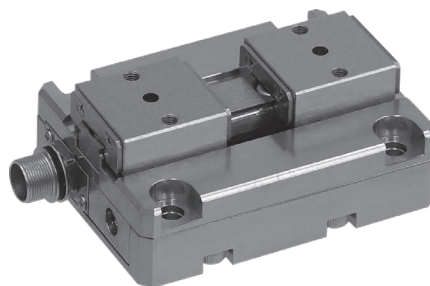


Electric hand

Flat type
Standard stroke



Specifications

Main unit basic specifications

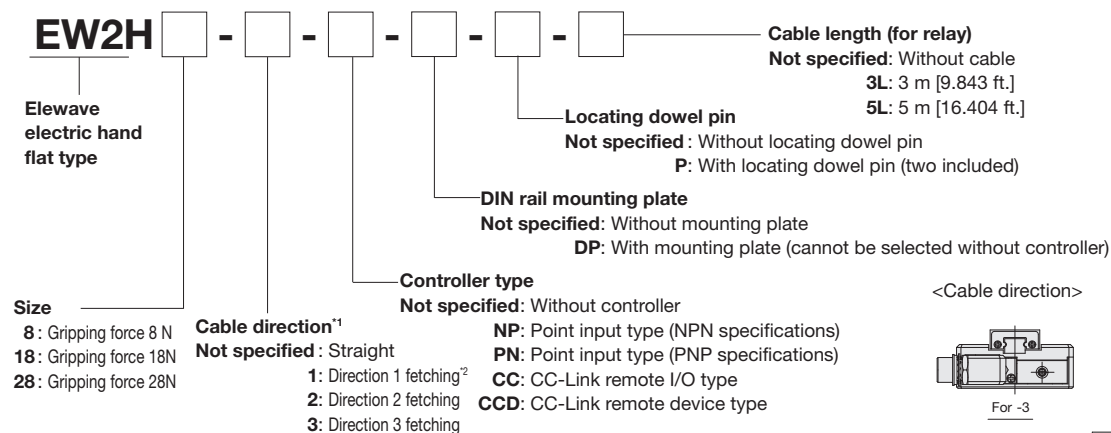
Item	Type	EW2H8	EW2H18	EW2H28	
Motor		Brushless motor			
Maximum speed (one side, when using positioning mode)	mm/s [in./sec]	50 [1.969]			
Maximum speed (one side, when using gripping mode)	mm/s [in./sec]	20 [0.787]	30 [1.181]	20 [0.787]	
Minimum speed (one side)	mm/s [in./sec]	5 [0.197]			
Maximum gripping force ^{*1}	N	8 to 16	18 to 33	28 to 50	
Operating temperature range	°C [°F]	0 to 40 [32 to 104]			
Open/closed stroke	mm [in.]	10 [0.394] (5 mm [0.197 in.] on one side)	14 [0.551] (7 mm [0.276 in.] on one side)	18 [0.709] (9 mm [0.354 in.] on one side)	
Repeated positioning precision	mm [in.]	±0.05 [0.002]			
Dynamic allowable moment ^{*2}	Mp	N·m [in·lbf]	0.05 [0.4]	0.1 [0.9]	0.3 [2.7]
	My	N·m [in·lbf]	0.03 [0.3]	0.1 [0.9]	0.4 [3.5]
	Mr	N·m [in·lbf]	0.06 [0.5]	0.2 [1.8]	0.8 [7.1]
Maximum payload ^{*3} (one side)	kg [lb]	0.2 (0.1) [0.441 (0.220)]	0.3 (0.15) [0.661 (0.331)]	0.4 (0.2) [0.882 (0.441)]	
Mass	kg [lb]	0.09 [0.198]	0.16 [0.353]	0.36 [0.794]	
Applicable controllers		EW2C-H-NP, EW2C-H-PN, EW2C-H-CC, EW2C-H-CCD			

*1 The maximum gripping force at gripping level 5. For details on the gripping force and gripping speed, see the graph on page 30.

*2 The dynamic allowable moment is safety coefficient 10 of the static allowable moment (page 29). However, the value is not guaranteed.

*3 Total mass of both side claws mounted to table.

Order Codes



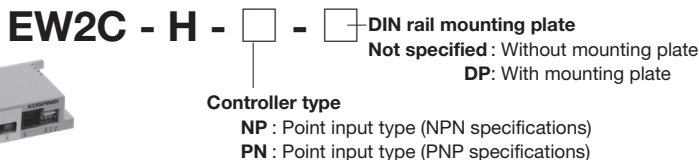
*1 The cable direction cannot be changed after purchase. Select the direction after confirming the state of the settings in advance.

*2 The EW2H8 and EW2H18 cannot use the straight groove for table operation. The EW2H28 can only use the straight groove when a relay cable is not attached.

