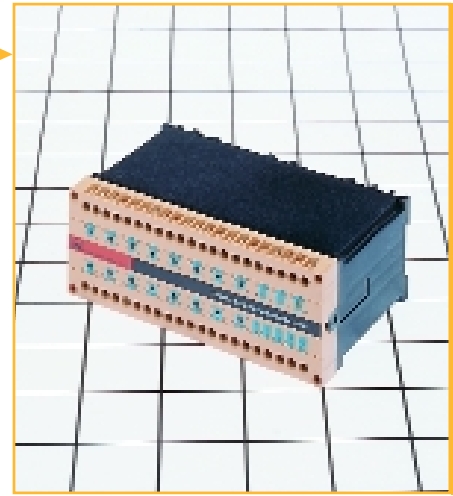


16 Channel Current Multiplexer CSM-1

Function: The CSM-1 is a 16 channel current input multiplexer giving one current output. The CSM-1 is designed to increase the number of analogue current signals you can get into PLCs and other data gathering devices in a cost effective manner. The CSM-1 is an all solid state instrument and channel selection is controlled by a four line address bus. Transfer time for the selected channel takes less than 10 microseconds with an overall accuracy of greater than 0.1% of the actual input level. The CSM-1 also has an ENABLE control line. When disabled the output is in a High Z state allowing several CSM-1 units to be connected in parallel to the same controller input. The units outputs would be tied together and addressed using the same address bus but with separate ENABLE lines only one of which would be enabled at any one time. The period when the unit is disabled is used for self-testing, according to a self-test procedure which checks the unit's hardware.

The CSM-1 is powered by an external DC power supply. This power supply is internally divided into 16 current limited secondary power supplies which can be used as transmitter power supplies for each input channel. Example termination details are described below. The current limiters on each channel avoid blowing the channel's fuse which protects the system against accidental input short-circuit. The current input is routed, either to the multiplexer output terminals (if selected), or to the power supply negative terminal, closing the current loop and maintaining an uninterrupted transmitter current flow.



AlphaMux Range
MULTIPLEXERS

SPECIFICATIONS

INPUTS:

DC Current

16 channels of two, three or four wire transmitters
0 to 20mA or 4 to 20mA
Maximum input current: 30mA
Reverse polarity protected

Input Impedance

Addition to loop resistance:
350 ohms maximum

OUTPUT:

DC Current

Selected 0 to 20mA or 4 to 20mA

Settling Time

Less than 10 microseconds
(resistive load)

Selection

Logic: 4 Address, 1 Enable/Test

Logic Type: True High or True Low (user selectable)

Logic Levels:

"Low" < 0.4V

"High" > 5V < 40V

Logic Input Impedance

Greater than 4K ohms

SUPPLY:

Power Supply Voltage

15 to 40 Volts DC

Current Consumption

20mA in operation
120mA in Test Mode
not including transmitter currents

Transmitter Current

Limited to 40mA \pm 2mA

Current Leakage

Unmeasurable when disabled

Fuses

5 x 20mm quick blow

Main Fuse: 630mA

Channel Fuse: 63mA

Pilot Light

Yellow LED shows Power ON

Red LED per active channel

GENERAL:

Linearity Error

Proportional to input \pm 0.01% of span

Temperature Coefficient

< \pm 0.1% of span/ Δ 10°C

Operating Temperature Range

-20 to +70°C

Storage Temperature Range

-25 to +85°C

Operating /Storage Humidity Range

5 to 95% RH non-condensing

Housing

DIN Rail mounting plastic, polycarbonate

Protection Level

Housing: IP50 DIN40050

Terminals: IP20 DIN40050

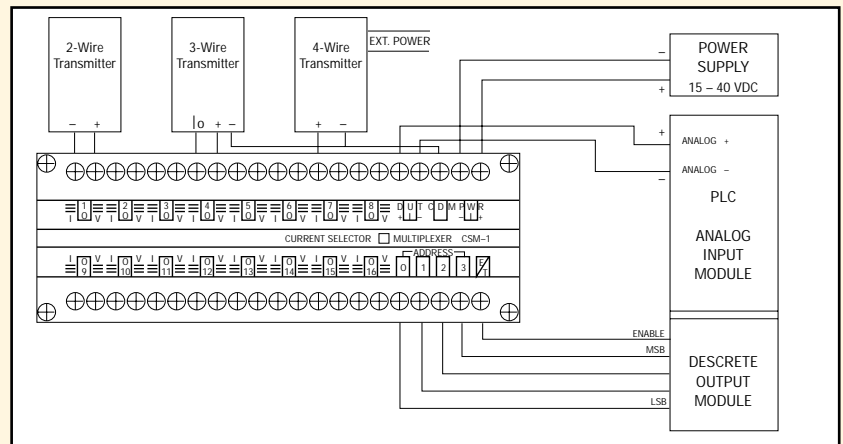
Weight

800 gms

MECHANICAL DETAILS

For Mechanical Details see page 7.6.

TERMINATION DETAILS



ORDERING DETAILS

(a) Give identification code, i.e. CSM-1



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