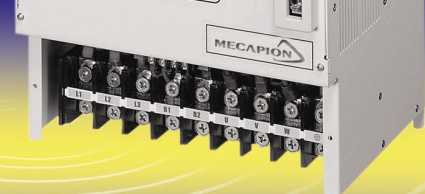


Moving towards tomorrow

MECAPION AC Servo Drive



Standard Servo Drive

APD-VS Serise

- High – efficiency power transformation technologies realized by developing dedicated ASIC featuring latest control theory
- Additional services provided through various kinds of communication options
- Loader(6 Digits) is basically mounted for the convenience of use.
- Various menu fundion that is applied instantly after changing



Feature of Standard Servo Drive

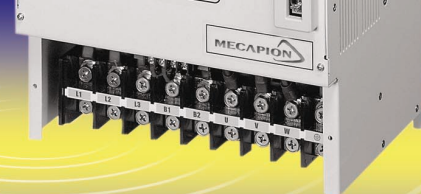
Model (APD-VS)		R5	01	02	04	06	10	15	20	35	50	75	110	150
Input Power supply (★Ncte)		3 phase AC200~230[V] +10%~15%, 50/60[Hz]												
Applicable Motor	Voltage Type	3 phase sine wave PWM driven Ac Servo Mctor												
	Rated Current [A]	1.2	1.65	1.65	3.2	4.3	6.4	11	16	21	32	38	50	76
	Max. Current [A]	3.6	4.95	4.95	9.6	12.9	19.2	33	48	63	96	102	125	190
Detector Type		Standard : Incremental 5V Line Drive 2000~10000P /rev Option : Abs dute 11/13bit												
Speed Control Mode	Control function	Speed control range (1:10000), frequency Response(400Hz)												
	Speed command	DC-10~+10 (-Voltage: Reverse Rotation), Digital Command 7 Speeds.												
	Acceleration/Deceleration time	Linear, S Type Acceleration/Deceleration (0~100000[ms ec])												
	Speed variation ratio	± 0.01% or less (Load Variation 0~100%), ± 0.1% or less (Temperature 25 + - 10C)												
Position Control Mode	Input frequency	500[kpps]												
	Pulse	A+B Phase, Forward+Reverse Pulse, Direction + Pulse (Line driver, Open collector)												
	Electronic gear ratio	Digital 4 speed (1/50~50)												
Torque Control mode		Torque Command : DC -10~ +10V (- Voltage : Reverse), Linearity is less than 4%												
Braking Type		Generative Brake, regenerative Brake												
Ambient Environment		Operating Temp. : 0~50 [°C], Storage Temp. : -20~+80[°C], Humidity : Less than 90C(Avoid condensation)												



Note 1) Single-phase AC220 ~230V may be used: However, the output may be lower than the rating.
(the use of single-phase AC 220-230V for 500W and lower drive is acceptable)

Moving towards tomorrow

MECAPION AC Servo Drive

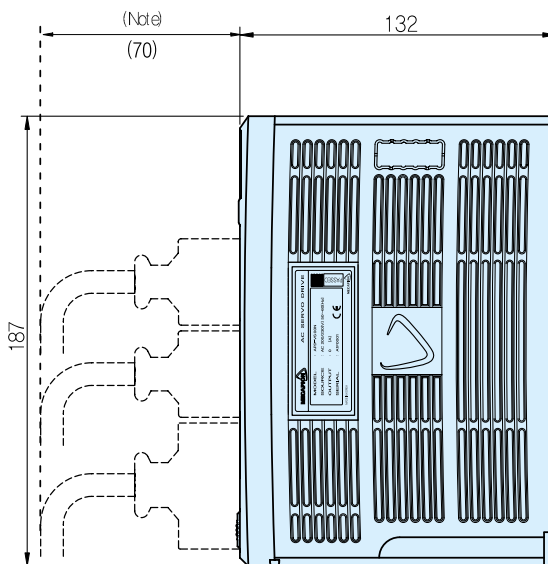
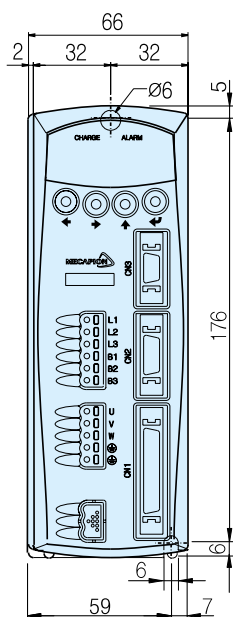


