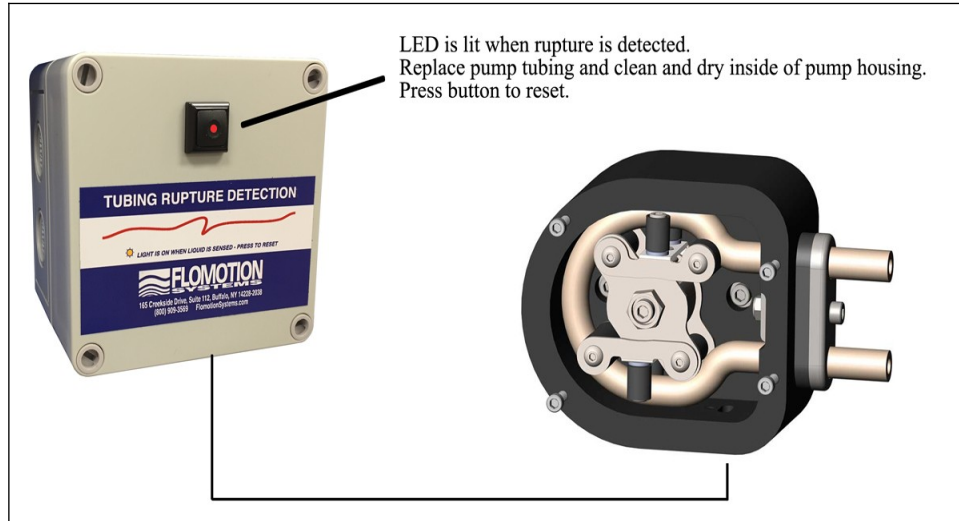




**TRD Series Tubing Rupture Detector
Operating Guide**

For use with Peristaltic Chemical Feed Pumps

Installation and Operation Manual



TRD Series Tubing Rupture Detector

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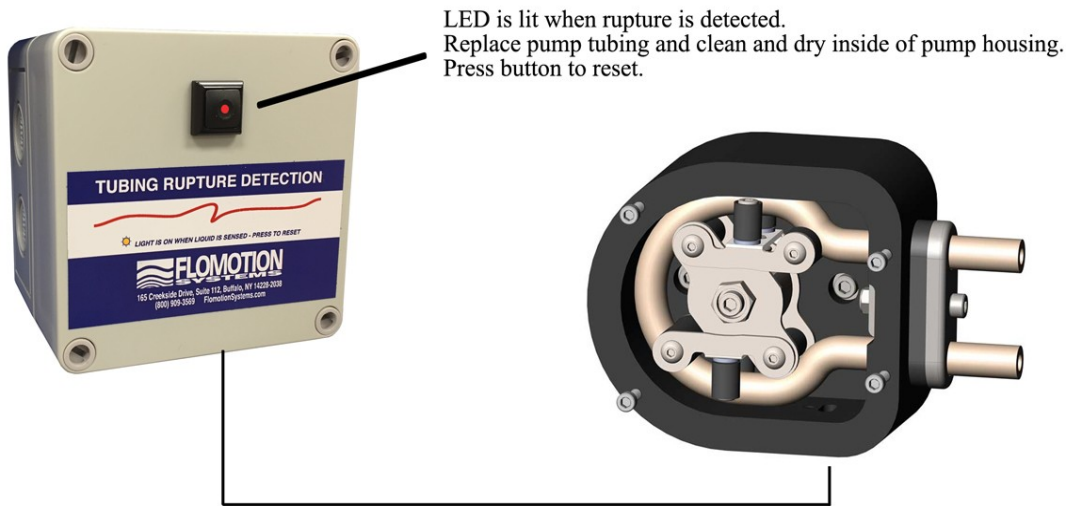
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1.0 - System Overview

The TRD Tubing Rupture Detector



Installation

IMPORTANT: Install the Tubing Rupture Detector and sensor cable away from VFD's or other sources of electrical noise. Do not route the sensor cable under or near motors or VFD's.

Alarm Causes

A rupture alarm is triggered by the presence of a conductive fluid in the pump. When the fluid bridges the two stainless steel electrodes on the LIQUID SENSOR the alarm is triggered.

