

O.L.E T4000 DAY TANK CONTROLLER



Applies to the following models **ONLY**:

T4000-240PR

Please read carefully **BEFORE** commencing installation.

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- In the event that pump fails to start the low low-level input will trigger the audible alarm & signals a BMS system if connected.
- Pump relay is 240V, 6 A rated. (PASSIVE)
- LED indicators change colour to indicate status of system.
- Power supply can be 230V, 110V or 24VDC.
- Uses up to 4x float switches not provided **B8** which come with a 1" BSPT male tank fitting.
- Can be connected to an O.L.E T4020 or T5020 tank gauge which must have relay boards fitted.
- Max. tank height 4m.
- Operating Temperature: -5 to +60 Degrees C
- Humidity: 5 to 90%
- IP65 Weatherproof

POWER SUPPLY

24 VDC as standard.

100 / 240 vac @50/60Hz., stepped down to 24 VDC option.

(When used in conjunction with T5020 Tank Gauge, power is provided by the gauge 24vdc supply, reducing power wiring requirements)

INPUTS

Alarm Functions. Each of the 4 inputs can be set to:

1. Not Used
2. Normally Open (NO)
3. Normally Closed (NC)

We recommend NC as this is 'Fail Safe' Labelling is included LL, L, H, HH, Bund, Water. Latching (See Pump Control Mode Below).

OPERATION & SETUP

OPERATION

- In Safe Condition, alarms show a solid Green LED.
- When an alarm condition occurs, the LED will Flash Red.
- When the Alarm is acknowledged, the LED will be Solid Red.
- When Safe condition returns, LED will revert to Green.
- (Multiple Alarms can be acknowledged at any time)
- During Pump On mode, LED's are Orange.

SIREN AND BMS OUTPUTS

1. Local Alarm / Siren connection, Sounds when the LED Flashes. Stops sounding when the Alarm is acknowledged.

2. BMS Remote connection is an output volt free passive contact, that is normally closed. This connection 'Opens' when an Alarm is detected, and the LED is flashing, and remains open even after the alarm has been acknowledged. This Output will only close, when LEDs are Green and in Safe operation mode. This ensures BMS systems and similar control monitors can see when alarms occur and when they are made safe, and not simply acknowledged locally.

T4000 relay / Remote control output ratings:

1-4 Control 250 Vac / 6 Amp

Pump Control = 240 Vac / 6 Amp

TEST MODE.

The T4000 has a built-in circuit test function. This is a smart test, as it does not trigger the remote output, as this would alarm the BMS or other associated devices.

PUMP CONTROL MODE

This Mode is jumper selectable. When control input 2 is triggered, this latches the Pump Control Relay On. When control input 3 is triggered, this unlatches the pump control relay.

(As a failsafe, input 4 if triggered not only sound the alarm, but also opens the pump control circuit relay).

CONNECTION SETTINGS.

1. Floats switches from OLE are Normally Closed (NC) when in DOWN position.
2. The T4000 inputs can be switched from NC to NO as required using the 2 jumpers on each circuit. SEE WIRING DIAGRAM.
3. The 0/1 jumper can be removed to disable the Alarm circuit. (No LED)
4. The P and A jumper are for when the system is being used as a Pump controller or as an Alarm.
5. H+ H- is for an Audible Alarm that will activate when Flashing RED condition is present. (This is the supply voltage so 24vdc)

OPERATION:

