

# I/O Cables



## CO Series CATALOG

**For your safety, read and follow the considerations written in the instruction manual, other manuals and Autonics website.**

The specifications, dimensions, etc. are subject to change without notice for product improvement. Some models may be discontinued without notice.

### Features

- Diverse cables available for connection to various PLCs and controller
- Diverse cable lengths for various user requirements

### Ordering Information

This is only for reference.

For selecting the specified model, follow the Autonics website.

Check PLC / SERVO Connector, Cable Appearance, Cable Selection and Connection to order a product. Optional specifications, needed to contact Autonics

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

**CO ① - ② ③ - ④**

**① No. of connector pins**

Number: Number of connector pins

**② PLC (SERVO) connector**

- HP: Hirose plug
- FP: Fujitsu plug
- DP: D-sub plug
- DS: D-sub socket
- MP: 3M plug (latch)
- MQ: 3M plug (bolt)

**③ Cable length**

- 005: 0.5 m
- 010: 1 m
- 015: 1.5 m
- 020: 2 m
- 025: 2.5 m
- 030: 3 m
- 040: 4 m
- 050: 5 m

**④ PLC (SERVO) connector direction**

- R: Right
- L: Left

### Specifications

Series	CO Series
<b>Cable connector</b>	Hirose 20-pin / 40-pin socket, Fujitsu 40-pin socket, D-sub 37-pin socket / plug, MDR (latch) 20-pin / 26-pin / 50-pin socket, MDR (bolt) 26-pin socket
<b>Wire</b> <sup>01)</sup>	UL 20276 TWIST 20C / 26C / 40C / 50C
<b>Conductor characteristics</b>	7 / 0.127 mm (AWG 28) × 20P, 7 / 0.127 mm (AWG 28) × 13P, 7 / 0.127 mm (AWG 28) × 10P, 7 / 0.127 mm (AWG 28) × 25P
<b>Insulation diameter</b>	0.12 mm <sup>2</sup>
<b>Cable diameter</b>	∅ 6.3 mm (26C) / ∅ 7.2 mm (40C) / ∅ 8.9 mm (50C)
<b>Rated current</b>	≤ 1 A
<b>Conductor resistance</b> <sup>02)</sup>	≤ 0.223 Ω/m
<b>Insulation voltage</b>	500 VAC ~ 50/60Hz for 1 min
<b>Insulation resistance</b>	≥ 15 MΩ/km
<b>Ambient temperature</b>	-15 to 55 °C, storage : -25 to 65 °C (no freezing or condensation)
<b>Ambient humidity</b>	35 to 85 %RH, storage : 35 to 85 %RH (no freezing or condensation)

01) Color is black.

02) Conductor resistance value is rated at 20 °C.

### ■ Unit weight: PLC cable

- It excludes the package weight (+ 5 g). Unit weight is different depending on the cable length.

Type	No. of pin	Model	Weight
Hirose plug	20-pin	CO20-HP□-□	≈ 33 to 294 g
	40-pin	CO40-HP□-□	≈ 33 to 324 g
	50-pin	CO50-HP□-□	≈ 102 to 414 g
Fujitsu plug	40-pin	CO40-FP□-□	≈ 83 to 360 g
D-Sub plug	37-pin	CO37-DP□-□	≈ 88 to 365 g
D-Sub socket	37-pin	CO37-DS□-□	≈ 88 to 365 g

### ■ Unit weight: SERVO cable

- It excludes the package weight (+ 5 g). Unit weight is different depending on the cable length.

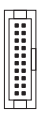





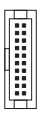
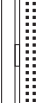


Type	No. of pin	Model	Weight <sup>01)</sup>
3M plug (latch)	20-pin	CO20-MP□-□	≈ 50 to 311 g
	26-pin	CO26-MP□-□	≈ 62 to 279 g
	50-pin	CO26-MQ□-□	≈ 64 to 281 g
3M plug (screw)	26-pin	CO50-MP□-□	≈ 110 to 422 g

01) It excludes the package weight (+ 5 g). Unit weight is different depending on the cable length.


