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Digital Readout (DRO)

Input / Output Connection

Application Note
502356
Issue 3

Introduction

The input / output connections are available on the rear of the DR600 / DR700 Digital Readout (DRO) on a male 25 way D-type connector. This enables the user to have control over some functions of the DRO.

For both input and output, the 0 V reference is available on pins 1 and 10. This reference is the same as the DRO chassis and mains earth.

Note: This application note should be read in conjunction with the DR600 / DR700 Installation Manual.

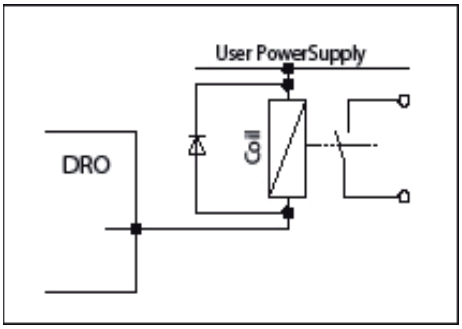
Output Connection

Output Pins (Input / Output Connector)	
Pin 16	Range Lamps within limits
Pin 17	Range Lamps Low
Pin 18	Range Lamps High

Relay Driving

When active the output will go to 0 Volts and sink current.
Maximum current is 100 mA
Maximum voltage at DRO output pin in "Off State" is 32 Volts

Coil must be chosen so current is <100 mA $\frac{\text{User PowerSupply (V)}}{\text{Coil (R)}}$

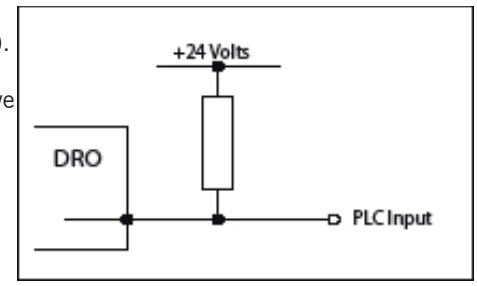


PLC's

Connection to **POSITIVE LOGIC** PLC Inputs (+24 Volts=ON, 0 Volts=OFF).

A 1 k resistor from the DRO output connected to the PLC +24 Volt will give a signal at the pin that will drive a positive logic PLC Input (+24 Volt to switch on).

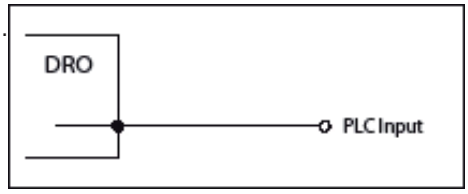
The input at the PLC will be OFF when the DRO output is ON (signal inverted). This can be taken care of in the PLC programme.



Connection to **NEGATIVE LOGIC** PLC Inputs (0 Volts=ON, +24 Volts=OFF).

Connect the DRO output directly to the PLC input.

The PLC input will be ON when the DRO output is ON.



Input Connection

Input Pins (Input / Output Connector)			
Pin 2	Remote Zero	Pin 7	Remote Freeze Display
Pin 3	Remote Load	Pin 8	Remote Programme Up
Pin 4	Remote Print	Pin 9	Remote Programme Down
Pin 5	Remote Reset Max / Min / Diff	Pin 22	Remote Motor Up
Pin 6	Remote Max / Min / Diff Display Toggle	Pin 22	Remote Motor Down

The above inputs are designed for use with the DR600 / DR700 in standard mode.
Pin functionality may change when the DR700 is used in Advanced Mode. Please refer to the DR600 / DR700 User Guide Manual for a description of these pins.

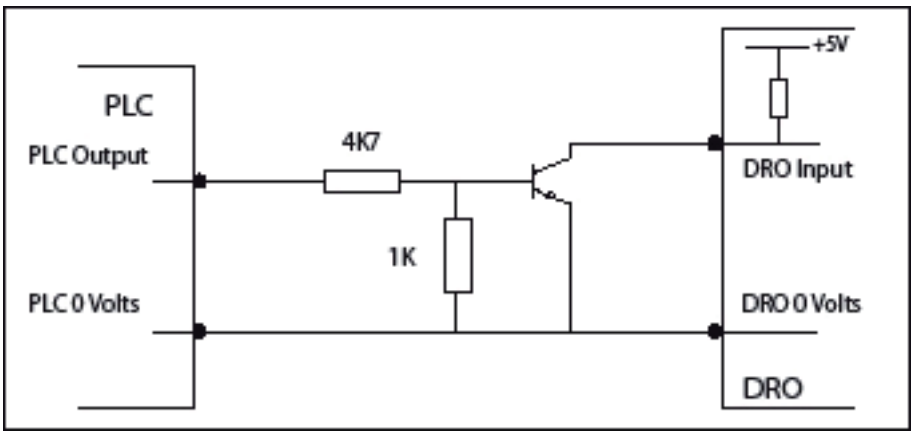
All inputs are pulled up to +5 Volts within the DRO, so any input can be activated by connection to 0 Volts (Pin 1 or 10)

They can also be driven directly by the +5 Volt or +12 Volt logic system.

Maximum voltage that can be placed on the input pins is +15 Volts.

PLC's

Connection to **POSITIVE LOGIC** PLC Outputs (+24 Volts=ON, 0 Volts=OFF)
(If possible use a transistor instead of a relay. [Relays can introduce 'bounce' effects])



Connection to **NEGATIVE LOGIC** PLC Outputs (0 Volts=ON, +24 Volts=OFF)