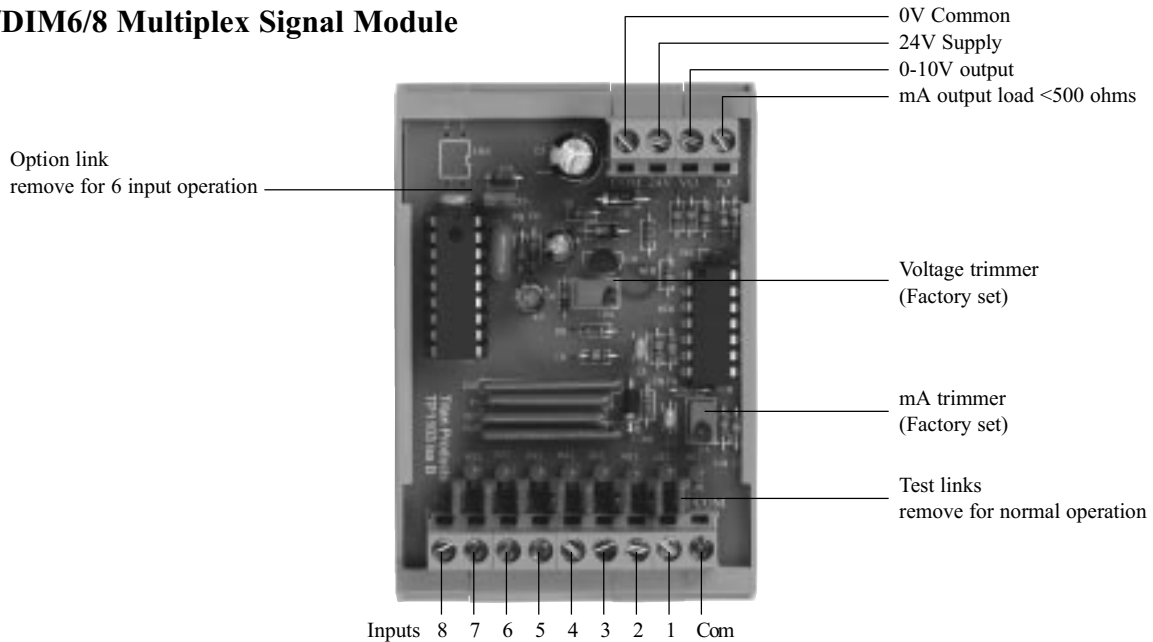


IO/DIM6/8 Multiplex Signal Module



8 Input operation (Link LK fitted)

INPUTS	V value	mA value	Output Signal	Time in seconds
Start/Synchronisation	10V	20mA	10V or 20mA	4 secs
Input 1	0.6V	5.00	Binary Combined Value	4 secs
Input 2	1.2V	5.99		
Input 3	2.4V	7.98		
Input 4	4.8V	11.96		
Input 5	0.6V	5.00	Binary Combined Value	4 secs
Input 6	1.2V	5.99		
Input 7	2.4V	7.98		
Input 8	4.8V	11.96		
BACK TO START				

The DIM8 output signal is transmitted in a time frame of 4 seconds for the inputs 1 to 4 and then 4 seconds for the inputs 5 to 8. The time frame sequence is synchronised by a 10V or 20mA signal as shown in the above table. The DIM8 mode is particularly useful for applications where BMS outstations have restrictive analogue input capability enabling 8 digital inputs to be converted to 1 analogue output.

6 Input Operation (Link LK removed)

Input 1	Input 2	Input 3	Input 4	Input 5	Input 6
0.16V	0.31V	0.63V	1.25V	2.5V	5.0V
4.25mA	4.50mA	5.00mA	6.00mA	8.00mA	12.00mA

DESCRIPTION

The IO/DIM6/8 is design to accept Volt free digital inputs and convert the inputs to a multistage voltage (0-10V) or multistage milliamp (4-20mA) output.

The configuration of 6 or 8 inputs is link selectable. The DIM6 input is binary providing 64 levels of output whilst the 8 input mode is a multiplexed signal of 2 x 4 inputs on a time base (see tables for output modes and values).

FEATURES

- * 24 Volt AC or DC supply.
- * 6 or 8 Volt free Digital Inputs.
- * 0-10V or 4-20mA output.
- * Voltage output trimmer.
- * Multiplexed output values.
- * mA output trimmer.
- * LED status Indication.
- * DIN Rail mounting.

