AC Output Buffered Modules

- **Compatible with 5 & 15 Volt Logic Systems**
- **Buffered Inverting and Non-Inverting Modules**
- **Zero Voltage AC Switching**

Buffered output modules contain additional internal amplification to reduce drive requirements to a level suitable for the MOS devices used in many microprocessor systems. To further reduce the need for additional interface components, they are available with both inverting and non-inverting inputs, for 5 volt or 15 volt logic.

CRYDOM

Control over power

INPUT SPECIFICATIONS (All voltages referenced to pin 5)	**6411**	**6421**	**6412**	**6422**
Nominal Input Voltage [Vdc]	5	5	5	5
Output Module Type	Non-Inverting	Inverting	Non-Inverting	Inverting
Must Turn On Voltage Range @pin 4 [Vdc]	0.0 - 0.8	2.4 - 6.0	0.0 - 0.8	2.4 - 6.0
Must Turn Off Voltage Range @pin 4 [Vdc]	2.4 - 6.0	0.0 - 0.8	2.4 - 6.0	0.0 - 0.8
Max. Input On-Current (Sink) @pin 4 [µA]	75 @0.8V	—	75 @0.8V	—
	100 @0.0V	—	100 @0.0V	—
Max. Input On-Current (Source) @pin 4 [µA]	—	75 @2.4V	—	75 @2.4V
	—	250 @6.0V	—	250 @6.0V
Max. Output Off-State Input Current @pin 4 [µA] ②	10	10	10	10
Logic Supply Voltage Range [Vdc]	3.5 - 6.0	3.5 - 6.0	3.5 - 6.0	3.5 - 6.0
Max. Logic Supply Current @5Vdc (w/o LED) [mA] ①	20	20	20	20
Max. Logic Supply Current @5Vdc (w/ LED) [mA] ①	15	15	15	15

	6441	**6451**	**6442**	**6452**
Nominal Input Voltage [Vdc]	15	15	15	15
Output Module Type	Non-Inverting	Inverting	Non-Inverting	Inverting
Must Turn On Voltage Range @pin 4 [Vdc]	0.0 - 2.0	8.0 - 18	0.0 - 2.0	8.0 - 18
Must Turn Off Voltage Range @pin 4 [Vdc]	8.0 - 18	0.0 - 2.0	8.0 - 18	0.0 - 2.0
Max. Input On-Current (Sink) @pin 4 [µA]	175 @2.0V	—	175 @2.0V	—
	250 @0.0V	—	250 @0.0V	—
Max. Input On-Current (Source) @pin 4 [µA]	—	75 @8.0V	—	75 @8.0V
	—	200 @18V	—	200 @18V
Max. Input Current for Output Off-State @pin 4 [µA] ②	10	10	10	10
Logic Supply Voltage Range [Vdc]	10 - 18	10 - 18	10 -18	10 -18
Max. Logic Supply Current @5Vdc (w/o LED) [mA] ①	25	25	25	25
Max. Logic Supply Current @5Vdc (w/ LED) [mA] ①	22	22	22	22

OUTPUT SPECIFICATIONS				
Load Current Range @45˚ C [A]	0.02 - 3.5	0.02 - 3.5	0.02 - 3.5	0.02 - 3.5
Load Voltage Range [Vdc]	12 - 140	12 - 140	24 - 280	24 - 280
Max. Surge Current 1 Cycle (Non-Rep) [Apk]	80	80	80	80
Max. On-State Voltage [Vdc]	1.5	1.5	1.5	1.5
Max. Off-State Leakage [mA]	5.0	5.0	5.0	5.0
Max. Turn On Time	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle
Max. Turn Off Time	1/2 Cycle	1/2 Cycle	1/2 Cycle	1/2 Cycle
Transient Overvoltage [Vpk]	400	400	600	600

GENERAL NOTES

① LED optional. Placed in series with pin 3 for status indication.

② Max. allowable leakage current from driver maintain output off-state.

