## High Density Multiplexer Module Model 1260-38



- Program Configurable as 1, 2 or 4-wire Muxes
- Muxes are configurable as $1 \times 8,1 \times 16$, $1 \times 32,1 \times 64,1 \times 128$ and $1 \times 256$
- 30MHz Bandwidth (1x8 Configuration)
- Switches Signals Up to 2 Amps or 250VAC
- Onboard Series Components Available

■ Uses Racal Option 01 Smart Switch Card

Model 1260-38 is a high-density scanner and multiplexer, ideal for applications with large switch requirements such as continuity testing and audio or telephone line switching.

The 1260-38 can be user-configured in many ways, from one $1 \times 128$ to sixteen $1 \times 8$ 2-wire multiplexers, switching up to 250 VDC or 2 A per channel. Configuration is programmable using interconnecting relays. An additional relay that selects between the high and low sides
of the two-wire mode allows the 1260-38 to act as a 1-wire scanner over 256 points. Four-wire switching is also possible by connecting two-wire sections in parallel using internal relays.

Relay coil current monitoring is available to provide confidence checking which gives the user assurance of proper relay operation. Built-in $100 \Omega$ resistors may be placed in series with common connections to attenuate current and voltage spikes.

The 1260-38 is controlled by the Option 01 message-based interface which is explained in detail in the Smart Control Module page. All 1260 control features explained on that page are available to this module.

## 1260-38 Specifications

DC PERFORMANCE
Maximum Switching Voltage 220VDC or 250VAC
Maximum Switching Current 2ADC or 2AAC
Maximum Switching Power 60W, 125VA
Path Resistance
1x64 (2-wire): < $0.5 \Omega$ $1 \times 128$ (2-wire): $<0.75 \Omega$
Thermal EMF
$1 \times 8$ (2-wire): $<15 \mu \mathrm{~V}$
1x128 (2-wire): <20 V V

## AC PERFORMANCE (into $50 \Omega$ )

Bandwidth ( -3 dB )
$1 \times 8,1 \times 16$ (2-wire): 30 MHz ( 35 MHz typ.) $1 \times 128$ (2-wire): 2 MHz (2.3MHz typ.)
Insertion Loss
Configuration $100 \mathrm{kHz} 1 \mathrm{MHz} \quad 10 \mathrm{MHz}$
$1 \times 8$ (2-wire) $<0.1 \mathrm{~dB}<0.25 \mathrm{~dB}<1.7 \mathrm{~dB}$
$1 \times 16$ (2-wire) $<0.1 \mathrm{~dB}<0.25 \mathrm{~dB}<2.0 \mathrm{~dB}$
$1 \times 128$ (2-wire) $<0.2 \mathrm{~dB}<1.0 \mathrm{~dB}$
Crosstalk
100kHz: <-55dB
1 MHz : <-50dB
Isolation (1×8)
100kHz: >40dB
$1 \mathrm{MHz}:>35 \mathrm{~dB}$

## Capacitance

$1 \times 8$ (closed Chan.-Chassis): <5pF $1 \times 8$ (closed Chan. Hi-Lo): <120pF (50pF typ.) 1x8 (Open Chan. Hi-Lo): <50pF (20pF typ.) $1 \times 128$ (Closed Chan. Hi-Lo): <600pF (480pF typ.)

## VXIbus INTERFACE DATA

Cooling Requirements
Airflow: 1.0 liters/sec
Backpressure: $0.05 \mathrm{~mm} \mathrm{H}_{2} \mathrm{O}$
With Option 01S/T
Airflow: 2.0 liters/sec
Backpressure: $0.2 \mathrm{~mm} \mathrm{H}_{2} \mathrm{O}$
Peak and Dynamic Current

|  | $\frac{+24 \mathrm{~V}}{}$ | +5 V | +5 V w/Option 01 |
| :--- | :--- | :--- | :--- | :--- |
| $6 \mathrm{~mA}^{*}$ | 400 mA | 2.8 A |  |
| $P_{D m}$ | 0 mA | 75 mA | 225 mA |

* per energized relay

Dimensions
C-size, Single-slot VXIbus Module

## ENVIRONMENTAL DATA

## Temperature

Operating: $0^{\circ} \mathrm{C}$ to $55^{\circ} \mathrm{C}$
Storage: $-40^{\circ} \mathrm{C}$ to $75^{\circ} \mathrm{C}$

## Humidity

$<30^{\circ} \mathrm{C}: 95 \%, \pm 5 \%$, non-condensing
$30^{\circ} \mathrm{C}-40^{\circ} \mathrm{C}: 75 \%, \pm 5 \%$
$>40^{\circ} \mathrm{C}$ : $45 \%, \pm 5 \%$

## Altitude

Operating: 10,000 ft.
Non-Operating: 15,000 ft.

## Vibration

0.013 inch: double amplitude $5-55 \mathrm{~Hz}$

## Weight

Slave: $3.2 \mathrm{lb}(1.45 \mathrm{~kg})$
With Option $01: 3.5 \mathrm{lb}(1.60 \mathrm{~kg})$
Rated Switch Operations
No load: 100,000,000
2A@50VDC: 100,000

Typical Programming Syntax Programming syntax is in the form: "<module address>.<channel number>" Example: CLOSE 3.04 This CLOSE statement will close channel number 4 on the 1260-38 at card address 3 .
Note: Available mating connectors and accessories are listed below.

T The CE Mark indicates that the product has completed and passed rigorous testing in the area of RF Emissions, Immunity to Electromagnetic Disturbances and complies with European electrical safety standards.


| ORDERING INFORMATION |  |  |
| :---: | :---: | :---: |
| Model | Description | Part Number |
| $1260-38$ | High Density Multiplexer | 407410 |
| Option 01* | Smart Control Module (installed) | OPT-401901-005 |
| 407407 | 160 Pin Mating Connector Kit w/Backshell and Pins(1260-38 uses two) | 407407 |
| 990898 | Insertion Tool | 990898 |
| 990899 | Extraction Tool | 990899 |
| 407408 | 160 Pin Cable Assembly, 24 Ga, 6 Feet (1260-38 uses two) | 407408 |
| 407409 | 160 Pin Cable Assembly, 24 Ga, 12 Feet $(1260-38$ uses two) | 407409 |
| *One Option 01 must be ordered with switch system. Please specify the card on which Option 01 will be installed. |  |  |


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