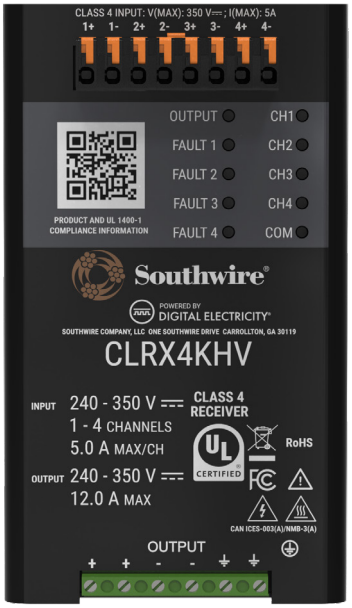
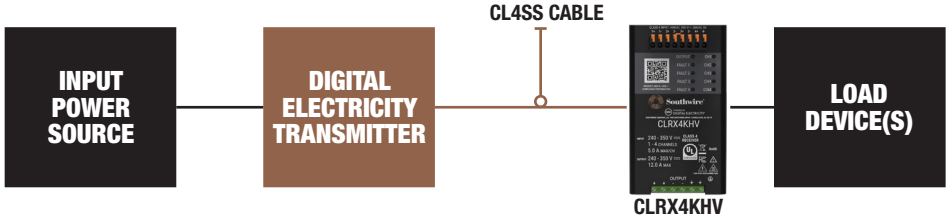
DIGITAL ELECTRICITY® RECEIVER, 4000 W, HVDC OUTPUT

The CLRX4KHV Receiver is a component in a Digital Electricity® line powering system. When the receiver is powered by a compatible Southwire transmitter, a Digital Electricity® (DE) system is formed (see diagram). If a fault occurs on the DE line between the transmitter and receiver (such as a person contacting the conductors) power is disconnected; reducing the risk of fire, equipment damage and personal injury. The Transmitter is part of a listed Class 4 system. The circuit between the transmitter and receiver is a Fault Managed Power (FMP) circuit and should be installed as a Class 4 circuit according to NFPA 70 Article 726. For compatible Transmitters see QRcode on page 3.



