

Fault Index	Fault Code	Error Message	Remedy	Further Steps and Checks
0	0	Input Fault	Cycle Input	Check for unstable input signal or turn input OFF to clear the fault indication
1	1.1	Output Fault	Check for shorts	A safety output appears ON at power-up when it should be OFF so check for a short to an external voltage source.
2	1.2	Output Fault	Check for shorts	A safety output is sensing a fault to another voltage source so check for shorts between safety outputs, a short to an external voltage source, or check the load device compatibility.
3	1.3	Internal Fault	Contact Banner Engineering	
4	1.4	Internal Fault	Contact Banner Engineering	
5	1.5	Output Fault	Check Output Wiring	A Safety Output appears ON prematurely. Check DC common wire size connected to the Safety Output loads. The wire must be heavy-gauge wire or as short as possible to minimize resistance and voltage drop. If necessary, use a separate DC common wire for each pair of outputs and/or avoid sharing this DC common return path with other devices (see Section 3.6.4).
6	1.6	Internal Fault	Contact Banner Engineering	
7	1.7	Output Fault	Check for shorts	An overload is detected on the safety outputs so check each output terminal for a short to ground or verify the system power supply rating.
8	1.8	Internal Fault	Contact Banner Engineering	
9	2.1	Concurrency Fault	Cycle Input	One input of a dual-channel input went to the Stop state then back to Run so check the input signals, the wiring, or consider adjusting the input debounce times.
10	2.2	Simultaneity Fault	Cycle Input	One input of a dual-channel input went to the Run state but the other input did not follow in 3 seconds so check the input signal timing or the wiring.
11	2.3	Concurrency Fault	Cycle Input	One input of a complementary pair went to the Stop state then back to Run so check the input signals, the wiring, or consider adjusting the input debounce times.
12	2.4	Simultaneity Fault	Cycle Input	One input of a complementary pair went to the Run state but the other input did not follow in 3 seconds so check the input signal timing or the wiring.
13	2.5	Concurrency Fault	Cycle Input	One input of a complementary pair went to the Stop state then back to Run so check the input signals, the wiring, or consider adjusting the input debounce times.
14	2.6	Simultaneity Fault	Cycle Input	One input of a complementary pair went to the Run state but the other input did not follow in 3 seconds so check the input signal timing or the wiring.
15	2.7	Internal Fault	Contact Banner Engineering	
16	2.8	Input Fault	Check Input Terminals	An input is stuck high so check for shorts to other inputs or other voltage source or check the input device compatibility.
17	2.9	Input Fault	Check Input Terminals	An input is stuck high so check for shorts to other inputs or other voltage source or check the input device compatibility.
18	2.10	Input Fault	Check Input Terminals	Check for a short between inputs.
19	2.11	Input Fault	Check Input Terminals	Check for a short to ground.
20	2.12	Input Fault	Check Input Terminals	Check for a short to ground.
21	2.13	Input Fault	Check Input Terminals	An input is stuck low so check for a short to ground.
22	2.14	Input Fault	Check Input Terminals	An input is missing test pulses so check for a short to other inputs or other voltage source.
23	2.15	Open Lead	Check Input Terminals	Check for an open lead.
24	2.16	Input Fault	Check Input Terminals	An input is missing test pulses so check for a short to other inputs or other voltage source.
25	2.17	Input Fault	Check Input Terminals	An input is missing test pulses so check for a short to other inputs or other voltage source.
26	2.18	Input Fault	Check Input Terminals	An input is missing test pulses so check for a short to other inputs or other voltage source.
27	2.19	Open Lead	Check Input Terminals	Check for an open lead.
28	2.20	Input Fault	Check Input Terminals	An input is missing test pulses so check for a short to ground.
29	2.21	Open Lead	Check Input Terminals	Check for an open lead.
30	2.22	Input Fault	Check Input Terminals	Check for an unstable signal on the input.
31	2.23	Input Fault	Check Input Terminals	Check for an unstable signal on the input.
32	3.1	EDM Fault	Check EDM Terminals	An EDM contact is open prior to turning ON the safety outputs so check for a stuck-ON contactor or relay or check for an open wire.
33	3.2	EDM Fault	Check EDM Terminals	An EDM contact failed to close within 200 ms after the safety outputs turned OFF so check for slow or stuck-ON contactor or relay or check for an open wire.
34	3.3	EDM Fault	Check EDM Terminals	An EDM contact is open prior to turning ON the safety outputs so check for a stuck-ON contactor or relay or check for an open wire.
