

NEPEAN
Power

HEC - Holistic Earth Continuity Relay

[Ex ia Ma] I



AVAILABLE FROM
NEPEAN ELECTRONICS

Ex TESTING & CERTIFICATION
IECEx ExTC 23.0010X-0

This document is approved as specified in IECEx ExTC 23.0010X-0

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 HEC is an electrical protection relay designed for operation in underground coal mining applications. It provides earth continuity protection functions that ensure the electrical distribution system in the mine operates safely. It continually monitors the earth continuity of a mining trailing or reeling cable.

Features

- AS/NZS 2081: 2011 Compliant
- 24V - 48V AC/DC
- 5 x diagnostic LEDs
 - Power On
 - Healthy
 - SC Trip
 - OC Trip
 - Start Timed out
- Trip time settings – 50ms, 100ms, 200ms, 300ms, 400ms, 500ms
- Trip resistance settings - 10Ω, 15Ω, 20Ω, 25Ω, 35Ω, 45Ω
- Selectable remote start
- Selectable trip latching
- Diode termination

Specifications

Ambient Temperature	-20°C ~ 65°C
Voltage	24-48V AC/DC
Current	230mA - 120mA
Certificate No	IECEx ExTC 23.0010X
Relay Contacts	2 x NO / 1 x NC / 2 x COM
Limits	1A @ 110Va.c. - 1A @ 30Vd.c (Resistive)
Weight	503gms
IP Rating	IP20

I/O Parameters

When used in a hazardous environment the apparatus shall be installed in a separately certified enclosure protected by a suitable type of protection for Group I as described by IEC 60079-0.

The following parameters shall be taken into account during interconnection in a system:

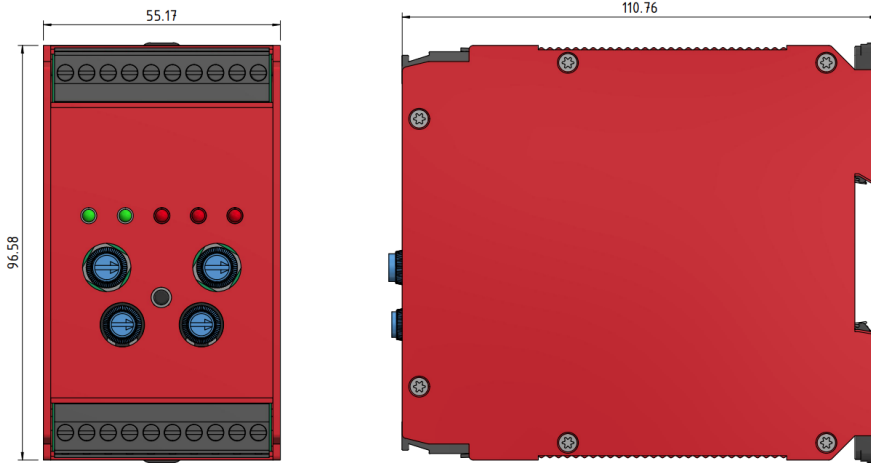
Terminals 1-10	Pilot Terminal 14
Um 132V	Uo 28.4V
	Io 73mA
	Po 430mW
	Co 1μF
	Lo 10mH

Terminals 11, 12 and 13 shall each be connected to intrinsically safe earth by at least 1.5mm² wire.

Ordering Information

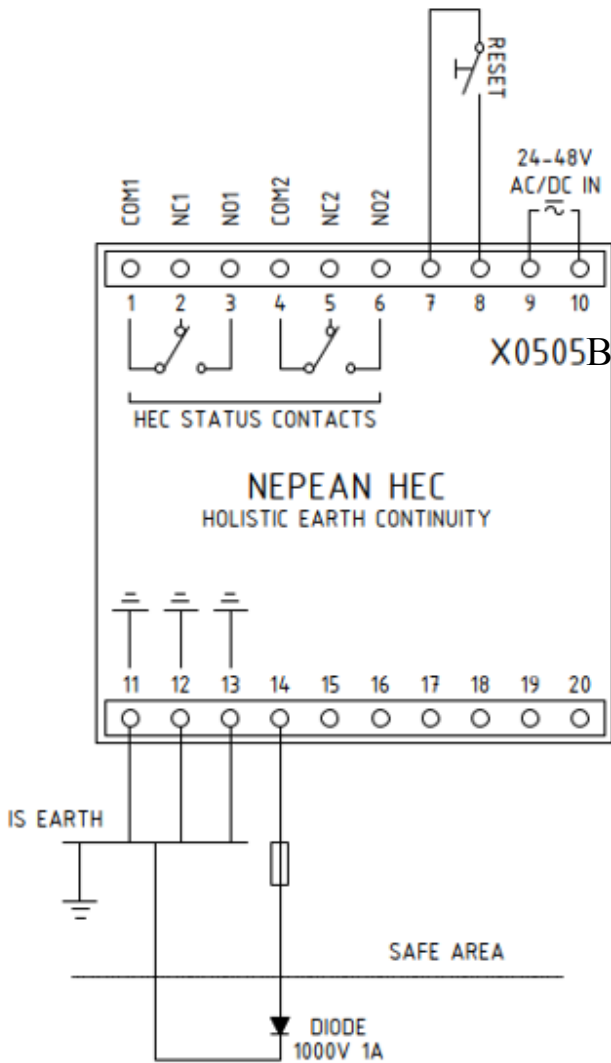
Part Number	Description
X0505B	Earth Continuity Protection 24-48V AC/DC

Holistic Earth Continuity Relay



Unit can be mounted on DIN Rail

Connection Diagram



Performance

X0505B - HEC
 HOLISTIC EARTH CONTINUITY

AUX VOLTAGE 24 - 48V AC/DC
 COMPLIANT TO: AS/NZS 2081
 TRIP CONTACTS: 5A 250V



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