What to do in an alarm condition

To clear the alarm, first stop the pump and **disconnect power from the pump controller**. Remove the pump cover and remove the ruptured pump tubing. Clean the inside of the pump with a soft rag. Remove any liquid or tubing debris from the inside of the pump and the area around the LIQUID SENSOR. Inspect rollers and clean if necessary.

Resetting the alarm

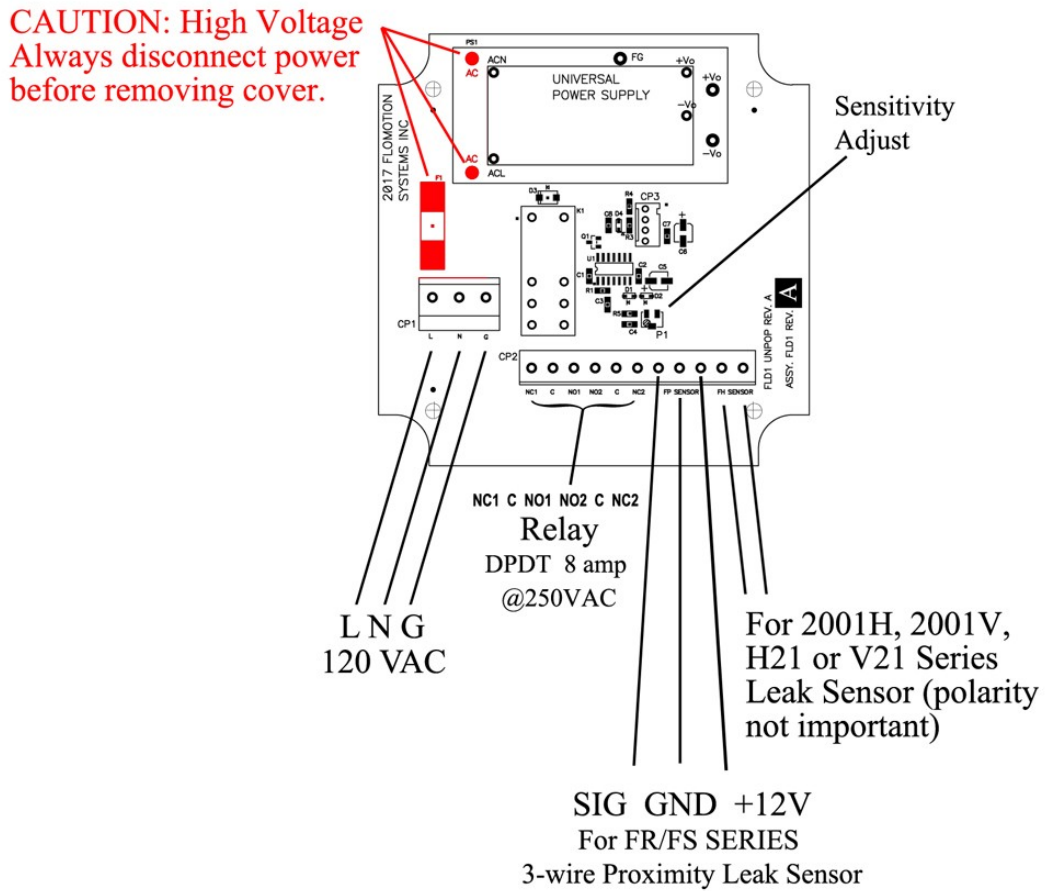
Press the pushbutton on the front of the Tubing Rupture Detector to reset the alarm.

Resuming Service

Install a fresh tubing insert and the pump is ready to resume service.

Interfacing

A dual 8 Amp DC DPDT relay is provided to signal or control an external device during an alarm condition. Wiring connections are shown below.

