

NEPEAN
Power

HEL - Holistic Earth Leakage Relays

AVAILABLE FROM
NEPEAN ELECTRONICS



NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

The NEPEAN HEL-P & HEL-D Earth Leakage Protection Relays have been designed for use on earth fault limited and non-earth fault limited electrical systems, allowing use in Coal and non Coal application.

The HEL relays utilise a microprocessor to provide a definite time operating characteristic along with adjustable time delays(25ms to 5s) and current sensitivity (20mA to 25A).

Once tripped the relays latch in the tripped state until reset using the local or remote reset facilities. Two auxiliary relays are provided with change over contacts.

The relays can be purchased in one of two formats (Panel or DIN Rail mounts) for various installation settings.

The toroids come in four different sizes and are continually monitored to ensure complete protection for personnel and equipment.

Input filters provide immunity from external disturbances (such as pulse currents with DC components) and provide compliance to the requirements of VDE 0664 and project IEC 23.

Features

- AS/NZS 2081:2011 (Section 6) compliant
- Fail safe operation
- Aux Voltage range of 24 - 240V AC/DC
- Continual monitoring of the toroid
- Adjustable trip level 20mA – 25Amp
- Adjustable trip delay 25mS – 5 Seconds
- AC or DC supply operation.
- Functions normally for two (2) seconds during extreme power dip or power loss

Holistic Earth Leakage Relays

Specifications

Models and Values	HEL-D HEL-P
Auxiliary Voltage supply	24 - 240V AC/DC
Frequency	50 / 60 Hz
Maximum consumption	3 VA
Current tripping adjustment range	0.025÷0.25A K=0.1 - 0.25÷2.5A K=1 - 2.5÷25A K=10 25÷250A*
Tripping time adjustment range t	0.02÷0.5 sec. K=1 - 0.2÷5 sec. K=10
Aux Relays	2 x Relays with 1 CO each. Contacts rated at 250V AC 5A
Working Temperature	-10 + 60°C
Storing Temperature	-20 + 80°C
Relative humidity	<90%
Insulation Test	2.5 Kv 60 seg.
Standards	CEI 41-1/IEC 255/VDE 0664/IEC 755/CEI 64.8/ EN 61008-1 (1999-11)/ EN 62020 (1999-09) / EN 61543 (1999-09) / EN61326-1(1998-04) / EN 61326/A1 (1999-05)-IEC 60947-2 ANNEX M /ASNZS 2081
Wiring method	Screw terminals for 2.5 mm ²
Mounting according DIN 50022	Snap on DIN rail 35mm
Protection degree according DIN 40050	IP 20

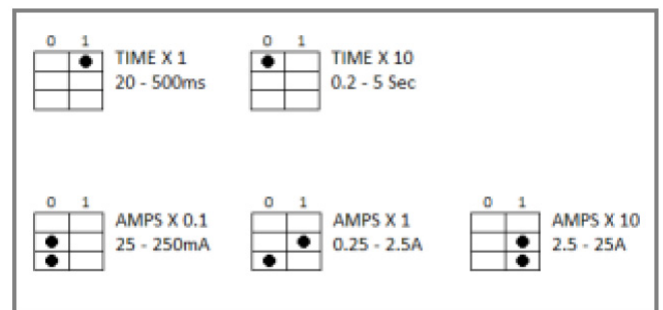
Controls



1	Current tripping setting potentiometer
2	Tripping time setting potentiometer
3	Micro switches for programming: a. Selection of the multiplying constant Tripping time, in position 1 K= 10; in position 0 K= 1 b, c. Selection of the multiplying constant of tripping current: With b, c in position 0 K=0.1 With b in position 1, c in position 0 K= 1 With b, c in position 1 K= 10
4	Push button for test
5	Push button for manual reset
6	Signalling green LED for Aux, supply presence
7	Signalling red LED for relay tripped
8	Health Status

Ordering Information

Part No.	Description
X0520	Panel Mount HEL Relay
X0525	Din Rain Mount HEL Relay
X0521	Toroid 35mm Window
X0522	Toroid 80mm Window
X0523	Toroid 120mm Window
X0524	Toroid 155mm Window



