

High Current Terminal Block Relays

XRU1H Series



- ✓ 14 mm (0.55") Wide
- ✓ Pluggable Relay Allows for Field Replacement
- ✓ Convenient Plug-In Bridge System
- ✓ LED Status Indication
- ✓ DIN Rail Mount
- ✓ IP67 Protected Optical Electronics
- ✓ Wear-Resistant and Bounce-Free Switching
- ✓ Insensitive to Shock and Vibration
- ✓ Integrated Protection Circuit
- ✓ Zero Voltage Switch at AC Output
- ✓ Environmentally Friendly, Cadmium Free Contact Material
- ✓ Electrical Isolation Between Input and Output

The XR Series relays include products designed to meet high continuous current and/or long electrical service life applications. The XR Series relays are plug-in interfaces that connect to basic terminal blocks that use screw connection technology. Overall width is 14 mm (0.55").

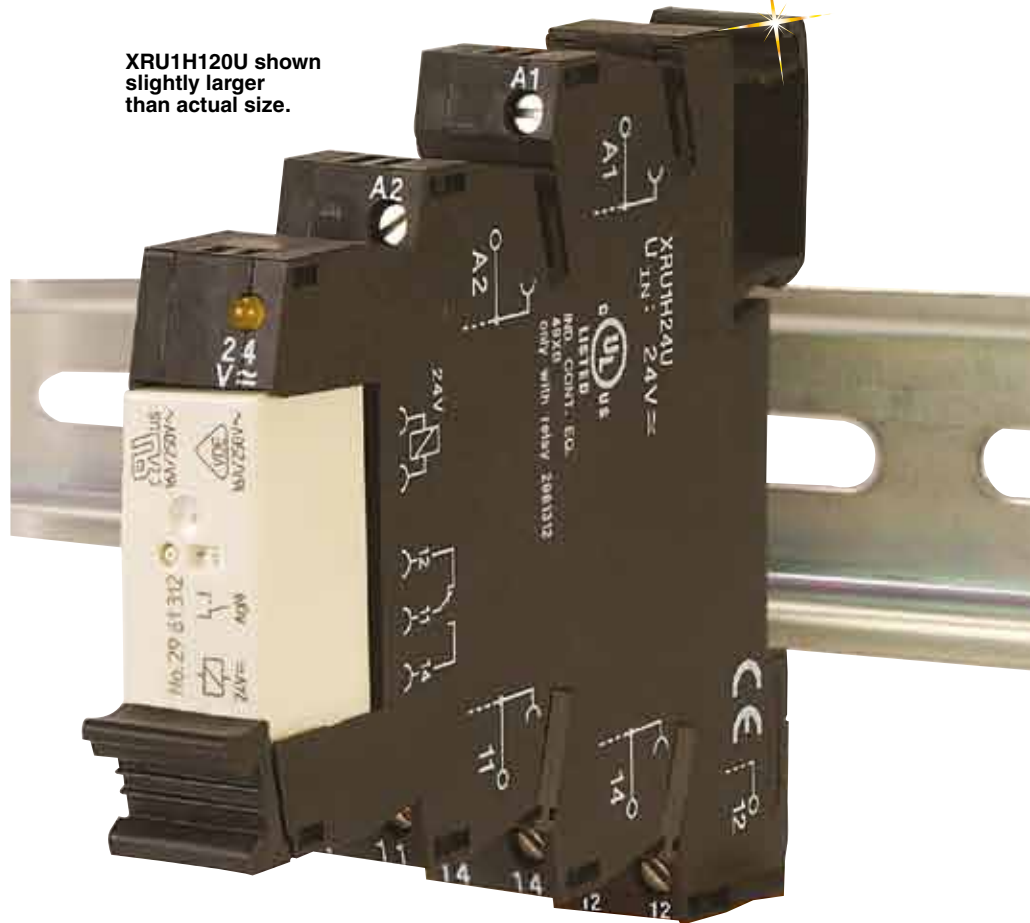
These relays are best suited for applications that require higher continuous load currents than miniature relays can carry and switch. They can withstand inrush currents or brief overloads without damage, and allow for continuous load currents of up to 10 A. The XR Series Relay boasts an average service life of the contacts that is two or three times the normal life of a less powerful relay, resulting in service cost savings.

Accessories

Power Terminal Block

The XRAPLCEK power terminal block has the same shape as the relay modules and is used to feed in the bridging potentials. The nominal current is 32 A. When the total current is less than or equal to 6 A, supply can take place directly at the connecting terminal blocks of one of the connected relays.

XRU1H120U shown slightly larger than actual size.

