3.29 Solid-state Relay (SSR) Outputs

The solid-state relay (SSR) outputs can be used in many applications to switch 24 VAC or 24 VDC on or off for external loads such as actuators, relays, or indicators. SSRs are silent and are not adversely affected by relay contact wear.

The outputs can be configured as one of the following types:

- Digital output
- Digital pulsed output
- Pulse width modulated output
- Tristate output
- Tristate pulsed output

3.29.1 Outputs

The DO SSR outputs are Form A digital outputs, which means the outputs are normally open contacts with one common terminal and one normally open terminal. Each pair of SSR outputs share a common terminal but the outputs can be controlled independently.

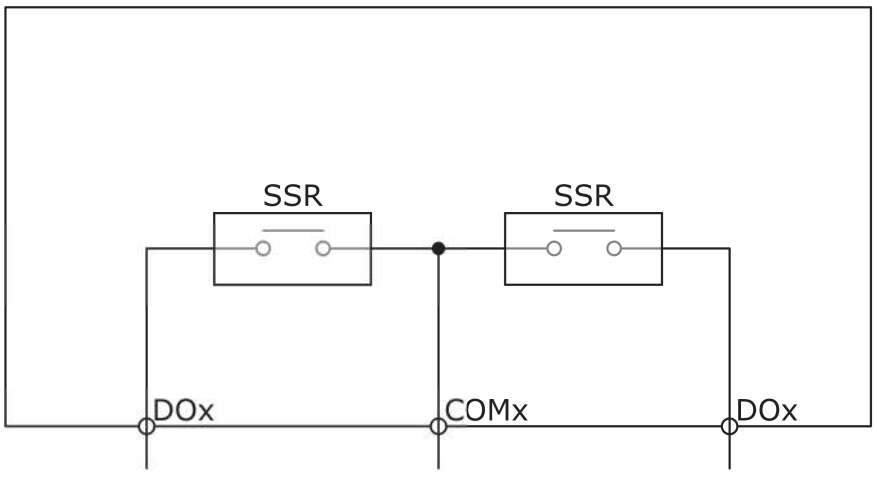

Figure: SSR digital output internal configuration

3.29.2 Specifications

Channels, RP-C-12A model ..... 4, DO1 to DO4
Channels, RP-C-12B model 0
Channels, RP-C-12C model ..... 4, DO1 to DO4
Channels, RP-C-16A model ..... 4, DO1 to DO4
Output rating ..... Max. 2 A load per output
..... Max. 4 A total load for the 4 outputs
AC voltage range ..... 24 VAC +/-20 %
DC voltage range ..... Max. 30 VDC
Commons ..... COM1 for DO1 and DO2 (on RP-C-12A, -12C, and -16A models)
..... COM2 for DO3 and DO4 (on RP-C-12A, -12C, and -16A models)

When the SSR outputs are used to switch AC, the common terminals can be connected to 0 to 30 VAC. When the SSR outputs are used to switch DC, the common terminals can be connected to -30 VDC to +30 VDC.

Common voltage range (AC) .....0 to 30 VAC

Common voltage range (DC) .....-30 to +30 VDC

Minimum pulse width .....100 ms

Solid-state relay output protection .....Transient voltage suppressor across each solid-state relay (SSR) output