BCD OPTION

The BCD output option delivers 5½ digits in BCD (8.4.2.1.) form through a 34-pin connector that provides 21 output DATA lines, DATA VALID, POLARITY, OVERRANGE signals and TRIESTATE input, plus power inputs to feed the circuit card. The 34-pin rear connector can be adapted to interface with 37-pin SUB-D terminals by means of a cross-wire adaptor supplied with the option.
All the outputs are compatible with TTL and 24V logic and they are opto-isolated with respect to the input signal whenever the card is powered from an external source of 5V or 24V.

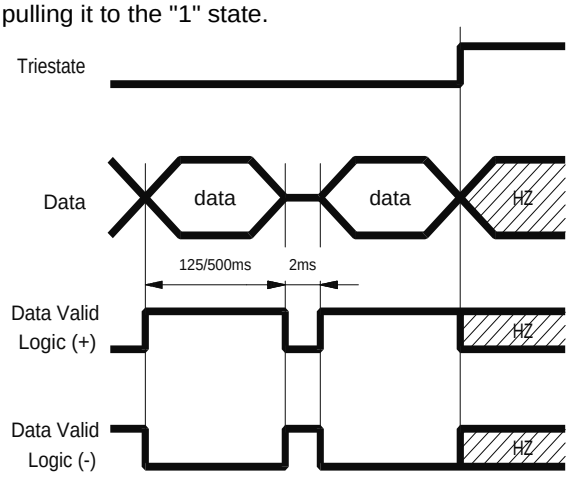
The BCD option, that can be installed in models ALPHA and BETA, is supplied independently with an instructions manual and the following accessories :

- Adaptor for 37-pin SUB-D connector.
- Integrated circuits for changing the logic.
- Instructions manual.

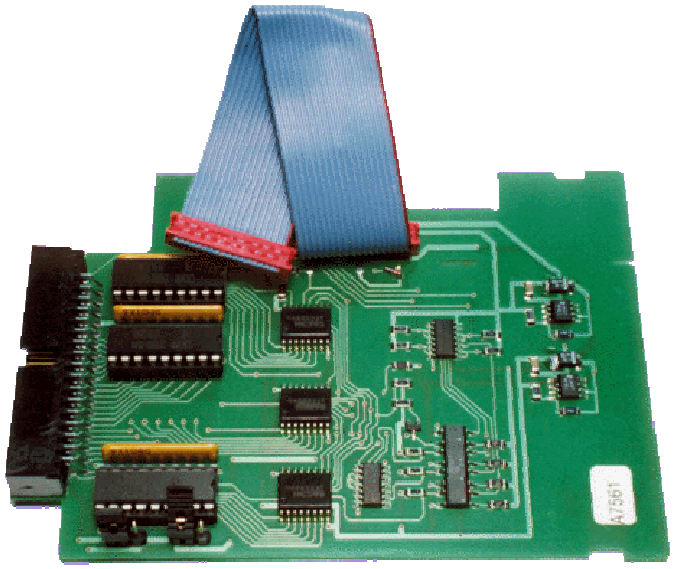
FUNCTIONAL DESCRIPTION

- The data output is updated at the same rate as the display reading whenever the TRIESTATE input is held low.
- When the TRIESTATE input is pulled up to the high level, all tha outputs go to high impedance state so that the bus can be used for other purposes.
- The DATA VALID signal goes active to indicate the the data is available at the output.

The option can be configured for positive or negative true logic.
This configuration affects all the signals (data bits, DATA VALID, POLARITY and OVERRANGE) except the TRIESTATE input which is controlled externally and always goes active by pulling it to the "1" state.

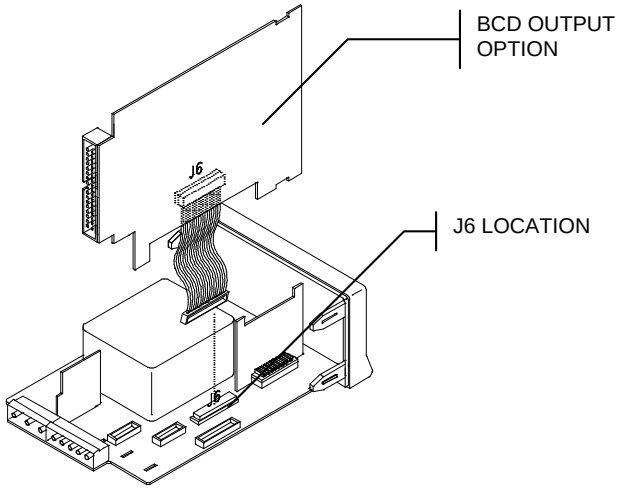


For positive true logic, the outputs are active at the "1" state and for negative true logic, they are active at the "0" state.
The above diagram shows how the DATA VALID output activates in both cases.
The time taken to transfer the data is 2ms during which no valid data is present at the connector.

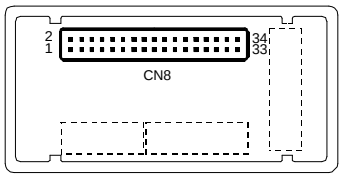


INSTALLING THE CARD

The BCD option is installed parallel to the main board by plugging the flat cable terminal connector in the J6 location at the main board.



CONNECTIONS



Instrument rear view with BCD option

For the outputs to be optoisolated, the card must be powered from an external source from 5 to 24V applied to pins 31/32 and 28.

1	***1***	***2***	2
4	***3***	***4***	8
10	***5***	***6***	20
40	***7***	***8***	80
100	***9***	***10***	200
400	***11***	***12***	800
1K	***13***	***14***	2K
4K	***15***	***16***	8K
10K	***17***	***18***	20K
40K	***19***	***20***	80K
100K	***21***	***22***	Polarity
Overrange	***23***	***24***	Data Valid
Triestate	***25***	***26***	N. Con.
GND	***27***	***28***	GND
N.Con.	***29***	***30***	N. Con.
+24V/TTL	***31***	***32***	+24V/TTL
N.Con.	***33***	***34***	N.Con.

ORDERING REFERENCE

BCD parallel output option ..... **BCD**