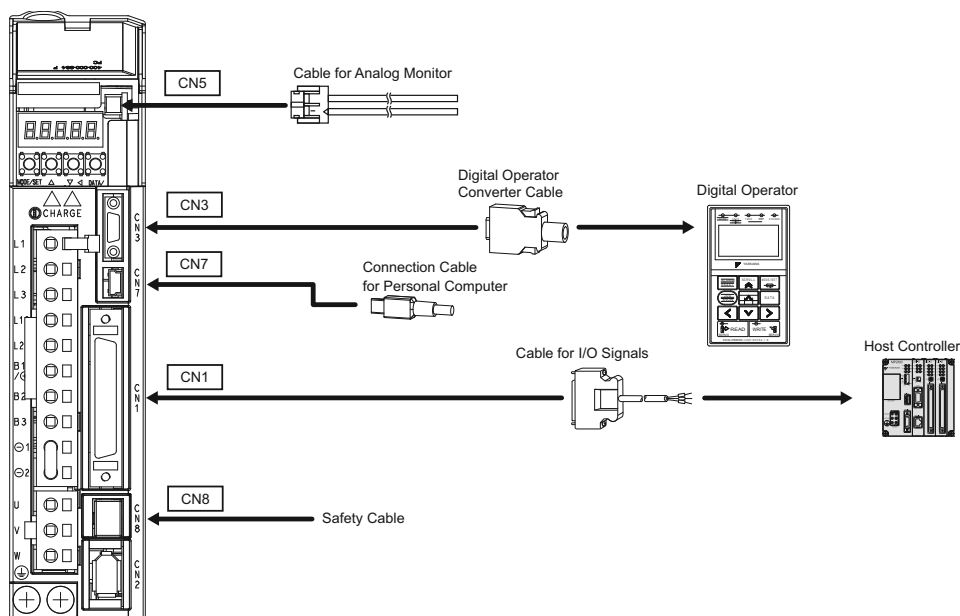


Selecting Cables

- Cables for **CN1** **CN3** **CN5** **CN7** **CN8** (Analog Voltage/Pulse Train Reference Type SERVOPACKs)



Name	Length	Order No.	Specifications	Details
CN1 Cables for I/O Signals	Connector Terminal Converter Unit		Terminal Block and 0.5 m Connection Cable	(1)
	Cables with Loose Wires at One End	1 m	Cable with Loose Wires at Peripheral Devices	(2)
		2 m		
		3 m		
CN3	Digital Operator		With Connection Cable (1 m)	(3)
	Digital Operator Converter Cable ^{*1}	0.3 m	Cable with Connectors at Both Ends	(4)
CN7 Connection Cables for Personal Computer	2.5 m	JZSP-CVS06-02-E	Cable with Connectors at Both Ends	(5)
CN5 Cables for Analog Monitor	1 m	JZSP-CA01-E	SERVOPACK End	(6)
CN8 Cables for Safety Functions	Cables with Connector ^{*2}	3 m	JZSP-CVH03-03-E	(7)
	Connector Kit ^{*3}	Contact Tyco Electronics AMP K.K. Product name: Industrial Mini I/O D-shape Type1 Plug Connector Kit Model: 2013595-1		

^{*1} : A converter cable is required to use Σ -III series digital operators (model: JUSP-OP05A) for Σ -V series SERVOPACKs.

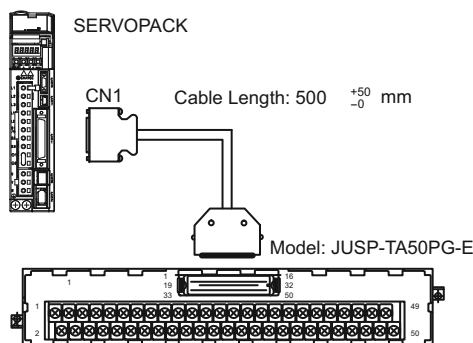
^{*2} : When using the safety function, connect this cable to the safety devices. Even when not using the safety function, use SERVOPACKs with the Safe Jumper Connector (model: JZSP-CVH05-E) connected.

^{*3} : Use the connector kit when you make cables yourself.