Servo Drive Dimension

200W and Below

APD | VS/VP5N, VS/VP01N, VS/VP02N

Weight : 1,2[kg]

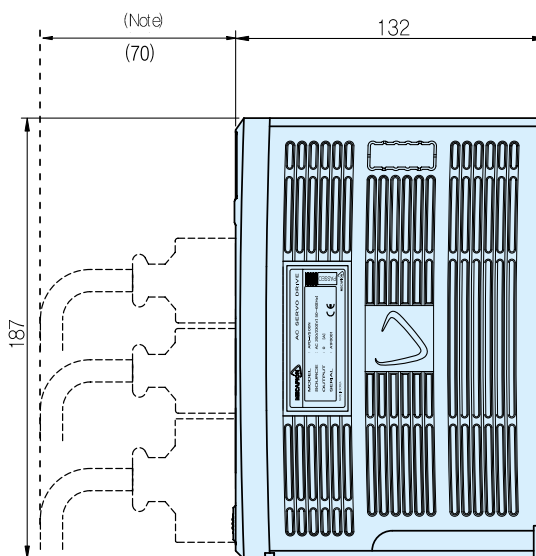
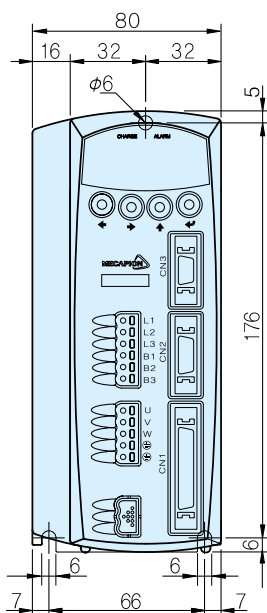


Note) Indicate the dimension which connector is attached.

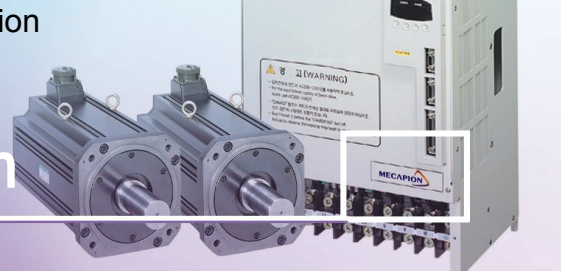
400W and Below

APD | VS/VP04N

Weight : 1,5[kg]



Note) Indicate the dimension which connector is attached.

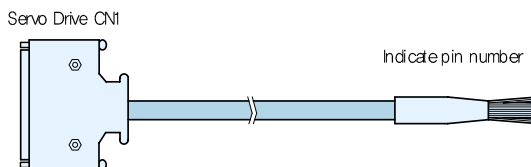


Options(Cable)

For CN1 Cable

Model (★Note1) : **APC-CN1□□A**

Applicable Drive : All models of APD-VS/VP Series



(Pin number)

CN1	Color	CN1	Color	CN1	Color	CN1	Color	CN1	Color
1	Orange/Black 1Point	11	Orange/Black 2Point	21	Orange/Black 3Point	31	Orange/Black 4Point	41	Orange/Black 5Point
2	Orange/Red 1Point	12	Orange/Red 2Point	22	Orange/Red 3Point	32	Orange/Red 4Point	42	Orange/Red 5Point
3	Yellow/Black 1Point	13	Yellow/Black 2Point	23	Yellow/Black 3Point	33	Yellow/Black 4Point	43	Yellow/Black 5Point
4	Orange/Red 1Point	14	Orange/Red 2Point	24	Orange/Red 3Point	34	Orange/Red 4Point	44	Orange/Red 5Point
5	White/Black 1Point	15	White/Black 2Point	25	White/Black 3Point	35	White/Black 4Point	45	White/Black 5Point
6	White/Red 1Point	16	White/Red 2Point	26	White/Red 3Point	36	White/Red 4Point	46	White/Red 5Point
7	White/Black 1Point	17	White/Black 2Point	27	White/Black 3Point	37	White/Black 4Point	47	White/Black 5Point
8	Gray/Red 1Point	18	Gray/Red 2Point	28	Gray/Red 3Point	38	Gray/Red 4Point	48	Gray/Red 5Point

