

# CO Series

## Open Type PLC - I/O Terminal Blocks Junction Cable



### ■ Features

- Connectable with many types of PLC or controllers with various kinds of connectors
- Customizable cable length for the user environment



### ■ Ordering Information

**C O 40 - HP 010 - R**









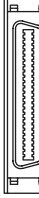





C	O	40	-	HP	010	-	R	Right 
							L	Left 
Cable length	-	005	-	HP	010	-	005	0.5m
							010	1m
							015	1.5m
							020	2m
							025	2.5m
							030	3m
							040	4m
050	5m							
Connector of PLC	-	HP	010	-	R	-	HP	Hirose plug
							FP	Fujitsu plug
							DP	D-sub plug
							DS	D-sub socket
							MP	3M plug (latch)
Connector pin number	-	40	-	HP	010	-	20	20-pin
							37	37-pin
							40	40-pin
							50	50-pin
Connector of terminal block	-	40	-	HP	010	-	O	Open type
							C	Junction cable
Item								

※Since no existing item can be made with random combination of ordering information above, please check “ PLC Connector,  Cable Color” to order a product.

If there is no items you are looking for, please contact Autonics.

## ■ PLC Connector

These are shape and direction of connectors in PLC to which CO series cable can be connected. These images stand for the direction of cable running down.

PLC connector type Connector direction	Hirose plug			Fujitsu plug	D-Sub plug	D-Sub socket	3M plug (latch)	
	20-pin	40-pin	50-pin	40-pin	37-pin	37-pin	20-pin	50-pin
<b>R</b> (right) 								
<b>L</b> (left) 			-			-	-	-

## ■ Specifications

### ◎ General specifications

Series	CO Series	
Cable connector (PLC side)	Hirose 20-pin/40-pin/50-pin socket, Fujitsu 40-pin socket, D-sub 37-pin socket/plug, MDR 20-pin/50-pin socket (latch)	
Applicable wire	UL 20276 TWIST 20C/40C/50C	
Conductor characteristics	7/0.127mm (AWG 28)×20P, 7/0.127mm (AWG 28)×10P, 7/0.127mm (AWG28)×25P	
Insulation diameter	0.12mm <sup>2</sup>	
Cable diameter	Ø7.2mm (40C) / 8.9mm (50C)	
Rated current	≤1A	
Conductor resistance	≤0.223Ω/m	
Insulation voltage	500VAC 50/60Hz for 1 minute	
Insulation resistance	≥15MΩ/km	
Environment	Ambient temperature	-15 to 55°C, storage: -25 to 65°C
	Ambient humidity	35~85%RH, storage: 35 to 85%RH

※Environment resistance is rated at no freezing or condensation.

※Applicable cable color is black.

※Conductor resistance value is rated at 20°C.

### ◎ Cable weight

Model	Weight by cable length							
	0.5m	1m	1.5m	2m	2.5m	3m	4m	5m
CO20-HP□□	Approx. 33g	Approx. 62g	Approx. 91g	Approx. 120g	Approx. 149g	Approx. 178g	Approx. 236g	Approx. 294g
CO40-HP□□	Approx. 33g	Approx. 62g	Approx. 121g	Approx. 150g	Approx. 179g	Approx. 208g	Approx. 266g	Approx. 324g
CO50-HP□□	Approx. 102g	Approx. 131g	Approx. 211g	Approx. 240g	Approx. 269g	Approx. 298g	Approx. 356g	Approx. 414g
CO40-FP□□	Approx. 83g	Approx. 112g	Approx. 157g	Approx. 186g	Approx. 215g	Approx. 244g	Approx. 302g	Approx. 360g
CO37-DP□□	Approx. 88g	Approx. 117g	Approx. 162g	Approx. 191g	Approx. 220g	Approx. 249g	Approx. 307g	Approx. 365g
CO37-DS□□	Approx. 88g	Approx. 117g	Approx. 162g	Approx. 191g	Approx. 220g	Approx. 249g	Approx. 307g	Approx. 365g
CO20-MP□□	Approx. 50g	Approx. 79g	Approx. 108g	Approx. 137g	Approx. 166g	Approx. 195g	Approx. 253g	Approx. 311g
CO50-MP□□	Approx. 110g	Approx. 139g	Approx. 219g	Approx. 248g	Approx. 277g	Approx. 306g	Approx. 364g	Approx. 422g

※Above weight is without packing box (5g).

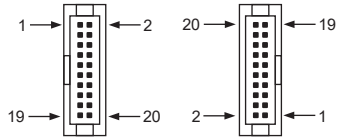
# CO Series

## ■ Cable Color

### ◎ 20-pin PLC connector

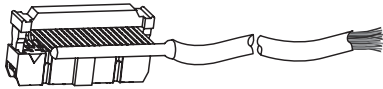
#### ● Hirose 20-pin plug

##### PLC connector pin arrangement



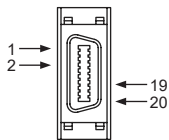
< L direction >      < R direction >  
 ※Above connector image and pin arrangement are stand for the connector of PLC.

