

# 1781, Classic & WRC4 Series Single Point Discrete I/O

## SPECIFICATIONS

### DC output modules

- To specify the WRC4 package, use the prefix "WRC4" (eg. WRC4-OB5S.)
- To specify the slim package, use the "S" suffix with the 1781 prefix (eg. 1781-OB5S.)
- To specify the mini package, use the "M" suffix with the 1781 prefix (eg. 1781-OB5M.)
- To specify the standard package, use the "Classic" part number (eg. ODC5A.)

Discrete I/O Modules

INPUT: WRC4 and 1781 INPUT: CLASSIC	OB5S ODC5	OBYS ODC15	OBXS ODC24	OC5S ODC5A	OCYS ODC15A	OCXS ODC24A	OF5S	OFYS	OFXS	OG5S	OGYS	OGXS	Units
Nominal input voltage	5	15	24	5	15	24	5	15	24	5	15	24	V dc
Min input volt. @ pin 3 - WRC4	4	10	18	4	10	18	4	10	18	4	10	18	V dc
Min input volt. @ pin 3 - 1781	2.5	8.5	16.5	2.5	8.5	16.5	2.5	8.5	16.5	2.5	8.5	16.5	V dc
Max input volt. @ pin 3 - WRC4	7.5	20	30.5	7.5	20	30.5	7.5	20	30.5	7.5	20	30.5	V dc
Max input volt. @ pin 3 - 1781	7.5	20	30.5	7.5	20	30.5	7.5	20	30.5	7.5	20	30.5	V dc
Must turn off voltage for 1781	1.0	1.0	1.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	V dc
Must turn off voltage for WRC4	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	V dc
Typical input current	10	10	11	10	10	11	10	10	11	10	10	11	mA dc
Maximum input current	27	20	15	27	20	15	27	20	15	27	20	15	mA dc
Nominal input resistance	240	900	2.2K	240	900	2.2K	240	900	2.2K	240	900	2.2K	ohm

OUTPUT													
Nominal line voltage	24	24	24	100	100	100	24	24	24	100	100	100	V dc
Maximum line voltage	60	60	60	200	200	200	50	50	50	200	200	200	V dc
Minimum line voltage	3	3	3	5	5	5	0	0	0	0	0	0	V dc
Max peak off-state voltage	60	60	60	200	200	200	50	50	50	200	200	200	V
Max. off-state leakage cur.	1.0	1.0	1.0	2.0	2.0	2.0	0.01	0.01	0.01	0.01	0.01	0.01	mA dc
Maximum on-state current	3*	3*	3*	1**	1**	1**	5†	5†	5†	5†	5†	5†	A dc
Minimum on-state current	10	10	10	10	10	10	0	0	0	0	0	0	mA dc
Maximum 1 second surge	5	5	5	5	5	5	10	10	10	10	10	10	A peak
Peak on-state volt. @ 25°C	1.5	1.5	1.5	1.5	1.5	1.5	0.25	0.25	0.25	0.25	0.25	0.25	V peak
Maximum turn-on time	50	50	50	50	50	50	1000	1000	1000	1000	1000	1000	µ sec
Nominal turn-on time	10	10	10	10	10	10	50	50	50	50	50	50	µ sec
Maximum Turn-off Time	100	100	100	100	100	100	50	50	50	50	50	50	µ sec
Derating per ° above 60°C	33*	33*	33*	20**	20**	20**	50†	50†	50†	50†	50†	50†	mA
Fuse rating (WRC4 only)	4	4	4	1	1	1	5	5	5	5	5	5	A fast-acting

### General specifications

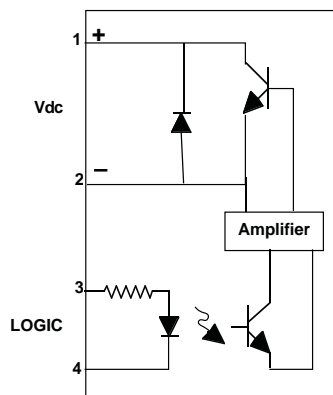
Operating temperature range -30 to +80°C  
 Storage temperature range -40 to +100°C  
 Capacitance input to output 8 pF

### Application notes

- Do not install or remove modules in live (electrically hot) circuits. High voltage may be present.
- Output connections are polarized
- An externally located commutating diode must be installed across inductive loads.
- OF\_\_ and OG\_\_ modules are Mosfet-switched devices.

\* Derate 33mA/deg. above 25°C  
 \*\* Derate 20mA/deg above 60°C  
 † Derate 50mA/deg. above 60°C

### 1781 and Classic



### WRC4

