AC Input /AC Output Module

HE500OCS037 / HE500OCS067
HE500RCS067
120 VAC In, Positive Logic
3A Relay Out

Mini OCS/RCS

1 SPECIFICATIONS

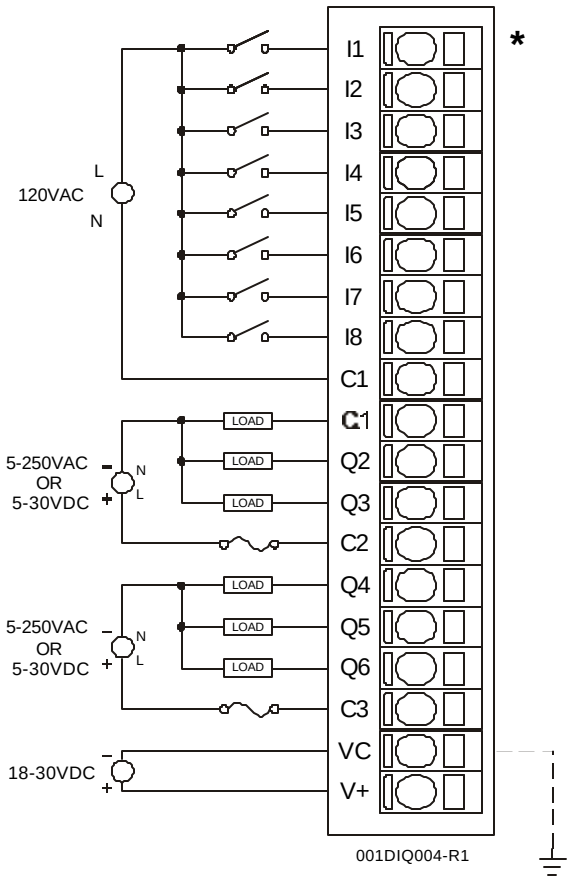
INPUT			
Inputs per Module	8	Input Impedance	0.01µF +10K
Commons per Module	1	Isolation (Channel to Bus)	500VDC
Input Voltage Range	120 – 160 VAC	Minimum ON Current	1mA.
Peak Voltage	160VAC	Maximum OFF Current	200µA.
AC Frequency	50 / 60Hz	OFF to ON Response	50ms.
ON Voltage Level	70VAC Min.	ON to OFF Response	50ms.
OFF Voltage level	30VAC Max.	Status Indicator	8

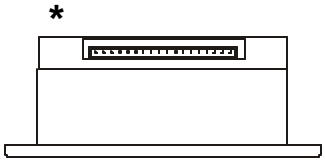
OUTPUT			
Outputs per Module	6 relay	Maximum Leakage Current	5µA
Commons per Module	2	Maximum Inrush Current	3A per channel
Output Type	Relay	Minimum Load	None
Coil Voltage	18-30VDC	OFF to ON Response	6ms. Typical
Contact Voltage	250VAC / 30VDC Max.	ON to OFF Response	0.3ms. Typical
ON Voltage drop	.1V Max.	Status Indicator	6
Fuses	10A common	Isolation (Channel to Channel and Channel to Common)	500VDC
Maximum Load current (resistive) per channel	3A		

General Specifications			
Required Power (Steady State)	4.8W (200mA @ 24VDC)	Operating Temperature	0° to 50° Celsius
Required Power (Inrush)	900mA max. @ 24VDC for 1ms.	Terminal Type	Spring Clamp, Removable
Relative Humidity	5 to 95% Non-condensing	Weight	9oz. (256 g)
CE UL	See Compliance Table at http://www.heapg.com/Support/compliance.htm		