SPECIFICATION

Input	6 or 8 Volt free
Output	0-10V DC (o/p impedance >100 Ω) 4-20mA (load 500 Ω)
Output Format	See Tables
Power Supply	24V AC/DC (± 10%)
Power Consumption	Max 30mA + output load
LED indication	When input contacts closed
Operating Temperature	-10 to + 40°C
Terminals	Max cable size 2.5mm
Dimensions	82mm High 57mm Wide 43mm Deep

IO/DIM6 (6 input) BINARY OUTPUT TABLE

Input Count Dec	Input Count Binary	Output Voltage	Output Current
0	000000	0.00	4.00
1	000001	0.16	4.25
2	000010	0.31	4.50
3	000011	0.47	4.75
4	000100	0.63	5.00
5	000101	0.78	5.25
6	000110	0.94	5.50
7	000111	1.09	5.75
8	001000	1.25	6.00
9	001001	1.41	6.25
10	001010	1.56	6.50
11	001011	1.72	6.75
12	001100	1.88	7.00
13	001101	2.03	7.25
14	001110	2.19	7.50
15	001111	2.34	7.75
16	010000	2.50	8.00
17	010001	2.66	8.25
18	010010	2.81	8.50
19	010011	2.97	8.75
20	010100	3.13	9.00
21	010101	3.28	9.25
22	010110	3.44	9.50
23	010111	3.59	9.75
24	011000	3.75	10.00
25	011001	3.91	10.25
26	011010	4.06	10.50
27	011011	4.22	10.75
28	011100	4.38	11.00
29	011101	4.53	11.25
30	011110	4.69	11.50
31	011111	4.84	11.75
32	100000	5.00	12.00
33	100001	5.16	12.25
34	100010	5.31	12.50
35	100011	5.47	12.75
36	100100	5.63	13.00
37	100101	5.78	13.25
38	100110	5.94	13.50
39	100111	6.09	13.75
40	101000	6.25	14.00
41	101001	6.41	14.25
42	101010	6.56	14.50
43	101011	6.72	14.75
44	101100	6.88	15.00
45	101101	7.03	15.25
46	101110	7.19	15.50
47	101111	7.34	15.75
48	110000	7.50	16.00
49	110001	7.66	16.25
50	110010	7.81	16.50
51	110011	7.97	16.75
52	110100	8.13	17.00
53	110101	8.28	17.25
54	110110	8.44	17.50
55	110111	8.59	17.75
56	111000	8.75	18.00
57	111001	8.91	18.25
58	111010	9.06	18.50
59	111011	9.22	18.75
60	111100	9.38	19.00
61	111101	9.53	19.25
62	111110	9.69	19.50
63	111111	9.84	19.75

See below for IO/DIM8 functions and values:

IO/DIM8 option (Outputs Values in Volts and mA)

Decimal In	Binary Outputs				Voltage Out	mA Out
	1	2	3	4		
0	OFF	OFF	OFF	OFF	0.0	4.00
1	ON	OFF	OFF	OFF	0.6	5.00
2	OFF	ON	OFF	OFF	1.2	5.99
3	ON	ON	OFF	OFF	1.8	6.99
4	OFF	OFF	ON	OFF	2.4	7.98
5	ON	OFF	ON	OFF	3.0	8.97
6	OFF	ON	ON	OFF	3.6	9.96
7	ON	ON	ON	OFF	4.2	10.96
8	OFF	OFF	OFF	ON	4.8	11.96
9	ON	OFF	OFF	ON	5.4	12.95
10	OFF	ON	OFF	ON	6.0	13.94
11	ON	ON	OFF	ON	6.6	14.93
12	OFF	OFF	ON	ON	7.2	15.92
13	ON	OFF	ON	ON	7.8	16.91
14	OFF	ON	ON	ON	8.4	17.90
15	ON	ON	ON	ON	9.0	18.93

Voltage Output accuracy = +/- 2.5% of stated value
 mA output accuracy = +/- 1% of stated value

The IO/DIM8 selection operates with a synchronisation 10V or 20mA Multiplexed Output for 4 seconds followed a second signal for 4 seconds illustrating the status of inputs D1-D4. A third signal for a further 4 seconds will illustrate the status of D5-D8 inputs.

After this the 10V or 20mA synchronisation signal will occur and the cycle repeats.