invensys
Eurotherm

2500

Engineering Handbook

2500 Process Controller
Version 3.7 and version 4.3 (SYSIO)

HA027115/5
February 2014

7.10.6. Relay Module RLY4

The RLY4 module "output" contains four power relay contacts capable of working at 2A, 250Vac. Otherwise, module operation is exactly the same as the other logic output modules.

Channel Types:	On/Off, TPO, Valve Raise/Lower
Number of channels:	3 N/O (normally open contact), 1 C/O (changeover contacts)

7.10.7. RLY4 Isolation Barriers

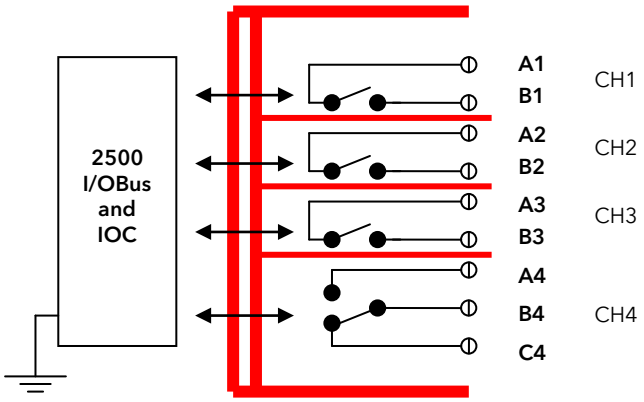


Figure 7-36: Isolation Barriers for RLY4 Module

7.10.8. RLY4 Terminal Connections

The RLY4 Terminal Unit provides 12 screw terminals for channel wiring:

1A	2A	3A	4A
1B	2B	3B	4B
			4C

7.10.9. RLY4 Snubber Circuits

Each relay is fitted with a 'snubber' (22nF + 100Ω) wired across the normally-open (N/O) contacts. These are to prolong contact life particularly when switching inductive loads.

In ac applications snubbers will pass a small current when the contacts are open - typically 1mA at 110V and 2mA at 240V. This current may be sufficient to hold in some relays with low coil current. The fitted snubbers may be removed and alternatives wired to the terminals.

Use the Terminal Unit Fuses to isolate live terminals if there is a need to "hot swap" the module. Take particular care when using the RLY4 for alarm or safety circuits.

A4.9 RLY4 MODULE

Note: Snubber circuits (22nF+100Ω) are fitted internally to this module. They may be removed as described in Appendix C. Leakage across the snubber at 240V ac 60Hz = appox. 2mA

General specification

Power consumption		1.1W max.
Isolation	Channel to channel:	300V RMS or dc (Basic insulation).
	Channel to system:	300V RMS or dc (Double insulation).
Contact life (resistive load)	240Vac, 2A:	$>6x10^5$ operations
	240Vac, 1A:	$>10^7$ operations
Contact life (inductive load)		As per derating curves
Mechanical life		$>3x10^7$ operations

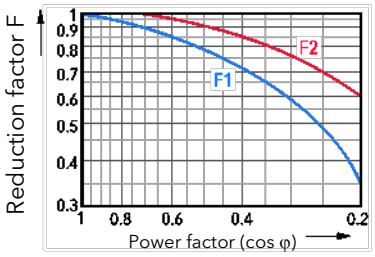
Relay specification

Contact material	AgCdO
Maximum current rating	2A at up to 240V ac; 0.5A at 200Vdc, increasing to 2A at 50V dc (resistive)
Minimum current rating	100mA at 12V

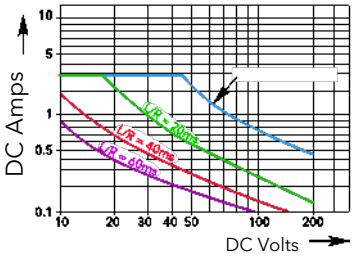
Contact format

Channels 1 to 3:	Common and normally open contacts. (Open circuit with relay not energised)
Channel 4:	Common, normally open and normally closed contacts. Common and normally closed contacts are short circuit with relay not energised

AC inductive load derating curves



DC inductive load breaking capacity derating curves



F1 = Measured results
F2 = Typical values
Life = Resistive life x reduction factor