5.5 Analog Output IOTA Models CC-TAOX01, CC-TAOX11, CC-TAON01 and CC-TAON11

This Series C Analog Output IOTA board is represented by the following information and graphics.

To access the parts information for the:

- module
- IOTA
- terminal plug-in assembly, and
- fuses

associated with this board and module, refer to Analog Ouput in the Recommended Spare Parts section.

## 5.5.1 Field wiring and module protection - Analog Output module

The Analog Output module provides an output current range of 0ma, and 2.9 mA through 21.1 mA based on the requested Analog Output by the Series C controller. The output current including the HART modulated signal, does not exceed 22.5mA.

- Short circuit protection of field short circuits. Protection suitable for Division 2 non-incendive / Zone 2 non-arcing.
- Each field wiring pair can be shorted together without damage to the module or IOTA. Other channels in the same module(s) will not be affected.
- A +30 Vdc source can be continuously applied across the OUT+ to OUT- terminals of the IOTA without damage to either module(s) or IOTA (i.e. with the positive lead of the source connected to OUT+ and the negative lead connected to OUT-). To prevent damage to the IOTA surge protection diodes, the current must be limited to 500 mAdc if the source is applied in the reverse polarity (i.e. with the positive lead of the source attached to OUT-, negative lead attached to OUT+). This 500 mAdc restriction does not apply in the positive polarity case.

5.5.2 IOTA board and connections - Analog Output module

Series C Analog Output 6 inch, non-redundant IOTA is displayed.

Table 31: Series C Analog Output 6 inch, non-redundant IOTA
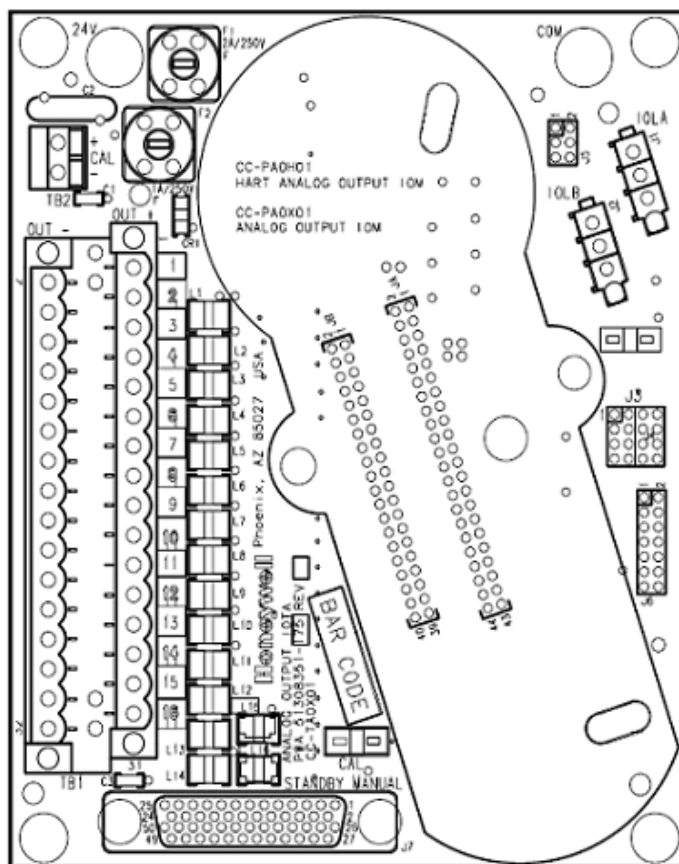
To properly wire your module to the Series C Analog Output IOTA board with terminal block 1 (TB1), use the following table.

