

RMC200 CV8 Cable

R2-CB-CV8-nnA Installation and Wiring

Pigtail cables provide a compact, convenient option for RMC200 modules. These cables are for short distances between the RMC200 and terminal blocks within the same cabinet. For long cable runs, Delta recommends using cables with lower resistance and better shielding.

Supplied Components

The **R2-CB-CV8-nnA** part number denotes a single cable assembly. The CV8 module requires two R2-CB-CV8-nnA cable assemblies – one per terminal block. Each cable assembly consists of:

- Terminal block connector
- Two cables, both wired to the single terminal block connector
- Flexible cable leader for easy bending out of module
- Pigtail ends

Cable specifications:

- Length: nn = 06: 6 ft (1.83 m); nn = 12: 12 ft (3.66 m). Contact Delta for other lengths.

Belden 8778 or equivalent:

- OD: 0.352 in; min. bend radius: 3.75 in.
- 6 twisted pairs, individually foil-shielded
- 22 AWG stranded
- Imp: 50 Ohms; Cap 30 pf/ft
- Res: 15 Ohms/1000 ft
- PVC jacket, -20 to 80 °C

Alpha 2214C or equivalent:

- OD: 0.266 in; min. bend radius: 2.7 in.
- 4 twisted pairs, overall foil-shielded
- 22 AWG stranded
- Imp: 59 Ohms; Cap 38 pf/ft
- Res: 16.5 Ohms/1000 ft
- PVC jacket, -20 to 80 °C









CV8 Cable Wiring Notes

- All analog outputs share the same common potential and all valve/drive commons must be tied together at some point in the system (typically, they share a power supply, which takes care of this requirement).
- All Cmn pins on the CV8 are internally connected.
- Shields from each individual valve/drive cable should be terminated at the remote terminal blocks with a low impedance connection to ground.
- Delta recommends the use of ferrules with these cables.





CV8 Cable Pin-out


TB1 Cable A: Outputs 0-3

Color Pairs	Pin
 Red/Black	Out0+ Out0-
 White/Black	Out1+ Out1-
 Green/Black	Out2+ Out2-
 Blue/Black	Out3+ Out3-
 Yellow/Black	Cmn Cmn
 Brown/Black	Cmn Cmn







No band

TB1 Cable B: Discrete Outputs

Color Pairs	Pin
 Red/Black	D0+ D0-
 White/Black	D1+ D1-
 Green/Black	D2+ D2-
 Blue/Black	D3+ D3-





 Marked with orange band


TB2 Cable A: Outputs 4-7

Color Pairs	Pin
 Red/Black	Out4+ Out4-
 White/Black	Out5+ Out5-
 Green/Black	Out6+ Out6-
 Blue/Black	Out7+ Out7-
 Yellow/Black	Cmn Cmn
 Brown/Black	Cmn Cmn

No band

TB2 Cable B: Discrete Outputs

Color Pairs	Pin
 Red/Black	D4+ D4-
 White/Black	D5+ D5-
 Green/Black	D6+ D6-
 Blue/Black	D7+ D7-

 Marked with orange band

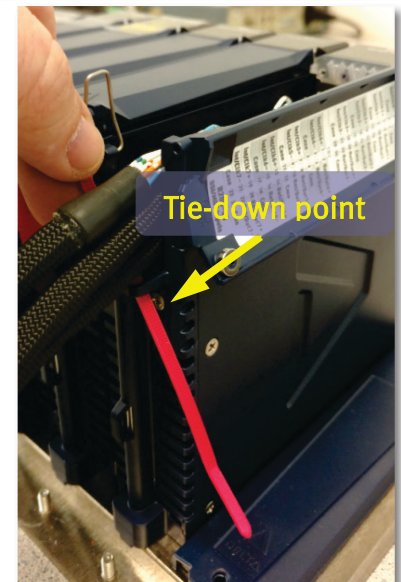
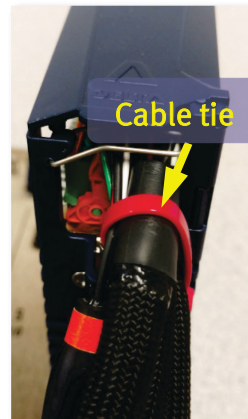


Installation Procedure

1. Insert the terminal block connectors for each cable assembly into the CV8 module, tucking the upper cable into the groove:



2. Use a cable tie to attach all cables exiting module to the tie down location shown. This ensures that module door will close properly. The cable tie should clamp onto the heat shrink tubing. Do not overtighten.



3. Connect the pigtail ends to terminal blocks as required by the application. Delta recommends the use of ferrules.

Differential Wiring

If the valve or drive supports differential analog inputs, wire according to the diagram below. Differential inputs cancel noise when wired with the signal and common wire in a twisted-pair connected to In+ and In-, and a separate common wire connected to Cmn. Any noise will affect the In+ and In- wires approximately equally. The input subtracts In- from In+, which effectively subtracts out the noise.

The differential input common mode voltage must not drift more than a certain amount from the Cmn, typically about 12V. Therefore, the analog In- and Cmn pins must be connected together. If this connection is done close to the analog output, the noise-cancelling qualities are retained. If In- and Cmn are connected together close to the input, the input will function properly, but there will be no noise-cancelling, since the noise on In- is shunted to common and is not available to cancel the noise on the In+ pin.

