

# FLEXPOWER® APPLICATION NOTE AN-30 FPO FAULT OUTPUTS

#### **OVERVIEW**



Every **FLEX**POWER power supply has two Form C relay contacts to annunciate System Fault and AC Fault. These fault contacts may either be monitored separately or wired together for common fault monitoring.

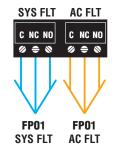
The Fault contacts in all FPO power supplies are normally powered and drop out on a fault condition. This allows fault notification in the event of complete power loss. The NC and NO labels on the board are in the unpowered condition (i.e. there is a conection between NO and C when there is no fault condition).

#### Single FPO Fault Monitoring

FlexPower systems containing one FPO power supply may either have the fault contacts monitored separately or they may be combined into a single NO or NC fault output.

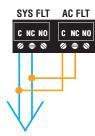
### **Separate Outputs**

For this application, simply wire both relay connections separately as needed.



Single Fault Output (Contacts CLOSE on fault)

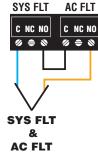
For this application, parallel both NC fault contacts



SYS FLT

### Single Fault Output (Contacts OPEN on fault)

For this application, series connect both NO fault contacts



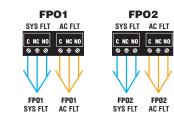
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## Multiple FPO Fault Output Connections

When multiple FPO power supplies are connected with the FlexIO cable, System Faults will transmit between FPO power supplies and only one Sys Fault contact needs to be monitored (all AC Fault contacts should be monitored). If the FPO power supplies are not connected with the FlexIO cable or are in separate enclosures, they may either be monitored separately or commoned into one or two outputs. These drawings show the interconnection of two FPO power supplies, but they may be expanded to as many FPO power supplies as necessary.

## **Separate Outputs**

For this application, simply wire all four relay connections separately as needed



FPO<sub>2</sub>

SYS FLT AC FLT

C NC NO

AC FLT

C NC NO

FPO1

SYS FLT AC FLT

C NC NO

SYS FLT

C NC NO

## Common System Fault, Common AC Fault (Contacts CLOSE on fault)

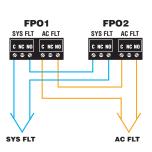
For this application, parallel the NC fault contacts for the Sys FIt and also for the AC FIt  $% \left( {\left| {{\rm{T}} \right|_{\rm{T}}} \right)$ 

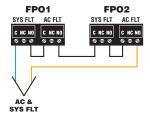
# Common System Fault, Common AC Fault (Contacts OPEN on fault)

For this application, series connect the NO fault contacts for the Sys Flt and also for the AC Flt

## Single Fault Output (Contacts OPEN on fault)

For this application, series connect all NO fault contacts



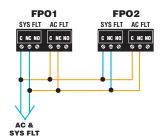


# Single Fault Output (Contacts CLOSE on fault)

For this application, parallel all NC fault contacts



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