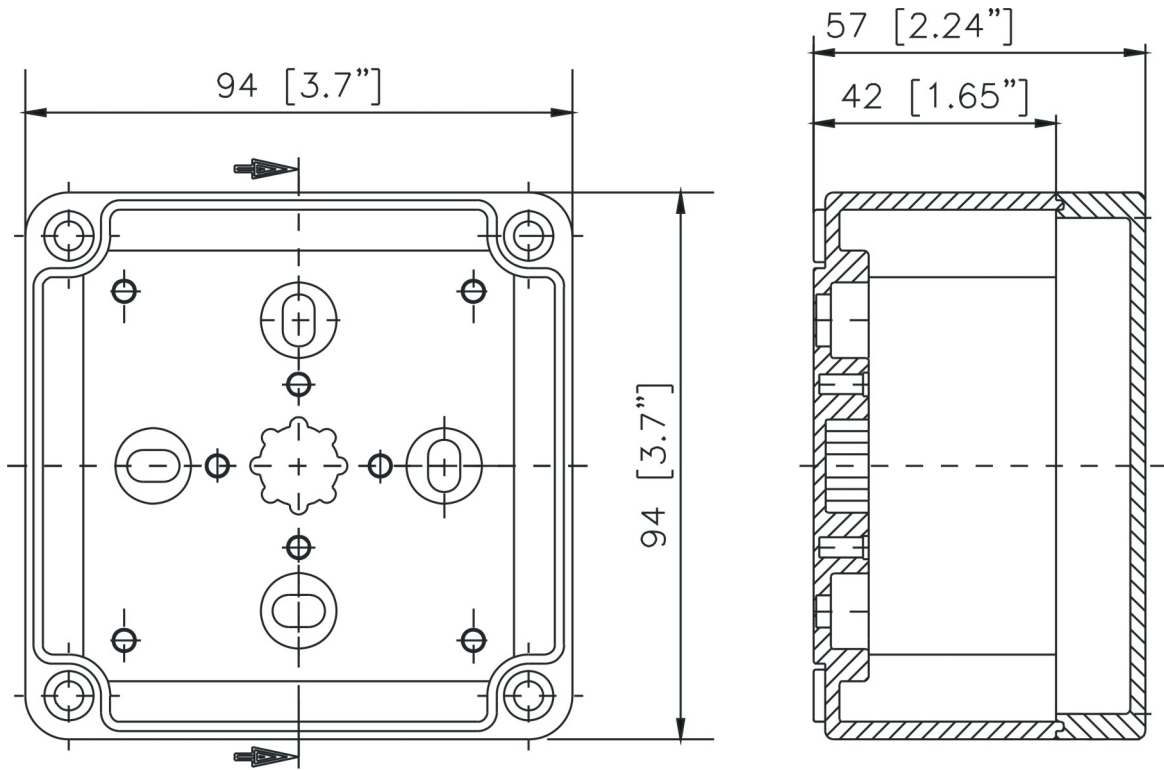


Calibration

Using a small screw driver turn the sensitivity adjusting screw clockwise several turns. Apply a wet rag to the LIQUID SENSOR electrodes. Adjust the sensitivity counter-clockwise slowly until the alarm trips. Remove the sensor and dry off and make sure the rupture detector resets.

If the alarm is too sensitive turn the trimpot 1/2 turn clockwise until it can be reset.

