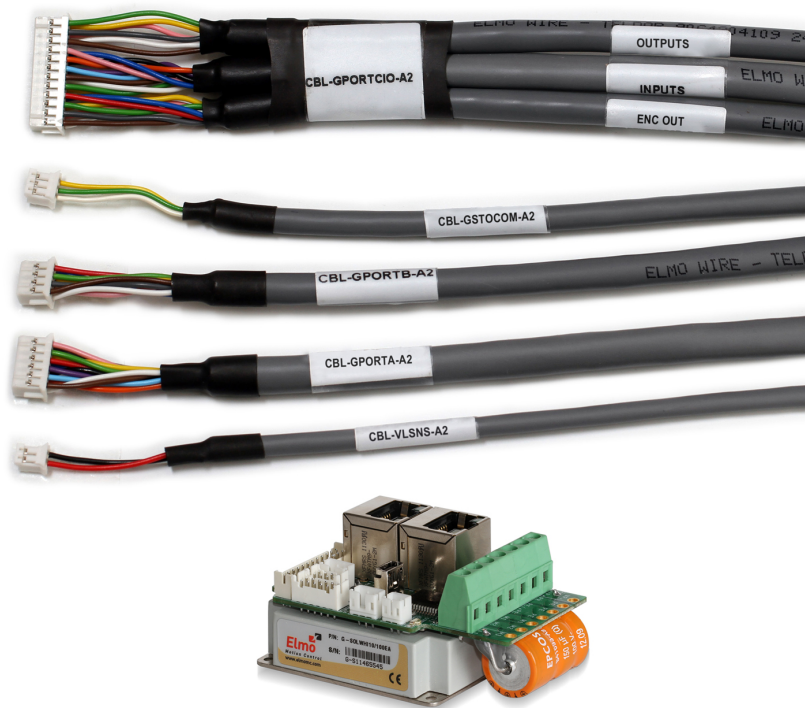


# Gold Solo Whistle Cable Kit



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## Catalog Number

CBL-GSOLWHIKIT01

## Revision History

| Version    | Date           | Details   |
|------------|----------------|---|
| Ver. 1.0   | April 2011     | Initial release   |
| Ver. 1.1   | September 2011 | Numerous changes in cable description tables            |
| Ver. 1.200 | December 2013  | New template and new format<br>General document upgrade |
| Ver. 1.201 | March 2014     | Includes other suppliers P/Ns                           |
| Ver. 1.202 | July 2016      | Update to section 7.3 Crimping pliers                   |



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## Chapter 1: Introduction

This document provides the wiring details for the cables used to connect the Gold Solo Whistle with the end-user application. The servo drive-side pinouts are provided in Chapter 3 of the drive's installation guide.

The cables come in one length: 2 meters (6 ½ feet).

**Note:** CAN, EtherCAT, and RS-232 communication cables are not included in the CBL-GSOLWHIKIT01 cable kit.

### 1.1. Cable Kit (CBL-GSOLWHIKIT01)

The Catalog number of the Gold Solo Whistle cable kit is **CBL-GSOLWHIKIT01**

The cable kit includes the following cables:

| ELMO Part Number | Function              |
|------------------|-----------------------|
| CBL-GPORTA-A2    | Feedback port A       |
| CBL-GPORTB-A2    | Feedback port B       |
| CBL-GPORTCIO-A2  | Port C and I/O        |
| CBL-GSTOCOM-A2   | STO                   |
| CBL-GVLSNS-A2    | Auxiliary Power Cable |

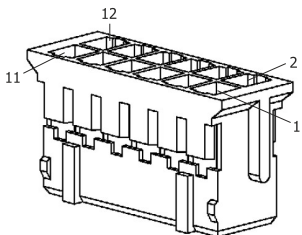


## Chapter 2: Feedback Port A Cable (CBL-GPORTA-A2)

The feedback port A cable is made from five-pair 24-AWG shielded twisted-pair cable. There is one type of feedback cable, which uses a 12-pin Tyco 2 mm pitch plug to connect to the servo drive.