##### Cable shape (CO20-HP□-□)



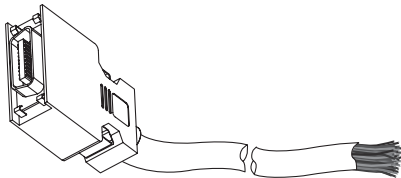
#### ● 3M 20-pin plug

##### PLC connector pin arrangement



< R direction >  
 ※Above connector image and pin arrangement are stand for the connector of PLC.

##### Cable shape (CO20-MP□-R)



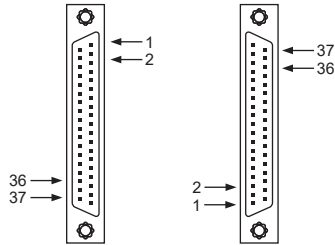
#### ● Cable color of each pin number

Connector pin no.	Conductor color	Point color	No. of points
1	Yellow	Black	1
2	Yellow	Red	1
3	Yellow	Black	2
4	Yellow	Red	2
5	Yellow	Black	3
6	Yellow	Red	3
7	Yellow	Black	4
8	Yellow	Red	4
9	Yellow	Black	5
10	Yellow	Red	5
11	White	Black	1
12	White	Red	1
13	White	Black	2
14	White	Red	2
15	White	Black	3
16	White	Red	3
17	White	Black	4
18	White	Red	4
19	White	Black	5
20	White	Red	5

## ◎ 37-pin PLC connector

### ● D-sub 37-pin plug

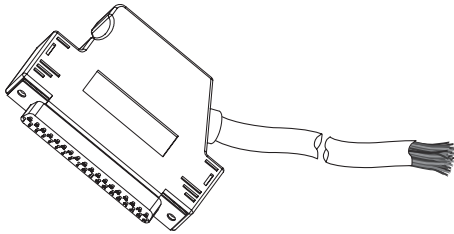
#### PLC connector pin arrangement



< L direction >      < R direction >

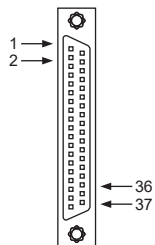
※Above connector image and pin arrangement are stand for the connector of PLC.

#### Cable shape (CO37-DP□□)



### ● D-sub 37-pin socket

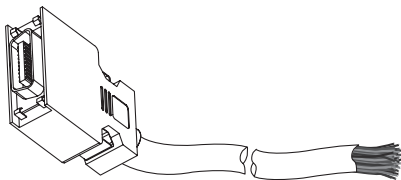
#### PLC connector pin arrangement



< R direction >

※Above connector image and pin arrangement are stand for the connector of PLC.

#### Cable shape (CO37-DS□-R)



### ● Cable color of each pin number

Connector pin no.	Conductor color	Point color	No. of points
1	Orange	Black	1
2	Yellow	Black	1
3	White	Black	1
4	Gray	Black	1
5	Pink	Black	1
6	Orange	Black	2
7	Yellow	Black	2
8	White	Black	2
9	Gray	Black	2
10	Pink	Black	2
11	Orange	Black	3
12	Yellow	Black	3
13	White	Black	3
14	Gray	Black	3
15	Pink	Black	3
16	Orange	Black	4
17	Yellow	Black	4
18	White	Black	4
19	Gray	Black	4
20	Orange	Red	1
21	Yellow	Red	1
22	White	Red	1
23	Gray	Red	1
24	Pink	Red	1
25	Orange	Red	2
26	Yellow	Red	2
27	White	Red	2
28	Gray	Red	2
29	Pink	Red	2
30	Orange	Red	3
31	Yellow	Red	3
32	White	Red	3
33	Gray	Red	3
34	Pink	Red	3
35	Orange	Red	4
36	Yellow	Red	4
37	White	Red	4

I/O Terminal Blocks

Interface Terminal Blocks

Common Terminal Blocks

Sensor Connector Terminal Blocks

Relay Terminal Blocks

I/O Cables

Connector Type Cables

Open Type Cables

Old/New Model Replacement Table

Remote I/O

Others

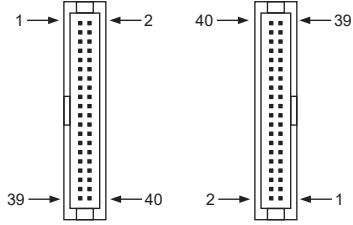
General Features

# CO Series

## ◎ 40-pin PLC connector

### ● Hirose 40-pin plug

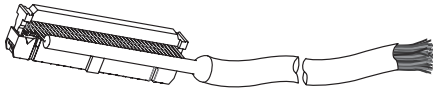
#### PLC connector pin arrangement



< L direction >      < R direction >

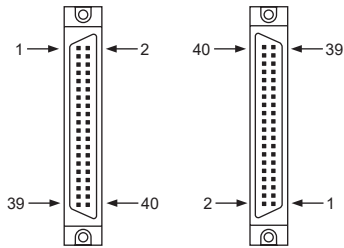
※Above connector image and pin arrangement are stand for the connector of PLC.

