Here is a detailed description of the solution:

The GPD506 bypass drive has a terminal block labeled TB1 which contains terminals 3 & 4 for connecting run command wires. Since Serial communications is being used for the run command, there needs to be a jumper installed between terminals 3 & 4 to allow the K5 relay inside the cabinet to be energized. The safety circuit is located before this jumper so if it opens, the run command will be broken and the drive will stop.

The Siemens network will control when the drive can restart again. There are several Siemens command points that have to be set correctly for this to occur, and they are shown below. This information is found in the GPD506/P5 Apogee - FLN Technical Manual (TM4029).
Download the TM4029 manual.

4.1.3 Operational Mode – #55

This point defines the source for run and frequency commands, as described below:

	Run/Reverse Command Source	Frequency Command Source	Remarks
0	Digital Operator	Digital Operator	#60, #24, #22 have no affect.
1	External Terminals	Digital Operator	#60, #24, #22 have no affect.
2	Digital Operator	External Terminals	#60, #24, #22 have no affect.
3	External Terminals	External Terminals	#60, #24, #22 have no affect.
4	Digital Operator	Network	#60 sets frequency command. #24, #22 have no affect
5	External Terminals	Network	#60 sets frequency command. #24, #22 have no affect
6	Network	Network	#60 sets frequency command. #24 sets run command. #22 sets forward/reverse command.
7	Network	Digital Operator	#60 has no affect.

	Run/Reverse Command Source	Frequency Command Source	Remarks
			#24 sets run command. #22 sets forward/reverse command.
8	Network	External Terminals	#60 has no affect. #24 sets run command. #22 sets forward/reverse command.

This point configures the drive as described below:

Point #	Point Description	GPD505 Parameter	GPD506/P5 Parameter	Units (SI)	Slope	Intercept	Default	Min	Max
55	Operational Mode Select	n002	n002	-	1.0	0	6	0	8

4.2.2 Run/Stop Command – #24

This point controls the run/stop command to the drive, as described below. The drive must be configured for a network Run/Stop Command (**#55 = 6,7,8**) for this input to control the drive.

Point #	Point Description	Off (0) State	On (1) State	Default
24	Run/Stop Command	Stop	Run	Stop

4.2.5 Terminal S1 Run Interlock - #80

In many applications featuring a hard-wired run contact at terminal S1, normally closed system safeties are wired in series to override the normal run command. Thus, if a safety opens, the drive either stops or remains stopped, depending on the state of the run contact.

With point #80 enabled, a network run command (**#24**) starts the drive only if S1 is closed. If S1 opens, the drive is stopped and then restarted once the contact closes.

Point #	Point Description	Off (0) State	On (1) State	Default
80	Terminal S1 Run Interlock	Disabled (S1 state does not affect run command)	Enabled (S1 must be closed to enable run command)	Enabled

4.2.6 Terminal S5 Auto Run - #81

The default function for a contact closure at input terminal S5 is to command the frequency reference to Multistep Speed Reference A. In many applications featuring a hard-wired run contact at terminal S1, a contact closure at terminal S5 simultaneously closes a contact at S1, thus implementing an "auto run" feature. MagneTek's standard bypass package implements this feature.

With point #81 enabled, a run command is automatically issued upon closure of terminal S5.

NOTE: Point #80, Terminal S1 Run Interlock, has priority over the Terminal S5 Auto Run feature.

Point #	Point Description	Off (0) State	On (1) State	Default
81	Terminal S5 Auto Run	Disabled (S5 state has no affect)	Enabled (S5 closure initiates run command)	Enabled