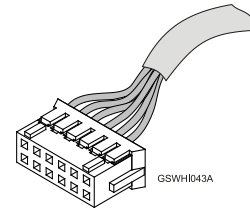
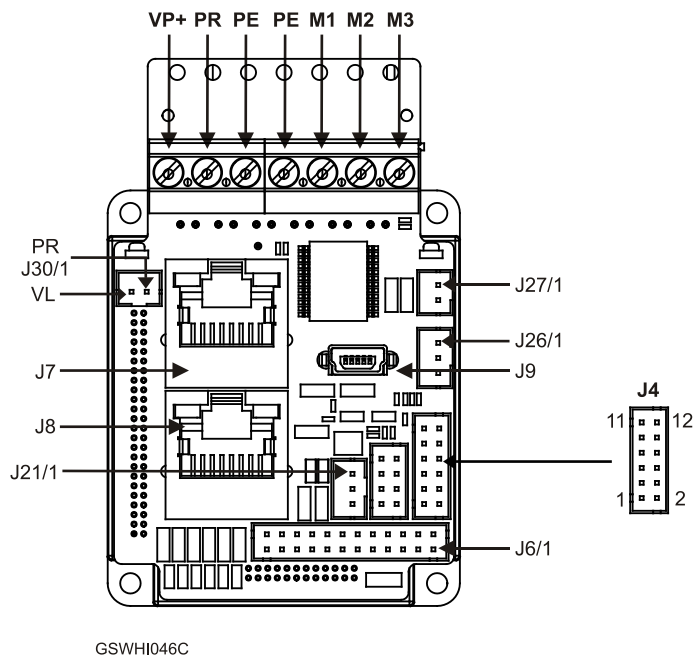
The feedback port A cable is open on the motor side so that it can be connected to the motor-feedback connector.

The general pinout of the feedback port A cable is as follows:

| Pin No. | Signal           | Color      | Twisted & Shielded Wire | Plug  |
|---------|------------------|------------|-------------------------|---|
| 1       | +5V              | Brown      | Pair                    | <br><b>12-Pin Tyco 2 mm Pitch Plug</b> |
| 2       | COMRET           | White      |                         |   |
| 3       | PortA_ENC_A+     | Cyan       | Pair                    |   |
| 4       | PortA_ENC_A-     | Orange     |                         |   |
| 5       | PortA_ENC_B+     | Purple     | Pair                    |   |
| 6       | PortA_ENC_B-     | Black      |                         |   |
| 7       | PortA_ENC_INDEX+ | Red        | Pair                    |   |
| 8       | PortA_ENC_INDEX- | Blue       |                         |   |
| 9       | HA               | Green      | Pair                    |   |
| 10      | HB               | Yellow     |                         |   |
| 11      | HC               | Pink       |                         |   |
| 12      | PE               | Drain Wire |                         |   |



## Pin Positions



**12-Pin Tyco Plug**

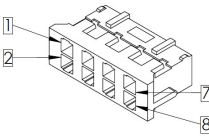


## Chapter 3: Feedback Port B Cable (CBL-GPORTB-A2)

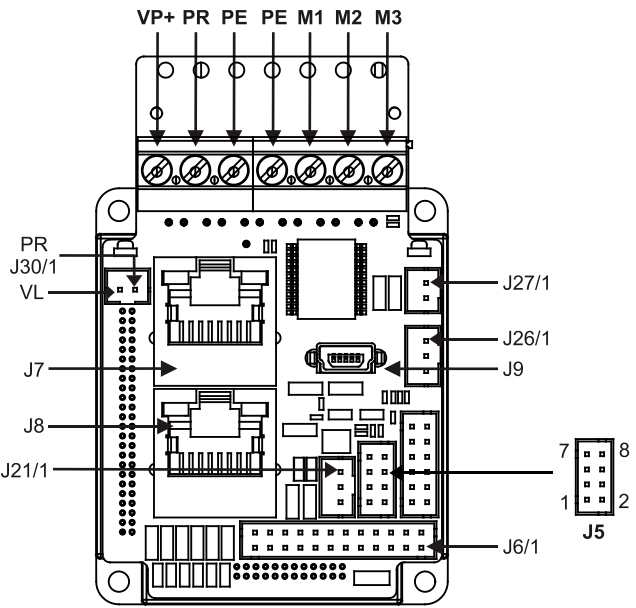
The feedback port B cable is a four-pair 24-AWG shielded twisted-pair cable. It is connected using an 8-pin Tyco 2 mm pitch plug.

