# CycleRITE<sup>™</sup> CR-301 Controller]

Shown with SUT (Set-Up-Tool)

## Saving the Planet While Increasing Your Bottom Line



Measures & Controls "In- Situ" pressure (refrigerant) for air conditioning and refrigeration Condenser Pressure in order to control condenser fans



#### **Contents Page**

Information Regarding Product Safety	2
Legend	
Product Description	
Technical Data	
Connections	
Connections	6
Mounting and Installation	7
Product Interface Layout	

#### Product Safety Information

This data sheet contains information related to the use and performance of the product "CR-301 controller". Each person who carries out work on this product must have read and understood this data sheet. If you have any questions that are not resolved by this data sheet, you can obtain further information from the supplier or manufacturer.

If the product is not used in accordance with this data sheet, the protection provided will be impaired.

Applicable regulations must be observed when installing and using the device. Within the EU, these include regulations regarding occupational safety and accident prevention as well as those from the VDE (Association for Electrical, Electronic & Information Technologies). If the device is used in other countries, it is the responsibility of the system installer or operator to comply with local regulations.

Mounting, installation and commissioning work on the devices may only be carried out by qualified technicians. Qualified technicians are persons who are familiar with the described product and who can assess given tasks and recognize possible dangers due to technical training, knowledge and experience as well as knowledge of the appropriate regulations.

the product group, llc

#### Legend



Indicates a hazard of medium risk which can result in death or severe bodily injury if not avoided.



Indicates a hazard of low risk which can result in minor or medium bodily injury if not avoided.

#### NOTICE

Indicates a hazard of medium risk which can result in material damage or malfunctions if not avoided.

#### Notes on Disposal

For disposal, the product is considered waste from electrical/electronic equipment (electronic waste) and must not be disposed of as household waste. Special treatment for specific components may be legally binding. All/Any local disposal regulations should observed and followed.

#### Product Description

**CycleRITE**<sup>™</sup> is a digital condenser fan 'cycle controller' used to operate commercial refrigeration and air conditioning condenser fans of all types.

**CycleRITE**<sup>™</sup> uses its "digital based" electronics to read the signal from an electronic pressure sensor (part of this product)... a transducer... that is attached to a commercial/industrial refrigeration unit's compressed refrigerant system at its High Pressure piping connections to sense internal system operating pressures which in turn, are translated by its micro-processor. CycleRITE<sup>™</sup> will then turn the respective condenser fans in the unit "on" or "off" based on user-defined set-points and limits to very accurately control the condenser fan operation.

CycleRITE<sup>™</sup> is available in 1 Model: CR-301

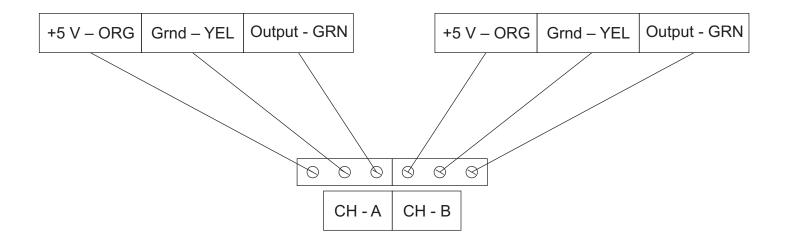
#### **Technical Data**

Purpose	Measures & Controls "In- Situ" pressure (refrigerant) for air conditioning and refrigeration Condenser Pressure in order to control condenser fans
Supply Voltage	15VAC [Single Phase – Neutral] OR 230VAC [Single Phase 2-Wire] (Nominal)
Outputs	4 Independent SPDT 25 Amp Rated 115VAC/230VAC [Form C Contacts NO/NC]
Connections	High Voltage Terminal Strip: 18 ga to 12 ga Stranded or Solid Wire Transducer Terminal Strip 18 ga Stranded Wire
Power Consumption	5 Watts
Measured range	2 to 667 psi
Interfaces	SUT (Hand-held Set-Up-Tool); RS485
Enclosure	Open-frame back plate mounted board
Operating Temperature	-20 Deg. F to +145 Deg. F
Humidity	80% Non-Condensing
Accuracy	1% of Range
Weight	18.3 Oz
Dimensions	WxHxD = 11.0" x 6" x 2"

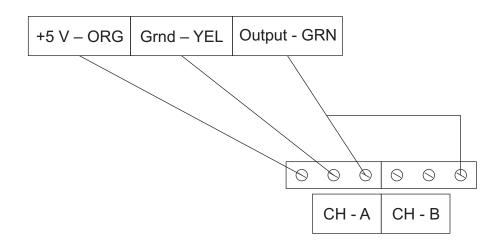


#### Wiring/Connections Diagram(s)

Pressure Transducer Connection Diagram for Condenser Fan Control via 2 Separate Pressure Transducers & 3 or More Fans