CLRX4KHV RECEIVER



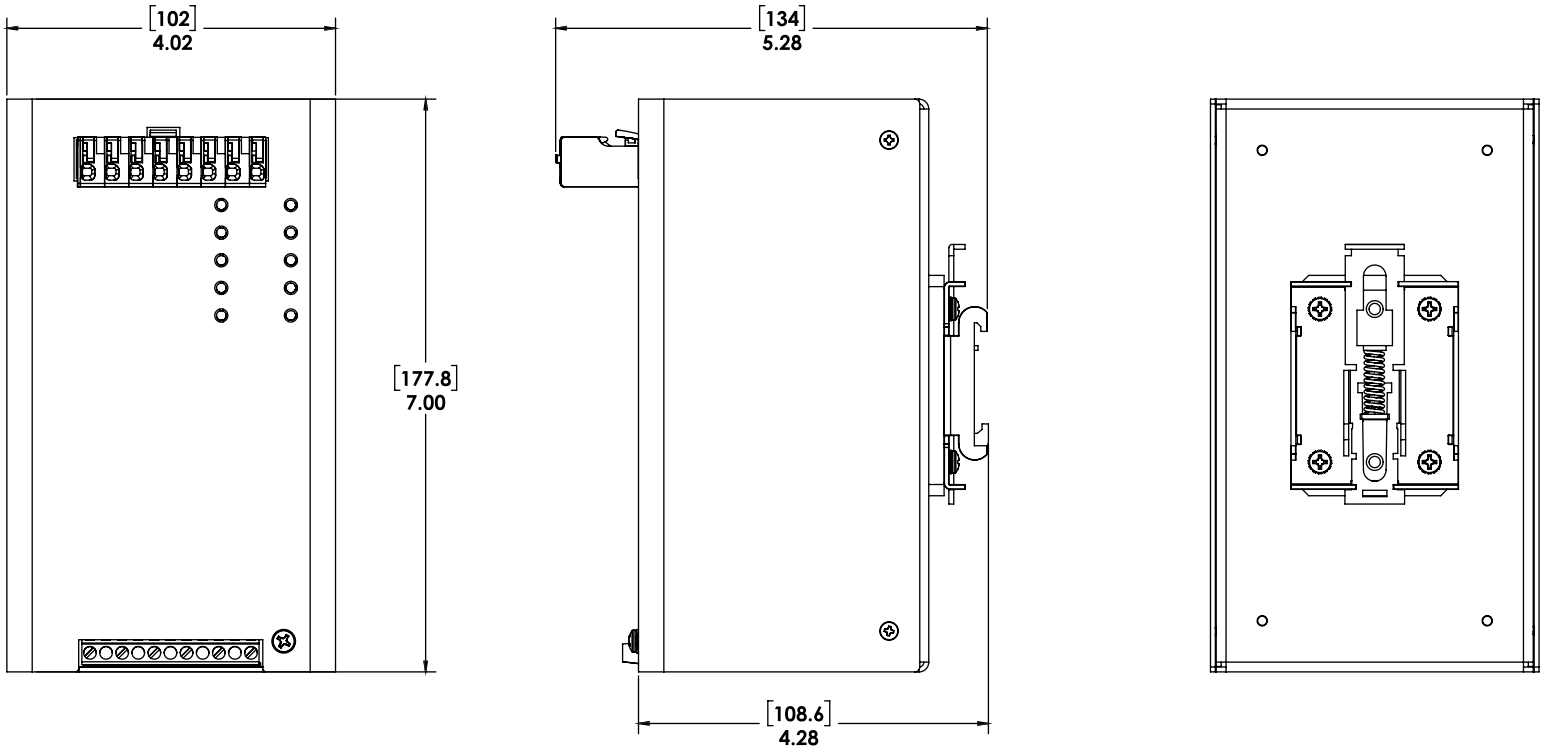
SPECIFICATIONS

TYPE	PARAMETER	SPECIFICATIONS	NOTES
INPUT	Voltage	240-350 Vdc	Must be supplied by listed Southwire transmitter shelf
	Number of Channels	4	
	Current Per Input Channel	5.0 A Max	
	Current, Total	12.0 A Max	
	Input Wiring Size	12-18 AWG	
OUTPUT	Voltage	240-350 Vdc	
	Number of Ports	2	The RX has 2 output ports. each port has 3 pins, +/-/GND.
	Current Per Output Port	12.0 A Max	
	Current, Total	12.0 A Max	
	Output Wiring Size	12-18 AWG	14 AWG minimum if running full load on a single pair
ENVIRONMENT	Operating Temperature	-40 °C (-40 °F) to 70 °C (158 °F)	Cold Start limited to -20 °C (-4 °F). (See page 2 for temperature derating curve)
	Altitude	Up to 2000 m	
MECHANICAL	Dimensions	7.00" x 4.02" x 3.55" 177.80 mm x 102.01 mm x 90.11 mm	(See page 2)
	Weight	2.132 lbs	
APPROVALS	Safety	UL 1400-1 UL 62368-1 EN IEC 62368-1 CAN/CSA-C22.2 No. 62368-1	*Evaluated as part of a FMP system by Underwriters Laboratories.
	EMC	FCCPart 15 Subpart B Class A ICES-003 Class A EN 55032 Class A EN 300 386 (telecom immunity) EN 55035 EN 50121-4 (rail immunity)	
	Other	CE, RoHS, WEEE, UKCA	
BOX CONTENT	Hardware Kit (Included)	(1) 8 Position Terminal Block Plug, P/N: 8000078359 (1) #6 Ring Terminal, 14-16 AWG, P/N: 7113K23 (1) 6-32, 1/4", internal-tooth lock washer, P/N: 95345A043	
SOLD SEPARATELY	RXDC-HV-4K-01 Wall Mount Bracket (screws included)		

