

PIM to ACP Connections

Summary

This application note describes how to connect the Request to Exit, the Door Position Switch, and Trouble signals from the Panel Interface Module (PIM) to various Access Control Panels (ACPs) in supervised and non-supervised modes.

Acronyms	Description
ACP	Access Control Panel
AP	Access Point
CM	Cache Memory
CDT	Configuration Demonstration Tool
IRL	Integrated Reader Lock, a WAPM
PIM	Panel Interface Module
MIRL	Modular Integrated Reader Lock, a WAPM
WAPM	Wyreless Access Point Module
WISI	Wyreless Integrated Strike Interface, a WAPM
WPR	Wyreless Portable Reader, a WAPM
WRI	Wyreless Reader Interface, a WAPM
WUSI	Wyreless Universal Strike Interface, a WAPM
WEXK	Wyreless Exit Kit, a WAPM

A table of possible connection schemes appear below for outputs from the Wyreless Access panel interface module (PIM) to various access control panel (ACP) equipment - this application note specifically addresses supervision of door contact (or DPS for, "door position switch"), request to exit (REX), and trouble connections. This information applies only to PIMs with discrete access point connections and not to any PIM-485 models. PIM 485 models inherently incorporate supervision by means of serial RS485 communications.

- For access control panel equipment with unsupervised connection to a dry contact switch, with the low side of the panel's contact connection at signal ground voltage, connect the PIM (open collector) output to the high side contact input of the access control panel. The PIM output switches this connection to ground or remains open, depending upon its state. Refer to figure 1 to see this scheme.
- Some supervised access control panel equipment normally requiring an end-of-line (EOL) resistor will operate directly from the PIM outputs with the proper resistance provided. Figures 2 & 3 illustrate these types of configurations.
- For access control panel equipment with supervised connection to a dry contact switch, a slave relay can provide the dry contact. Place the relay and EOL resistors at the PIM end of the wire run, especially if the PIM resides in a different room from the access control panel equipment. Figures 4 and 5 illustrate the connection schemes. Use the same power supply for the PIM and the slave relay if possible. Connect the negative power supply lead to the PIM's ground when using a separate power supply for the slave relays. Always use transient suppressors around inductive relay coils to prevent damage to electronic equipment.

