STANDARD SERIES | OUTPUT MODULES

DIGITAL I/O MODULES



Features

- AC Modules have High Current Thyristors with 100 Amp Surge Capability
- Plug into mounting boards for 0.6" modules
- Zero or Random Turn-On Available in AC Modules
- 4kV Optical isolation (1500 VAC Isolation for FET DC Output Modules)
- UL Recognized, CSA Certified CE Compliant
- Industry standard packaging and Color Coding Black (AC Output) Red (DC Output)

SPECIFICATIONS

Output [1]

Part Number	OAC5	OAC5A	OAC5AH	OAC5R	OAC24	OAC24A
Nominal Line Voltage	120 VAC	240 VAC	240 VAC	120 VAC	120 VAC	240 VAC
Minimum Line Voltage	12 VAC	24 VAC	24 VAC	12 VAC	12 VAC	24 VAC
Maximum Line Voltage	140 VAC	280 VAC	280 VAC	140 VAC	140 VAC	280 VAC
Max Off-State Voltage [5]	400 Vpeak	600 Vpeak	600 Vpeak	400 Vpeak	400 Vpeak	600 Vpeak
Max Off-State Leakage [6]	0.1mArms	0.1mArms	0.1mArms	0.1mArms	0.1mArms	0.1mArms
Static Off-State dv/dt [7]	200 V/usec	200 V/usec	200 V/usec	200 V/usec	200 V/usec	200 V/usec
Maximum Rated On-State Current [8]	3.5 Arms	3.5 Arms	5.0 Arms	3.5 Arms	3.5 Arms	3.5 Arms
Max Surge Current [9]	100 Apeak	100 Apeak	100 Apeak	100 Apeak	100 Apeak	100 Apeak
On-State Voltage Drop or Resistance [10]	1.6 V	1.6 V	1.6 V	1.6 V	1.6 V	1.6 V
Maximum Turn-On Time [msec] [13]	8.33	8.33	8.33	0.1	8.33	8.33
Maximum Turn-Off Time [msec] [13]	8.33	8.33	8.33	8.33	8.33	8.33
Input/Output Isolation Voltage [14]	4000 Vrms	4000 Vrms	4000 Vrms	4000 Vrms	4000 Vrms	4000 Vrms
Input/Output Capacitance	8 pF	8 pF	8 pF	8 pF	8 pF	8 pF
Operating Temperature Range	-30 to 80°C	-30 to 80°C	-30 to 80°C	-30 to 80°C	-30 to 80°C	-30 to 80°C
Storage Temperature Range	-40 to 80°C	-40 to 80°C	-40 to 80°C	-40 to 80°C	-40 to 80°C	-40 to 80°C
Line Frequency Range	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz	47 to 63 Hz
Weight	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)

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Part Number	ODC5	ODC5A	ODC5F	ODC5ML	ODC24	ODC24A
Nominal Line Voltage	4-48 VAC	5-150 VAC	5-48 VDC	5-48 VDC	5-48 VDC	5-150 VDC
Minimum Line Voltage	3.0 VDC	3.0 VDC	3.0 VDC	1.0 VDC	3.0 VDC	3.0 VDC
Maximum Line Voltage	60 VDC	250 VDC	60 VDC	50 VDC	60 VDC	250 VDC
Max Off-State Voltage[5]	60 VDC	250 VDC	60 VDC	60 VDC	250 VDC	60 VDC
Max Off-State Leakage [6]	10 uA	10 uA	10 uA	10 uA	10 uA	10 uA
Static Off-State dv/dt [7]	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Rated On-State Current [8]	3.0 A	1.0 A	3.0 A	5.0 A	3.0 A	1.0 A
Max Surge Current[9]	5.0 A	5.0 A	5.0 A	10 A	5.0 A	5.0 A
On-State Voltage Drop or Resistance [10]	1.5 V	1.5 V	1.5 V	0.05 Ohms	1.5 V	1.5 V
Maximum Turn-On Time [msec] [13]	0.1	0.1	0.025	1.0	0.1	0.1
Maximum Turn-Off Time [msec] [13]	0.75	0.75	0.05	0.5	0.75	0.75
Input/Output Isolation Voltage [14]	4000 Vrms	4000 Vrms	4000 Vrms	1500 Vrms	4000 Vrms	4000 Vrms
Input/Output Capacitance	8 pF	8 pF	8 pF	8 pF	8 pF	8 pF
Operating Temperature Range	-30 to 80°C	-30 to 80°C	-30 to 80°C	-30 to 80°C	-30 to 80°C	-30 to 80°C
Storage Temperature Range	-40 to 80°C	-40 to 80°C	-40 to 80°C	-40 to 80°C	-40 to 80°C	-40 to 80°C
Line Frequency Range	DC	DC	DC	DC	DC	DC
Weight	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)	1.1 oz. (31.2g)

Input [1]

Part Number	OAC5	OAC5A	OAC5AH	OAC5R	OAC24	OAC24A
Nominal Voltage [VDC]	5.0	5.0	5.0	5.0	24	24
Nominal Voltage [VDC] [2]	2.75	2.75	2.75	2.75	18	18
Maximum Voltage [VDC]	8.0	8.0	8.0	8.0	32	32
Drop-Out Voltage [VDC]	1.0	1.0	1.0	1.0	1.0	1.0
Maximum Current [mA] [3]	20	20	20	20	13	13
Resistance [Ohms] [4]	220	220	220	220	2000	2000