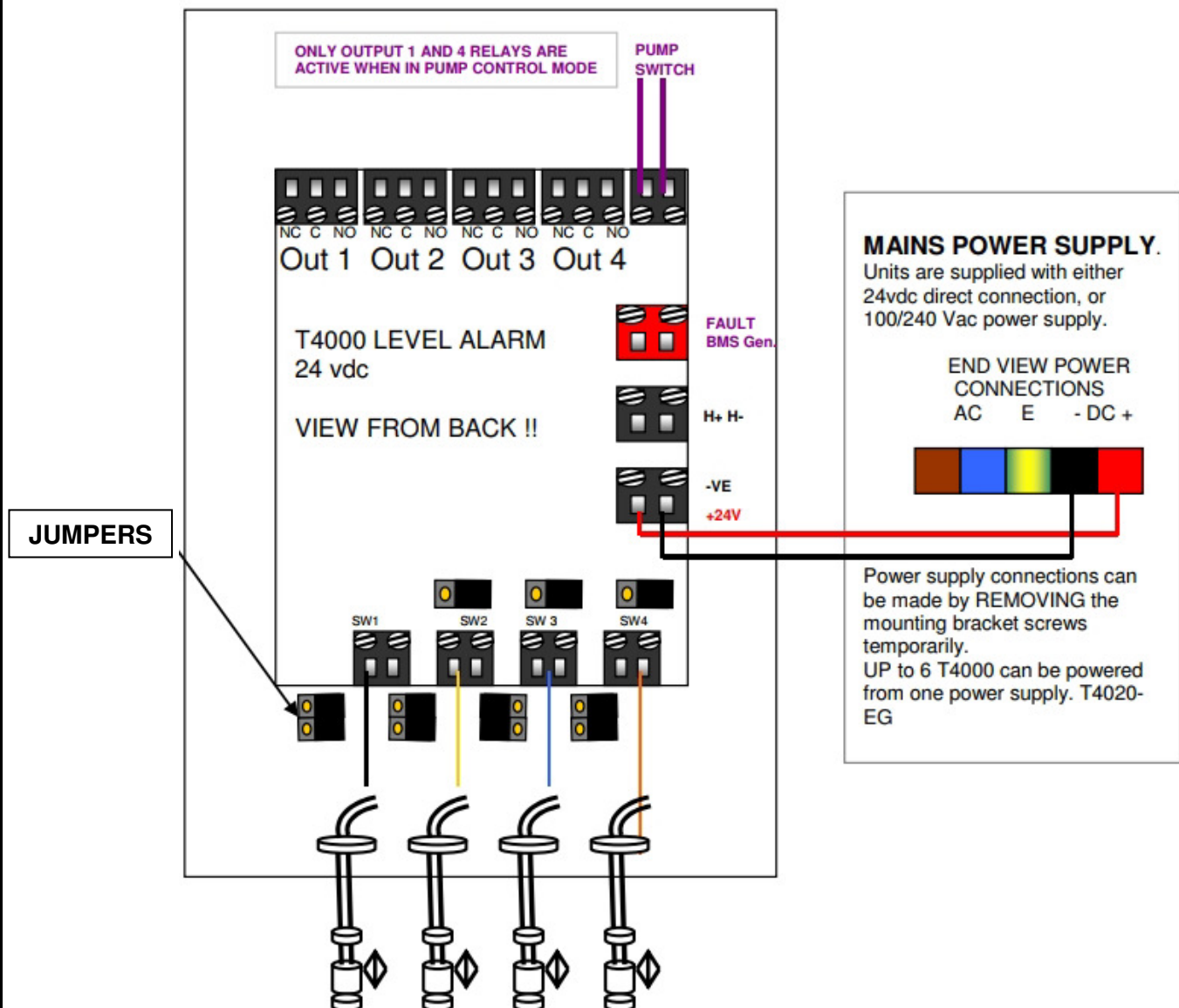
1. When lights are GREEN = No Alarm
2. When Lights Flash RED = Alarm / problem. (ORANGE = PUMP ON)
3. When the Acko button is pressed the Lights changed to fixed RED. This Auto resets when Alarm condition is removed.
4. The BMS output changed condition (Volt Free) when any of the alarms are flashing red or solid red.
5. The P and A jumper are for when the system is being used as a Pump controller or as an Alarm.

6. When in Pump Control mode, Relay OUTPUTS 2 and 3 are NOT operational
7. When Input 4 is in "P" (Pump Control) This also SHUTS DOWN the PUMP CIRCUIT FAIL SAFE.