Selecting Cables

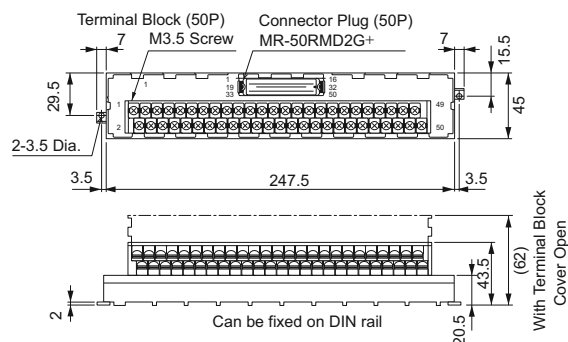
(1) Connector Terminal Converter Unit for CN1

· Configurations

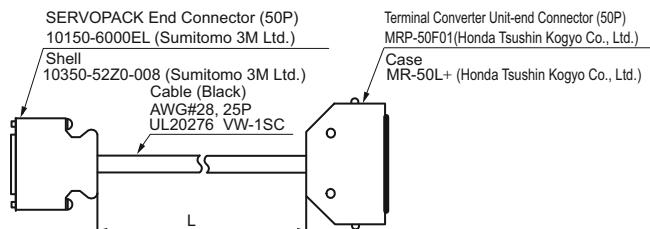


Model	Cable Length (L)
JUSP-TA50PG-E	0.5 m
JUSP-TA50PG-1-E	1 m
JUSP-TA50PG-2-E	2 m

· Dimensional Drawings of Terminal Block (Units: mm)

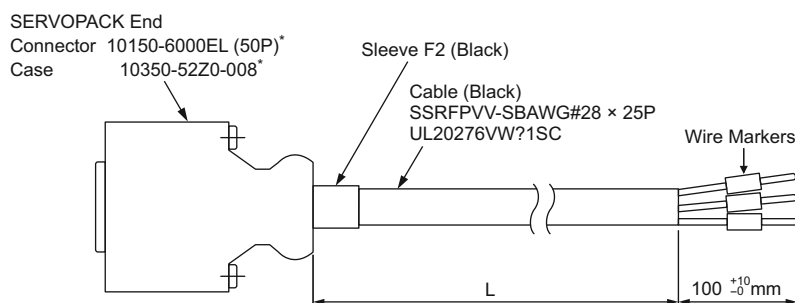


· Dimensional Drawings of Cable



(2) Cable with Loose Wires at One End for CN1

· Dimensional Drawings of Cable



* : Manufactured by Sumitomo 3M Ltd.

Note : See the next page for the connection diagram.

Model	Cable Length (L)
JZSP-CSI01-1-E	1 m
JZSP-CSI01-2-E	2 m
JZSP-CSI01-3-E	3 m

Selecting Cables Units: mm

● Cable with Loose Wires at One End for CN1

Connection Diagram of JZSP-CSI01-□-E Cable

SERVOPACK End					Host Controller End	
Pin No.	Signal	Wire Color	Marking			Lead Marker
			Color	Dots		
1	SG	Orange	Red	1		1
3	PL1	OrangeGr	Black	1		3
2	SG	ay	Red	1		2
4	SEN	Gray	Black	1		4
5	V-REF	White	Red	1		5
6	SG	White	Black	1		6
7	PULS	Yellow	Red	1		7
8	/PULS	Yellow	Black	1		8
9	T-REF	Pink	Red	1		9
10	SG	Pink	Black	1		10
11	SIGN	Orange	Red	2		11
12	/SIGN	Orange	Black	2		12
13	PL2	Gray	Red	2		13
14	/CLR	White	Red	2		14
15	CLR	White	Black	2		15
16	—	Gray	Black	2		16
17	—	Yellow	Red	2		17
18	PL3	Yellow	Black	2		18
19	PCO	Pink	Red	2		19
20	/PCO	Pink	Black	2		20
21	BAT (+)	Orange	Red	3		21
22	BAT (-)	Orange	Black	3		22
23	—	Gray	Red	3		23
24	—	Gray	Black	3		24
25	/V-CMP+	White	Red	3		25
26	/V-CMP-	White	Black	3		26
27	/TGON+	Yellow	Red	3		27
28	/TGON-	Yellow	Black	3		28
29	/S-RDY+	Pink	Red	3		29
30	/S-RDY-	Pink	Black	3		30
31	ALM+	Orange	Red	4		31
32	ALM-	Orange	Black	4		32
33	PAO	Gray	Red	4		33
34	/PAO	Gray	Black	4		34
35	PBO	White	Red	4		35
36	/PBO	White	Black	4		36
37	ALO1	Yellow	Red	4		37
38	ALO2	Yellow	Black	4		38
39	ALO3	Pink	Red	4		39
40	/S-ON	Pink	Black	4		40
41	/P-CON	Orange	Red	5		41
42	P-OT	Orange	Black	5		42
43	N-OT	Gray	Red	5		43
44	/ALM-RST	Gray	Black	5		44
45	/P-CL	White	Red	5		45
46	/N-CL	White	Black	5		46
47	+24V-IN	Yellow	Red	5		47
48	-	Pink	Red	5		48
49	-	Pink	Black	5		49
50	-	Yellow	Black	5		50
Case		Shield				

⚡ : Represents twisted-pair wires.