Pressure Transducer Connection Diagram for Condenser Fan Control via 1 Pressure Transducer for Up to 4 Fans



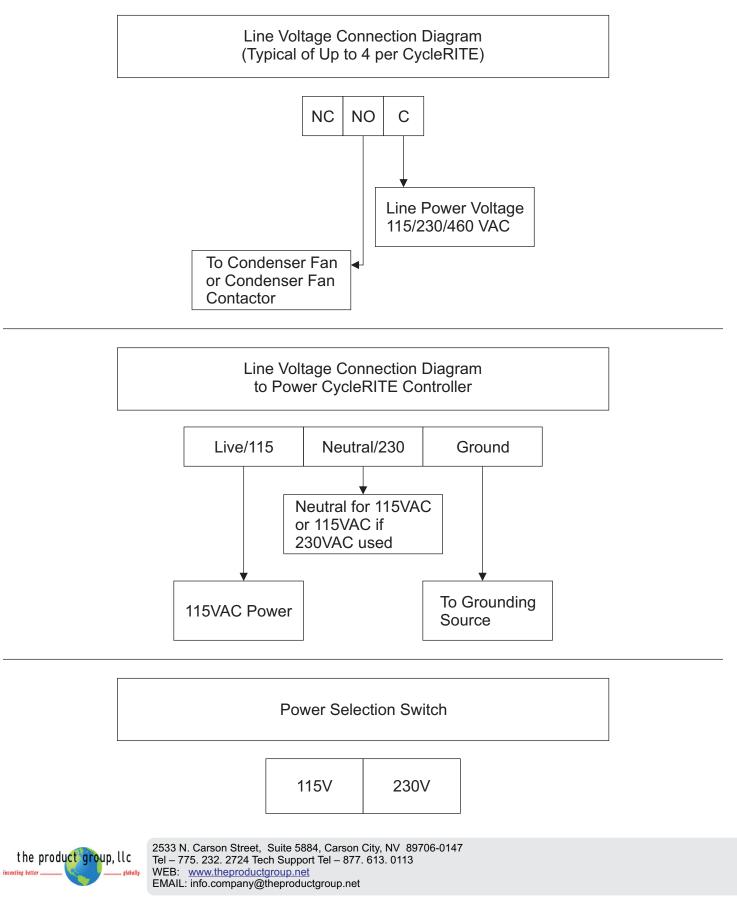
Wiring/Connections Diagram(s) Continued on Next Page

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5

6

Wiring/Connections Diagram(s)

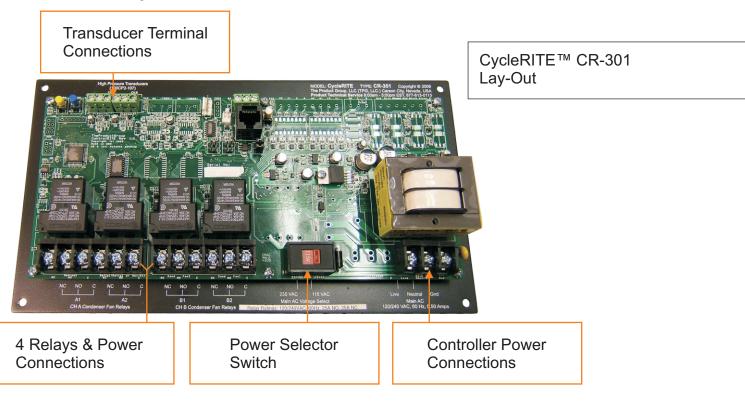


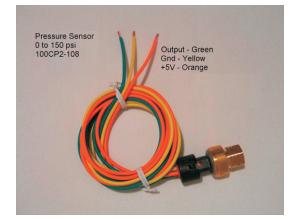
#### Mounting/Installation

**CycleRITE**<sup>™</sup> is set in place within a control cabinet that is affixed to the equipment that contains the compressor. It may be remotely mounted not exceed to 30 ft. from transducers/sensors.

**CycleRITE**<sup>™</sup> is designed as a NEMA 1 (Indoor rated) device and is mounted via 4 pre-drilled holes in each corner of its backplate that are 'stand-off' configured.

#### Product Interface Layout





Transducer Description/Lay-Out (Typical)

[Sensor wires are 3 mtr. In length. They may be extended up to 30 ft. if 18 gauge stranded wire type is maintained.]



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