

Racal Instruments™

1260-136B/C/D

High-Voltage Multiplexer Plug-In

The Racal Instruments™ 1260-136 series plug-ins are high-voltage relay multiplexers for the Adapt-a-Switch™ platform. These quickly and easily plug into the front of an Adapt-a-Switch™ Carrier 1260-100.

Key Features

- Ideal for hipot and cable breakdown testing
- Ideal for switching source-measure units and high-voltage power supplies in an ATE system
- High density – up to 1x42 on a single plug-in
- Software configurable switch modes simplify test development
- Three relay versions available to support a wide range of requirements
- Plug-in design for rapid expansion and replacement

Product Information

Each 1260-136 series plug-in can be configured via standard program control into any of the following configurations:

- single 1x21 two-wire multiplexer
- single 1x42 one-wire multiplexer
- two 1x21 one-wire multiplexer

1260-136 plug-ins can be used for distribution applications in which any combination of relays per multiplexer are closed at a time, or in classical scanner applications in which only one relay per multiplexer may be closed. When used as a scanner, the 1260 series “exclude” feature will automatically open the last connection when a new connection is programmed. This reduces the number of commands sent to the switch, thereby reducing test time. Make-before-break or break-before-make can also be programmed.

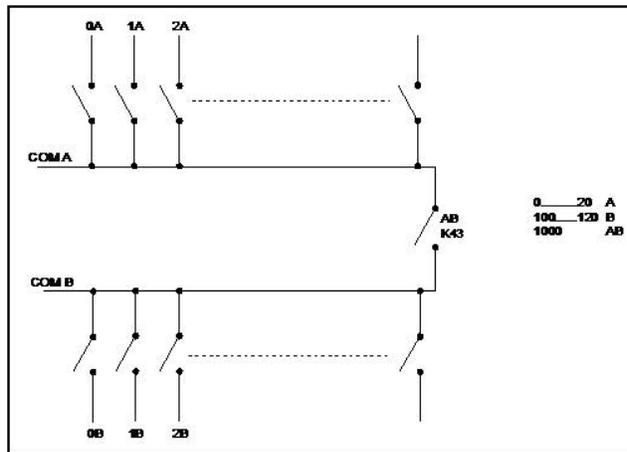
Three different versions of this plug-in are available to support a range of high voltage switching requirements. Each version uses a different high voltage relay. Basic “hot-switching” specifications of these plug-ins are as follows:

- 1260-136B, 500 V, Reed Relay
- 1260-136C, 1 kV, Reed Relay
- 1260-136D, 500 V, Mercury Wetted Reed Relay

The 1260-136D must be oriented vertically to operate properly. This is the normal position for installations using a 13-slot VXI chassis and Adapt-a-Switch™ carrier. The 1260-136B and C versions are not position sensitive; they will operate properly in installations oriented in any direction.

A Racal Instruments™ Option 01T is required to communicate with 1260 series modules, and provides message-based operation for ease of use and register-based operation for maximum speed. The Option 01T provides a single point of software control for the switching system with advanced features such as include, exclude, scan, relay monitoring, user defined path names, and reset states.

The 1260 series line includes VXI *plug&play* support for frameworks based on Microsoft Win32® application programming interface, including drivers for LabWindows™/CVI and LabVIEW™.



1260-136 Relay Diagram

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

Maximum Switching Voltage

- B,D: 500 VDC, 500 VAC_{pk-pk}
- C: 1000 VDC, 1000 VAC_{pk-pk}

Maximum Switching Current

- B: 0.5 ADC or AAC
- C,D: 1 ADC or AAC

Maximum Switching Power

- B: 10 W, 10 VA
- C: 25 W, 25 VA
- D: 50 W, 50 VA

DC Performance

Path Resistance

- <850 mΩ

Insulation Resistance

- 10⁷ Ω

Interface

Power Requirements

- +5 VDC at 150 mA plus 25 mA per energized relay (1.4 A max)

Environmental

Temperature

- Operating: 0° C to 55° C
- Storage: 40° C to 75° C

Relative Humidity

- 85% ±5%, non-condensing at <30° C

Altitude

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

Shock

- 30 g, 11 ms, ½ sine wave

Vibration

- 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

Relay Operate Time

- 0.5 ms (typ)

Contact Bounce Time

- B,C: 0.25 ms (typ)
- D: None

Rated Switch Operations

- B,C:
 - Mechanical: 100,000,000 operations
 - Electrical: 1,000,000 operations at full rated load
- D:
 - Mechanical: 1,000,000,000 operations
 - Electrical: 50,000,000 operations at full rated load

MTBF

- MIL-HDBK-217FN2: 87,796 hrs
- Telcordia (Bellcore) 6: 229,159 hrs

MTTR

- <5 minutes

Mechanical

Weight

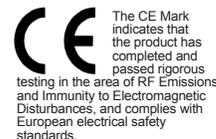
- 9 oz (0.26 kg)

Dimensions

- 4.5" H x 0.75" W x 9.5" D

Cooling Requirements

- See 1260-100 cooling data



Ordering Information

Note: When the 1260-112 is used in a VXI mainframe other than a 1256, a Racal Instruments™ Option 01T Smart Control Module must be installed in the mainframe's left-most slot.

407698-002 : Racal Instruments™ 1260-136B

Adapt-a-Switch™ Plug-in, 500 V, 0.5 A, Reed Relay Multiplexer

407698-003 : Racal Instruments™ 1260-136C

Adapt-a-Switch™ Plug-in, 1 kV, 1.0 A, Reed Relay Multiplexer

407698-004: Racal Instruments™ 1260-136D

Adapt-a-Switch™ Plug-in, 1x42 (or dual 1x21), 500 VDC, 1.0 A, 50 W Mercury Wetted Reed Relay Multiplexer

Accessories:

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

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

407664-001 : 48-Pin High-Voltage Connector Kit with Strain Relief



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