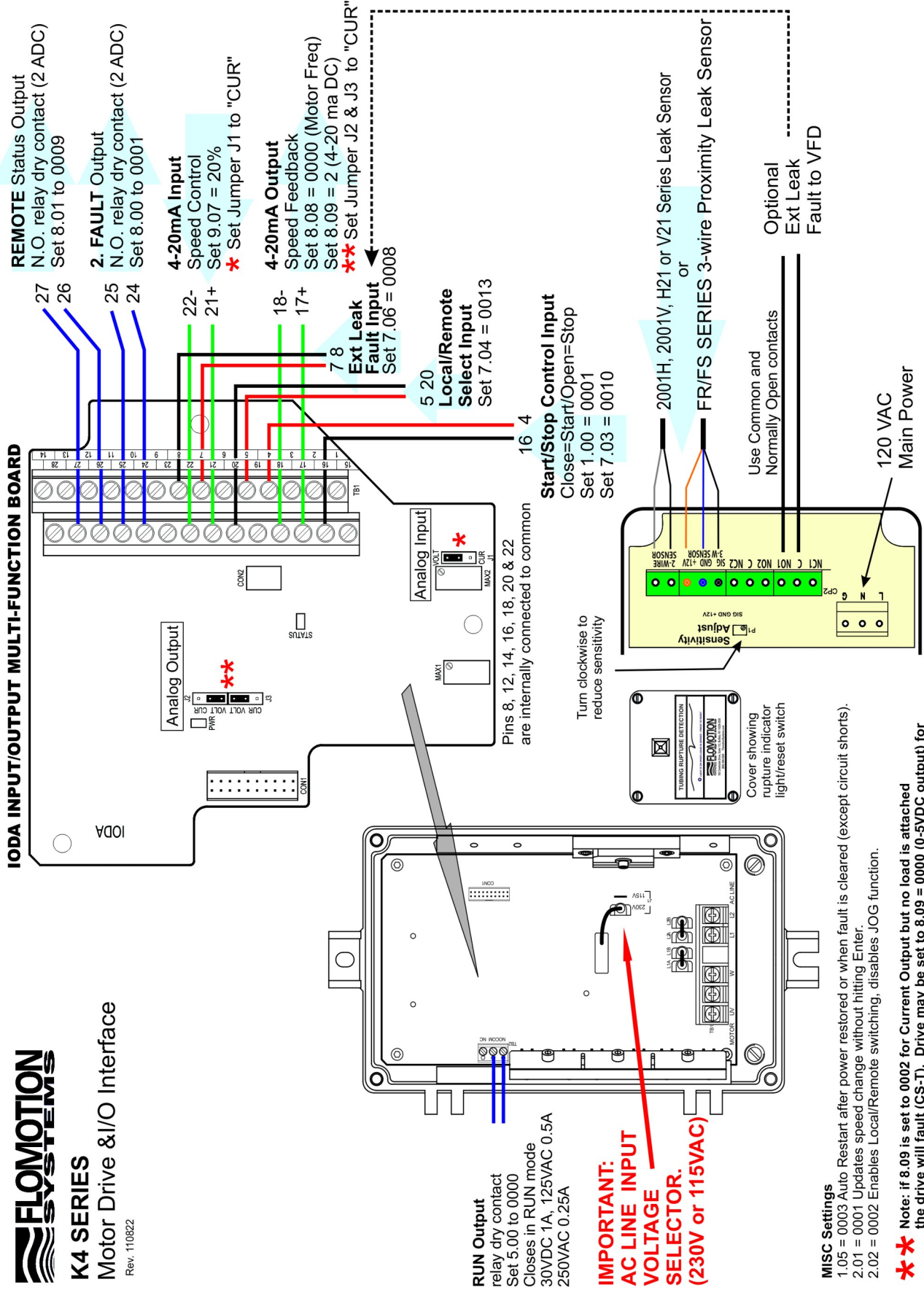
Dimensions





K4 SERIES
Motor Drive & I/O Interface

Rev. 110822



REMOTE Status Output
N.O. relay dry contact (2 ADC)
Set 8.01 to 0009

2. FAULT Output
N.O. relay dry contact (2 ADC)
Set 8.00 to 0001

4-20mA Input
Speed Control
Set 9.07 = 20%
* Set Jumper J1 to "CUR"

4-20mA Output
Speed Feedback
Set 8.08 = 0000 (Motor Freq)
Set 8.09 = 2 (4-20 ma DC)
** Set Jumper J2 & J3 to "CUR"

Ext Leak Fault Input
Set 7.06 = 0008

Local/Remote Select Input
Set 7.04 = 0013

Start/Stop Control Input
Close=Start/Open=Stop
Set 1.00 = 0001
Set 7.03 = 0010

2001H, 2001V, H21 or V21 Series Leak Sensor
or
FR/FS SERIES 3-wire Proximity Leak Sensor

Optional
Ext Leak
Fault to VFD

RUN Output
relay dry contact
Set 5.00 to 0000
Closes in RUN mode
30VDC 1A, 125VAC 0.5A
250VAC 0.25A

IMPORTANT:
AC LINE INPUT
VOLTAGE
SELECTOR.
(230V or 115VAC)

MISC Settings

- 1.05 = 0003 Auto Restart after power restored or when fault is cleared (except circuit shorts).
- 2.01 = 0001 Updates speed change without hitting Enter.
- 2.02 = 0002 Enables Local/Remote switching, disables JOG function.

** Note: if 8.09 is set to 0002 for Current Output but no load is attached the drive will fault (CS-T). Drive may be set to 8.09 = 0000 (0-5VDC output) for testing so no fault will occur. Change 8.09 back to 0002 for 4-20mA output once a load is attached.