

# EMT 16OP IF Card Documentation

## *Ah-ha auxiliary inputs Terminal block 5*

The Ahha inputs are all 5 volts switched to ground. Our board operates these inputs through a reed relay isolating the machine electrics which are all 24 volt DC. Our inputs are all operated by +24VDC. Therefore to operate an input connect the 24 Volt power supply ground (24 Volt Return) to 24VRET T5-1 terminal and connect the +24V of the power supply via a suitable switch to the input you wish to operate. Note that if you are using AUXIN 11 & AUXIN 12 jumpers JR1 and JR2 must be fitted so that they bridge the pin marked AUX to the centre pin. (This is the default position)

## *Ah-ha outputs Terminal block 1*

The Ahha outputs are all low current 5 volt signals. Our board uses these inputs to operate a solid state relay switching 24 volts again isolating the machine electrics. Therefore to operate an output connect +24VDC to T1-10 terminal .The maximum loading is 130Ma and outputs should be used to drive a relay if you are operating any devices on the machine. A suitable relay is the one fitted on the EMT main IF card to operate the Emergency Stop and spindle circuits. It is capable of switching 1 Amp up to a maximum of 100V ac/dc.

## *Analogue Connections Terminal block 3*

The analogue connections on T2 are connected straight through to the analogue connections from the Ah-ha board in the PC. They do however pass through very low current fuses as a measure of protection when connecting to older spindle drives

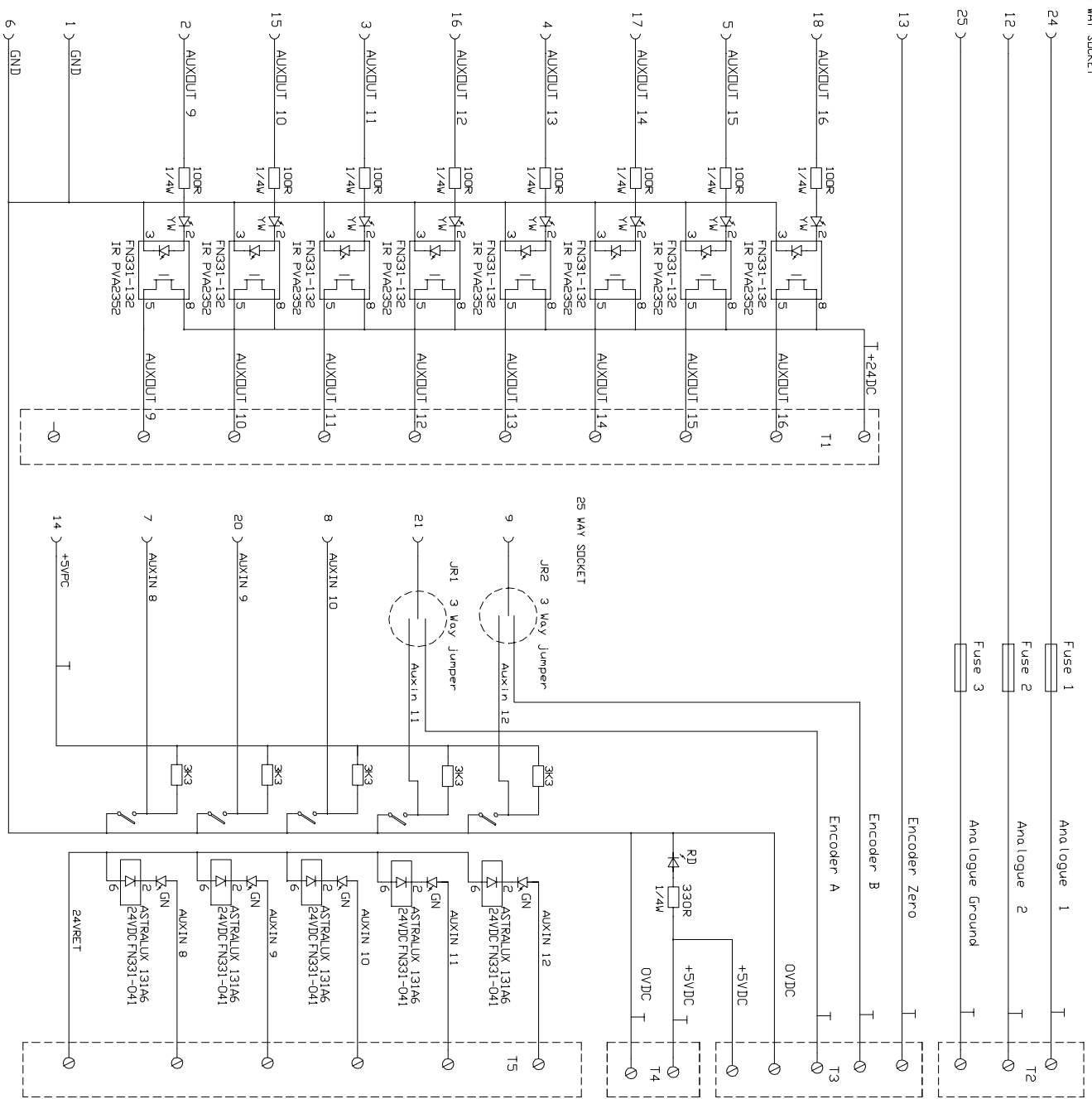
## *Encoder Connections Terminal block 3*

This is for a spindle encoder when used in lathe applications. The encoder signal connections pass straight through to the connections from the Ah-ha board in the PC and the power connections pass to terminal block 4 as described below. If you are using an encoder jumpers JR1 and JR2 must be moved so that they bridge the pin marked ENC to the centre pin.

## *5V Connections Terminal block 4*

This is provided as a convenient place to connect a +5VDC supply so that the encoder connections are all on a single plug

25 WAY SOCKET



ALL LEDS T13 4/5mm SIEMENS Lx5360-K  
 SOCKET 25-Way D Type PCB Mount

BCD allocation

- Auxout 9 = BCD 1
- Auxout 10 = BCD 2
- Auxout 11 = BCD 4
- Auxout 12 = BCD 8
- Auxout 13 = BCD 10
- Auxout 14 = BCD 20
- Auxout 15 = BCD 40
- Auxout 16 = BCD 80
- Auxout 6 = M Strobe
- Auxout 7 = S Strobe
- Auxout 8 = T Strobe
- Auxin 8 = BCD Finish

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 Title Circuit for EMT/Ahha 16DP IF Board

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Revision