Table 32: AO 6 inch, non-redundant - terminal block 1

Channel	Return screw (OUT -)	Signal screw (OUT +)
Channel 1	2	1
Channel 2	4	3
Channel 3	6	5
Channel 4	8	7
Channel 5	10	9
Channel 6	12	11
Channel 7	14	13
Channel 8	16	15
Channel 9	18	17
Channel 10	20	19
Channel 11	22	21
Channel 12	24	23

| Channel	Return screw (OUT -)	Signal screw (OUT +)
Channel 13	26	25
Channel 14	28	27
Channel 15	30	29
Channel 16	32	31

Series C Analog Output 6 inch, non-redundant IOTA and field wiring connection

Table 33: Series C Analog Output 6 inch, non-redundant IOTA and field wiring connection
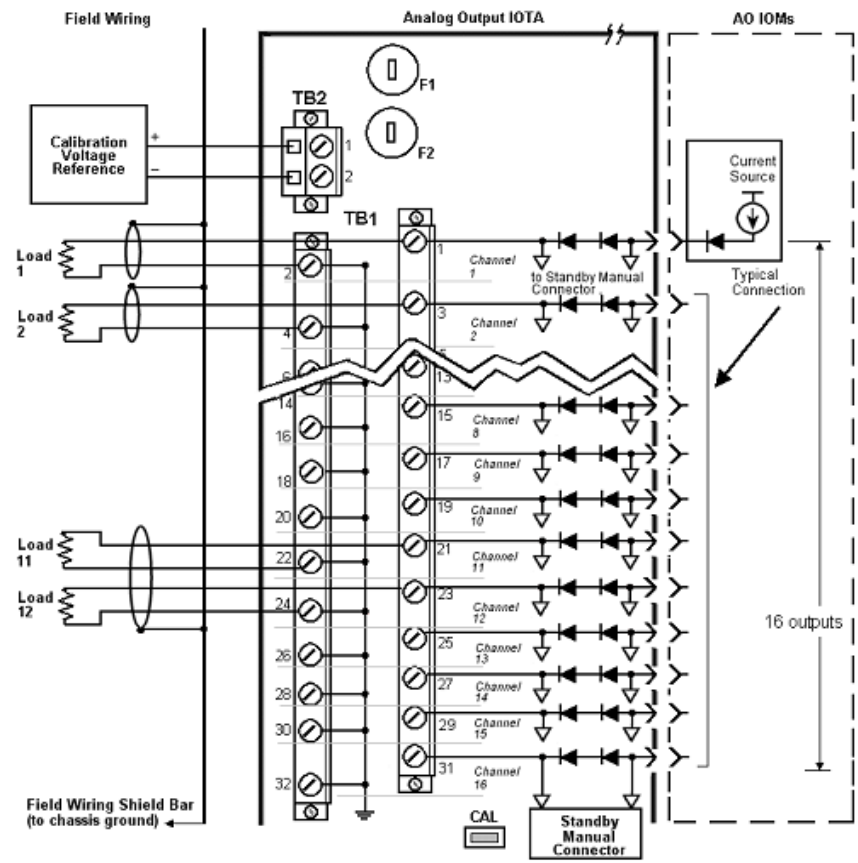
Series C Analog Output 12 inch, redundant IOTA is displayed:

Table 34: Series C Analog Output 12 inch, redundant IOTA
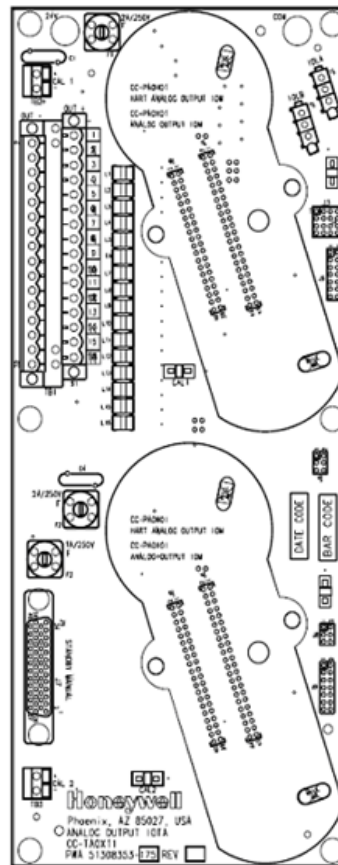
5.5.3 Non-HART Analog Output IOTA (Models CC-TAON01, CC-TAON11)

The Series C non-HART Analog Output 6 inch, non-redundant modules supports all 16 channels for single-ended configuration. All I/O field terminations of this IOTA is designed to accept up to 14 gauge stranded wire.

