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# **DT Jockey Pump Controller**

# General Overview:

The DT Jockey Pump Controller was specifically designed to meet the needs of the fire pump industry in South Africa

The Jockey Pump Controller offers great flexibility in Jockey pump selection , Design and assembly.

# **General Specifications**:

- 1. Supply input voltage: 230Vac or 400Vac.
- 2. Supply input current: Up to 60mA.
- 3. Clock speed: 8 MHz
- 4. Transformer Apparent Power: 22VA
- 5. Output: 3 x 24Vac Isolated outputs
- 6. Output: 1 x Relay Switched 24Vac output.
- 7. Input: 4 x Isolated inputs.
- 8. Potential free outputs: 2 x DPDT outputs rated at 8A at 250Vac.
- 9. Protection: Contactor Inductive spike suppressor.
- 10. Inrush current limiting: Yes
- 11. Mov Protection: Yes
- 12. Fuse Protection: Yes, Supply (2x0.5A), 24Vac(1A) and 12Vac(1A)
- 13. Time adjustment delay on: Yes, 0-30 sec.
- 14. Time adjustment delay off: Yes, 0-30 sec.
- 15. Software based protection: Yes, Anti water hammer timer.
- 16. Onboard indication: Yes, LED Based, 24V available, 12V available, 5v available, MCU operating and 1 second flashed timer.
- 17. Programming 2x5 header pin ICSP.

### **General Operation**:

The general operation of the PCB is to operate a 24Vac contactor. The contactor switches mains voltage onto the connected motor.

The board will differentiate between a number of conditions and timers then decide whether or not the motor should be started. The board then controls the corresponding outputs for indication and signaling to the required system.

#### Pin-Out:

Please see below general layout drawing.

Mains Supply input:

1. 230Vac and 400Vac (J1 – Not Polarity dependent)

Inputs:

- 1. Pump run (J2).
- 2. Pump trip (J3).
- 3. Pressure switch (J4).
- 4. Selector Switch for Manual or Auto condition (J12).

All inputs only require the 2 x pins to be short-circuited or switched in order to activate the condition

#### Outputs:

- 1. Pump run indication (J16).
- 2. Pump trip indication (J13).
- 3. Pump run hour meter (J14).
- 4. Contactor energizing output (J5).

All outputs have been current limited protected.

Potential free contacts:

- 1. Pump run (J6 and J7)
- 2. Pump trip (J9 and J15)

The PCB is marked with the corresponding com, Normally open and Normally closed positions.

# General Layout of PCB:

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TF	2	1		
	FU5	• ×1Ø	● FU4	
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Contact us: For further details or requirements please contact us at <u>Info@day-tec.com</u>