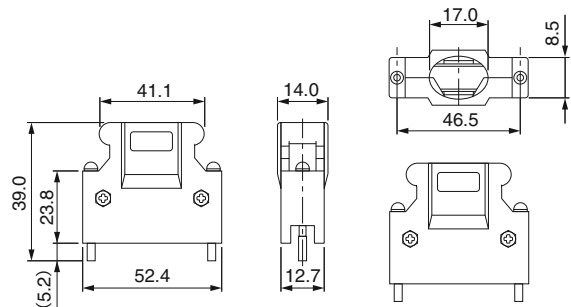
● Connector Kit for CN1

Use the following connector and cable to assemble the cable. The CN1 connector kit includes one case and one connector.

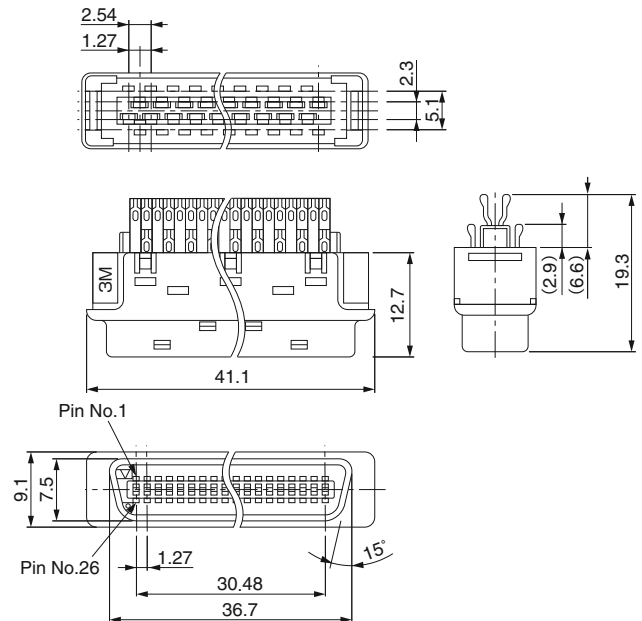
Connector Kit Model	Case		Connector	
	Model	Qty	Model	Qty
JZSP-CSI9-1-E	10350-52Z0-008*	1 set	10150-3000PE* (Soldered)	1

* : Manufactured by Sumitomo 3M Ltd.

