

TROUBLESHOOTING GUIDE: Phoenix Triple IR (IR3S) Flame Detector

Condition	Possible Cause	Possible Solution
Detector intermittently powers up	<ul style="list-style-type: none"> • Faulty power supply or /wiring. • Faulty electronics. 	<ul style="list-style-type: none"> • Correct power supply or / wiring. • Contact factory.
Detector does not power up (Green LED & Blue LEDs Off)	<ul style="list-style-type: none"> • Faulty wiring/power supply. • Voltage to detector outside specified range. • Blown inline fuse. • Water invasion of electronics. • Faulty electronics. 	<ul style="list-style-type: none"> • Correct wiring & power supply. • Correct input voltage to detector. • Replace inline fuse. • Contact factory. • Contact factory.
Unstable 4-20 mA signal	<ul style="list-style-type: none"> • Unshielded cables used for wiring or improper shield connection. • Water invasion of electronics. • Faulty electronics. 	<ul style="list-style-type: none"> • Use shielded cables for wiring or connect shielding properly. • Contact factory. • Contact factory.
No 4-20 mA Output Signal (0 mA)	<ul style="list-style-type: none"> • Detector is not Analog model. • Current loop wiring is open. • Missing or wrong placement of current output jumper. • Faulty electronics. 	<ul style="list-style-type: none"> • Replace with Analog model (IR3S-A/AD) • Close 4-20 mA signal loop. • Replace or correct current output jumper placement. • Contact factory.
2 mA Fault or Automatic VI Test Failure	<ul style="list-style-type: none"> • Dirty lens or obstruction. • Damaged or cracked lens. • Failed IR source(s) or sensor(s). 	<ul style="list-style-type: none"> • Clean lens, remove obstruction / *calibrate. • Contact factory. • Contact factory.
16-20 mA without any fire present	<ul style="list-style-type: none"> • Background IR radiation present. • Sensor(s) too sensitive or time delay is too short. • Damaged or faulty sensor(s). • Faulty electronics. 	<ul style="list-style-type: none"> • Remove source of IR radiation. • Adjust sensitivity & time delay. • Contact factory. • Contact factory.
Undesirable change in relay state (relay model)	<ul style="list-style-type: none"> • Voltage to detector outside specified range. • Faulty electronics. 	<ul style="list-style-type: none"> • Correct power supply voltage /correct wiring. • Contact factory.
‘Wr failed’ message when using digital model for Modbus communication	<ul style="list-style-type: none"> • Wrong COM port or Baud rate selected. • DIP Switch improperly set. 	<ul style="list-style-type: none"> • Change the COM port or Baud rate. • Ensure DIP Switch #1 position 4 is in OFF position.
‘Failed’ message when using digital model for Modbus communication	<ul style="list-style-type: none"> • Wrong COM port or Baud rate selected for computer. 	<ul style="list-style-type: none"> • Change COM port or baud rate.

***Note: Contact factory for calibration procedures. ***