5.5.4 IOTA board and connections - non-HART Analog Output module

The Series C Analog Output 6 inch, non-redundant IOTA is displayed in the following figure.
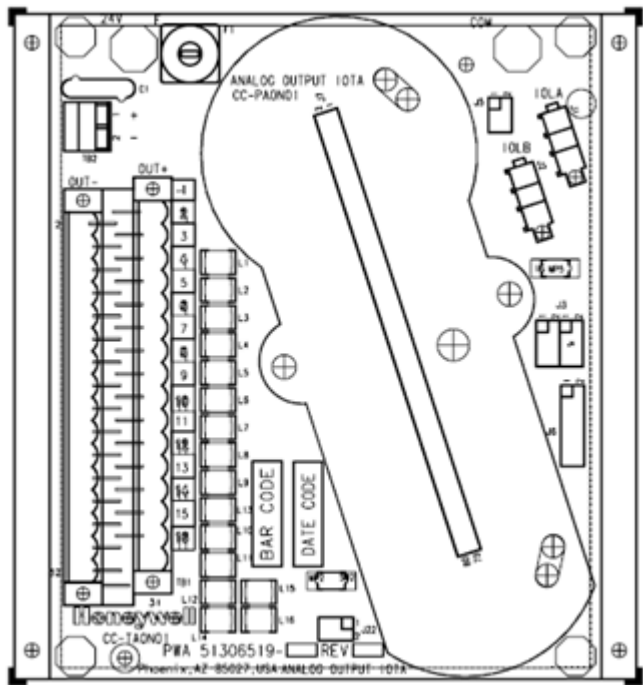
Figure 29: Series C non-HART Analog Output 6 inch, non-redundant IOTA

The Series C Analog Output 12 inch, redundant IOTA is displayed in the following figure.
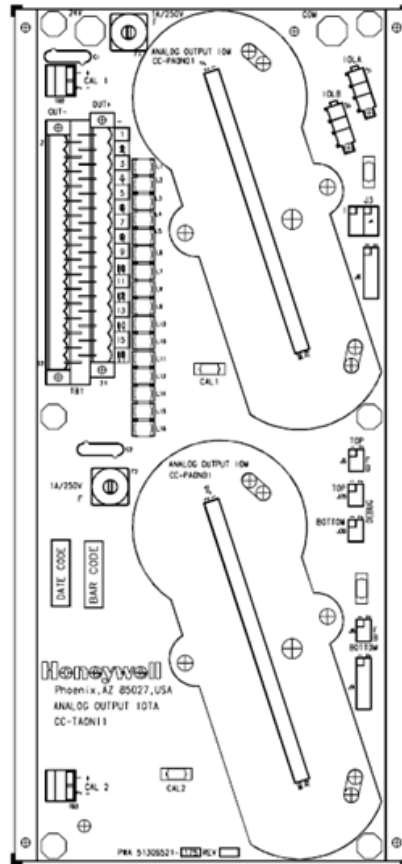
Figure 30: Series C non-HART Analog Input 12 inch, redundant IOTA

To properly wire your module to the Series C non-HART Analog Output IOTA with terminal block 1 (TB1) and terminal block 2 (TB2), use the following table.

Table 35: AO 6 inch, non-HART AO, non-redundant - terminal block 1

Terminal Block 1 (TB1)		
Channel	**Return Screw (Negative)**	**Analog Output Screw (Positive)**
Channel 1	2	1
Channel 2	4	3
Channel 3	6	5
Channel 4	8	7
Channel 5	10	9
Channel 6	12	11
Channel 7	14	13
Channel 8	16	15
Channel 9	18	17
Channel 10	20	19
Channel 11	22	21
Channel 12	24	23
Channel 13	26	25

Terminal Block 1 (TB1)		
Channel	**Return Screw (Negative)**	**Analog Output Screw (Positive)**
Channel 14	28	27
Channel 15	30	29
Channel 16	32	31
Note:		
TB1: 32 pin connector - screw block		
• 16 channels positive output terminals must be connected through upper-side of 32 pin connector.		
• 16 channels negative output terminals must be connected through lower-side of 32 pin connector.		

The field wiring connection for Series C non-HART Analog Input 6 inch, non-redundant IOTA is identical to the Series C Analog Input 6 inch, non-redundant IOTA. For more information about the field wiring, refer to "IOTA board and connections - Analog Output module" on page 114.