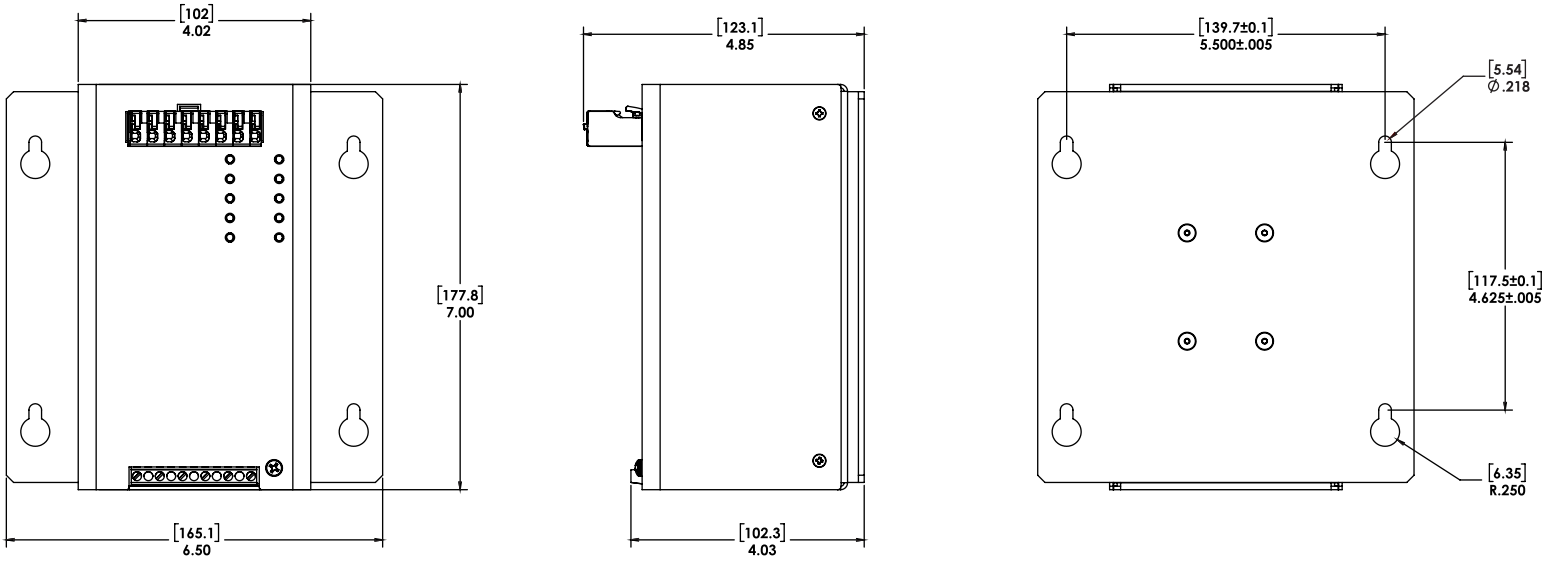
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DETAILED DIMENSIONS - INCHES (MM)