1. Drive Side (CN1)

Case : 10350-52A0-008(Made by 3M)

Connector : 10150-3000VE(Made by 3M)

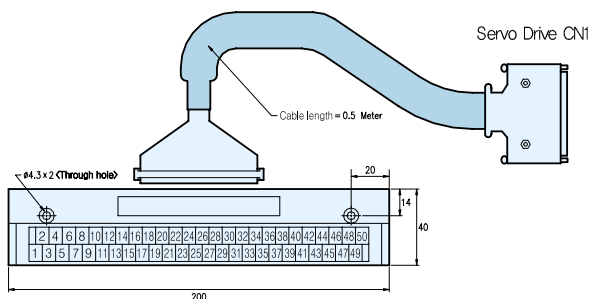
Cable : UL20276 25Pair(AWG 28)

2. Cable can be changed without any notice.

Terminal Block for CN1

Model (★Note1) : **APC-VSCN1T-□□**

Applicable Drive : All models of APD-VS/VP Series



1. For APD-VS/VP

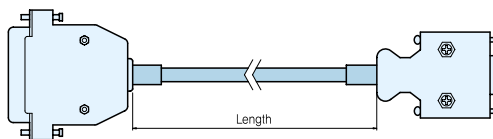
2. Standard cable Length : 0.5m

3. 1m, 2m also available

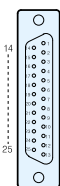
Servo Drive O/S Download Cable

Model (★Note1) : **APC-CN3□□S**

Applicable Drive : All models of APD-VS/VP Series

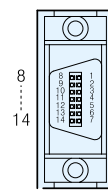


Standard Cable length : 2[m]



PC Parallel Port

Pin No.	Phase	Pin No.	Phase
15	Error	1	DX0
8	Data6	2	FSRX
7	Data5	3	CLKRX
9	Data7	4	CLK
16	Init	8	RESET
18-25	GND	9	INT2/3
6	Data4	10	DR0
18-25	GND	11	GND
		Case	Shield



Servo Drive CN1

Note1) □□ of model indicates the length of cable, and notation is as below

Standard Cable Length (m)	1	2	3	5
Marking	01	02	03	05

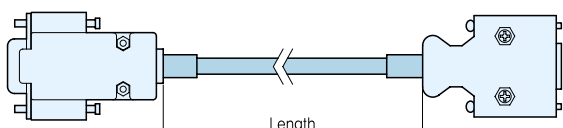
Moving towards tomorrow

MECAPION AC Servo System

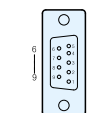
RS232 Communication Cable

Model (★Note1) : **APC-CN3□□R**

Applicable Drive : All models of APD-VS/VP Series



Standard Cable length : 2[m]



PC-Serial Port

Pin No.	Phase	Pin No.	Phase
2	RXD	6	TXD
3	TXD	5	RXD
5	GND	11or12	GND
		Case	Shield



Servo Drive CN3

Note1) □□ of model indicates the length of cable, and notation is as below

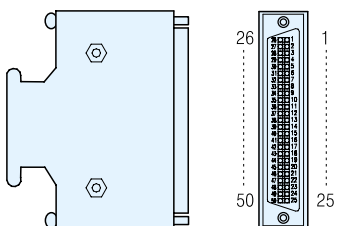
Standard Cable Length (m)	1	2	3	5
Marking	01	02	03	05

Options (Connector)

