VF-20 & VF-30: 110VAC, 220VAC, 24VDC Series Installation/Instructions

FIGURE 1

1) Mount VF series probe in suitable process connection. Verify that the forks will not be within 1/2 inch of any object in the vessel.

2) Connect wiring per FIGURE 1 using one of the following operating power options from model # found on housing.
   /a = /1 - 24 VDC
   L: + N: -
   /a = /2 - 120 VAC
   L: L1 N: Neutral
   /a = /3 - 240 VAC
   L: L1 N: L2 G: Ground

VERIFY that the proper operating power is available before energizing unit.

3) The outputs will have the following characteristics depending on the position S2.

S2 in position WET –
The relay will energize when fork is wet and give continuity between C1 and NO1, as well as C2 and NO2.
A dry fork will give continuity between C1 and NC1, as well as C2 and NC2.

S2 in position DRY –
The relay will energize when fork is dry and give continuity between C1 and NO1, as well as C2 and NO2.
A wet fork will give continuity between C1 and NC1, as well as C2 and NC2.

FIGURE 2

Integral LED indicator conditions:
a) on continuously when relay is energized.
b) blink continuously when relay is not energized.
c) ** off completely if there is a fail condition (see below)

4) Apply power to unit after all electrical connections are made.

4) ** Possible fail conditions from continuous self test:
a) Too much build up on the fork (the forks are bridged and can not vibrate)
b) Fork is broken
c) Wire is broken
d) Circuit is damaged
e) Fork is too close to side of vessel (within 1/2 inch)

5) ** TIME DELAY (TD) adjustment
Adjusting the time delay will change the time it takes to switch from one state to another.
10 second delay; TD adjusted fully clockwise
100 millisecond delay; TD adjusted fully counter clockwise

6) THRESHOLD (TH) adjustment
Factory setting works fine, but for optimal switching (switching when 50% of fork is covered) adjust the threshold adjustment according to FIGURE 2.

7) Check out the unit by raising and lowering the liquid in the vessel. Verify that the contacts switch upon WET or DRY fork sensor conditions.

* WARNING: Use supply wires suitable for 61°C above surrounding ambient
** only the VF-30 has a time delay and continuous self test with a fail mode

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