· Dimensional Drawings of Case

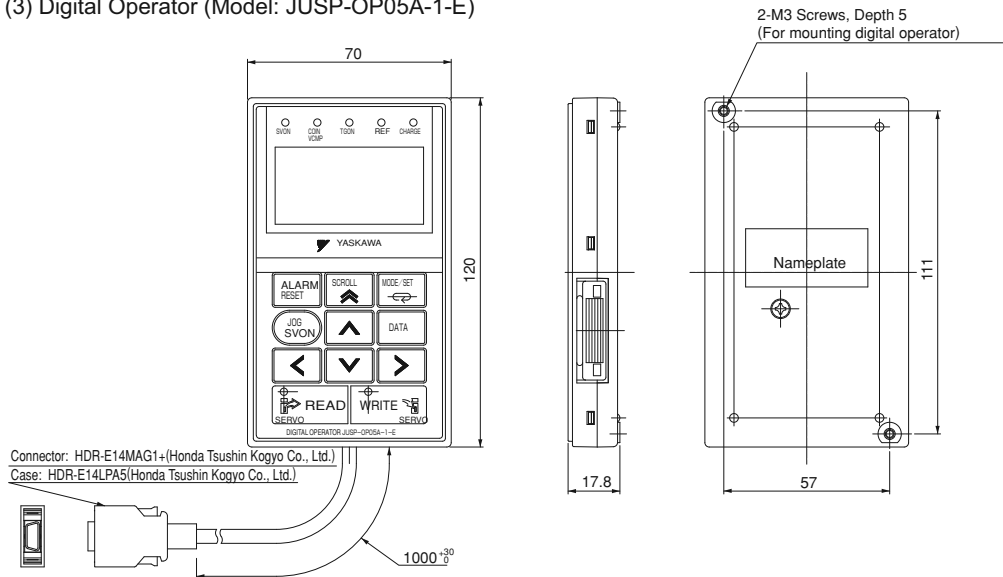


· Dimensional Drawings of Connector



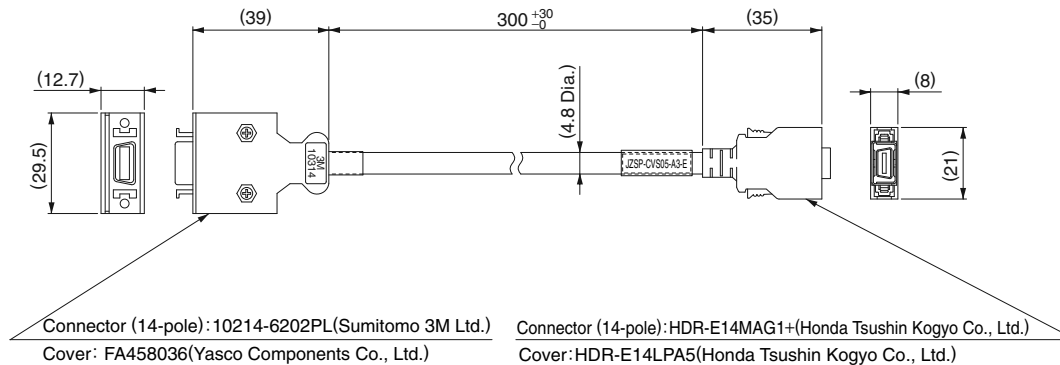
· Cable Size

Item	Specifications
Cable	Use twisted-pair or twisted-pair shielded wire.
Applicable Wires	AWG 24, 26, 28, 30
Cable Finished Diameter	16 dia. max.

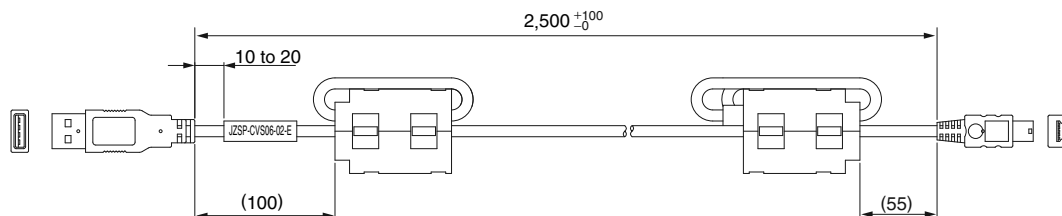
Selecting Cables Units: mm**(3) Digital Operator (Model: JUSP-OP05A-1-E)****(4) Digital Operator Converter Cable for CN3
(Model: JZSP-CVS05-A3-E)**

A converter cable is required to use Σ -III series digital operators (model: JUSP-OP05A) for Σ -V series SERVOPACKs.

· Dimensional Drawings

**(5) Connection Cable for Personal Computer for CN7
(Model: JZSP-CVS06-02-E)**

· Dimensional Drawings

**IMPORTANT**

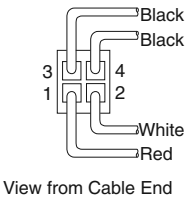
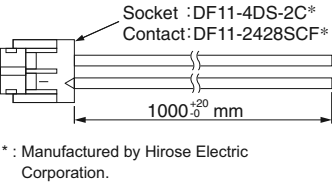
Use a cable specified by Yaskawa.
When using other cables, operation cannot be guaranteed.

Selecting Cables
Units: mm

(6) Cable for Analog Monitor for CN5

(Model: JZSP-CA01-E)

· Dimensional Drawings



· Specifications

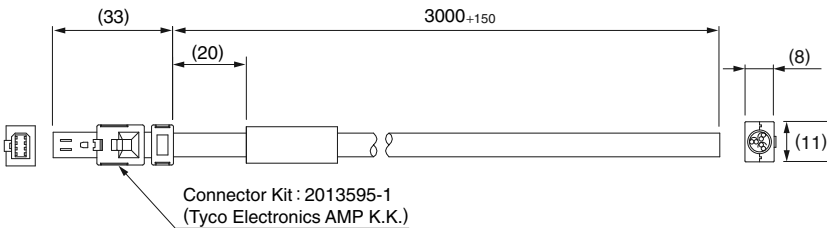
Pin No.	Cable Color	Signal	Standard Settings
1	Red	Analog Monitor 2	Motor speed : 1V/1000 min ⁻¹
2	White	Analog Monitor 1	Torque reference : 1V/100% rated torque
3, 4	Black (2 cables)	GND(0V)	–

Note : The specifications above are factory settings. Monitor specifications can be changed by changing parameters Pn006 and Pn007.

(7) Cable with Connector for CN8

(Model: JZSP-CVH03-03-E)

· Dimensional Drawings



· Specifications

Pin No.	Signal	Lead Color	Marking Color
1	Not used	–	–
2	Not used	–	–
3	/HWBB1–	White	Black
4	/HWBB1□	White	Red
5	/HWBB2–	Gray	Black
6	/HWBB2□	Gray	Red
7	EDM1–	Orange	Black
8	EDM1□	Orange	Red