# C4 SERIES | OUTPUT MODULES

DIGITAL I/O MODULES



#### Features

• Plug into mounting boards for C4 Series modules

Sensata

**Technologies** 

- AC Inputs (Yellow Case)
- DC Inputs (White Case)
- 4kV Optical isolation
- Replaceable 2 AG Type Fuse
- Industry standard packaging
- Built-in LED Status Indicator

**SPECIFICATIONS** 

## Input<sup>(1)</sup>

Part Number	C40AC	C40ACA	C40DC	C40DCA
Nominal Voltage [VDC]	4-32	4-32	4-32	4-32
Minimum Voltage [VDC]	4.0	4.0	4.0	4.0
Maximum Voltage [VDC]	32	32	32	32
Drop-out Voltage [VDC]	1.0	1.0	1.0	1.0
Maximum Current [mA ] <sup>(2), (3)</sup>	22	22	16	16
Resistance [Ohms]	Regulated Input	Regulated Input	Regulated Input	Regulated Input

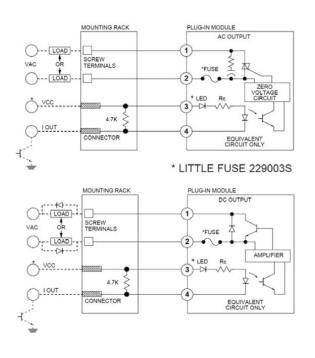


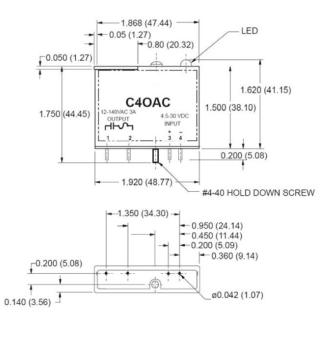
## Output <sup>(1)</sup>

Part Number	C40AC	C40ACA	C40DC	C40DCA
Nominal Line Voltage	120 VAC	240 VAC	5-48 VDC	5-150 VDC
Minimum Line Voltage	12 VAC	12 VAC	5.0 VDC	3 VDC
Maximum Line Voltage	140 VAC	280 VAC	60 VDC	250 VDC
Max Off-State Voltage <sup>(4)</sup>	600 Vpeak	600 Vpeak	60 VDC	250 VDC
Max Off-State Leakage <sup>(5)</sup>	0.1mArms	0.1mArms	10 uA	10 uA
Static Off-State dv/dt <sup>(6)</sup>	200 V/usec	200 V/usec	n/a	n/a
Maximum Rated On-State Current (7)	3.0 Arms	3.0 Arms	3.0 A	3.0 A
Minimum On-State Current	50 mArms	50 mArms	10 mA	10 mA
Max Surge Current <sup>(8)</sup>	100 Apeak	100 Apeak	5.0 Apeak	5.0 Apeak
On-State Voltage Drop or Resistance <sup>(9)</sup>	1.6 V	1.6 V	1.6 V	1.6 V
HP Rating	1/4	1/4	n/a	n/a
Maximum Turn-On Time [msec] <sup>(10)</sup>	8.33	8.33	0.05	0.05
Maximum Turn-Off Time [msec]	8.33	8.33	0.05	0.05
Input/Output Isolation Voltage <sup>(11)</sup>	4000 Vrms	4000 Vrms	4000 Vrms	4000 Vrms
Input/Output Capacitance	4 pF	4 pF	4 pF	4 pF
Operating Temperature Range	-30 to 80°C	-30 to 80°C	-30 to 80°C	-30 to 80°C
Storage Temperature Range	-40 to 100°C	-40 to 100°C	-40 to 100°C	-40 to 100°C
Line Frequency Range	47 to 63 Hz	47 to 63 Hz	DC	DC
Weight	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)



### **EQUIVALENT CIRCUIT DIAGRAM / MECHANICAL SPECIFICATIONS**







- <sup>(1)</sup> Specifications apply to an ambient temperature of -30 to 80 °C unless otherwise noted.
- (2) At 32 VDC typical.
- <sup>(3)</sup> 13 ma at 5 VDC for AC output modules only.
- <sup>(4)</sup> Maximum 1 minute duration.
- <sup>(5)</sup> At maximum rated line voltage, TA=80°C.
- <sup>(6)</sup> Minimum DV/DT per EIA/NARM RS443, method RS397, DV/DT ratings do not apply to DC output models.
- <sup>(7)</sup> Without any external heat sink in still air, TA=45°C, at 40°C derate 40 mA/°C to 80°C.
- <sup>(8)</sup> At 25°C for 1 second maximum duration: 1 AC cycle for AC modules, 1 second for DC modules.
- <sup>(9)</sup> At peak rated current.
- <sup>(10)</sup> Before zero voltage, Vin=4V AC modules only based on 60Hz. Vin=15V for DC modules.
- <sup>(11)</sup> For 1 second maximum duration TA= 25°C.

## AGENCY APPROVALS & CERTIFICATIONS



#### WARNINGS



#### RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



- HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH
- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power
- Failure to follow these instructions will result in death or serious injury.

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