Multi-Function Isolating Signal Converter BM9500 Series

Iss 1
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The BM9500 Series first conditions the input signal before feeding it through an opto-isolating circuit. Both the input and the output stages of the instrument are powered from separate secondaries of the inverter maintaining 3 port isolation.

BM9501: Single Channel, Sample & Hold. Includes a trigger function that will either allow the output to continuously follow the input or hold the last input reading when the trigger function is applied.
BM9502: Dual Channel, High Select. Output follows the highest input.
BM9503: Dual Channel, Low Select. Output follows the lowest input.
BM9504: Single Channel, Peak Select. Output is always at the highest input until remote reset.
BM9505: Single Channel, Trough Select. Output is always at the lowest input until remote reset.

SPECIFICATIONS

ANALOGUE INPUTS:

D C Current
0-1mA into 1000 ohms
0-10mA into 100 ohms
4-20mA into 62 ohms

D C Voltage
Between 0 to +250 Volts DC
Minimum voltage span 1V

SAMPLE/HOLD TRIGGER or RESET INPUTS

Volt free contacts
(5 volt wetting from the BM9500)
N/C Hold or N/O Hold

Voltage
4 to 40 VDC into 10K ohms
opto coupled

OUTPUTS:

DC Current
0 to 10mA into 10 to 2000 ohms
4 to 20mA into 10 to 1000 ohms
Other ranges as required
Minimum span 1mA
Maximum span 20mA

DC Voltage
The voltage output is derived from passing a mA signal through an internal resistor

0 to 1 Volt DC thru 51 ohms
0 to 10 Volt DC thru 510 ohms
1 to 5 Volt DC thru 240 ohms
Other ranges as required
Minimum span 1 Volt DC
Maximum span 10 Volt DC

SUPPLY:

Power Supply Voltage
8 to 30 Volt DC, with converter to maintain signal to power supply isolation

Power Required
1.5 Watts Maximum

Pilot Light
Red LED shows Power ON

Input/Output/Supply Isolation
600 Volts > 20M ohms

Note:
On the BM9502 & BM9503 the two analogue inputs have a common negative.
On the BM9501, BM9504 and BM9505 the 5 volt wetting voltage and analogue input have a common negative.

GENERAL:

Resolution
A to D conversion, 10bits.

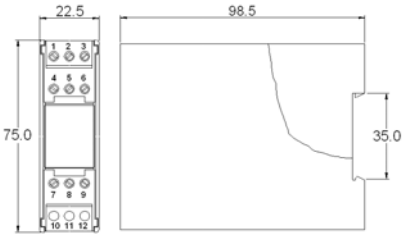
Response Time
<100mS - Step 0 to 65%

Temperature Coefficient
±0.1% of span/Δ 10°C

Operating / Storage Temperature Range
0 to +45°C / -20 to +60°C

Weight
96 gms

MECHANICAL DETAILS



TERMINATIONS DETAILS

	No.	
Power Supply	**1**	-ve
	2	+ve
	3	Screen

	No.	
Output Signals	**7**	Active -ve / Passive +ve
	8	Active +ve
	9	Passive -ve

		DC Current	DC Volts	Dual Input
Analogue Input Signals	**4**	-ve	-ve	Com -ve
	5	+ve	+ve	A+
	6			B+

		DC Volts	Volt Free Contacts	Open Collector
Trigger Input Signals	**10**	-ve	-ve	-ve
	11	+ve	+ve	+ve
	12		Unused	

ORDERING DETAILS
a) Give identification code, i.e. BM9501
b) Give power supply voltage, i.e. 24 Volt DC
c) Give details of input signal, i.e. input type (as listed above) and range.
d) Give details of output required, both type and range, i.e. 4 to 20mA
e) For BM9501, BM9504 and BM9505, give details of Sample/Hold Trigger or Reset type: Voltage or Volt Free Contact.
f) For BM9501, BM9504 and BM9505,Give details of Hold or Rest requirement: Voltage (On or Off). Volt Free Contact (Open or Closed)

LEE-DICKENS LTD, Rushton Road, Desborough, Kettering, Northants, NN14 2QW Tel: 01536-760156