

Interlock I/O Connector Pinouts and Functions

Pin #	Function	Description	Signal Type	Level when Asserted	Level when Deasserted	Notes	Applications
1	Amplifier Output	Used for driving Follower amplifiers; monitoring amplifier output voltage	AC or DC	Can be greater than $\pm 200V$ peak	0V	Used for monitoring amplifier output voltage; driving Follower amplifiers in multi-amp Push/Pull and Parallel systems (some versions) and Series systems (all versions). Wired to amplifier output. Do not connect to any impedance of less than 10K ohm.	Voltage Monitoring: Connect a voltage meter to monitor the output voltage being produced by the amplifier. Connect across PIN 1 (Amp Out) and PIN 10 (Sampled Common).
2	Sampled Common	Load connected here for Current sense	AC or DC	Up to $\pm 2V$ peak relative to Common	0V	Used for driving Follower amplifiers in multi-amp Push/Pull and Parallel systems (some amplifiers) and Series systems (all amplifiers), controlled voltage or controlled current mode.	Driving Follower Amplifiers: Amplifier External Reference, 2V peak maximum from PIN 14 (Common).
3	+1 IN	Differential Follower input	AC or DC	Can be greater than $\pm 200V$ peak	0V	Only used in multiple amplifier configurations - Series mode.	Can accept output of PIN 1 (Amplifier Output) OR PIN 2 (Sampled Common) from Master device when in Follower mode.
4	Interlock	Amplifier Interlock input	DC	0V to 8V	10V to 15V	When "low", forces to Standby; when allowed to float, allows Run (if amplifier is "Ready"). IMPORTANT: amplifiers must be configured for Run mode at startup (factory default) or the Run button must be pressed at the amplifier front panel at startup.	Remote to Standby: Short PIN 4 of amplifier to Digital Ground (PIN 17) using dry contact switch or optocoupler. When closed, places amplifier in Standby. Multi-amplifier Systems, Simultaneous Enable or Disable of amplifiers: Daisy-chain Interlock (PIN4) across amps (if sharing the same Sampled Common power connections). Optocoupler must be used for multi-amps in series.
5	Amp Ready	Ready output of amplifier	DC	0V	-14V	Normally reserved for OPTOC use; not recommended for normal customer use. Line has series resistor and unloaded will go from 0V (not ready) to -15V (ready), with an OPTOC BNC card the signal will go from 0V (not ready) to -1.2Vdc (ready)	Not recommended for normal customer use.
6	I MON +	Differential Current Monitor +	AC or DC	7212, 7224, 7224RLY, 7234: 5A/V 7548, 7548RLY, 7794, 7796, 7796RLY, 7796HC: 20A/V		Output current produced per voltage detect.	Current Monitoring: Connect a voltage meter to monitor the output current being produced by the amplifier. For unbalanced, for each 1V detected, current output is 5A (7212/7224/7224RLY/7234) or 20A (7548/7548RLY/7794/7796/7796RLY/7796HC).
7	None	No connection					Currently not used.

Pin #	Function	Description	Signal Type	Level when Asserted	Level when Deasserted	Notes	Applications
8	Blanking Input	Blanking control (Customer Mute)	DC	0Vdc	5-6 Vdc	The blanking circuit shuts down the amplifier output stage in less than 10 μ s.	Blanking (Customer Mute): Build a switchable circuit using an external, isolated 5V power supply that can apply a +5V signal to PIN 8. Connect across PIN 8 (Blanking) and PIN 18 (Blanking Return).
9	Temperature Monitor	Temperature Monitor	DC	(VDC * 100) – 273 = degrees Celsius	3.5 - 5Vdc output is muted	This circuit has a 1K build-out resistor. Make sure the monitor function has sufficient impedance to avoid accidentally influencing status. Most digital multimeters have an input impedance of 1 megohm and would work well for this application.	Temperature Monitoring: Connect a voltage meter to monitor the temperature at the heatsinks.
10	Sampled Common	Amp Analog Ground				Amplifier ground.	Can be used as a reference of the amplifier for status reporting applications. See OverTemp (PIN 11), Run (PIN 12), Overload (PIN 23), and OverVoltage (PIN 24).
11	OverTemp Out	Over-temperature output	DC	–24V	0V	When amp is normal, this pin is pulled to –24V through a 47.5K-ohm resistor; when amp is in OverTemp state, this pin is grounded. Do not exceed 7 milliamps.	Remote Signal of Over-Temperature Condition: LED, when lit, signals Over Temperature condition. Use a 6 mA series resistor of 4.7K-ohm for LED or OPTO, tie to –24V source (PIN 13).
12	Run	Amplifier Run output	DC	–24V	0V	When amp is in Standby mode, this pin is pulled to –24V; when amp is in Run mode, this pin is grounded, energizing Mains Relays and allowing drive for an external LED. DO NOT exceed 7mA; DO NOT ground this pin as this will enable Main Power Relays.	Remote Signal of Run Condition: LED, when lit, signals Run state. Use a 6mA series resistor of 4.7K-ohm for LED or OPTO, tie to –24V source (PIN 13).
13	–24V	–24V Power Output	DC			–24V dc, 30 mA max	Internally tied for use in status reporting applications. See OverTemp (PIN 11), Run (PIN 12), Overload (PIN 23), and OverVoltage (PIN 24).
14	Common	Ground before Sense Resistors				Current monitor reference. Voltage between Common and Sampled Common is voltage on the Current Sense resistor.	Possibly series amplifiers will not need current reporting on the High side amp, since its current will be same as Master.
15	–1 IN	Differential Follower Input	AC or DC	Up to 200V peak	0V	Only used in multiple amplifier configurations, Series mode.	Can accept output of PIN 1 (Amplifier Output) OR PIN 2 (Sampled Common) from Master device when in Follower mode.
16	+24V	+24V Power Output	DC			+24V dc, 30 mA max.	Used in status reporting applications. See OverTemp (PIN 11), Run (PIN 12), Overload (PIN 23), and OverVoltage (PIN 24).