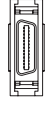


## Connectible Connectors

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

### ■ PLC connector

Direction	Right (R) ▶						Left (L) ◀			
Type	Hirose plug			Fujitsu plug	D-Sub plug	D-Sub socket	Hirose plug		Fujitsu plug	D-Sub plug
No. of pin	20-pin	40-pin	50-pin	40-pin	37-pin	37-pin	20-pin	40-pin	40-pin	37-pin
Shape										

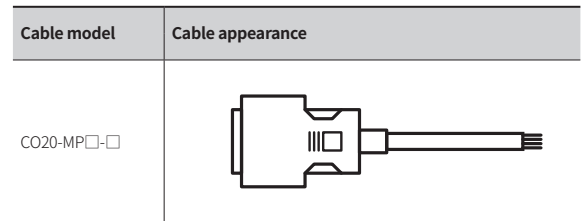
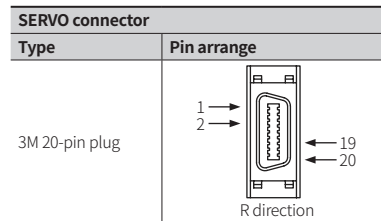
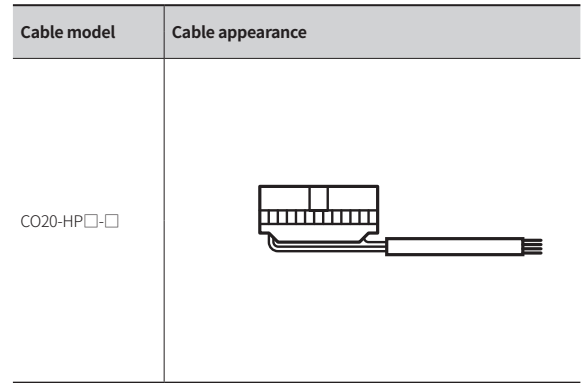
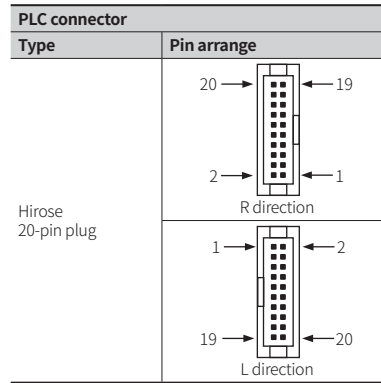
### ■ SERVO connector

Direction	Right (R) ▶			
Type	3M plug (latch)			3M plug (screw)
No. of pin	20-pin		26-pin	50-pin
Shape				

## Cable Color Table

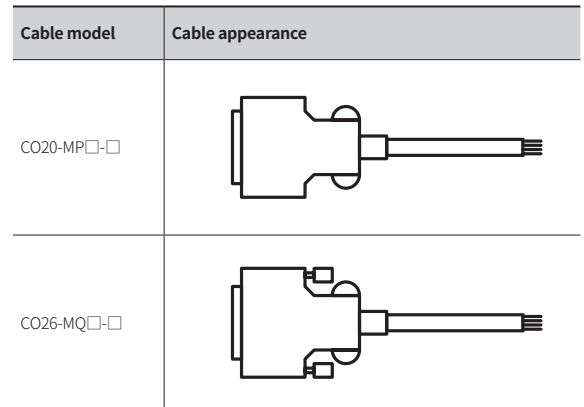
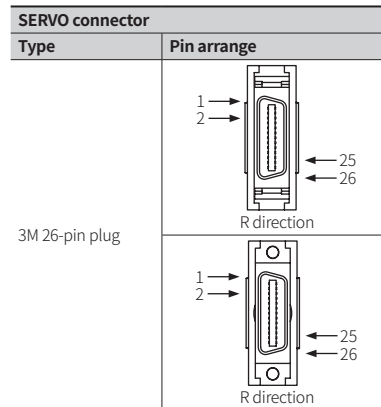
### ■ 20-pin

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



### ■ 26-pin

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	Consecutive
10	Orange	Red	Consecutive
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	Consecutive
20	Yellow	Red	Consecutive
21	White	Black	1
22	White	Red	1
23	White	Black	2
24	White	Red	2
25	White	Black	3
26	White	Red	3



### ■ 37-pin

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

PLC connector		Cable model	Cable appearance
Type	Pin arrange		
D-sub 37-pin plug	<p>R direction</p>	C037-DP□-□	
	<p>L direction</p>		
D-sub 37-pin socket	<p>R direction</p>	C037-DS□-R	

## ■ 40-pin

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

PLC connector		Cable model	Cable appearance
Type	Pin arrange		
Hirose 40-pin plug	<p>R direction</p>	CO40-HP□-□	
	<p>L direction</p>		
Fujitsu 40-pin plug	<p>R direction</p>	CO40-FP□-□	
	<p>L direction</p>		

## ■ 50-pin

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

PLC connector		Cable model	Cable appearance
Type	Pin arrange		
Hirose 50-pin plug		CO50-HP□-R	

SERVO connector		Cable model	Cable appearance
Type	Pin arrange		
3M 50-pin plug		CO50-MP□-R	