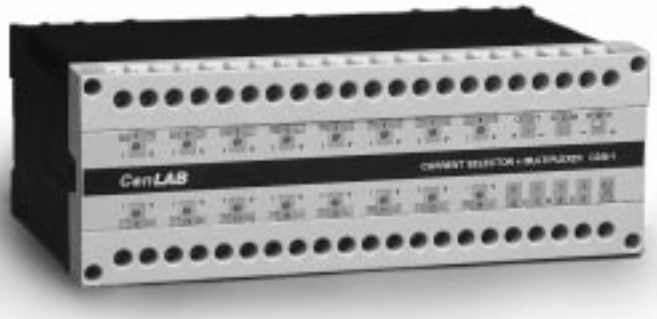
CURRENT MULTIPLEXER — CSM-1

- *16 CURRENT INPUTS*
- *ACCURACY OF 0.01%*
- *COMPATIBLE WITH ALL CONTROLLERS*
- *PLC ENHANCEMENT*
- *SAVINGS IN PLC's ANALOG INPUTS*
- *LOW COST*
- *3-YEAR WARRANTY*



The CSM-1 is a 16 process current input analog multiplexer. The CSM-1 unit enhances small, limited analog inputs capacity PLCs, by using a single analog input to acquire as many analog inputs as required.

The CSM-1 multiplexer is controlled by four address buses generated by the PLC's discrete, inexpensive output module.

The CSM-1 is an all solid state unit, transferring the selected current to the output terminals in less than 10 microseconds, at an overall accuracy of better than 0.01% of reading.

The CSM-1 is provided with an Enable control line. When disabled, the CSM-1 unit's output is in a Hi-Z state allowing several units to be connected in parallel to a single controller input by tying their outputs together, applying the same address lines, but providing a separate Enable control line to each multiplexer. The PLC's program must keep all but the selected multiplexer in a disabled state.

The period during which the unit is disabled is used for self-testing, according to a self test procedure which checks the unit's hardware.

The CSM-1 multiplexer is powered by an external dc power supply. Each two-wire transmitter is connected to a pair of terminals marked as "V" and "I". The power supply connected to the CSM-1 unit is internally split up into 16 current-limited secondary power supplies which are applied to the connected transmitters via the V-terminals.

These current limiters avoid blowing of the channel's fuses which protects the system against accidental input short-circuit, leaving them as ultimate protection.

The current input (via I-terminal) 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.

The CSM-1 is housed in a polycarbonate enclosure which can be mounted on a 35 mm standard DIN rail.

SPECIFICATIONS — CSM-1

INPUTS:
Analog: 16, 0/4-20 mA process current
Logic: 4 address, 1 Enable/Test
Logic type: True low (user selectable)
Logic Levels: "Low" < 0.4V
5< "High" < 40 V

OUTPUT: Selected 0/4-20 mA

ACCURACY: < 0.01% of span (for full temperature range)

SWITCHING TIME: < 10 microseconds (resistive load)

CURRENT LEAKAGE: Unmeasurable when disabled

ADDITION TO LOOP RESISTANCE: 350Ω maximum

TRANSMITTERS CURRENT LIMITATION: 40 ±2 mA

INDICATORS:
Yellow operation LED
16 input channels red LEDs

SUPPLY VOLTAGE: 15-40 Vdc

CURRENT CONSUMPTION:
12 mA in operation
120 mA at Test mode
not including transmitter currents

FUSES:
5/20 mm, fast blow
Main Fuse: 630 mA
Channel Fuse: 63 mA

HOUSING: Plastic, Polycarbonate

PROTECTION LEVEL:
Box: According to IP-50 DIN 40050
Terminals: According to IP-20 DIN 40050

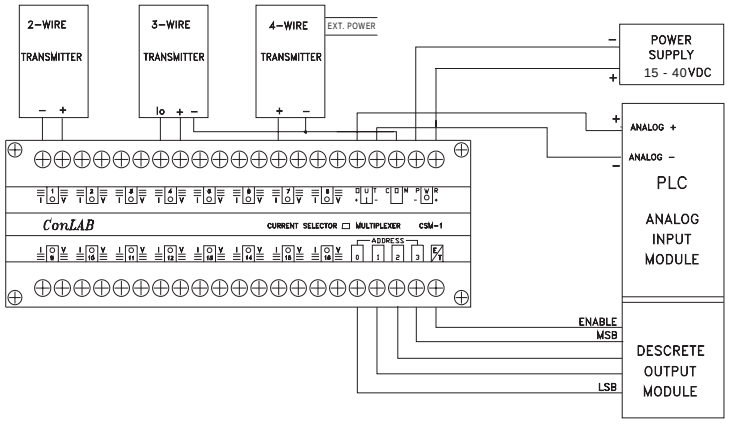
MOUNTING: Standard DIN rail

AMBIENT TEMPERATURE:
Operation: -20 to +70°C
Storage: -25 to +85°C

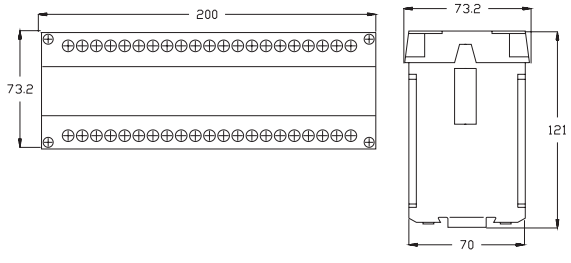
HUMIDITY: 5 to 95% relative, non condensed

WEIGHT: 0.8 Kg

Connection Diagram



Dimensions (mm)



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