

This Application Note is pertinent to the Quantum MP Family

Configuring the Quantum MP for Ramp Stop / DB Stop

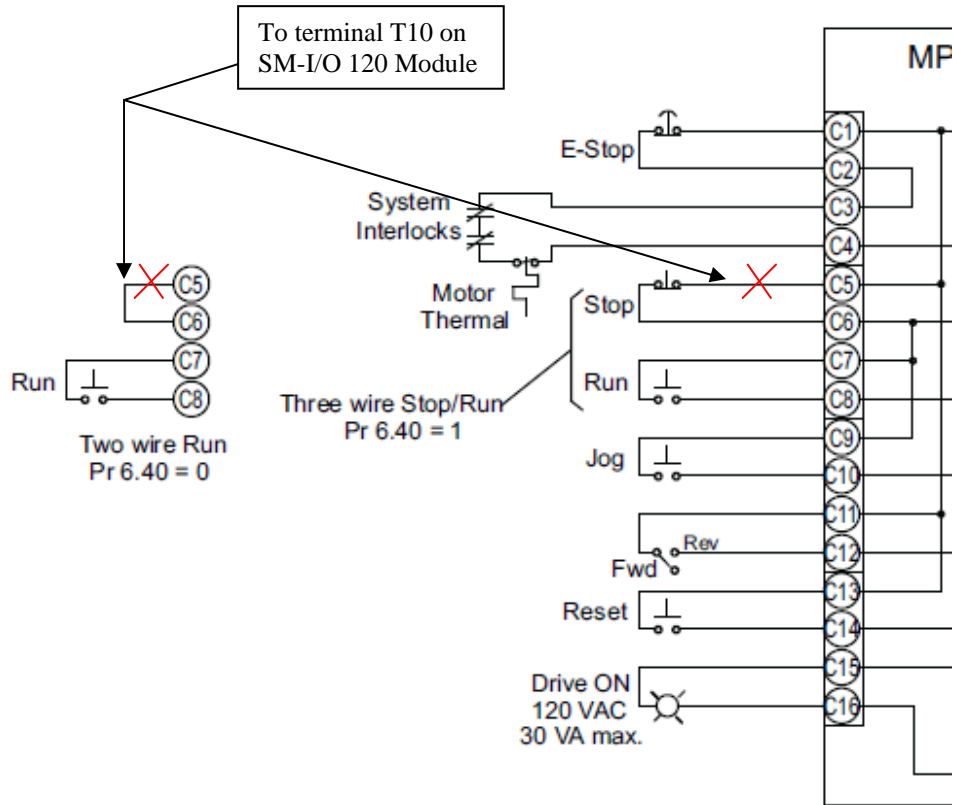
The default configuration of the Quantum MP Start / Stop logic is to provide either two wire or three wire control and your choice of either ramp stop (default) or coast / dynamic braking stop (which is set by parameter #6.01; 0 = coast, 1 = ramp). The E-stop input will also provide the coast / dynamic braking stop but will also require a drive reset. In single drive systems this can be a good thing since you know something from the “outside world” caused the trip. In a system though, you would have to reset all the drives in the system. These are also systems / applications where two stops are desirable: Ramp stop for normal stop and E-stop / Dynamic braking stop for e-stop without having to reset the drive.

Changes to QMP default programming shown in **RED**

Parameter	QMP Value	Description
5.16	1	Selects Armature Voltage from motor side of the contactor
6.40	1	Enable sequencer latching
8.22	0.00	Disable T25 digital I/O 2 source / destination on Mentor MP
8.23	0.00	Disable T26 digital I/O 2 source / destination on Mentor MP
8.24	0.00	Disable T27 digital I/O 2 source / destination on Mentor MP
8.26	0.00	Disable T29 digital I/O 2 source / destination on Mentor MP
9.04	17.06	External Trip input from e-stop / system interlock loop – C4 input (120vac)
9.05	0	Logic Function 1 - Invert Terminal C4 – do not invert
9.09	0.1	Logic Function 1 - Time delay for external trip input
9.10	6.01	Logic Function 1 - Destination of C4 Input (external trip) – now ramp / coast
9.37	1	Set Logic Function 1 to “OR” gate
17.21	6.39	T1 SM-I/O 120 digital input destination – Not Stop
17.22	6.34	T2 SM-I/O 120 digital input destination – Run
17.23	6.31	T4 SM-I/O 120 digital input destination – Jog
17.24	6.33	T5 SM-I/O 120 digital input destination – Forward / Reverse
17.25	10.33	T7 SM-I/O 120 digital input destination – Drive reset
17.27	9.01	Relay 1 source – for db stop
17.28	6.55	Relay 2 source – Contactor enable

Wiring Changes: Connection to C5 on the MP10 Board (for the Stop Button – or jumper to C6 for two wire operation) must be moved to terminal T10 of the SM-I/O 120 module

E-STOP / DB STOP MUST BE A MAINTAINED PUSH BUTTON __ TWIST TO RESET



Questions: Ask the author??

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