Additional Parts

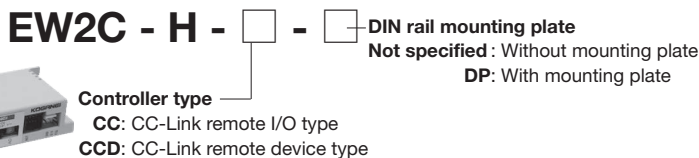
Controller

Point input type



*See pages 19 and 20 for the controller specifications.

CC-Link type



*See pages 21 and 22 for the controller specifications.

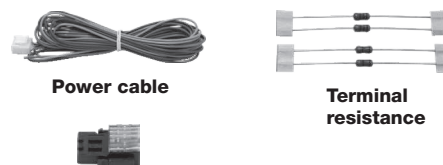
Accessories: Power cable, I/O cable



Power cable

Cable for I/O

Accessories: Power cable, terminal resistance, connector for CC-Link



Power cable

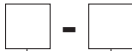
Terminal resistance

Connector for CC-Link

Additional parts

● Cable

EW2K



Length (types P and I cannot be selected)

Not specified: Unspecified

008L: 80 mm [3.150 in.]

015L: 150 mm [5.906 in.]

025L: 250 mm [9.843 in.]

1L: 1 m [3.281 ft.]

3L: 3 m [9.843 ft.]

5L: 5 m [16.404 ft.]

Type

A: For relay

P: For power supply

I: For I/O

D: For daisy chain (for RS485 communication)

N: For communication (for RS485 communication)

BA: Relay cable (loose wire) for main unit*

BB: Relay cable (loose wire) for controller*

*For auto hand changer (MJC) wiring

*The robot cable for relay (A, BA, BB).

Combinations of cable types and lengths

Length Type	008L	015L	025L	1L	3L	5L	Remarks
A	-	-	-	-	○	○	For relay
P	-	-	-	-	-	-	For power supply
I	-	-	-	-	-	-	For I/O
D	○	-	-	○	○	-	For daisy chain (for RS485 communication)
N	-	-	-	○	○	-	For communication (for RS485 communication)
BA	-	○	○	-	-	-	Main unit/loose wire specifications
BB	-	-	-	-	○	○	Controller/loose wire specifications



EW2KA: For relay



EW2KP: For power supply



EW2KI: For I/O



EW2KD: For daisy chain (for RS485 communication)



EW2KBA: Relay cable (loose wire) for main unit



EW2KN: For communication (for RS485 communication)



EW2KBB: Relay cable (loose wire) for controller

● Communication cable (USB-RS485 converter)

IBM2A - H1 -



Not specified: With USB cable

N: Without USB cable

● Terminal resistance

(for RS485 communication)
EW2FR



(for CC-Link)
EW2FC



● Connector for CC-Link

EW2CC



● Branch connector for CC-Link

EW2CY



● Teaching box

EW2TB

*See page 27 for the specifications.



● DIN rail mounting plate

EW2DP



● Adapter for compliance light (CPLHB) installation

EW2A - H

Size (gripping force)

8 : 8 N (for CPL□34□)

18 : 18 N (for CPL□54□)

28 : 28 N (for CPL□70□)



[Included parts]
Locating dowel pin
Mounting bolt



(g[oz.])

Type	EW2A-H8	EW2A-H18	EW2A-H28
Mass	40 [1.411]	76 [2.681]	116 [4.092]

*With included parts

● Locating dowel pin (x 1)

EW2P -



Size

3: $\phi 3$ [0.118] (for EW2□8, EW2□18)

4: $\phi 4$ [0.157] (for EW2□28)

