



EX1200-5002 EX1200-5007

32-CHANNEL 2 A FORM C SPDT SWITCH
12-CHANNEL 2 A FORM C SPDT SWITCH

FEATURES

Can be mixed and matched to create application specific configurations

Ideal for general purpose switching of up to 300 V (AC/DC or 2 A)

Can be used to switch a common point to either power or ground (Form C)

Connect together using external wiring for flexible switch design

Easy to use configuration software facilitates end-to-end path-level switching for simplified programming

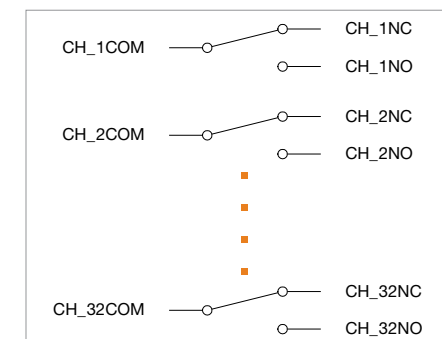


OVERVIEW

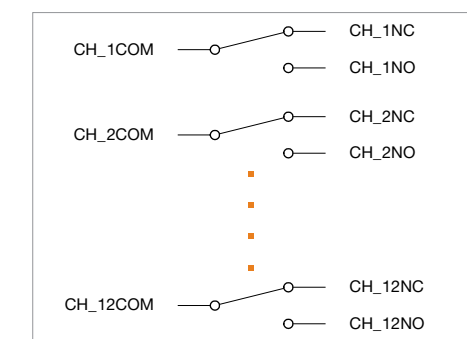
The EX1200-5002 and EX1200-5007 are high-density general purpose 2 A switch modules designed for systems where individual relays can be used to route signals to/from the units under test (UUT) or combined externally to form user-defined configurations. These relays are commonly used to create complex signal distribution networks that can be reconfigured through different wiring in test adapters. For example, three relays on an EX1200-5002 module can be configured as a SP4T tree and seven relays can be configured as a SP8T tree. Up to 180 individual SPDT or 480 SPST relays can be accommodated in a full rack mainframe for maximum density. These modules can also be configured with other EX1200 series switch modules as part of a flexible system switch design.

Since these modules may be used to switch power to the UUT or interface, the digital input lines on the EX1200 series mainframes support the ability to force all relays automatically to their normally open state if a fault condition occurs. This approach instantly removes all power to the UUT or interface. These modules can be automatically configured in the setup phase at the beginning of each scan step to facilitate test sequencing and control.

EX1200-5002 BLOCK DIAGRAM



EX1200-5007 BLOCK DIAGRAM



General Specifications

CHANNEL COUNT	
EX1200-5002	32 SPDT
EX1200-5007	12 SPDT
MAXIMUM SWITCHING VOLTAGE	300 V DC, 300 V AC rms
MAXIMUM SWITCHING CURRENT	2 A
MAXIMUM SWITCHING POWER ¹	60 W DC, 125 VA
MINIMUM CONTACT RATING ²	10 mV DC, 10 μ A (resistive)
RATED SWITCH OPERATIONS	
Mechanical	1×10^8 (no load)
Electrical	1×10^6 @ 50 V DC, 0.1 A (resistive) or 10 V DC, 10 mA (resistive)
SWITCHING TIME	< 3 ms
PATH RESISTANCE	< 300 m Ω
INSULATION RESISTANCE	> $1 \times 10^9 \Omega$
MAXIMUM THERMAL OFFSET PER CHANNEL (HI-LO)	< 1 μ V
CAPACITANCE	
EX1200-5002	
Open channel	< 50 pF
Channel-mainframe	< 250 pF
High-low	< 120 pF
EX1200-5007	
Open channel	< 50 pF
Channel-mainframe	< 80 pF
High-low	< 50 pF
BANDWIDTH (-3 dB)	
EX1200-5002	40 MHz (typical)
EX1200-5007	80 MHz (typical)
CROSSTALK (TYPICAL)	
100 kHz	< -80 dB
1 MHz	< -60 dB
ISOLATION (TYPICAL)	
100 kHz	< -50 dB
10 MHz	< -45 dB
CONNECTOR TYPE	104-pin

Notes:

1. Maximum switched power is derated non-linearly as voltage is increased.
2. This value is in reference to a resistive load. Minimum capacity changes depending on switching frequency and environmental conditions.

Ordering Information

[EX1200-5002](#)

32-channel 300 V/2 A SPDT switch

[EX1200-5007](#)

12-channel 300 V/2 A SPDT Switch

ACCESSORIES AND TOOLS

[70-0363-501](#)

104-pin HD D-sub mating connector and backshell, with 3 ft unterminated 22 AWG wire

[27-0389-104](#)

104-pin HD D-sub mating connector with hood and pins, fixed contacts (no crimp tool required)

[27-0390-104](#)

104-pin HD D-sub mating connector, backshell and pins, crimp style

[70-0297-001](#)

Crimp tooling, includes handle and positioner, 22 AWG

[70-0367-003](#)

EX1200-TB104SE, single-ended module (EX1200-5002 only)