WITH DIN CLIPS

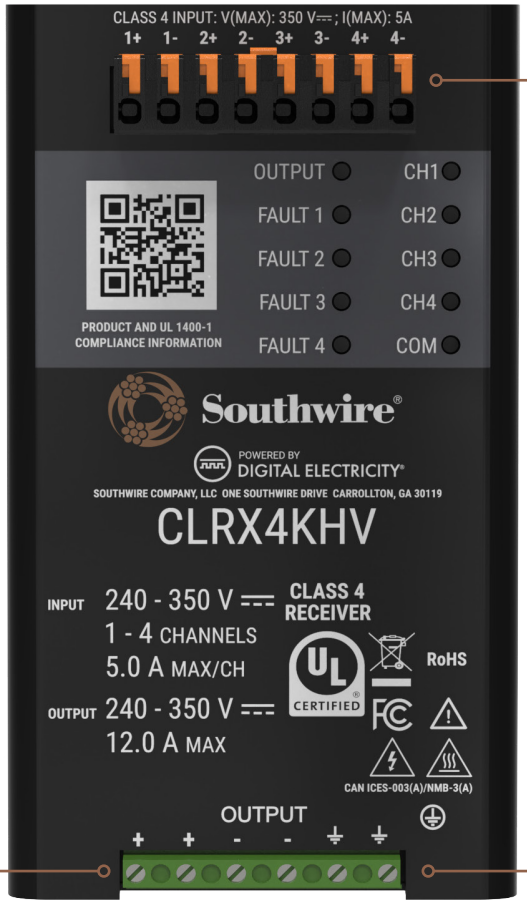


WITH WALL MOUNT BRACKET



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CONNECTION DIAGRAM

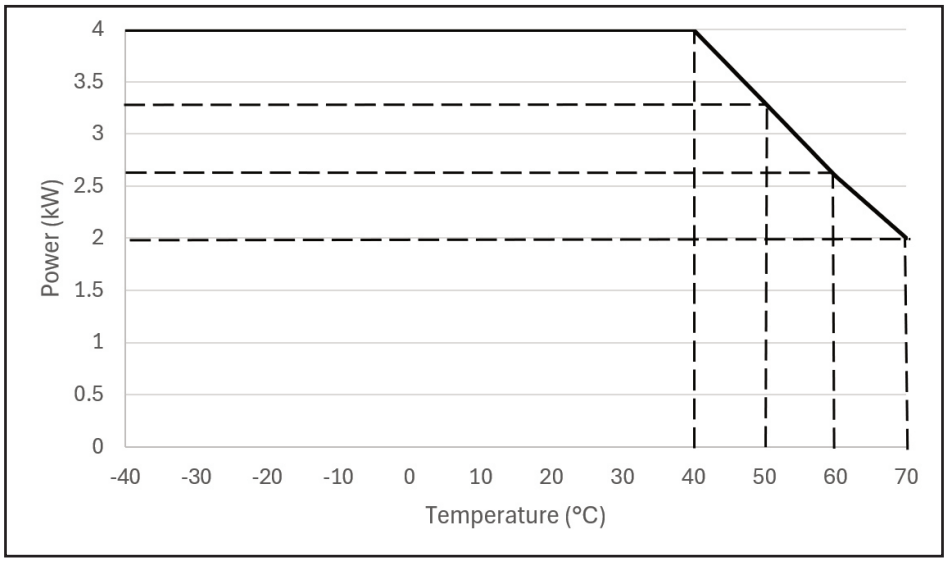


1 DIGITAL ELECTRICITY INPUT PORT
Four (4) channels, eight (8) conductors, 18 AWG minimum (16 AWG recommended)

HIGH VOLTAGE DC OUTPUT PORT 2
Two (2) connections, three (3) conductors per connection, 14 AWG minimum if running full load

3 PROTECTIVE EARTH GROUND TERMINAL
Ground connection for receiver, 14 AWG required, screw and ring terminal provided in accessory kit

TEMPERATURE DERATING CURVE



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WARNING!

Ensure that the unit is de-energized before contacting any exposed conductors. The output circuit is not a protected FMP / Class 4 circuit. Output terminals may be up to 350 Vdc.

Do not open the unit. There are no serviceable parts within the unit.

The minimum wire gauge for use with Southwire Transmitters is 18 AWG copper conductors.

Southwire RX Receiver inputs are intended to be powered by Southwire TX Transmitter products only. Ensure that only Southwire TX Transmitter products are used as sources of power for this receiver unit.

The voltage rating of the transmission wiring between Southwire Transmitter and Receiver(s) must be a minimum of 450 Vrms.

Equipment is intended for installation in a Restricted Access Area. Per IEC 62368-1, a Restricted Access Area is defined as an area accessible only to skilled persons and to instructed persons with the proper authorization.

FCC CAUTION

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at their own expense.
CAN ICES-003(A) / NMB-003(A)

SYMBOLS

Caution: Hazardous Voltages present when energized. Do not open the unit.

Caution: Hot Surface when energized. Do not touch the unit.

This symbol indicates the protective earth ground terminal for the device. See "Grounding" section below for more information.

NOTE

For Class 4 compliance, the CLRX4KHV receiver unit must be used with a compatible Southwire transmitter. For a full list of compatible transmitters scan the QR code. Any UL 1400-2 listed Class 4 cable may be used.

WARRANTY STATEMENT

There are no serviceable parts within the CLRX4KHV. Opening or modifying the unit and/or factory attached cables will void the warranty.

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INSTALLATION INSTRUCTIONS

CAUTION
Input and Output wiring and over current protection must be installed in accordance with all local and national electrical codes and requirements.

PHYSICAL INSTALLATION
The CLRX4KHV is intended to mount vertically on a 35 mm DIN rail with the input connector positioned at the top and the output connector positioned at the bottom. The CLRX4KHV should have free air space around the top and bottom of the unit. The DIN rail mounting clip is located on the back of the enclosure.
IMPORTANT:Unit must be oriented with the vents at the top and bottom.

GROUNDING
The CLRX4KHV receiver must be properly grounded to the user's facility earth connection for safe operation. The ground for the receiver must be the same ground as the transmitter chassis it is being fed from, otherwise overvoltage protection (OVP) is needed (see OVP Design Guide and/or Best Practices Guide for more details). If the product is being enclosed in a metal, non-insulated external enclosure, connect a green/yellow 14 AWG wire from the external enclosure to one of the ground connections of the CLRX4KHV output. The grounding connection of the user's end load must also be connected to one of the ground connections of the CLRX4KHV output.

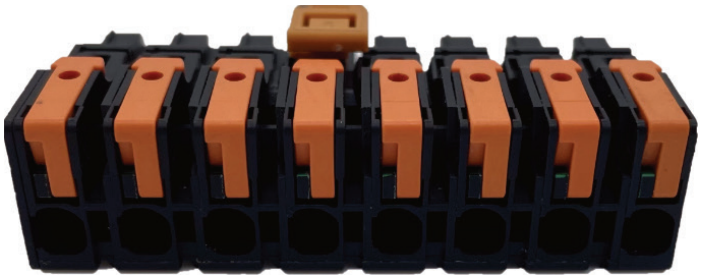
GENERAL
DO NOT connect a load while the CLRX4KHV Receiver is running. The CLRX4KHV must be de-energized prior to wiring the load device.