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For recommended applications and more information contact:
USA: (800) 8 CRYDOM • (800) 827-9366 • (619) 715-7200 • fax (619) 715-7280
Crydom Corp, 9525 Chesapeake Drive, San Diego, CA 92123 • e-mail: sales@crydom.com
WEB SITE: http://www.crydom.com **FASTFAX Product Information:** (888) 267-9191
UK: (44)1202 812300 • fax (44)1202 812340 Crydom International Ltd., 85, Condor Close, Woolsbridge Industrial Estate, Three-Legged Cross. Wimborne, Dorset, England BH21 6SU
GERMANY: (49) (0)6874 182580 • fax (49)(0)6874 182585 Crydom GmbH, Gewerbegebiet Im Schachen, D-66687 Nunkirchen, Germany • e-mail: vertrieb@crydom.com

ISO 9002 CERTIFIED

AC Output Buffered Modules

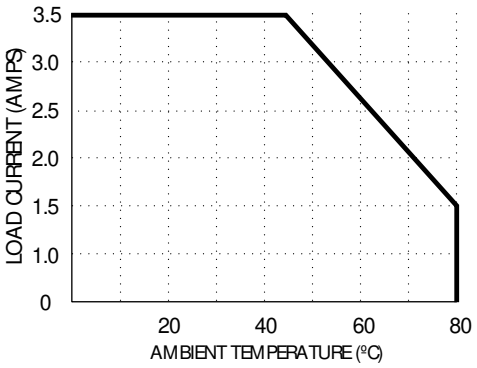
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Control over power

GENERAL SPECIFICATIONS

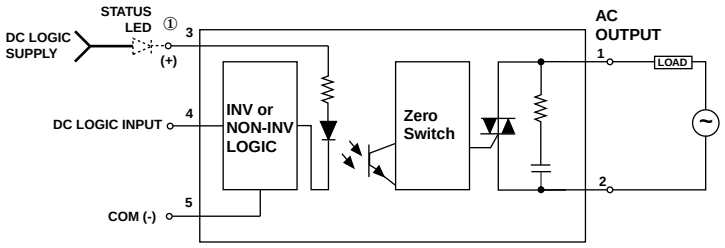
Min. Dielectric Input/Output (1 Minute)	4,000 VRMS
Min. Isolation Resistance Input/Output (@500V)	10^{10} Ohms
Capacitance input to output	8 pF
Temperature Range — Operating	-40˚C to 80˚C
Temperature Range — Storage	-40˚C to 125˚C

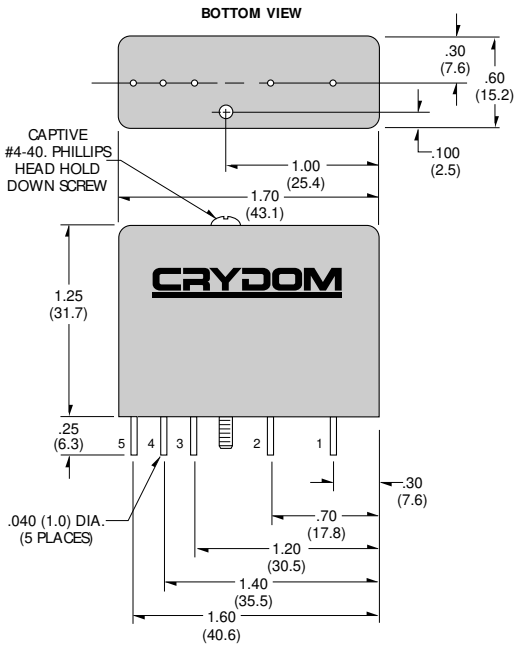
CURRENT DERATING CURVE



Max. Load Current vs. Temp.

WIRING & MECHANICAL DIAGRAMS





All dimensions are in inches (millimeters)

BUFFERED OUTPUT MODULES

A buffered non-inverting module turns on when pin 4 is held in the low state (logic 0), the same as standard modules driven in the sink mode. A buffered inverting module conversely turns on when pin 4 is held high (logic 1). In the absence of an input signal and/or logic supply (open Circuit), all models will be in the off-state.

Buffered modules may be used with standard 5 pin PB or MS mounting boards. However, the 3.3K pull-up resistor will add to the logic drive current of a non-inverting module and may be removed. For an inverting module, the resistor must be removed to avoid a false "on" command, unless a "normally closed" condition is desirable for use with a ground seeking (logic 0) signal source.

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