The cable is open on the motor side so that it can be connected to the motor feedback connector.

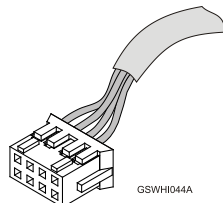
The general pinout of the feedback port B cable is as follows:

| Pin No. | Signal                         | Color  | Twisted & Shielded Wire | Plug   |
|---------|--------------------------------|--------|-------------------------|--|
| 1       | +5V                            | Brown  | Pair                    | <div><br/><b>8-Pin Tyco 2 mm Pitch Plug</b></div> |
| 2       | COMRET                         | White  |                         |  |
| 3       | PortB_ENC_A+/SIN+              | Gray   | Pair                    |  |
| 4       | PortB_ENC_A-/SIN-              | Pink   |                         |  |
| 5       | PortB_ENC_B+/COS+              | Green  | Pair                    |  |
| 6       | PortB_ENC_B-/COS-              | Yellow |                         |  |
| 7       | PortB_ENC_INDEX+/Analog_Index+ | Red    | Pair                    |  |
| 8       | PortB_ENC_INDEX-/Analog_Index- | Blue   |                         |  |

### Pin Positions



GSHW1048B



GSHW1044A

**8-Pin Tyco Plug**

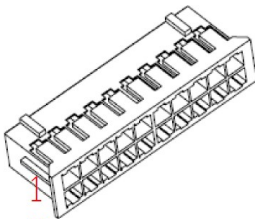


## Chapter 4: Port C & I/O Cable (CBL-GPORTCIO-A2)

The Port C & I/O cable is a 24-AWG shielded twisted-pair cable. It is connected using a 24-pin Tyco 2 mm pitch plug.

The cable is open on the motor side so that it can be connected to the controller interface connector.

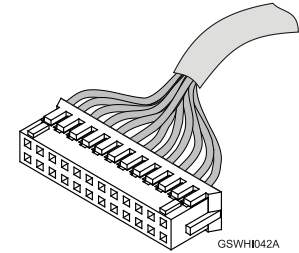
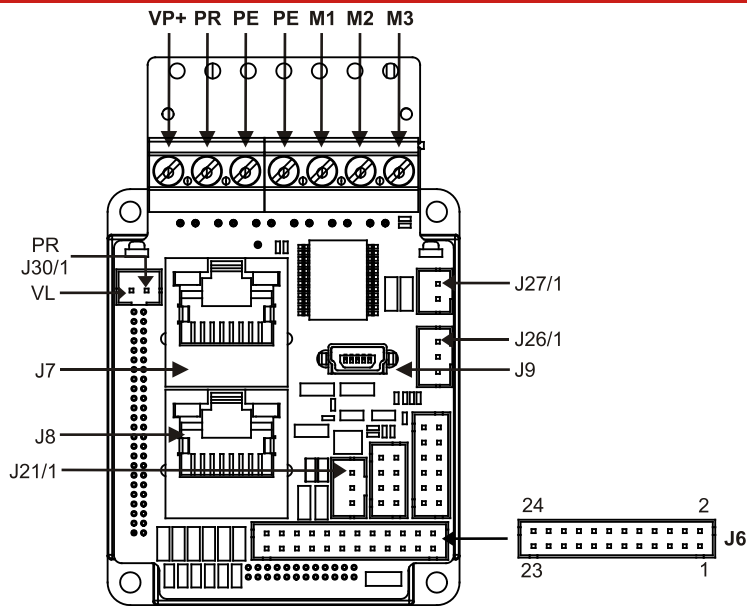
The general pinout of the Port C & I/O cable is as follows:

| Pin No. | Signal            | Color      | Twisted & Shielded Wire | Harness (Cable) | Plug  |
|---------|-------------------|------------|-------------------------|-----------------|---|
| 1       | PortC_ENCO_A+     | Brown      | Pair                    | ENC_OUT         | <br><b>24-Pin Tyco 2 mm Pitch Plug</b> |
| 2       | PortC_ENCO_A-     | White      |                         |                 |   |
| 3       | PortC_ENCO_B+     | Grey       | Pair                    |                 |   |
| 4       | PortC_ENCO_B-     | Pink       |                         |                 |   |
| 5       | PortC_ENCO_Index+ | Green      | Pair                    |                 |   |
| 6       | PortC_ENCO_Index- | Yellow     |                         |                 |   |
| 7       | COMRET            | Red        |                         |                 |   |
| 8       | PE                | Drain wire |                         |                 |   |
| 9       | ANALOG1-          | Green      | Pair                    | INPUTS          |   |
| 10      | ANALOG1+          | Yellow     |                         |                 |   |
| 11      | ANARET            | Brown      |                         |                 |   |
| 12      | INRET1_6          | White      |                         |                 |   |
| 13      | IN1               | Cyan       |                         |                 |   |
| 14      | IN2               | Purple     |                         |                 |   |
| 15      | IN3               | Orange     |                         |                 |   |
| 16      | IN4               | Black      |                         |                 |   |
| 17      | IN5               | Pink       |                         |                 |   |
| 18      | IN6               | Blue       |                         |                 |   |
| 19      | Reserved          | Brown      |                         |                 |   |
| 20      | Reserved          | White      |                         |                 |   |
| 21      | OUT2              | Gray       |                         |                 |   |
| 22      | OUT1              | Pink       |                         |                 |   |
| 23      | VDD               | Green      | Pair                    |                 |   |
| 24      | VDDRET            | Yellow     |                         |                 |   |





## Pin Positions



**24-Pin Tyco Plug**

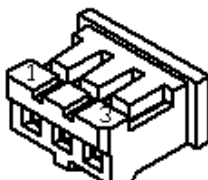


## Chapter 5: STO Cable (CBL-GSTOCOM-A2)

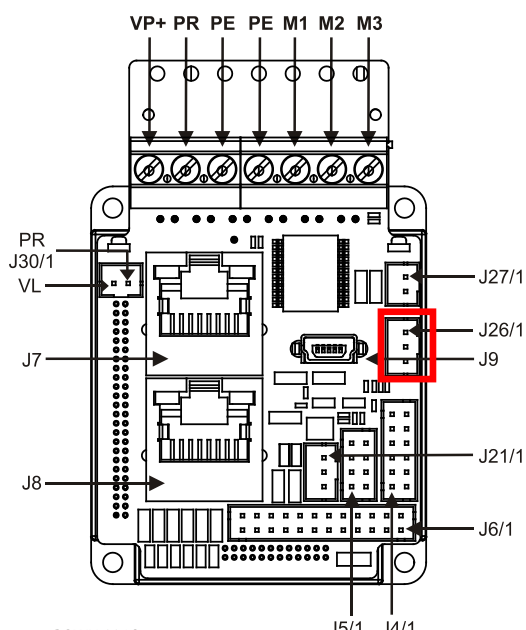
The STO cable is a 24-AWG twisted-pair shielded cable. It is connected using a 3-pin Tyco 2 mm pitch plug.

The cable is open on the end-side so that it can be connected to the STO interface connector.