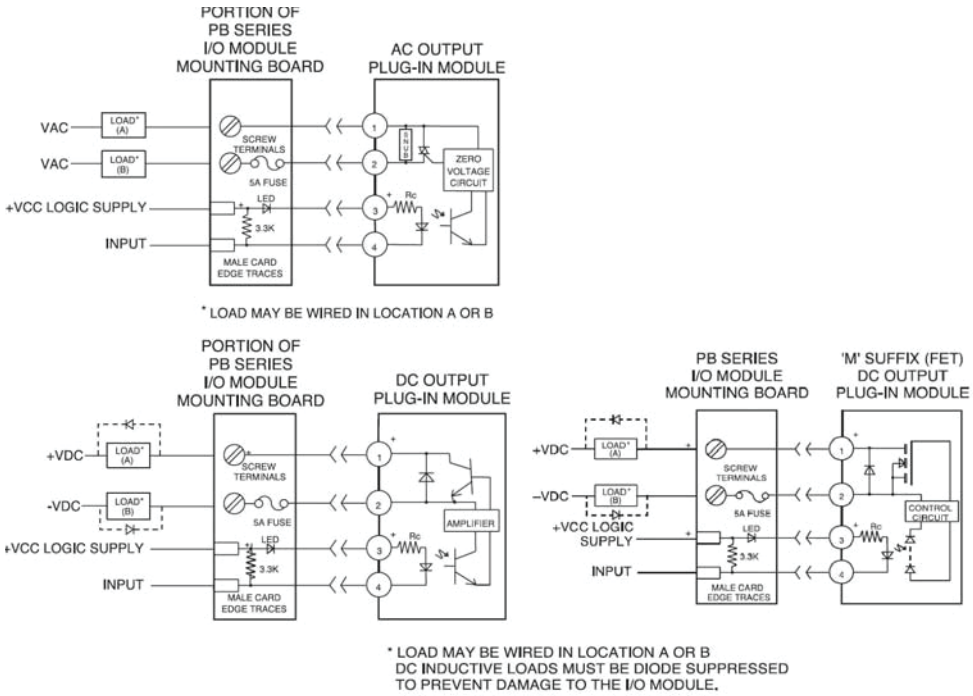
Part Number	ODC5	ODC5A	ODC5F	ODC5ML	ODC24	ODC24A
Nominal Voltage [VDC]	5.0	5.0	5.0	5.0	24	24
Nominal Voltage [VDC] [2]	2.75	2.75	2.75	2.75	18	18
Maximum Voltage [VDC]	8.0	8.0	8.0	8.0	32	32
Drop-Out Voltage [VDC]	1.0	1.0	1.0	1.0	1.0	1.0
Maximum Current [mA] [3]	18	18	18	18	13	13
Resistance [Ohms] [4]	250	250	250	250	2000	2000

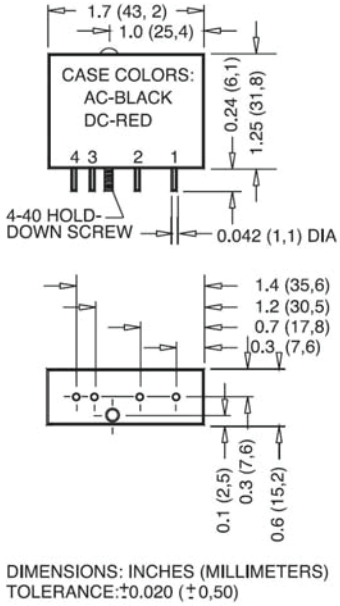
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GENERAL NOTES

[1] Specifications apply to an ambient temperature of -30 to 80 °C unless otherwise noted
[2] Without external LED status indicator. Add 1.7 volts for external LED if utilized.
[3] At nominal input voltage, without external LED status indicator
[4] +/-10% at 25°C.
[5] Maximum 1 minute duration for OACmodules when applied as a DCvoltage rather than a peek ACvoltage.
[6] At maximum line voltage, 25°Cfor OACmodules, and 80°Cfor ODCmodules
[7] Minimum DV/DTper EIA/NARM RS433, method RS397, DV/DTratings do not apply to DCoutput models.
[8] At 40°C, derate OACmodules 58 mA/°Cto 80°C, derate ODC. ODCxMCand ODCxML modules 50 mA/°C to 80°C. CSA rating of OACmodules is 3.0 Arms at 40°C
[9] At 25°Cfor 1 second maximum duration: 1 ACcycle for ACmodules, 1 second for DCmodules
[10] At maximum rated on-state current and 25°C.
[11] At maximum line voltage, maximum rated output current, nominal input voltage and 25°C. Switching speed of OACmodules is based upon 60 Hz line frequency
[12] At 25°Cfor 1 second maximum duration
[13] 1/3 H.P. at 240 VAC, 1/8 H.P. at 120 VAC.
[14] At 25°C for 1 second maximum duration

EQUIVALENT CIRCUIT BLOCK AND WIRING DIAGRAMS





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AGENCY APPROVALS & CERTIFICATIONS

E46203 38595

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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