Model 220, 300 and 350 Control Unit (110V)
- FLX-4521: Model 500 Control Unit (110V)
- AP-1770: Model 220, 300 and 350 Control Unit w/ Sensor (220V)
- AP-1771: Model 220, 300 and 350 Control Unit w/ Sensor (110V)
- AP-1772: Model 500 Control Unit w/ Prox (220V)
- AP-1773: Model 500 Control Unit w/ Prox (110V)
- AP-0991: Drop Tube Switch w/ Sensor (110V)
- AP-0992: Drop Tube Switch w/ Sensor (220V)



FOR MOUNTING USE GROMMET (AP-1004). DRILL 1-7/16" DIAMETER HOLE IN TUBE FOR GROMMET. INSERT SENSOR INTO GROMMET UP TO "GROMMET INSERTION LINE".

NOTE: This wiring diagram is to be used as a guideline for the installation of Flex-Flo feed systems. It is in no way to be used to violate or supersede local, state or national wiring codes. All wiring sizes and fuse capacities are to be sized according to national electrical code specifications or other applicable regulations.

Sensor Wiring Diagram for Drop Feeder Control Unit