CN1 Connector

Model : **APC-CN1NNA**

Applicable Drive : All models of APD-VS/VP Series

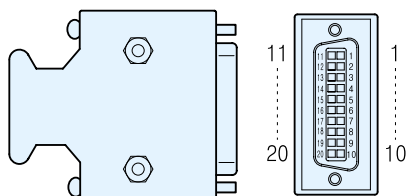


1. Case : 10350-52A0-008(Made by 3M)
2. Connector : 10150-3000VE(Made by 3M)

CN2 Connector

Model : **APC-CN2NNA**

Applicable Drive : All models of APD-VS/VP Series

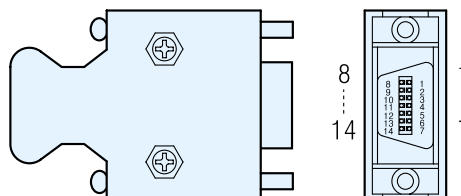


1. Case : 10320-52A0-008(Made by 3M)
2. Connector : 10120-3000VE(Made by 3M)

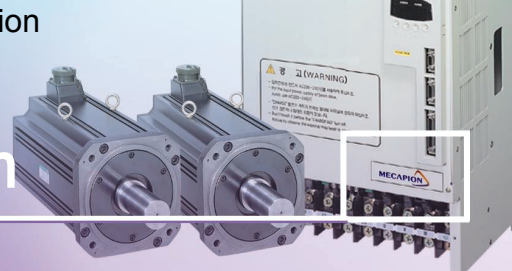
CN3 Connector

Model : **APC-CN3NNA**

Applicable Drive : All models of APD-VS/VP Series



1. Case : 10314-52A0-008(Made by 3M)
2. Connector : 10114-3000VE(Made by 3M)



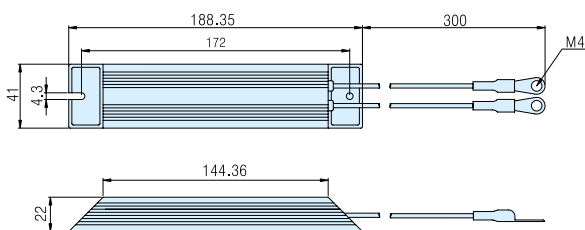
Options (Braking Resistor)

Braking Resistor

Model (★Note1) : APC-140R40

Applicable Drive : APD-VS/VP02, VS/VP04

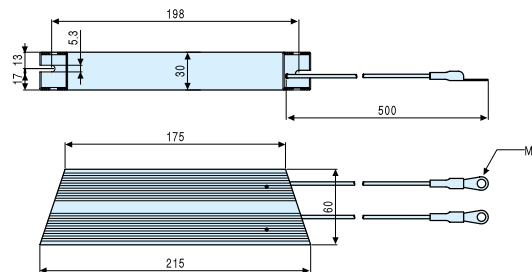
Maker : RARA Electronic(RH 140w 40ohm)



Model (★Note1) : APC-300R23

Applicable Drive : APD-VS/VP05, VS/VP10

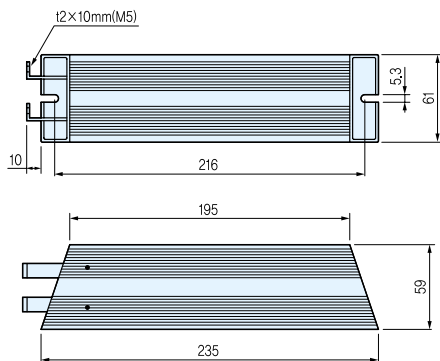
Maker : RARA Electronic(RV 300w 23ohm)



Model (★Note1) : APC-600R30

Applicable Drive : APD-VS/VP15(2P), VS/VP20(2P), VS/VP35(3P), VS/VP50(3P), VS/VP75(3P)

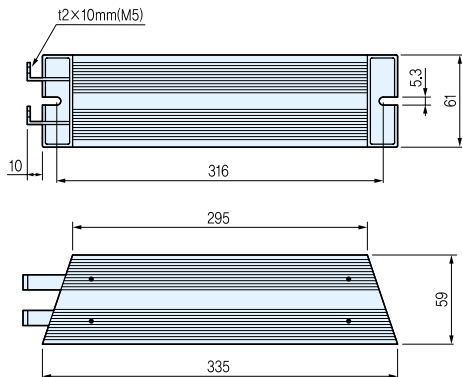
Maker : RARA Electronic(RV 600w 30ohm)