FAQS

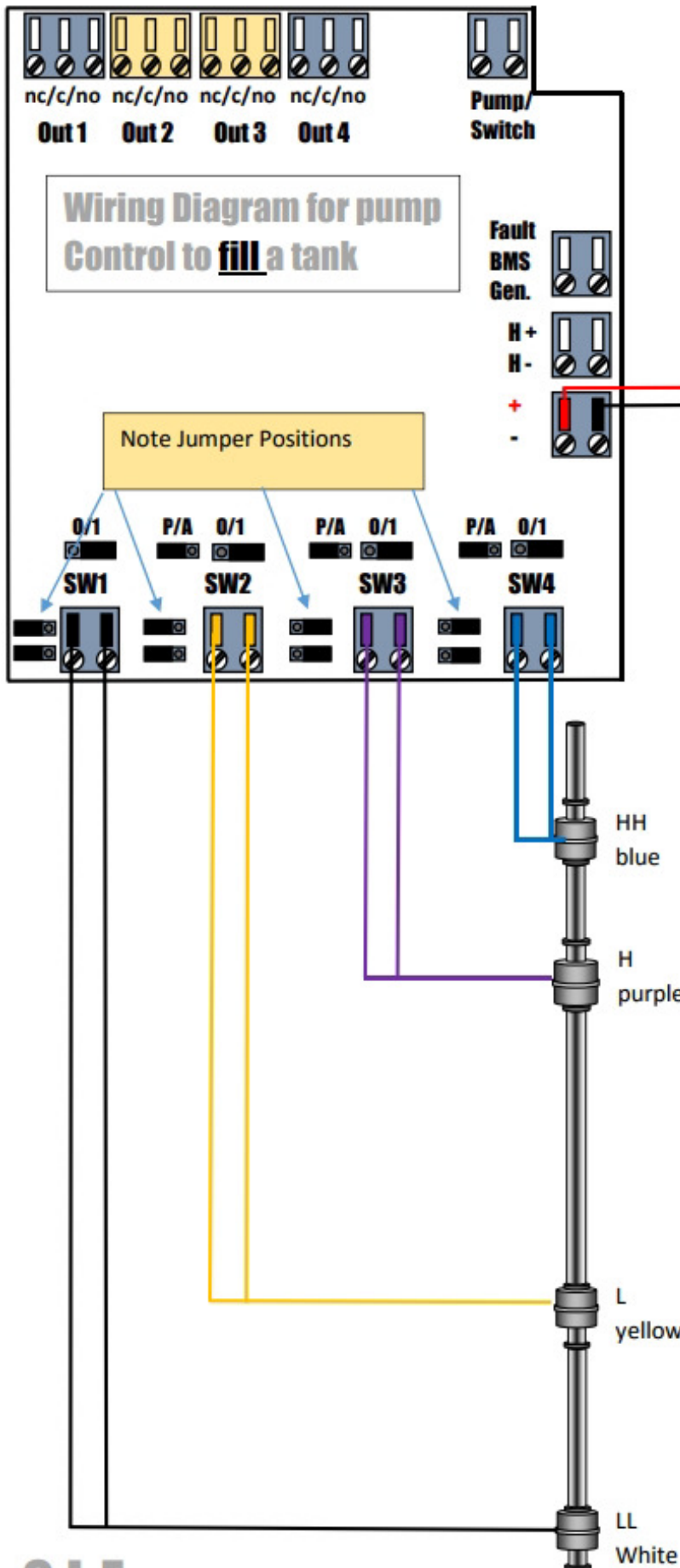
- Q: Can this be used to control filling a tank as well as emptying one
- A: Yes. The system can be set for either way round, and has an emergency automatic shut down when High Level is reached on Tank Filling applications
- Q: Can we use any type of level switch input.
- A: Yes, if the switches are "simple apparatus" meaning reed switch or similar. (Not capacitance or resistance)
- Q: Can the system power a pump directly.
- A: No. The T4000 is a switch to operate the power to a pump. You may need to include a contactor in the circuit if the load is more than 6 to 8 amps

WIRING DIAGRAM



T4000 Wiring Diagram Setting for Day Tank Control

O.L.E.



Power Supply

Units are supplied with either 24vdc direct connection, or 100/240 Vac power supply.

Power supply connection can be made by removing the removing the mounting bracket screws temporarily



Connection Settings.