MAN0301-03

2 WIRING





Mini Bottom View – Shows corresponding I/O pin location

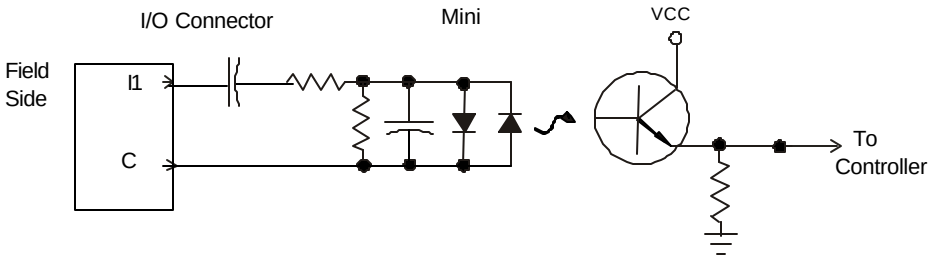
Pin	Signal
I1	Input 1
I2	Input 2
I3	Input 3
I4	Input 4
I5	Input 5
I6	Input 6
I7	Input 7
I8	Input 8
C1	Common 1
Q1	Output 1
Q2	Output 2
Q3	Output 3
C2	Common 2
Q4	Output 4
Q5	Output 5
Q6	Output 6
C3	Common 3
VC	Relay Coil Voltage Common
V+	Relay Coil Voltage +

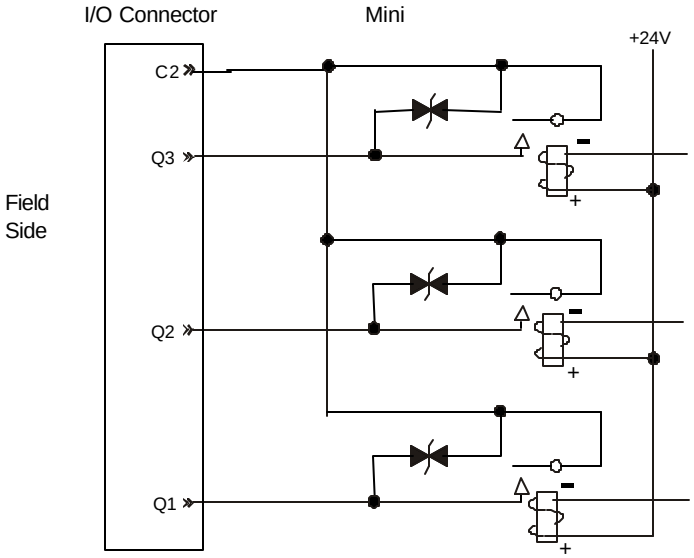
Warning: To protect the module and associated wiring from load faults, use external fuse **(10 A)** as shown. **This warning affects OCS037 / OCS067, Revisions E or higher and all versions of the Mini RCS067.**

Warning: Connecting high voltage to any I/O pin may cause high voltage to appear at other I/O pins.

Warning: Wiring the line side of the AC source to loads connected to outputs 1 through 6 and the neutral side of the AC source to the output common(s) would create a Negative Logic condition, which may be considered an unsafe practice.

3 INTERNAL CIRCUIT SCHEMATICS





Specification for transient voltage suppressors (transorbs) used on output circuitry is 400VDC, bi-directional 400 watts.

Electro-mechanical relays comply with IEC1131-2.

4 CONFIGURATION

Note: The status of the I/O can be monitored in Cscape Software.

Selecting the **I/O Map** tab provides information about the I/O registers. The I/O Map is not edited by the user.

The **Module Setup** is used in applications where it is necessary to change the default states of the outputs when the controller (e.g., OCS100) enters idle/stop mode. The default turns the outputs OFF when the controller enters idle/stop mode. By selecting the Module Setup tab, each output can be set to either turn ON, turn OFF or to hold the last state. Generally, most applications use the default settings.

Warning: The default turns the outputs OFF when the controller enters idle/stop mode. To avoid injury of personnel or damages to equipment, exercise extreme caution when changing the default setting using the **Module Setup** tab.

5 INSTALLATION / SAFETY

Warning: Previous versions of this product provided internal fuses on the output circuits (relay contacts). Due to CE Low Voltage Directive (LVD) marking requirements, these fuses have been removed and replaced with solid wire. Therefore, it is now the responsibility of the user of this equipment to ensure that adequate fusing is installed *externally* on each relay output circuit.

a. All applicable codes and standards are to be followed in the installation of this product.
b. Use the following wire type or equivalent: Belden 8917, 16 AWG or larger.