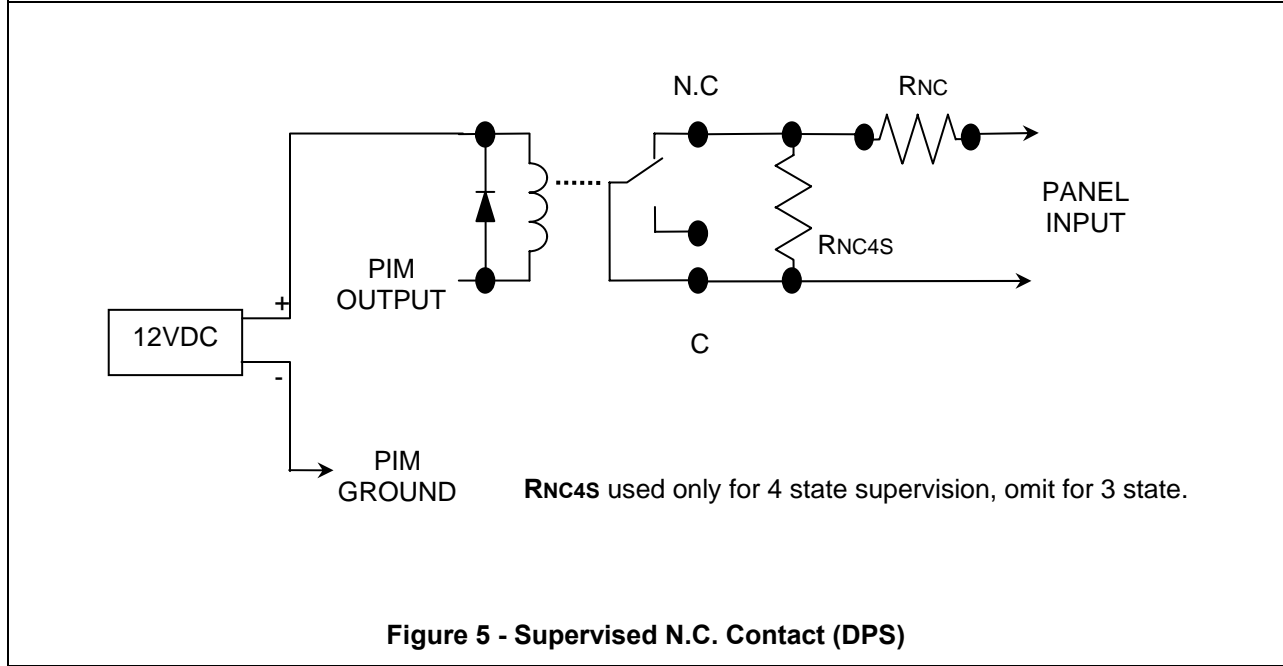
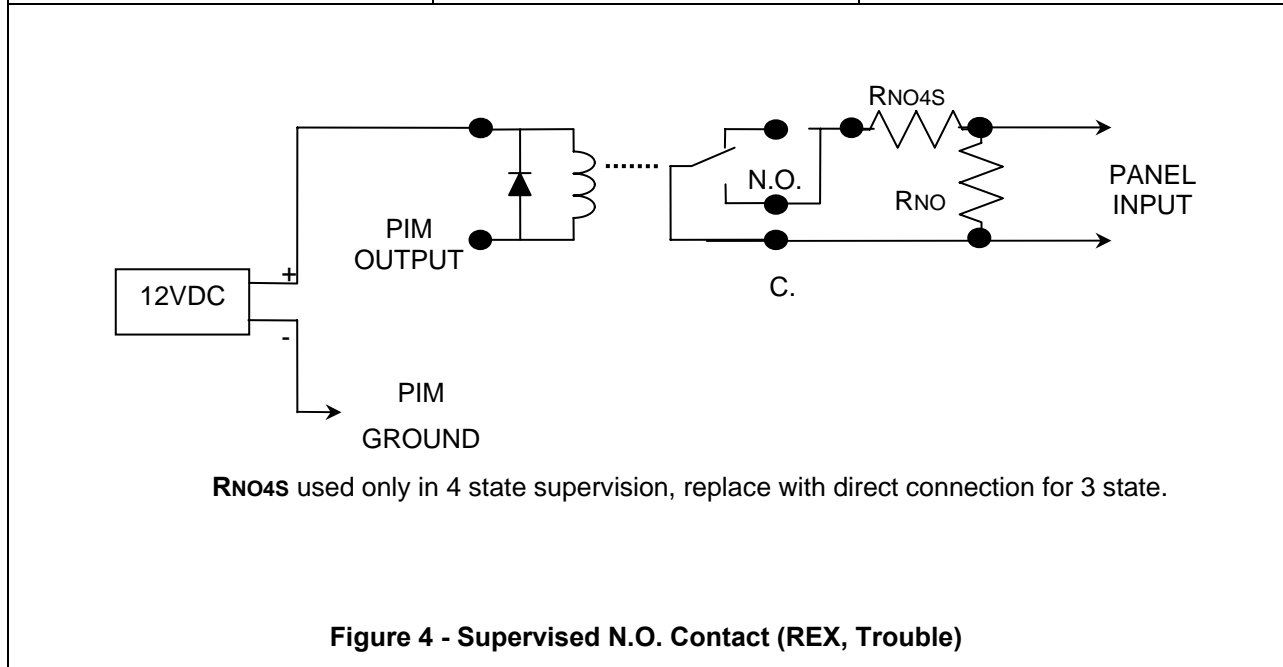
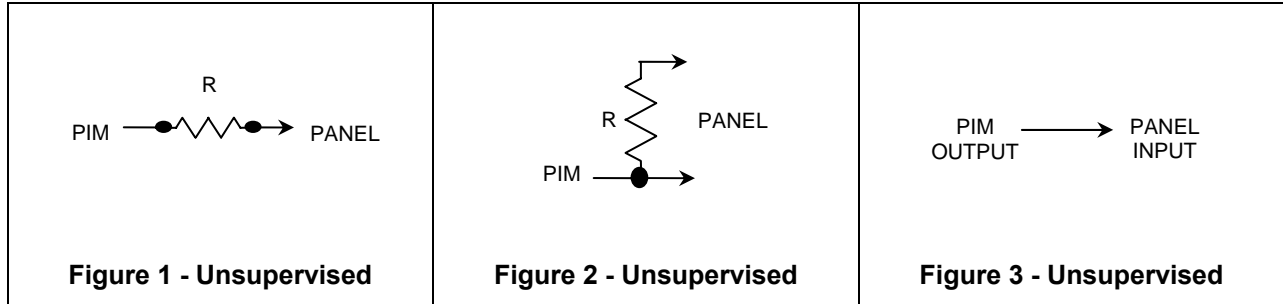
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Access Control Panel Equipment	Fig.	R (Ω)	Remarks
Amag M2000-8	4	10k	Normally open 3 state
Amag M2000-8	4	4.7k	Normally open 4 state
Amag M2000-8	5	4.7k	Normally closed 3 state
Amag M2000-8	5	4.7k	Normally closed 4 state
Card Key S300-IO8/S300-I16	3	N/A	
Card Key S300-RDR2	3	N/A	
Card Key S300-SIO8/S300-S18	4, 5	150	See CK720 manual for topology and R values
Digital Monitoring Products Model 733	4, 5	1k	Can use DMP 860 relay module w/o connector
InfoGraphic	4, 5	1k	accepts 4 state supervision only
Keri Systems PXL-250W	3	N/A	
Lenel LNL-1300	1	1k	Unsupervised; use figs. 4, 5 for supervised inputs
Lenel LNL-1320	2	1k	Unsupervised; use figs. 4, 5 for supervised inputs
Northern N1000-II/III/IV	3	N/A	Unsupervised; use figs. 4, 5 for supervised inputs
Northern PW-500	2	1k	Unsupervised; use figs. 4, 5 for supervised inputs
Pass Point	3	N/A	Unsupervised; use figs. 4, 5 for supervised inputs
Software House	4, 5	1k	accepts 4 state supervision only
Identocard Series 9000	1, 2	1k	RTX can be fig 1 or 2 – see Identocard manual
Simplex ISC panel	4, 5		see ISC manual for resistor values

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