The general pinout of the STO feedback cable is as follows:

| Pin No. | Signal  | Color  | Twisted & Shielded Wire | Plug   |
|---------|---------|--------|-------------------------|--|
| 1       | STO1    | Yellow | Pair                    | <br><b>3-Pin Tyco 2 mm Pitch Plug</b> |
| 2       | STO2    | Green  |                         |  |
| 3       | STO_RET | White  |                         |  |

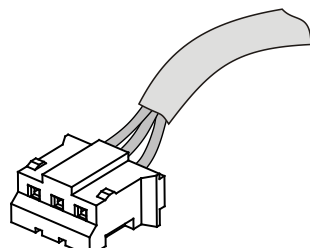
### Pin Positions



VP+ PR PE PE M1 M2 M3

PR J30/1 VL J7 J8 J5/1 J4/1 J27/1 J26/1 J9 J21/1 J6/1

GSWHI004C



GSWHI040B

**3-Pin Tyco Plug**




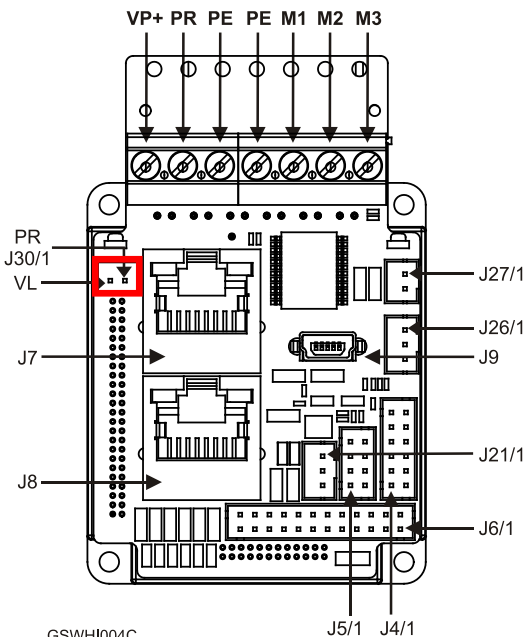
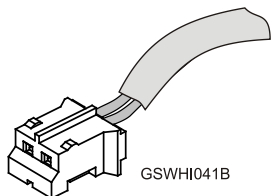
## Chapter 6: Auxiliary Power Cable (CBL-GVLSNS-A2)

The Auxiliary Power cable is a 24-AWG twisted-pair shielded cable. It is connected using a 2-pin Tyco 2 mm pitch plug.

The cable is open on the end-side so that it can be connected to the power supply.

The general pinout of the auxiliary cable is as follows:

| Pin No. | Signal | Color | Twisted & Shielded Wire | Plug  |
|---------|--------|-------|-------------------------|---|
| 1       | PR     | Black | Pair                    | <br>2-Pin Tyco 2 mm Pitch Plug |
| 2       | VL+    | Red   |                         |   |

| Pin Positions   |  |
|---|--|
|  | <br>2-Pin Tyco Plug |



## Chapter 7: Cable Connectors and Cable Crimping Kit

### 7.1. CAN Cable Connectors and Cable Crimping Kit (ACC-CONGSOLWHI-S)


**Notes:**

1. The ACC-CONGSOLWHI-S is not included in the CBL-GSOLWHIKIT01 cable kit.
2. ACC-CONGSOLWHI-S is a 100-sets of GOLD SOL-WHI CAN Bus Connector kit.

The following connectors and terminals are supplied with the Gold Solo Whistle CAN cable kit.

| Conn. Name & Description   | QTY | ELMO P.N.    | Tyco        | Neltron       | Wurth           |
|--|-----|--------------|-------------|---------------|-----------------|
|  J4 Feedback Port A<br>2X6, 2MM PITCH ,CRIMP HOUSING  | 1   | JCB-112212FC | 1-1470107-2 | 2418HJ-12-PHD | -----           |
|  J5 Feedback Port B<br>2X4, 2MM PITCH ,CRIMP HOUSING   | 1   | JCB-112208FC | 1470107-8   | 2418HJ-8-PHD  | -----           |
|  J6 I/O & Feedback Port C<br>2X12, 2MM PITCH ,CRIMP HOUSING                                 | 1   | JCB-112224FC | 2-1470107-4 | 2418HJ-24-PHD | -----           |
|  J26 STO & J21 RS232<br>1X3, 2MM PITCH ,CRIMP HOUSING                                       | 2   | JCB-112203FC | 6-440129-3  | 2418HJ-03     | 620 003 113 322 |
|  J22,J23 CAN Communication<br>1X4, 2MM PITCH ,CRIMP HOUSING<br>(Need 2 for each CAN module) | 2   | JCB-112204FC | 6-440129-4  | 2418HJ-04     | 620 004 113 322 |
|  J27 PTC & J30 Logic Power<br>1X2, 2MM PITCH ,CRIMP HOUSING                                 | 2   | JCB-112202FC | 6-440129-2  | 2418HJ-02     | -----           |
|  CRIMP CONTACT FOR 2 ROWS<br>2.0 MM PITCH   | 50  | JCB-112101FC | 1470106-1   | 2418TJ-PHD    | -----           |