Model (★Note1) : APC-1000R6R5

Applicable Drive : APD-VS/VP110(1P)

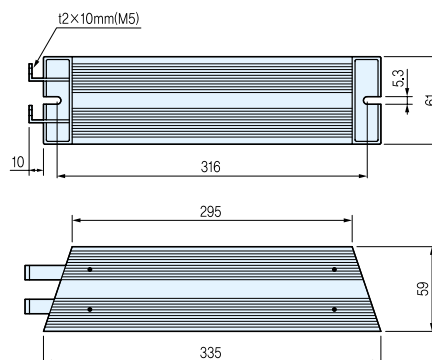
Maker : RARA Electronic(RH 1000W 6.5ohm)



Model (★Note1) : APC-1000R6R5

Applicable Drive : APD-VS/VP150(2P)

Maker : RARA Electronic(RV 1000W 6.5ohm)



Note)Standard Braking Resistance for each drive capacity is provided as below table



Model(APD-VS/VP□□N)	R5	01	02	04	05	10	15	20	35	50	75	110	150
Braking Resistance (Basically provided)	-		Embedded 50[Ω] (50[W])		40[Ω] (140[W])		23[Ω] (300[W])		11.5[Ω] (300[W] × 2P)				Option

Moving towards tomorrow

MECAPION AC Servo System

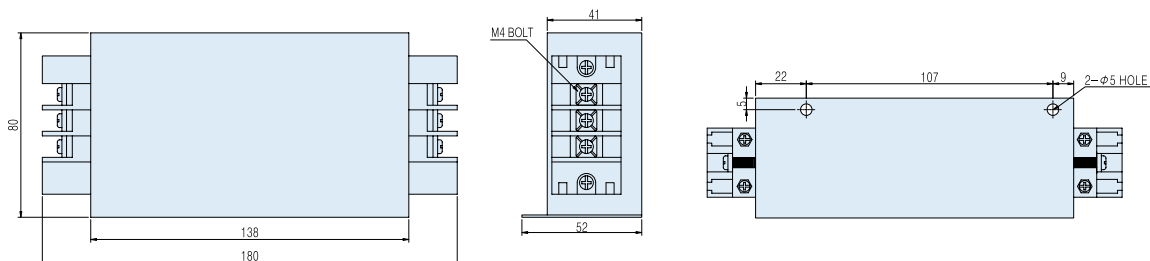
Options (Noise Filter)

Noise Filter

Model : APC-NFZ410/415/420/430

Applicable Drive (★Note1)

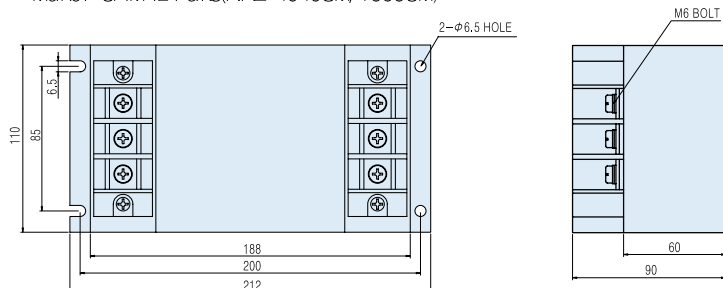
Maker: SAM IL Parts(NFZ-410S/415SM/420SM/430SM)



Model : APC-NFZ4040/4050

Applicable Drive (★Note1)

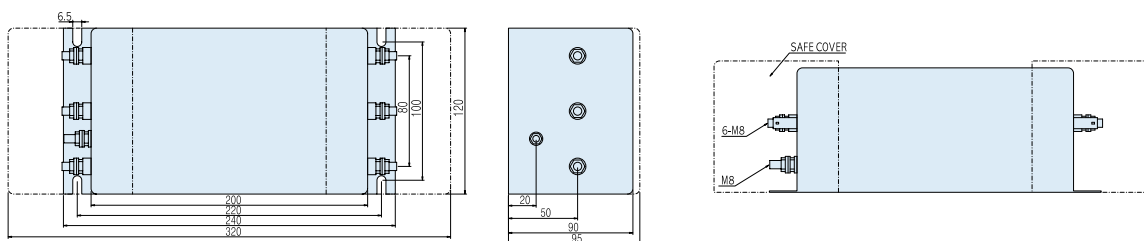
Maker: SAM IL Parts(NFZ-4040SM/4050SM)