Pin #	Function	Description	Signal Type	Level when Asserted	Level when Deasserted	Notes	Applications
17	Digital Ground	Digital circuitry ground - Interlock Common	DC	0V	0V		Used with PIN 25 (Reset) for Remote Reset from Standby or Stop after Error. Used with PIN 4 (Interlock) for simultaneous remote to Standby of all amps in a multi-amplifier system.
18	Blanking Return	Used for blanking circuit activation					
19	I MON – (alt.: OEM App)	Differential Current Monitor – ; (- Input Monitor, OEM only)	AC or DC	7212, 7224, 7224RLY, 7234: 5A/V 7548, 7548RLY, 7794, 7796, 7796RLY, 7796HC: 20A/V		Inverted I MON+ (PIN 6). Output current produced per voltage detect.	Current Monitoring: Connect a voltage meter to monitor the output current being produced by the amplifier. For each 1V detected, current output is 5A (7212/7224/7224RLY/7234) or 20A (7548/7548RLY/7794/7796/7796RLY/7796HC).
20	I SUM1–	Multiple Amplifier Summing, Amplifier 1	DC			Planned for use in multiple amplifier configurations - paralleled and running Controlled Current Mode	Currently not used.
21	I SUM2–	Multiple Amplifier Summing, Amplifier 2	DC			Planned for use in multiple amplifier configurations - paralleled and running Controlled Current Mode	Currently not used.
22	I SUM3–	Multiple Amplifier Summing, Amplifier 3	DC			Planned for use in multiple amplifier configurations - paralleled and running Controlled Current Mode	Currently not used.
23	OverLoad Out	Overload output (amplifier output is clipping).	DC	–24V	0V	When amp is normal, this pin is pulled to –24V through a 47.5K-ohm resistor; when amp is in Overload state, this pin is grounded. Do not exceed 6 milliamps.	Remote Signal of Overload Condition: LED, when lit, signals Overload condition. Use a 6mA series resistor of 4.7K-ohm for LED or OPTO, tie to –24V source (PIN 13).
24	OverVoltage Out	Overvoltage output (High AC line voltage).	DC	–24V	0V	When amp is normal, this pin is pulled to –24V through a 47.5K-ohm resistor; when amp is in Overvoltage state, this pin is grounded. Do not exceed 6 milliamps.	Remote Signal of Overvoltage Condition: LED, when lit, signals Overvoltage condition. Use a 6mA series resistor of 4.7K-ohm for LED or OPTO, tie to –24V source (PIN 13).
25	Reset	Reset	DC	–15V	0V	Tie to PIN 13 (–24V dc) and create a –15V dc source; <2mA required for reset. Connect the –15V dc source to PIN 25 (Reset) through a 1K buffer resistor to reset.	Reset from Standby: Use a dry contact switch and voltage regulator to return amp to Ready/Run condition after Overload conditions. Assert –15V for at least 100 ms to clear error condition.

Gray shaded areas indicate pin not used / feature not implemented.

Blue shaded areas indicate used only in multi-amplifier systems.