



# HIGH CURRENT TERMINAL BLOCK RELAYS

*XRU1H Series  
Starts at  
£ 15<sup>50</sup>*



- 14 mm 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 new 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.

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 XRAPLCESK 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,

*Manufactured by Eaton for OMEGA*

XRU1H120U, £18,  
shown slightly larger  
than actual size.



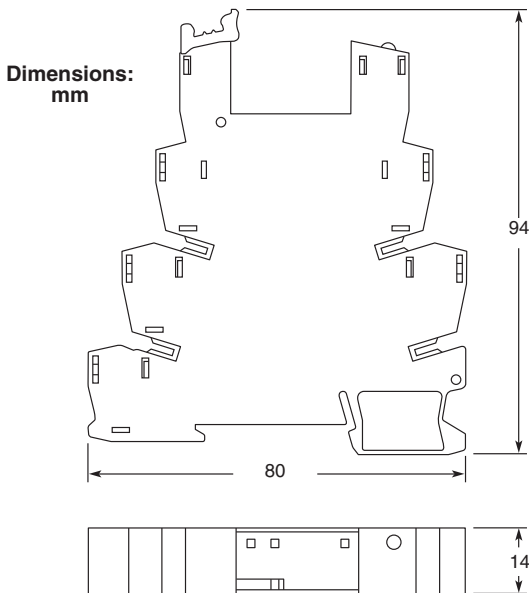
supply can take place directly at the connecting terminal blocks of one of the connected relays.

## End Cover

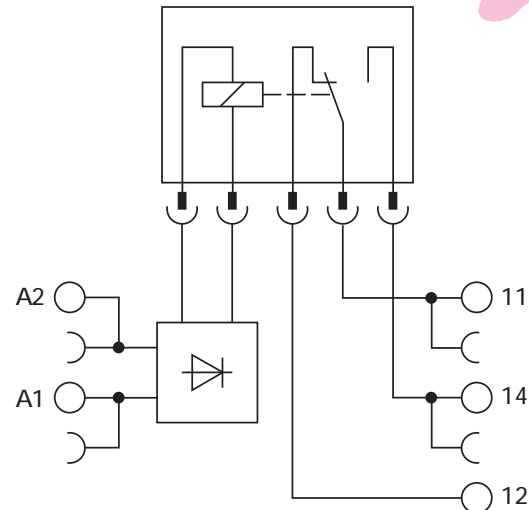
The XRAATPBK end cover is required at the start and stop of a relay strip. It can also be used for visual separation of groups of relays as well as separating relays with voltages greater than 250V and separating neighbouring bridges with different potentials. It is equipped with pre-scored break out 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 coloured, insulated plugin 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 neighbouring modules, the end cover XRAATPBK should be used. All bridges are equipped with a groove for removal with a standard screwdriver.



Schematic for high current terminal block relays



## SPECIFICATIONS

### Connection Data:

**Rigid Solid Wire:**  
0.4 to 1.6 mm Dia.

**Flexible Stranded Wire:**  
0.4 to 1.6 mm Dia.

### 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/Vdc<sup>1</sup>

**Min Switching Voltage:** 12 Vac/Vdc

**Limiting Continuous Current:**

10 A (6 A)<sup>2</sup>

**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

**Rated Operating Mode:**

100% Operating Factor

**Inflammability Class:** V0, in  
Accordance with UL 94

**Mechanical Service Life:**

3 x 10<sup>7</sup> cycles

<sup>1</sup>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.

<sup>2</sup>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 (Specify Model Number)

AVAILABLE FOR FAST DELIVERY!

MODEL NO.	PRICE	DESCRIPTION
XRU1H120U	£18.00	1 PDT high current relay with 120 Vac/110 Vdc coil voltage
XRU1H24U	15.50	1 PDT high current relay with 24 Vac/Vdc coil voltage

Ordering Example: XRU1H120U, relay, £18.

## REPLACEMENT RELAYS AND ACCESSORIES

MODEL NO.	PRICE	DESCRIPTION
XRR1H120U	£8.00	Replacement relay for XRU1H120U
XRR1H24U	6.70	Replacement relay for XRU1H24U
XRAPLCESK-5PK	84.00	Power terminal block, 5 pack
XRAATPBK-5PK	7.00	Black end cover, 5 pack
XRAFBST2RD-10PK	9.40	2-position red snap in jumper, 10 pack
XRAFBST2BU-10PK	9.40	2-position blue snap in jumper, 10 pack
XRAFBST2GY-10PK	9.40	2-position grey snap in jumper, 10 pack
XRAFBST500RD-5PK	74.00	80-position red snap in jumper, 5 pack
XRAFBST500BU-5PK	74.00	80-position blue snap in jumper, 5 pack
XRAFBST500GY-5PK	74.00	80-position grey snap in jumper, 5 pack

# omega.co.uk<sup>®</sup>

Your One-Stop Source for Process Measurement and Control!

Freephone 0800 488 488 | International +44(0) 161 777 6622 | Fax +44(0) 161 777 6622 | Sales@omega.co.uk

[www.omega.co.uk](http://www.omega.co.uk)



#### UNITED STATES

[www.omega.com](http://www.omega.com)

1-800-TC-OMEGA

Stamford, CT.

#### CANADA

[www.omega.ca](http://www.omega.ca)

Laval(Quebec)

1-800-TC-OMEGA

#### GERMANY

[www.omega.de](http://www.omega.de)

Deckenpfronn, Germany

0800-8266342

#### UNITED KINGDOM

[www.omega.co.uk](http://www.omega.co.uk)

Manchester, England

0800-488-488

#### FRANCE

[www.omega.fr](http://www.omega.fr)

088-466-342

#### CZECH REPUBLIC

[www.omegaeng.cz](http://www.omegaeng.cz)

Karviná, Czech Republic

596-311-899

#### BENELUX

[www.omega.nl](http://www.omega.nl)

0800-099-33-44



## More than 100,000 Products Available!

### • Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders, Relative Humidity Measurement Instruments, PT100 Probes, PT100 Elements, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples, Thermowells and Head and Well Assemblies, Transmitters, Thermocouple Wire, RTD Probes

### • Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

### • pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

### • Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

### • Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Pressure Transmitters, Strain Gauges, Torque Transducers, Valves

### • Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters