

Solid-State Relay Output Components

These Solid-State Relay Output components are available with Tri-GP v2.x systems. For installation procedures, see Component Installation on page 185.

Model	Description	Voltage	Type
3451S2	Solid-State Relay Output Module	24 VDC	Commoned, in groups of 2
2451S2	Solid-State Relay Output Baseplate		Direct Termination

The Solid-State Relay Output (SRO) Module is a non-triplicated module for use on non-critical points which are not compatible with high-side, solid-state output switches; for example, interfacing with annunciator panels. The SRO Module receives output signals from the Main Processors on each of three channels. The three sets of signals are then voted, and the voted data is used to drive the 32 individual relays. Each output has an I/O loop-back circuit which verifies the operation of each relay switch independently of the presence of a load. Ongoing diagnostics test the operational status of the SRO Module.

The SRO Module supports hot sparing for online replacement of a faulty module or continuous back-up to an active module. The SRO Module is mechanically keyed to prevent improper installation in a configured baseplate.

SRO Module Schematic

This figure is a simplified schematic of the Model 3451S2 SRO Module.

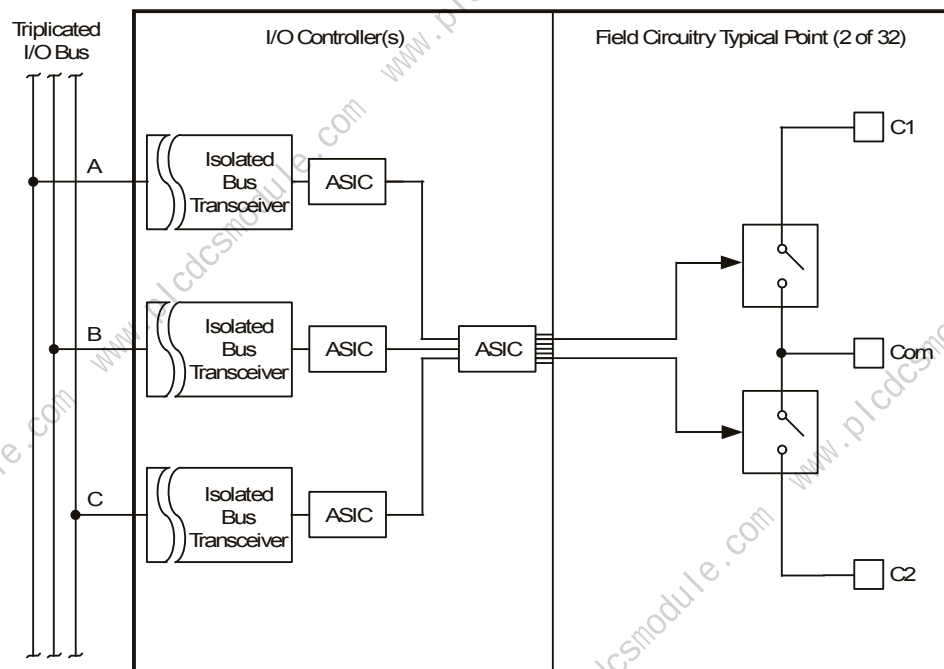


Figure 84 3451S2 SRO Module Simplified Schematic

This table lists specifications for the Model 3451S2 SRO Module.

Table 39 3451S2 SRO Module Specifications

Feature	Specification
Points	32, commoned in pairs
Nominal input voltage	± 24 V
Operational voltage range	± 30 V
Maximum switching voltage	± 33 V peak
Maximum switching power	15 W resistive
Maximum off-state leakage	<100 μ A
Maximum nominal current	0.5 A per channel
Maximum over current	0.7 A per channel
Voltage drop at baseplate	<0.25 V @ 0.5 A
Fuses, mounted on baseplate	1 per output, 0.75 A, fast-acting
Functional-to-protective-earth isolation	500 VDC, minimum
Functional-to-functional-earth (logic) isolation	800 VDC, minimum