Model : APC-NFZ4080

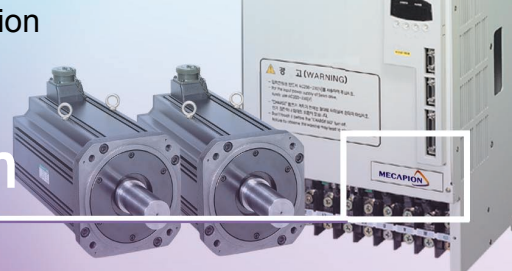
Applicable Drive (★Note1)

Maker: SAM IL Parts(NFZ-4080SM)



Note) Noise filter Model name for each applicable servo drive is as below table

	Applicable Drive APD-VS/VP□□N	R5	01	02	04	05	10	15	20	35	50	75	110	150
	Noise Filter APC-NFZ□□□□			410			415	420	430	4040	4050	4080		

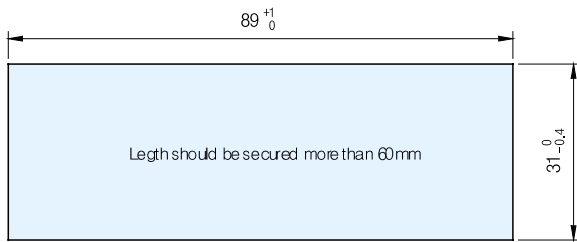
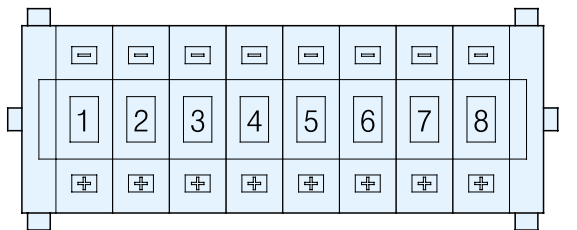


Options (Setting machine, Indicator)

Digital Switch

Model : **APC-VPDS08**

Applicable Drive : All models of APD-VP Series



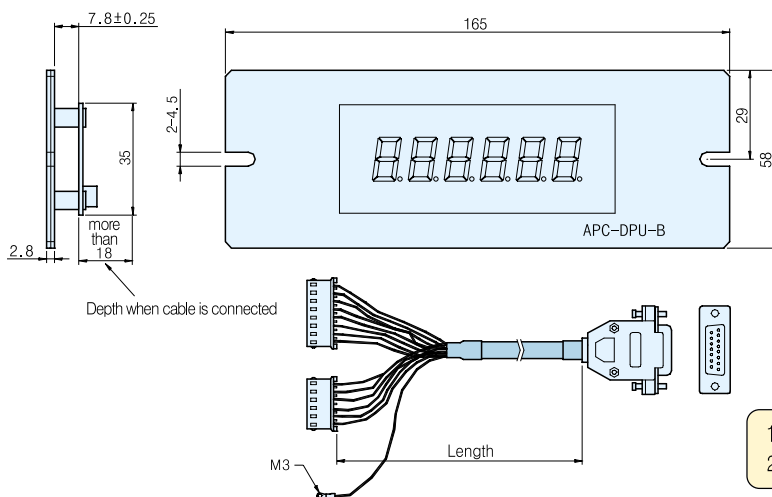
Processing dimensions

1. For Position/Speed setting of Controller-embedded Type(APD-VP)
2. Refer to the Manual of Controller-embedded Type(APD-VP) for wiring.
3. The Specification of Digital Switch can be changed (Standard 8 terminals)

