Comtrol IO-Link Master 8-Port, IP67 has eight IO-Link ports. Each port has robust overcurrent protection and short circuit protection on its L+/L- power output and C/Q IO-Link signal. Pin-out for each IO-Link port is per the IO-Link standard and is shown as follows:

Pin	Signal	Description
1	L+	Power supply (+)
2	DI	Digital input
3	L-	Power supply (-)
4	C/Q	Communication signal, which supports SDCI (IO-Link) or SIO (standard input/output)
5	N/A	Not connected
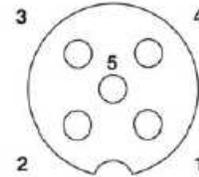
There are active overcurrent limiter electronics for each port in the IO-Link Master module that detects the overload/short-circuit condition within a few milliseconds and shut off the output power to protect the port and the devices connected to it. The port's power output self recovers and restores to normal immediately after the overload or short-circuit condition is removed.

The overcurrent limiter circuit for L+/L- pins is separate circuits than the overcurrent limiter circuit for the C/Q output pin. When a port is affected by overload/short-circuit condition, it doesn't affect the operation of the other ports. All other ports will continue to operate normally without any glitch or interruption. The current output capacity, cutoff current, and power sharing/budgeting for L+/L- and C/Q signal for the ports on the IOLM, 8-port are as follows.

Port 1

Port 1 has its own independent overcurrent limiter circuits/IC L+/L- and C/Q pins

L+/L- Output Current Capacity (max.)	Overload Cutoff Current	Short-circuit protection	C/Q Output Current Capacity (max.)	Overload / Short-circuit protection
1.6A	1.65A	Yes	200mA	400mA

Port 3

Port 3 has its own independent overcurrent limiter circuits/IC for L+/L- and C/Q pins

L+/L- Output Current Capacity (max.)	Overload Cutoff Current	Short-circuit protection	C/Q Output Current Capacity (max.)	Overload / Short-circuit protection
500mA	550mA	Yes	200mA	400mA

Port 2 & 4

There's one independent overcurrent limiter that protects L+/L- pins on both Port 2 and 4. This allows the user to do power budgeting on Port 2 and 4 that allows flexibility in the application. The combined

overload cutoff current on Port 2 and 4 is 1.05A for the L+/L- pins. As long as the cutoff current of 1.05A is not exceeded, the current output could be budgeted between Port 2 and 4 any way the user chooses it to be. For example, Port 2 output can be at 900mA and Port 4 output can be at 100mA. Or, Port 2 could be left open and Port 4 output can be at 1A.

The table below shows the current specification for Port 2 and 4, if the power is equally distributed between the ports:

L+/L- Output Current Capacity/Port (max.)	Overload Cutoff Current	Short-circuit protection	C/Q Output Current Capacity/Port (max.)	Overload and Short-circuit protection / Port
500mA	1.05A	Yes	200mA*	400mA*

*Note – Each port's C/Q pin has its own independent overcurrent limiter circuit and are not combined. The current output of C/Q pin for each port is also independently controlled and can't be budgeted with other ports.

Port 5 & 7

There's one independent overcurrent limiter that protects L+/L- pins on both Port 5 and 7. This allows the user to do power budgeting on Port 5 and 7 that allows flexibility in the application. The combined overload cutoff current on Port 5 and 7 is 1.05A for the L+/L- pins. As long as the cutoff current of 1.05A is not exceeded, the current output could be budgeted between the two ports any way the user chooses it to be.

The table below shows the current specification for Port 5 and 7, if the power is equally distributed between the ports:

L+/L- Output Current Capacity/Port (max.)	Overload Cutoff Current	Short-circuit protection	C/Q Output Current Capacity/Port (max.)	Overload and Short-circuit protection / Port
500mA	1.05A	Yes	200mA*	400mA*

*Note – Each port's C/Q pin has its own independent overcurrent limiter circuit and are not combined. The current output of C/Q pin for each port is also independently controlled and can't be budgeted with other ports.

Port 6 & 8

There's one independent overcurrent limiter that protects L+/L- pins on both Port 6 and 8. This allows the user to do power budgeting on Port 6 and 8 that allows flexibility in the application. The combined overload cutoff current on Port 6 and 8 is 1.05A for the L+/L- pins. As long as the cutoff current of 1.05A is not exceeded, the current output could be budgeted between the two ports any way the user chooses it to be.

The table below shows the current specification for Port 6 and 8, if the power is equally distributed between the ports:

L+/L- Output Current Capacity/Port (max.)	Overload Cutoff Current	Short-circuit protection	C/Q Output Current Capacity/Port (max.)	Overload and Short-circuit protection / Port
500mA	1.05A	Yes	200mA*	400mA*

*Note – Each port's C/Q pin has its own independent overcurrent limiter circuit and are not combined. The current output of C/Q pin for each port is also independently controlled and can't be budgeted with other ports.