

RIBMN24Q4C-PX

Bulletin B1226

Code Version 2.0

Contact Ratings:

- 15 Amp General Use @ 125 Vac
- 10 Amp General Use @ 277 Vac
- 10 Amp Resistive @ 30 Vdc N/O
- 7 Amp Resistive @ 30 Vdc N/C
- 1/2 HP @ 125 Vac
- 1 HP @ 250 Vac
- 1/4 HP @ 277 Vac
- 470 VA Pilot Duty @ 125 Vac
- 770 VA Pilot Duty @ 250 Vac

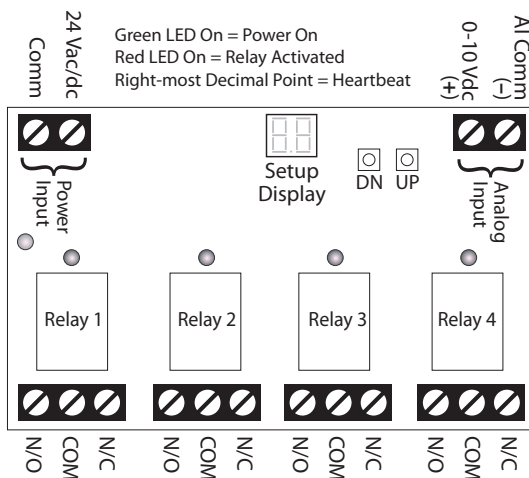
Power Input:

- 24 Vac/dc ; 50-60 Hz
- 200mA max.



OPEN ENERGY
MANAGEMENT
EQUIPMENT

FOR SUPPLY CONNECTIONS USE #14 AWG OR LARGER
WIRES RATED AT LEAST 75°C (167°F).



Notes:

- Relay will activate when Control Input voltage on the **Analog Input** terminals reaches or exceeds an individual relay's ON point.
- Both ON and OFF points are adjustable for each relay.

Relay	Factory Defaults	
	ON Point (Vdc)	OFF Point (Vdc)
1	3.0	2.8
2	5.0	4.8
3	7.0	6.8
4	9.0	8.8

- Minimum ON point: 0.5Vdc
- Maximum ON point: 9.9Vdc
- Minimum OFF point: 0.3Vdc
- There will always be at least 200mV between a relay's ON and OFF points. If a relay's ON point is lowered below the set OFF point, the OFF point will move down with the ON point. However, if the relay's ON point is raised, the OFF point will remain the same as was previously set.
- Relay number will flash 3 times when voltage exceeds ON point.
- At any time during normal run mode, the voltage present on the **Analog Input** terminals can be displayed by pressing either the **UP** or **DN** buttons. (If either button is held down during **Analog Input** voltage change, display will update in real time.)
- ON points will be displayed as the relay number followed by an "n" (i.e. 1.n).
- OFF points will be displayed as the relay number followed by an "F" (i.e. 1.F).
- During normal run mode, the right-most decimal point will flash continuously.



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Known Setpoints Setup Procedure (if desired ON and OFF voltages are known)

1. Apply 24Vac/dc to **Power Input** terminals.
2. Simultaneously press and hold both the **UP** and **DN** buttons for 3 seconds to enter Programming Mode.
 - a. Display will flash between the relay number and its ON point (Example: flash "1.n" then flash "3.0" for Relay 1 set to turn on at 3.0Vdc).
3. For desired relay, adjust value to desired ON point using **UP** and **DN** buttons.
4. To save the new ON point, advance to the next relay number by pressing the **UP** and **DN** buttons simultaneously.
5. Repeat steps 3 and 4 until all ON points are adjusted to desired values.
6. Press the **UP** and **DN** buttons simultaneously again to proceed to the point at which the display flashes "1.F"
 - a. Display will flash between the relay number and its OFF point (Example: flash "1.F" then flash "2.8" for Relay 1 set to turn off at 2.8Vdc).
7. For desired relay, adjust value to the desired OFF point using the **UP** and **DN** buttons (OFF point cannot be set higher than 200mV below the ON point).
8. To save the new OFF point, advance to the next relay number by pressing the **UP** and **DN** buttons simultaneously.
9. Repeat steps 7 and 8 until all OFF points are adjusted to desired values.
10. Unit will exit Programming Mode by simultaneously holding both the **UP** and **DN** buttons for 3 seconds (during which both decimal points on the display will begin flashing) **or** after 20 seconds of inactivity.
11. Follow *Checking ON and OFF Points Procedure* to verify correct ON and OFF points were set.

Unknown Setpoints Setup Procedure (if desired ON and/or OFF voltages are not known)

1. Apply 24Vac/dc to **Power Input** terminals.
2. Apply the DC control voltage to the **Analog Input** terminals.
3. Adjust 0-10Vdc Control Signal to the point at which Relay 1 is *desired* to be ON.
4. Press either the **UP** or **DN** button until the value stabilizes. Note the value displayed. That is the ON point for Relay 1 (1.n).
5. Adjust 0-10Vdc Control Signal to the point at which Relay 2 is *desired* to be ON.
6. Press either the **UP** or **DN** button until the value stabilizes. Note the value displayed. That is the ON point for Relay 2 (2.n).
7. Adjust 0-10Vdc Control Signal to the point at which Relay 3 is *desired* to be ON.
8. Press either the **UP** or **DN** button until the value stabilizes. Note the value displayed. That is the ON point for Relay 3 (3.n).
9. Adjust 0-10Vdc Control Signal to the point at which Relay 4 is *desired* to be ON.
10. Press either the **UP** or **DN** button until the value stabilizes. Note the value displayed. That is the ON point for Relay 4 (4.n).
11. Adjust 0-10Vdc Control Signal to the point at which Relay 4 is *desired* to be OFF.
12. Press either the **UP** or **DN** button until the value stabilizes. Note the value displayed. That is the OFF point for Relay 4 (4.F).
13. Adjust 0-10Vdc Control Signal to the point at which Relay 3 is *desired* to be OFF.
14. Press either the **UP** or **DN** button until the value stabilizes. Note the value displayed. That is the OFF point for Relay 3 (3.F).
15. Adjust 0-10Vdc Control Signal to the point at which Relay 2 is *desired* to be OFF.
16. Press either the **UP** or **DN** button until the value stabilizes. Note the value displayed. That is the OFF point for Relay 2 (2.F).
17. Adjust 0-10Vdc Control Signal to the point at which Relay 1 is *desired* to be OFF.
18. Press either the **UP** or **DN** button until the value stabilizes. Note the value displayed. That is the OFF point for Relay 1 (1.F).
19. Now that desired ON and OFF points are known for each relay, follow *Known Setpoints Setup Procedure* above.

Checking ON and OFF Points

(Relay ON and OFF points can be reviewed at any time with the following procedure.)

1. Apply 24Vac/dc to **Power Input** terminals.
2. Simultaneously press and hold both the **UP** and **DN** buttons for 3 seconds to enter Programming Mode.
 - a. Display will flash between the relay number and its ON point (Example: flash "1.n" then flash "3.0" for Relay 1 set to turn on at 3.0Vdc).
3. To view the ON and OFF points for additional relays, press the **UP** and **DN** buttons simultaneously until desired relay number and state letter are displayed.
 - a. State letter will either be "n" for the ON point or "F" for the OFF point.
4. Unit will exit Programming Mode by simultaneously holding both the **UP** and **DN** buttons for 3 seconds (during which both decimal points on the display will begin flashing) **or** after 20 seconds of inactivity.