Remote Display

Model (★Note1) : **APC-DPU□□B**

Applicable Drive : All models of APD-VS/VP Series



1. Cable length can be adjusted upon request
2. Place an order with Servo Drive (Remote Type)

Note1) □□ of model indicates the length of cable, and the notation is as below

Standard Cable Length (m)	1	2	3	5
Marking	01	02	03	05



Moving towards tomorrow

MECAPION AC Servo System

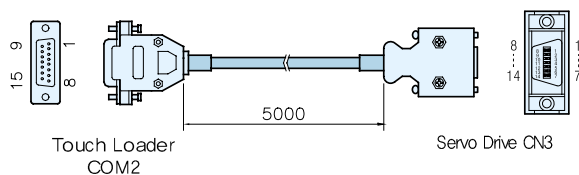
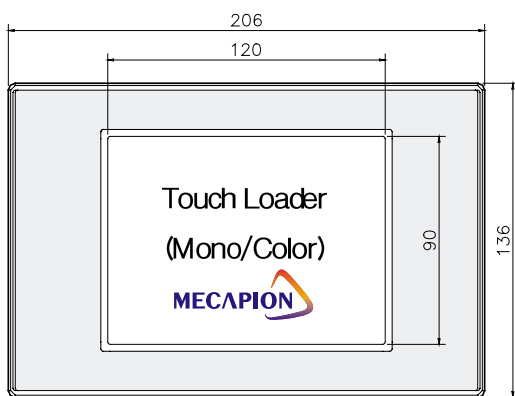
Options(Touch/Handy Loader)

Mono/Color Touch Loader

Model : Mono Touch Loader : **APC-V□TS3MA**, Color Touch Loader : **APC-V□TS3SA**

Applicable Drive : All models of APC-VS Series

Maker : M2I Cooperation (Mono:TOP3MA, Color:TOP3SA)

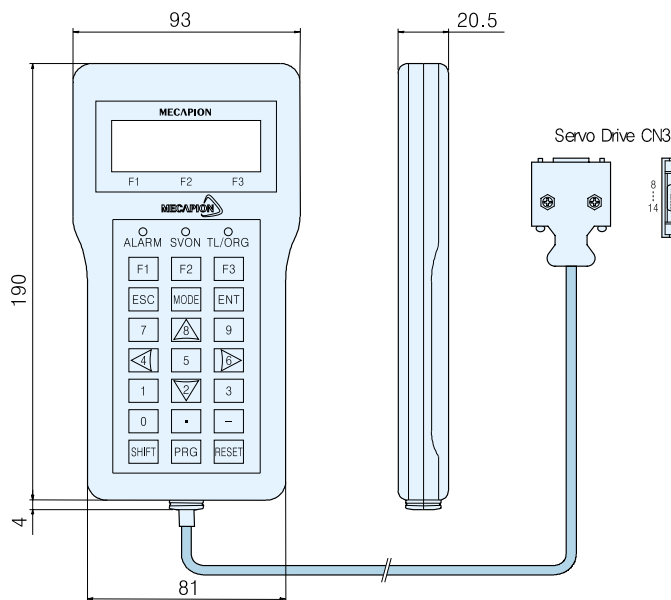


1. Touch Loader Input Voltage : DC 24V
2. Standard Cable length for COM2 : 5m
3. Option Cable(Separate Purchasing item)
 - 1) RS232 Communication cable for COM1 : APM-CN305T(length : 5m)
 - 2) Touch Loader OS Download Cable : APC-CN3TSC(LENGTH : 3m)
4. □ in model name indicates Servo drive type
 S : Standard Touch O/S installed in VS series
 P : Standard Touch O/S installed in VP series

Handy Loader

Model (★Note1) : Handy Loader : **APC-HD1□□□**

Applicable Drive : All models of APC-VS/VP Series



Pin No.	Color	Phase
1	Yellow, Orange	/PSEN
5	Blue	TXD
6	Green	RXD
11	Black, White	GND
14	Red, Pink	VCC

1. Handy Loader Input Voltage : DC 5[V]
2. The Length of standard Cable : 2[m]
The length can be adjusted upon request.

Note1) □□ of model indicates the length of cable, and the notation is as below.

Standard Cable Length (m)	2	3	4	5
Making	20	30	40	50