METHOD OF DISCONNECT FROM POWER
To disconnect the CLRX4KHV Digital Electricity Receiver unit from power, unplug ALL corresponding channels from the DE Transmitter Chassis either at the transmitter location or at the receiver by separating the input quick connector.

WARNING
Due to the amount of capacitance in the CLRX4KHV, it may take up to one minute for the CLRX4KHV to drop to safe voltage levels.

INPUT WIRING
NOTE: Units ship with a plug-able input connector mate. The wiring must be terminated appropriately at the installation site with a strip length of 0.35 in.

INPUT MATING CONNECTOR PIN-OUT



PIN	DESCRIPTION
1	DE Input Channel 1 Pos(+)
2	DE Input Channel 1 Neg(-)
3	DE Input Channel 2 Pos(+)
4	DE Input Channel 2 Neg(-)
5	DE Input Channel 3 Pos(+)
6	DE Input Channel 3 Neg(-)
7	DE Input Channel 4 Pos(+)
8	DE Input Channel 4 Neg(-)

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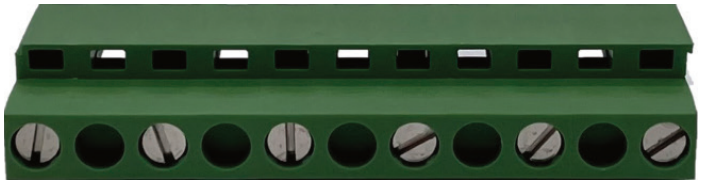
INSTALLATION INSTRUCTIONS

OUTPUT WIRING

NOTE: Output is a screw-type terminal block connector. The wiring must be terminated appropriately at the installation site with a strip length of 0.25 in. Ensure screws are fully torqued down to 5 lb-in after wire installation.

OUTPUT CONNECTOR PIN-OUT

Front View:



Bottom View:



1 2 3 4 5 6

PIN	DESCRIPTION
1	HVDC Out POS (+)
2	HVDC Out POS (+)
3	HVDC Out NEG (-)
4	HVDC Out NEG (-)
5	Ground
6	Ground

LED CODES AND TROUBLESHOOTING

OUTPUT	●	●	CH 1
FAULT 1	●	●	CH 2
FAULT 2	●	●	CH 3
FAULT 3	●	●	CH 4
FAULT 4	●	●	COM

FAULT CODE	TROUBLESHOOTING
FAULT 1 - INTERNAL LOAD	Issue delivering power from receiver toload. • Check wiring between receiver and load • Reduce load
FAULT 2 - ENVIRONMENTAL	Receiver over temperature • Reduce ambient temp surrounding receiver • Reduce Load
FAULT 3 - INTERNAL	Internal Failure • Contact Southwire
FAULT 4 - INPUT/ OTHER	Issue delivering power from transmitter to receiver. • Check wiring between TX and RX • Consider adding more transmitter pairs to RX input

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AVERTISSEMENT!

Assurez-vous que l'appareil est mis hors tension avant de faire du contact avec des conducteurs nus. Le circuit de sortie n'est pas protégé par un circuit FMP/Classe 4. Les bornes de sortie peuvent atteindre 350 Vdc.

N'ouvrez pas l'appareil. Il n'y a aucune pièce réparable dans l'unité.

Le calibre de fil minimum à utiliser avec les émetteurs Southwire GEN2 est constitué de conducteurs en cuivre de 18 AWG.

Les entrées du récepteur Southwire RX sont destinées à être alimentées uniquement par les produits émetteurs Southwire TX. Assurez-vous que seuls les produits émetteurs Southwire TX sont utilisés comme sources d'alimentation pour ce récepteur.

La tension nominale du câblage de transmission entre l'émetteur Southwire et le(s) récepteur(s) doit être 450 Vrms au minimum.

Équipement destiné à être installé dans une zone à accès restreint. Selon la norme IEC 62368-1, une zone d'accès restreint est définie comme une zone accessible uniquement aux personnes qualifiées disposant de l'autorisation appropriée.

SYMBOLES

Attention: Des tensions dangereuses sont présentes lorsque l'appareil est sous tension. N'ouvrez pas l'appareil.

Attention: Surface chaude lorsqu'elle est sous tension. Ne pas toucher l'appareil.

ATTENTION

Le câblage d'entrée et de sortie et la protection contre les surintensités doivent être installés conformément à tous les codes et exigences électriques locaux et nationaux.

AVERTISSEMENT!

En raison de la quantité de capacité du CLRX4KHV , il peut prendre jusqu'à une minute pour que le CLRX4KHV tombe à des niveaux de tension sûrs.

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