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Performance

X0520/X0525 - HEL Earth Leakage Relays

Aux Supply Voltage: 24 - 240V AC/DC

Compliant to: AS/NZS 2081:2011

Aux Relay Contacts: 250VAC 5A

Trip Time: 25ms to 5 Seconds

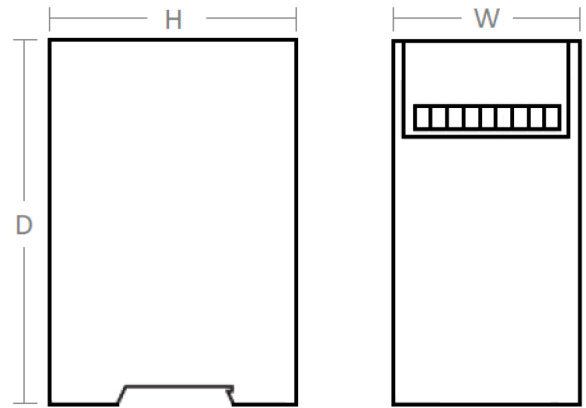
Trip Current: 20mA to 25 Amps

Cutout HEL-P

Square 91 x 91

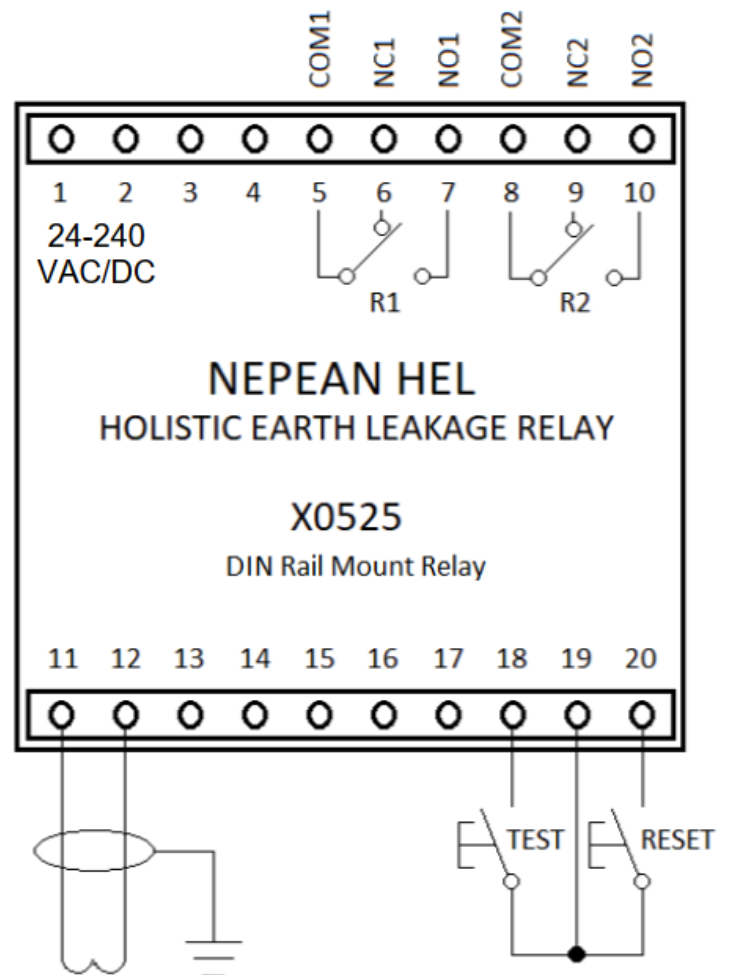
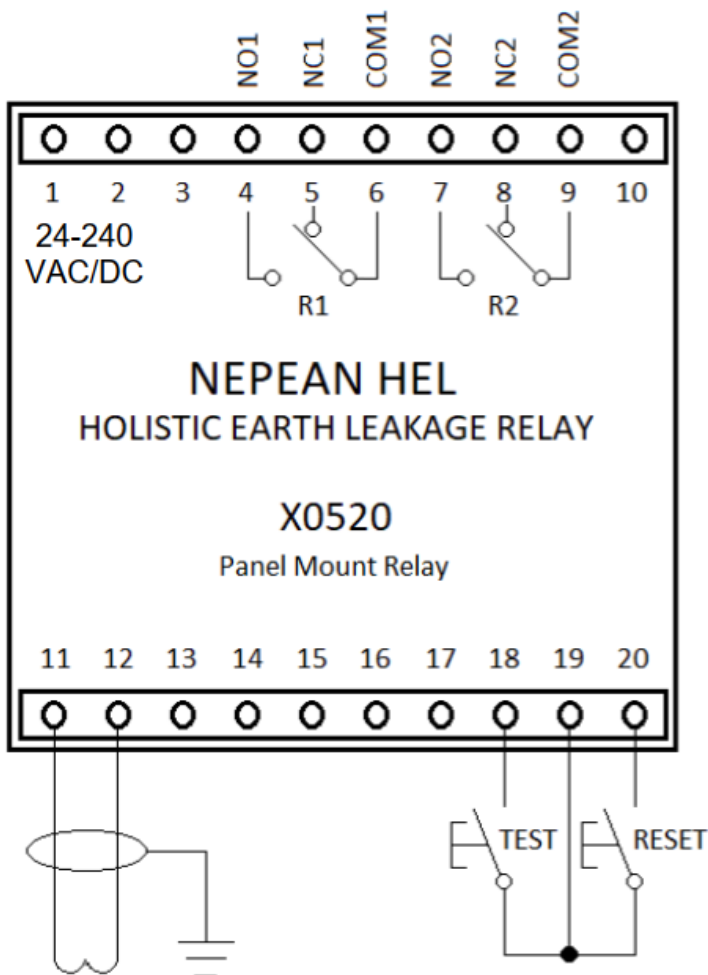
Dimensions HEL-D