#### Cable shape (CO40-HP□□)



### ● Fujitsu 40-pin plug

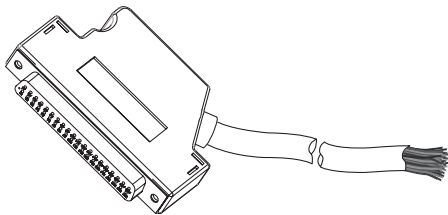
#### PLC connector pin arrangement



< L direction >      < R direction >

※Above connector image and pin arrangement are stand for the connector of PLC.

#### Cable shape (CO40-FP□□)



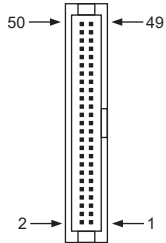
### ● Cable color of each pin number

Connector pin no.	Conductor color	Point color	No. of points
1	Orange	Black	1
2	Orange	Red	1
3	Orange	Black	2
4	Orange	Red	2
5	Orange	Black	3
6	Orange	Red	3
7	Orange	Black	4
8	Orange	Red	4
9	Yellow	Black	1
10	Yellow	Red	1
11	Yellow	Black	2
12	Yellow	Red	2
13	Yellow	Black	3
14	Yellow	Red	3
15	Yellow	Black	4
16	Yellow	Red	4
17	White	Black	1
18	White	Red	1
19	White	Black	2
20	White	Red	2
21	White	Black	3
22	White	Red	3
23	White	Black	4
24	White	Red	4
25	Gray	Black	1
26	Gray	Red	1
27	Gray	Black	2
28	Gray	Red	2
29	Gray	Black	3
30	Gray	Red	3
31	Gray	Black	4
32	Gray	Red	4
33	Pink	Black	1
34	Pink	Red	1
35	Pink	Black	2
36	Pink	Red	2
37	Pink	Black	3
38	Pink	Red	3
39	Pink	Black	4
40	Pink	Red	4

## ◎ 50-pin PLC connector

### ● Hirose 50-pin plug

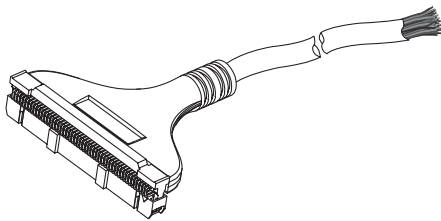
#### PLC connector pin arrangement



< R direction >

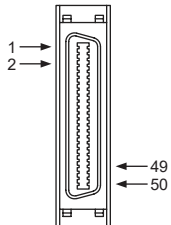
※Above connector image and pin arrangement are stand for the connector of PLC.

#### Cable shape (CO50-HP□-R)



### ● 3M 50-pin plug

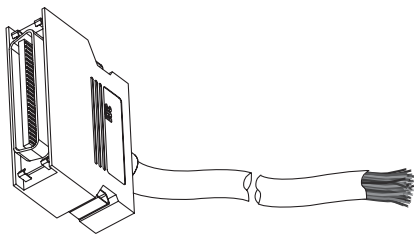
#### PLC connector pin arrangement



< R direction >

※Above connector image and pin arrangement are stand for the connector of PLC.

#### Cable shape (CO50-MP□-R)



### ● Cable color of each pin number

Connector pin no.	Conductor color	Point color	No. of points
1	Orange	Black	1
2	Orange	Red	1
3	Orange	Black	2
4	Orange	Red	2
5	Orange	Black	3
6	Orange	Red	3
7	Orange	Black	4
8	Orange	Red	4
9	Orange	Black	5
10	Orange	Red	5
11	Yellow	Black	1
12	Yellow	Red	1
13	Yellow	Black	2
14	Yellow	Red	2
15	Yellow	Black	3
16	Yellow	Red	3
17	Yellow	Black	4
18	Yellow	Red	4
19	Yellow	Black	5
20	Yellow	Red	5
21	White	Black	1
22	White	Red	1
23	White	Black	2
24	White	Red	2
25	White	Black	3
26	White	Red	3
27	White	Black	4
28	White	Red	4
29	White	Black	5
30	White	Red	5
31	Gray	Black	1
32	Gray	Red	1
33	Gray	Black	2
34	Gray	Red	2
35	Gray	Black	3
36	Gray	Red	3
37	Gray	Black	4
38	Gray	Red	4
39	Gray	Black	5
40	Gray	Red	5
41	Pink	Black	1
42	Pink	Red	1
43	Pink	Black	2
44	Pink	Red	2
45	Pink	Black	3
46	Pink	Red	3
47	Pink	Black	4
48	Pink	Red	4
49	Pink	Black	5
50	Pink	Red	5

I/O Terminal Blocks

Interface Terminal Blocks

Common Terminal Blocks

Sensor Connector Terminal Blocks

Relay Terminal Blocks

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General Features