35	3.4	EDM Fault	Check EDM Terminals	An EDM contact pair mismatched for longer than 200 ms so check for slow or stuck-ON contactor or relay or check for an open wire.
36	3.5	EDM Fault	Check EDM Terminals	Check for an unstable signal on the input.
37	3.6	EDM Fault	Check EDM Terminals	Check for a short to ground.
38	3.7	EDM Fault	Check EDM Terminals	Check for a short between inputs.

39	4.1	Supply Voltage Low	Check Power Supply	The supply voltage dropped below the rated voltage for longer than 6 ms so check the power supply voltage and current rating or check for an overload on the outputs that might cause the power supply to limit the current.
40	4.2	Internal Fault	Contact Banner Engineering	
41	4.3	Internal Fault	Contact Banner Engineering	
42	4.4	Internal Fault	Contact Banner Engineering	
43	4.5	Internal Fault	Contact Banner Engineering	
44	4.6	Internal Fault	Contact Banner Engineering	
45	4.7	Internal Fault	Contact Banner Engineering	
46	4.8	Internal Fault	Contact Banner Engineering	
47	4.9	Internal Fault	Contact Banner Engineering	
48	4.10	Internal Fault	Contact Banner Engineering	
49	4.11	Internal Fault	Contact Banner Engineering	
50	4.12	Configuration Timeout	Check Configuration	The Safety Controller was left in Configuration Mode for more than one hour without pressing any keys.
51	4.13	Configuration Timeout	Check Configuration	The Safety Controller was left in Configuration Mode for more than one hour without receiving any command from the PC Interface.
52	4.14	Configuration Unconfirmed	Confirm Configuration	The configuration was not confirmed after being edited.
53	4.15	Internal Fault	Contact Banner Engineering	
54	4.16	Internal Fault	Contact Banner Engineering	
55	4.17	Internal Fault	Contact Banner Engineering	
56	4.18	Internal Fault	Contact Banner Engineering	
57	4.19	Internal Fault	Contact Banner Engineering	
58	4.20	Unassigned Terminal in Use	Check Terminals	This terminal is not assigned to any device in the present configuration and should not be active so check the wiring.
59	4.21	Internal Fault	Contact Banner Engineering	
60	4.22	Internal Fault	Contact Banner Engineering	
61	4.23	Internal Fault	Contact Banner Engineering	
62	4.24	Internal Fault	Contact Banner Engineering	
63	4.25	Internal Fault	Contact Banner Engineering	
64	4.26	Internal Fault	Contact Banner Engineering	
65	4.27	Internal Fault	Contact Banner Engineering	
66	4.28	Internal Fault	Contact Banner Engineering	
67	4.29	Internal Fault	Contact Banner Engineering	
68	4.30	Internal Fault	Contact Banner Engineering	
69	4.31	Internal Fault	Contact Banner Engineering	
70	4.32	Internal Fault	Contact Banner Engineering	
71	5.1	Mute Lamp Fault	Check Lamp and Wiring	The monitored status output voltage should be low when the lamp is OFF and is sensing a high, indicating an open in the mute lamp circuit.
72	5.2	Mute Lamp Fault	Check for shorts	The monitored status output voltage should be high when the lamp is ON and is sensing a low, indicating a short in the mute lamp circuit.
73	5.3	Internal Fault	Contact Banner Engineering	
74	6.xx	Internal Fault	Load New Configuration	Invalid configuration data was detected so load a new configuration.
75	4.33	Internal Fault	Contact Banner Engineering	
76	1.9	AVM Input Fault	Perform a System Reset	After this Safety Output turned off, one of the AVM inputs associated with this output did not close before its AVM monitoring time expired. The AVM may be disconnected or its response to the Safety Output turning OFF may be too slow. Check the AVM input and then perform a System Reset to clear the fault.
77	1.10	AVM Input Fault	Perform a System Reset	An AVM input associated with this Safety Output was not closed when the Safety Output was commanded to turn ON. The AVM may be disconnected, check the wiring. Performing a system reset will clear the fault and cause another test to occur.
78	2.24	Input activated while bypassed	Perform a system reset	A two hand control input was activated (turned ON) while it was bypassed.
79	2.25	Input Fault	Monitoring timer expired before AVM closed	After the associated Safety Output turned off, the AVM input did not close before its AVM monitoring time expired. The AVM may be disconnected or its response to the Safety Output turning OFF may be too slow.
80	2.26	Input Fault	AVM input not closed when output turned on	The AVM input was open (should be closed) when the associated Safety Output was commanded ON. The AVM may be disconnected, check the wiring.