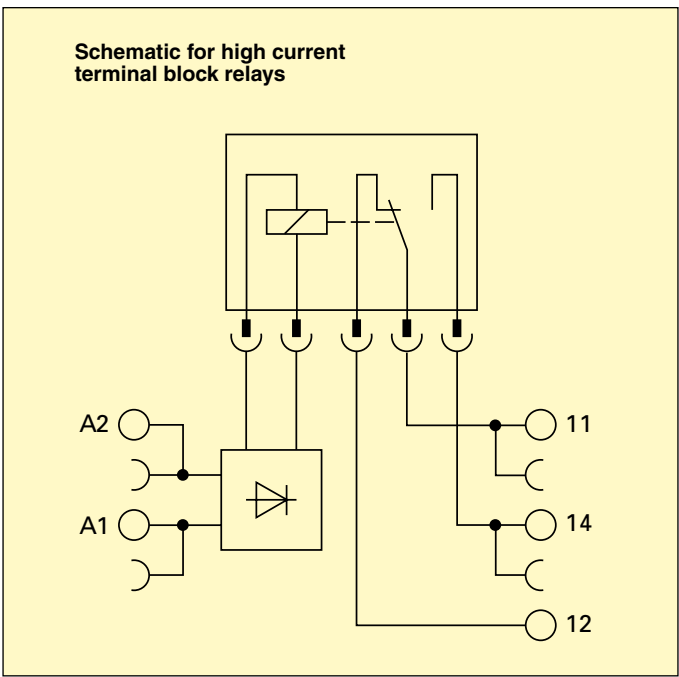
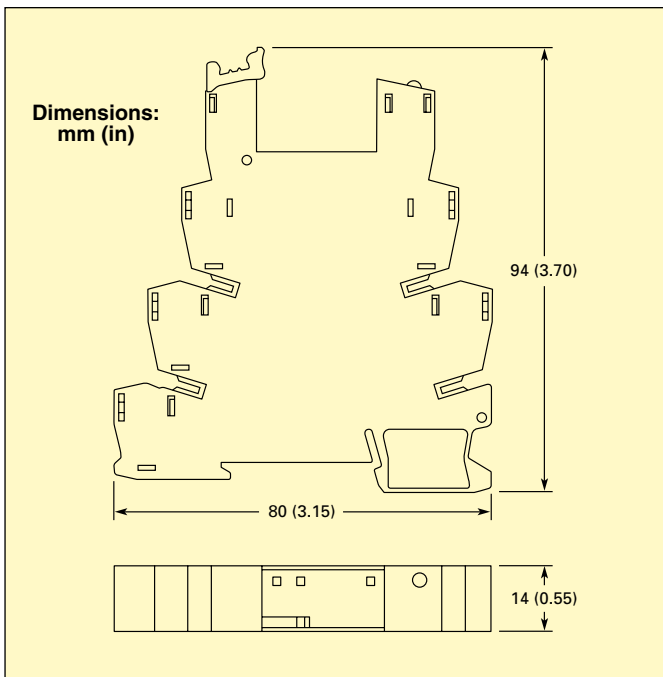


End Cover

The XRAATPBK end cover is required at the start and stop of a relay strip. It can also be used for visual separation of groups of relays as well as separating relays with voltages greater than 250V and separating neighboring bridges with different potentials. It is equipped with pre-scored break out points at the bridging positions so that individual bridges can be passed through as needed. It may also be necessary to use the end cover between adjacent relays when three phases (L1, L2, L3) are used on the contact side of the relay.

Bridges

The XRAFBST colored, insulated plug-in bridge system reduces wiring time by up to 70% compared to conventionally wired relays. The XRAFBST2, 2-position bridges, are suited for bridging a smaller number of relays and total currents < 6A. When a circuit is supplied from both sides, the circuit can be opened at any point, allowing all other modules to continue being supplied at the same time. The XRAFBST500 allow up to 80 modules to be bridged at one time. If bridges with different potentials meet in neighboring modules, the end cover XRAATPBK should be used. All bridges are equipped with a groove for removal with a standard screwdriver.



Specifications

Connection Data:

Rigid Solid AWG (mm²):

26 to 14 (0.14 to 2.5)

Flexible Stranded AWG (mm²):

26 to 14 (0.14 to 2.5)

Input Voltage:

XRU1H24U: 24 Vac/Vdc

XRU1H120U: 120 Vac/110 Vdc

Typical Input Current:

XRU1H24U: 17.5 mA

XRU1H120U: 4.5 mA (120 Vac)/
4.2 mA (110 Vdc)

Typical Response Time:

XRU1H24U: 8 mS

XRU1H120U: 7 mS

Typical Release Time: 10 mS

Input Protection: Bridge rectifier

OUTPUT DATA

Contact Type: Single contact, 1 PDT

Contact Material: AgNi

Max Switching Voltage: 250 Vac/Vdc¹

Min Switching Voltage: 12 Vac/Vdc

Limiting Continuous Current:

10 A (6 A)²

Max Inrush Current: 30 A (300 mS)

Min Switching Current: 100 mA

Min Switching Power: 1.2 W

MISCELLANEOUS DATA

Test Voltage I/O: 4 kV, 50 Hz, 1 min

Ambient Temp Range: -20 to 60°C
(-4 to 140°F)

Rated Operating Mode:

100% Operating Factor

Inflammability Class: V0, in

accordance with UL 94

Mechanical Service Life:

3 x 10⁷ cycles

1 The separating plate, XRAPLCEsk, should be installed for voltages greater than 250V (L1, L2, L3) between identical terminal points of adjacent modules. Potential bridging is then possible with the XRAFBST bridge system.

2 The current rating for the normally open contact (#14) is 10 A. The current rating for the normally closed contact (#12) is 6 A and can be increased to 10 A by bridging the two #12 contact connections.

To Order

Model No.	Description
XRU1H120U	1 PDT high current relay with 120 Vac/110 Vdc coil voltage
XRU1H24U	1 PDT high current relay with 24 Vac/Vdc coil voltage

Ordering Example: XRU1H120U, relay.

Replacement Relays and Accessories

Model No.	Description
XRR1H120U	Replacement relay for XRU1H120U
XRR1H24U	Replacement relay for XRU1H24U
XRAPLCEsk	Power terminal block
XRAATPBK	Black end cover
XRAFBST2RD	2-position red snap in jumper
XRAFBST2BU	2-position blue snap in jumper
XRAFBST2GY	2-position gray snap in jumper
XRAFBST500RD	80-position red snap in jumper
XRAFBST500BU	80-position blue snap in jumper
XRAFBST500GY	80-position gray snap in jumper