D = 110 H = 95 W = 55



Unit is DIN Rail Mounted

Connection Diagram



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For more information please contact:

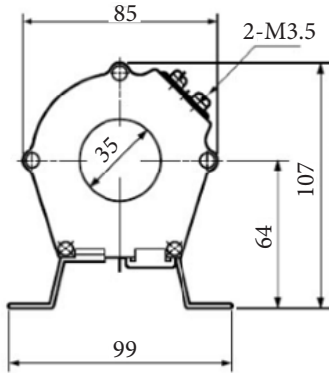
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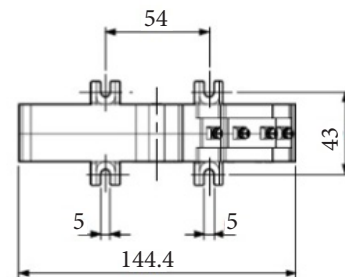
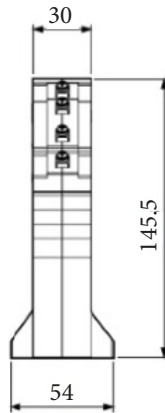
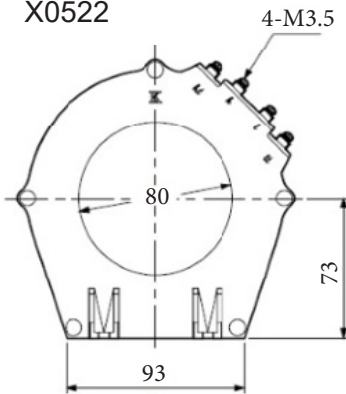
Dimensions

X0521



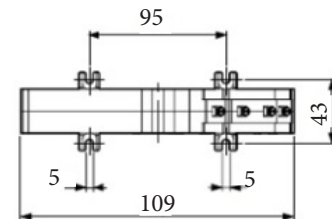
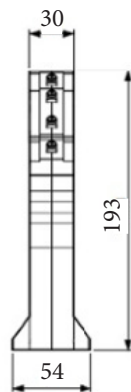
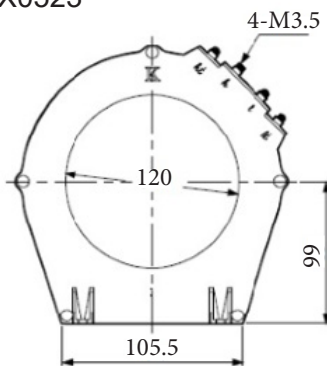
Mounting Hole Size

X0522



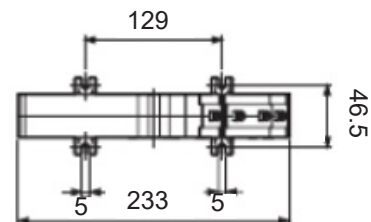
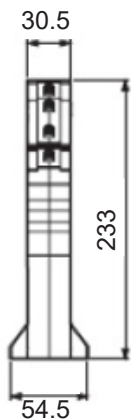
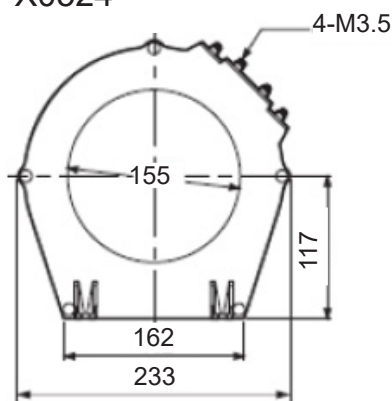
Mounting Hole Size

X0523



Mounting Hole Size

X0524



Mounting Hole Size