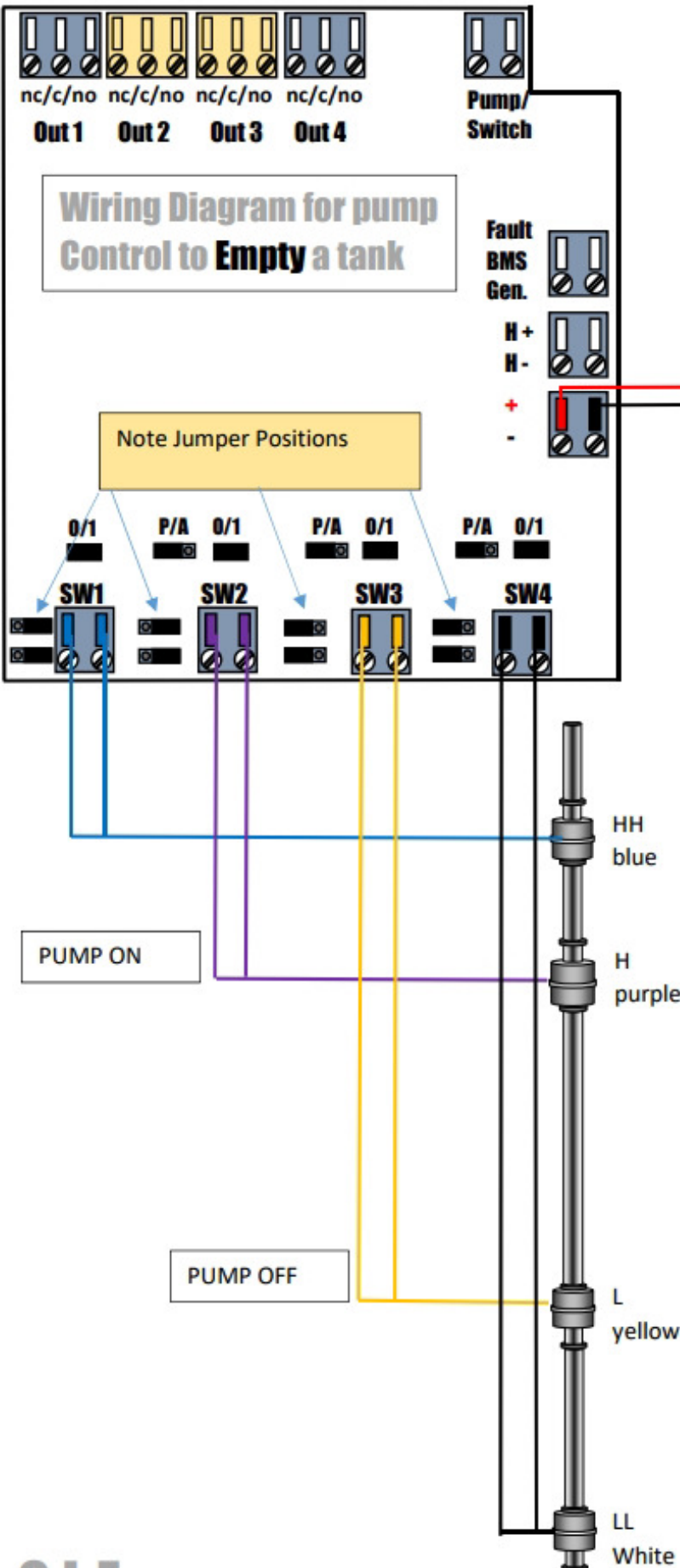
- 1/ Float switches from OLE are closed (NC), when they are in the DOWN position.
- 2/ The T4000 inputs can be switched from NC to NO as required using the 2 jumpers on each circuit.
- 3/ The 0/1 jumper can be removed to disable the Alarm circuit. (No LED)
- 4/ The P and A jumper are for when the system is being used as a Pump controller or as an Alarm.
- 5/ H+ H- is for an Audible Alarm that will activate when Flashing RED condition is present. (This is the supply voltage so 24vdc)

• Operation:

- 1/ When lights are GREEN = No Alarm
- 2/ When Lights Flash RED = Alarm / problem.
(ORANGE = PUMP ON)
- 3/ When the Acko button is pressed the Lights changed to fixed RED. This Auto resets when Alarm condition is removed.
- 4/ The BMS output (MC) changes condition (Volt Free) when any of the alarms are flashing red or solid red.
- 5/ The P and A jumper are for when the system is being used as a Pump controller or as an Alarm.
- 6/ When in Pump Control mode, Relay OUTPUTS 2 and 3 are NOT operational
- 7/ When Input 4 is in "P" (Pump Control) this also SHUTS DOWN the PUMP CIRCUIT **FAIL SAFE**

T4000 Wiring Diagram Setting for WASTE Tank Control

O.L.E.



Power Supply

Units are supplied with either 24vdc direct connection, or 100/240 Vac power supply.

Power supply connection can be made by removing the mounting bracket screws temporarily



Connection Settings.

- 1/ Float switches from OLE are closed (NC), when they are in the DOWN position.
- 2/ The T4000 inputs can be switched from NC to NO as required using the 2 jumpers on each circuit.
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• Operation:

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- 4/ The BMS output (MC) changes condition (Volt Free) when any of the alarms are flashing red or solid red.
- 5/ The P and A jumper are for when the system is being used as a Pump controller or as an Alarm.
- 6/ When in Pump Control mode, Relay OUTPUTS 2 and 3 are NOT operational
- 7/ When Input 4 is in "P" (Pump Control) this also SHUTS DOWN the PUMP CIRCUIT **FAIL SAFE AVOID RUN DRY**

RELAYS RATED AT 240 VAC 10 AMPS

DECLARATION OF CONFORMITY



Company Name: **Hytek (GB) Ltd**

Address: **Delta House
Green Street
Elsenham
Bishop's Stortford
Hertfordshire
CM22 6DS**

Date of Issue: **25th October 2022**

Equipment Details: **Electronic Tank Gauge Kit (Fuel Monitor)
T4000**

Applicable Directives:
& Standards

- SI 2016 1091 Electromagnetic Compatibility Regulations**
- SI 2016 1101 Electrical Equipment Safety Regulations**
- SI 2008 1597 Supply of Machinery Safety Regulations**
- SI 2013 3113 Waste Electrical & Electronic Equipment Regulations**
- SI 2012 3032 Restriction of Use of Certain Hazardous Substances Regulations**

Declaration Number: **UK141 Issue 2**

On behalf of the above-named company, I declare under our sole responsibility that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives.

Clive Wellings

Clive Wellings, Process Co-ordinator
25th October 2022,
Bishop's Stortford, Herts

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