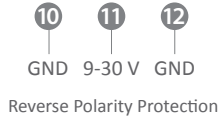


8. Power Wiring

Power - P4



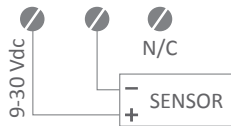
9. Analog 4-20 mA Inputs, Radio A

Only Radio A is equipped with analog inputs.

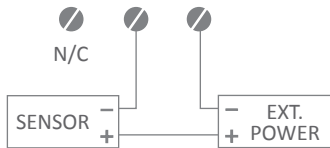
1. 4-20 mA input wiring - P1 and P2



2. Internal Loop Power



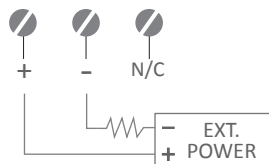
3. External Loop Power



10. Analog 4-20 mA Outputs, Radio B

Only Radio B is equipped with analog outputs.

4-20 mA output wiring - P1 and P2



$$VS/External\ Power\ (min) = 10 + Max\ Current\ (Amp) * Loop\ Loop = Total\ Loop\ Impedance$$

4-20 mA loop power must be isolated from Module's system power!

Must reset device after modifying any DIP switch settings. Be sure to set Fail Safe output mode: see sec 12.

11. Digital Programmable I/O (PIO)

This system is equipped with 2x digital programmable I/O. Using dedicated DIP switches 1 and 2, you can control the signal directions independently. If Radio A = Input, Radio B = Output and vice versa. Otherwise, PIO LED will turn red indicating signal direction error.

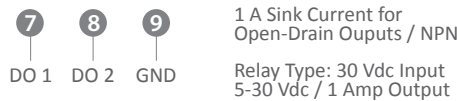
Factory default PIO settings: Radio A = DI ; Radio B = DO
Note that DIP switch positions for In/Out are reversed on Radio Module A and B.

Must reset device after modifying any DIP switch settings. Be sure to set Fail Safe output mode: Off (default) or On

1. Digital/discrete input wiring



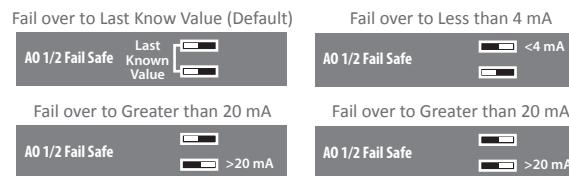
2. Digital/discrete output wiring



12. Fail Safe Output Operation

This system allows you to control the output states when RF communication failure occurs. When RF is lost for ten consecutive seconds or more, the system will automatically drive outputs to their predetermined fail safe states. Use the dedicated DIP switches to control the fail over behaviors.

1. Analog fail safe modes (DIP 4 and 5 on Radio B)
Applies to both outputs.



2. Digital fail safe modes (DIP 3)
Applies to both outputs.



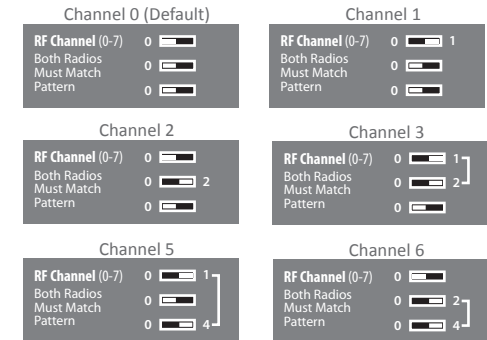
13. Transmit Power Setting - 900 MHz Only

The 900 MHz system is equipped with two adjustable transmission output settings. Use DIP switch 6 to select output power. Both Radio Modules must match power. 140 mW (default) or 1 W

14. RF Channel - 900 MHz / 2.4 GHz Only

900 MHz and 2.4 GHz systems offer multiple RF channels to create better RF isolation for better performance. Use dedicated DIP switches to set RF channel. 900 MHz system offers channels 0-3 while 2.4 GHz system offers 0-7 channels.

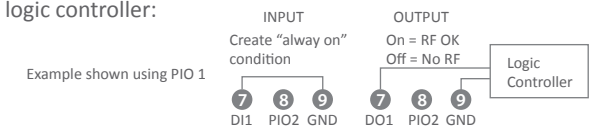
The RF channel or DIP pattern on both Radio Modules must match. Some examples of how to set RF channel:



Must reset device after modifying any DIP switch settings.

15. Using PIO to Monitor RF Health

Using the following logic, you can utilize either PIO channels to monitor the RF health of the system from a connected logic controller:



1. Select a PIO channel.
2. Set the PIO signal direction using DIP switches.
3. Set DO fail safe output mode to off on the output side.
4. On the Radio Module with PIO set as input, place a jumper wire to tie DI to the ground terminal to create "always on."
5. Tie the output to a logic controller or any device monitoring the DO state.
6. During normal operating conditions, the DO will be on.
7. When the RF communication is lost, the system will de-energize the output to notify the change in condition.