|  |   |    |              |       |        |               |
|--|---|----|--------------|-------|--------|---------------|
|  | CRIMP CONTACT FOR 1 ROW<br>2.0 MM PITCH | 20 | JCB-112201FC | ----- | 2418TJ | 620 101 13722 |
|--|---|----|--------------|-------|--------|---------------|

**Figure 1: Gold Solo Whistle CAN Connectors and Terminals**



## 7.2. EtherCAT Cable Connectors and Cable Crimping Kit (ACC-CONGSOLWHI-E)

### Notes:

1. The ACC-CONGSOLWHI-E is not included in the CBL-GSOLWHIKIT01 cable kit.
2. ACC-CONGSOLWHI-E is a 100-sets of GOLD SOL-WHI EtherCAT Connector kit.

Rather than purchase a cable kit from Elmo, it is at the discretion of the customer to purchase the following connectors and terminals necessary to build his own Gold Solo Whistle cable kit.

| Conn. Name & Description   | QTY | Tyco        | Neltron       | Wurth           |
|--|-----|-------------|---------------|-----------------|
|  J4 Feedback Port A<br>2X6, 2MM PITCH ,CRIMP HOUSING          | 1   | 1-1470107-2 | 2418HJ-12-PHD | -----           |
|  J5 Feedback Port B<br>2X4, 2MM PITCH ,CRIMP HOUSING          | 1   | 1470107-8   | 2418HJ-8-PHD  | -----           |
|  J6 I/O & Feedback Port C<br>2X12, 2MM PITCH ,CRIMP HOUSING  | 1   | 2-1470107-4 | 2418HJ-24-PHD | -----           |
|  J26 STO & J21 RS232<br>1X3, 2MM PITCH ,CRIMP HOUSING       | 2   | 6-440129-3  | 2418HJ-03     | 620 003 113 322 |
|  J27 PTC & J30 Logic Power<br>1X2, 2MM PITCH ,CRIMP HOUSING | 2   | 6-440129-2  | 2418HJ-02     | 620 002 113 322 |
|  CRIMP CONTACT FOR 2 ROWS<br>2.0 MM PITCH                   | 50  | 1470106-1   | 2418TJ-PHD    | -----           |
|  CRIMP CONTACT FOR 1 ROW<br>2.0 MM PITCH                    | 15  | -----       | 2418TJ        | 620 101 13722   |

Figure 2: Gold Solo Whistle EtherCAT Connectors and Terminals



### 7.3. Crimping Pliers

Elmo recommends using the following types of crimping pliers to connect cables to the Gold Solo Whistle top interface:

| Kely Crimping Tool   | WURTH Crimping Tool   | Elmo Tool                  | Terminal Type                  |
|--|---|----------------------------|--------------------------------|
| <p>P/N-YS-09B-1-2001-T-L<br/><a href="http://www.kely-tools.com/Product-2008516155228.html">http://www.kely-tools.com/Product-2008516155228.html</a></p>  | <p>P/N- 600 624 228 220<br/><a href="http://www.we-online.com/web/en/wuerth_elektronik/start.php">http://www.we-online.com/web/en/wuerth_elektronik/start.php</a></p>  | <p>P/N<br/>TOOL-600624</p> | <p>2mm single row terminal</p> |
| <p>P/N-YS-09B-1-2004-T<br/><a href="http://www.kely-tools.com/Product-2008516155228.html">http://www.kely-tools.com/Product-2008516155228.html</a></p>   |   |                            | <p>2 mm dual row terminal</p>  |



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