



# Racal Instruments™

# 1260-22/22A

## High-Power Switch Module

The Racal Instruments™ 1260-22 is a 40-channel, SPST, high-power switch module designed for switching and routing high-current sources, such as AC and DC power supplies in automated test systems.

### Key Features

- 40 channels of SPST high-power switching
- Switching for power supplies and current sources
- Switches up to 20 A, AC or DC
- Interface for external “emergency reset” switch to open all channels
- Reconfigurable as multiplexer: five 4 x 1 plus ten 2 x 1
- Provisions for adding shunt contact protection element

### Product Information

The 1260-22 switches currents up to 20 A, AC or DC, and voltages up to 250 VDC or 250 VAC. Maximum power handling is 600 WDC or 4800 VA per channel.

The 1260-22 design reduces external components, configuration jumpers and fail-safe devices. Provisions for internal jumpers facilitate 1x2 and/or 1x4 multiplexer configurations, reducing external wiring. Surge suppressors install easily onto the module, simplifying system integration.

An external “Emergency Reset” switch may be connected to the front panel connector of the 1260-22. The external switch provides a way to instantly open all channels on the 1260-22, and all cards connected to the same Racal Instruments™ Option 01T interface. This helps ensure safe switching in high-current applications.

The message-based and register-based Option 01T interface controls the 1260-22. Refer to the applicable Option 01T data sheet for specifications and product features, such as include, exclude, and scan lists; relay coil-current monitoring; and user-defined path names and reset states.

The 1260-22 includes *VXIplug&play* support for frameworks based on Microsoft Win32® application programming interface, including drivers for LabWindows™/CVI and LabVIEW™.

## Specifications

Note: The Astronics Test Systems policy is one of continuous development and improvement. Consequently, the equipment may vary in detail from the description and specifications in this publication.

### Input Performance

#### Maximum Switching Voltage

- 250 VAC, 250 VDC

#### Maximum Switching Current

- 20 AAC, 20 ADC

#### Maximum Switching Power

- 4800 VA, 600 W

#### Minimum Switching Power

- 1 AAC at 12 VAC, 1 ADC at 5 VDC

### DC Performance

#### Path Resistance

- <100 mΩ

#### Insulation Resistance

- >10<sup>9</sup> Ω

### AC Performance (Into 50 W)

#### Bandwidth (-3 dB)

- >300 kHz

#### Insertion Loss (dB)

- 10 kHz: <0.02 dB
- 100 kHz: <0.1 dB

#### Isolation

- 10 kHz: >50 dB
- 100 kHz: >30 dB

#### Crosstalk (dB)

- 10 kHz: <-70 dB
- 100 kHz: <-50 dB

#### Capacitance

- Open Channel: <250 pF
- Channel-Chassis: <250 pF

### Interface

#### Peak Current at 65 Watts

- + 5 VDC at 600 mA
- + 5 VDC at 1.6 A with Option 01T
- + 24 VDC at 36 mA per energized relay (1.5 A max)

#### Front Panel I/O Interface Connector

- 30-pin Positronic connector

### Environmental

#### Temperature

- Operating: 0° C to +55° C
- Storage: -40° C to +71° C

#### Humidity (non-condensing)

- 85 % ±5 % at <35° C

#### Altitude

- Operating: 10,000 ft
- Storage: 15,000 ft

#### Shock

- 10 g, 11 ms, 1/2 sine wave

#### Vibration (non-operating)

- 0.013 in: (pk-pk), 5 to 55 Hz

#### Bench Handling

- 4-inch drop at 45°

#### Emissions

- EN55011A with limits in accordance with EN50081-1

#### Immunity

- IEC801-2,3,4 with limits in accordance with EN50082-1

#### Safety

- EN61010-1

#### Switching Time

- <15 ms

#### Rated Switch Operations

- Mechanical: 10,000,000 operations
- Electrical: 100,000 operations at full rated load

#### MTBF

- 400,255 hrs

### Mechanical

#### Weight

- Without Option 01T: 4 lbs 3 oz (2.1 kg)
- With Option 01T: 4 lbs 8 oz (2.2 kg)

#### Dimensions

- C-size, single-slot VXIbus module

#### Cooling Requirements (w/o Option 01T)

- Airflow: 5.4 l/s
- Backpressure: 0.5 mm H<sub>2</sub>O

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

## Ordering Information

Note: An Option 01T smart card must be installed in the left-most slot of a set of 1260-xx series switch cards.

### 407630 : Racal Instruments™ 1260-22 Switch Module

40-Channel, High Current

### 407630-001 : Racal Instruments™ 1260-22A Multiplexer

Five 4x1 and ten 2x1

#### Options and Accessories:

OPT-405108-001 : Racal Instruments™ Option 01T Smart Control Module installed (manual must be ordered separately; see below)

407531-001 : Racal Instruments™ Option 01T Smart Control Module (not installed) with manual

602345 : Connector Body

602346 : Connector Pins, 12 GA



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