For detailed installation information, refer to Mini Hardware Manual. A handy checklist is provided that covers panel box layout requirements and minimum clearances.

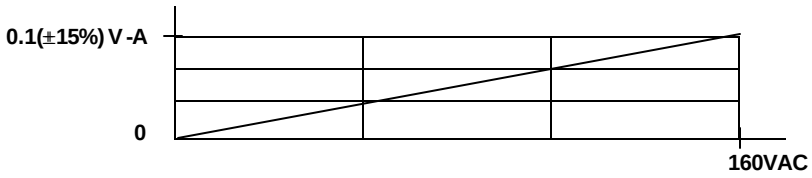
When found on the product, the following symbols specify:

Warning: Consult user documentation.

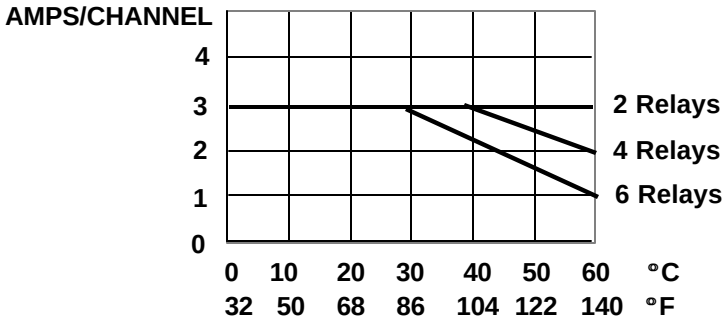
Warning: Electrical Shock Hazard.

6 INPUT / OUTPUT CHARACTERISTICS

Digital Input Chart



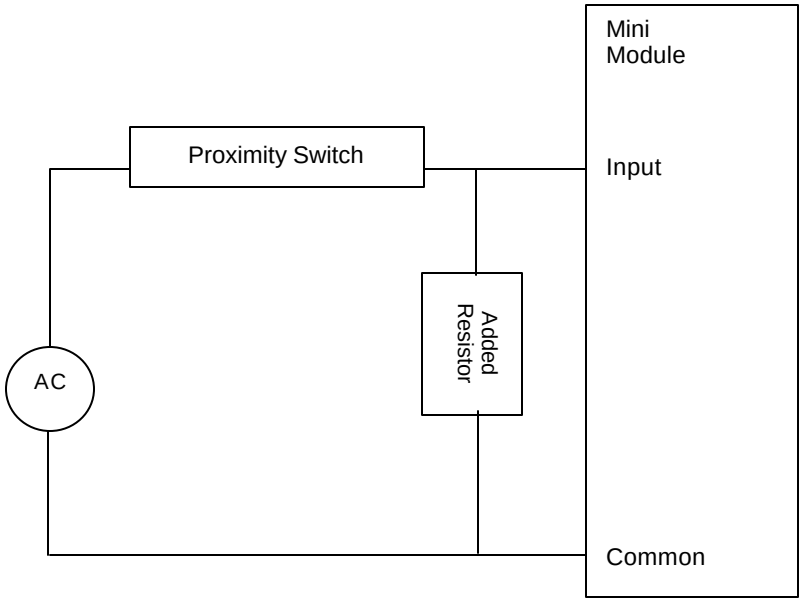
Derating Output Chart



Typical Relay Life			
Voltage (Resistive)	**Load Current**		
	1 Amp	**2 Amp**	**3 Amp**
30VDC	600K	250K	125K
125VAC	750K	300K	150K
250VAC	500K	200K	100K

The following applies to applications in which two-wire proximity switches are used as sensors for discreet AC inputs. For these applications, an external resistor *or* resistor/capacitor combination must be added to each input as shown below. The resistor provides a small current to power the proximity switch. The resistor is not required for other types of proximity switches.

120VAC: 15K ohm, 2W resistor *or* 0.22µF metallized film capacitor rated for 120VAC service in series with 470 ohm, 0.5W resistor



7 TECHNICAL SUPPORT

For assistance, contact Technical Support at the following locations.
Please visit our website for manual updates.

North America:
(317) 916-4274
www.heapg.com

Europe:
(+) 353-21-4321-266
www.horner-apg.com