EW2H

EW2HL

EWHA □ A

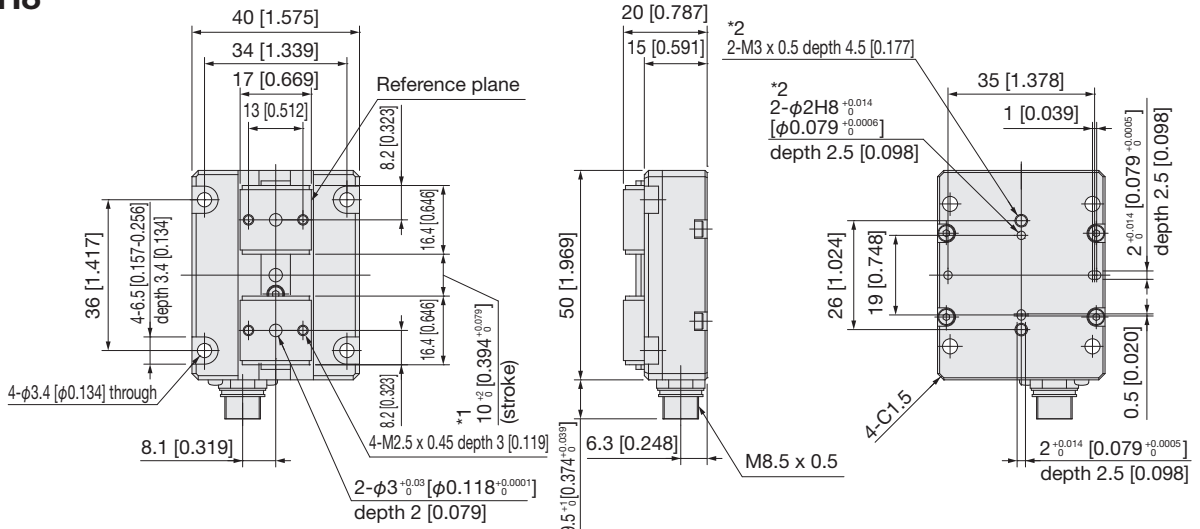
EWHA □ H

EWHR

EW5

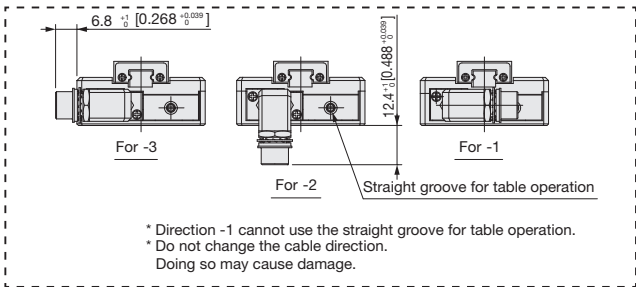
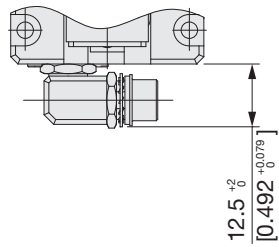
Material

EW2H8

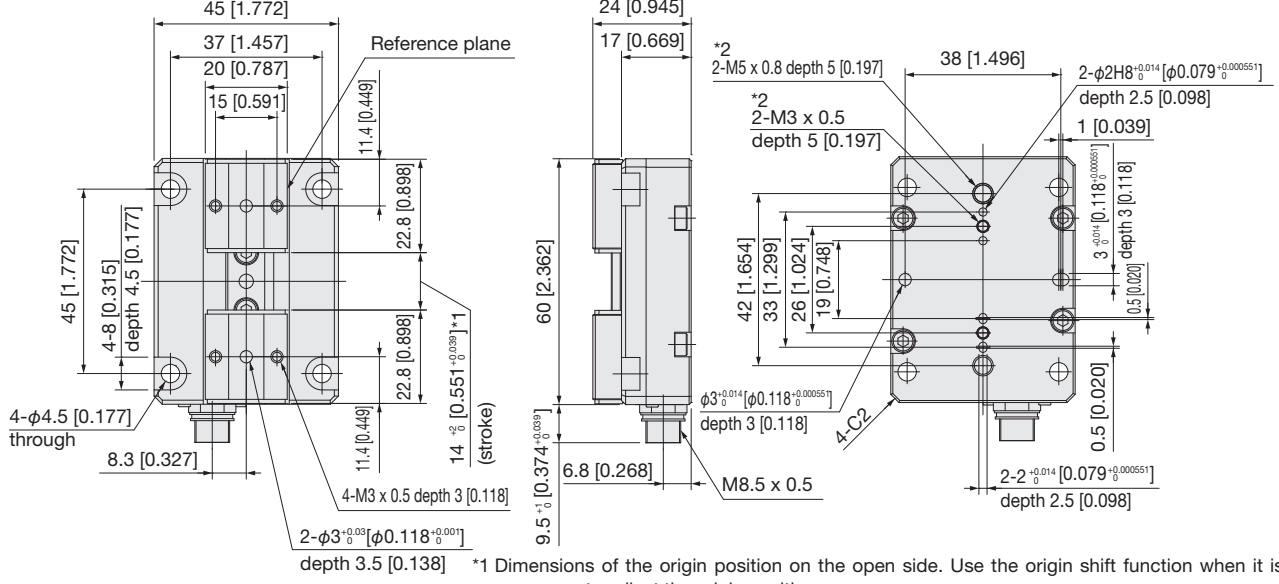


*1 Dimensions of the origin position on the open side. Use the origin shift function when it is necessary to adjust the origin position.
 *2 Can be directly mounted to a KOGANEI auto hand changer (MJC3T).

Cable direction: 1, 2, or 3

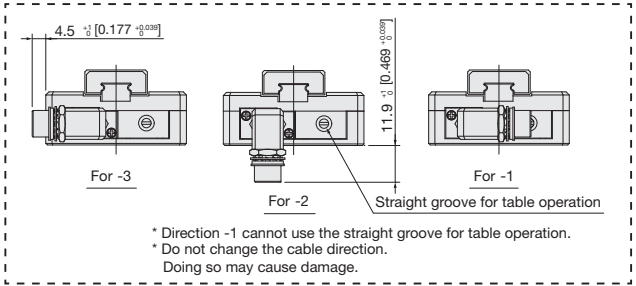
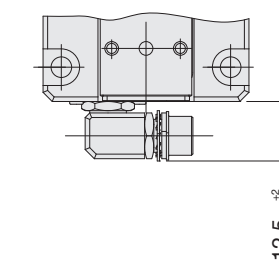


EW2H18

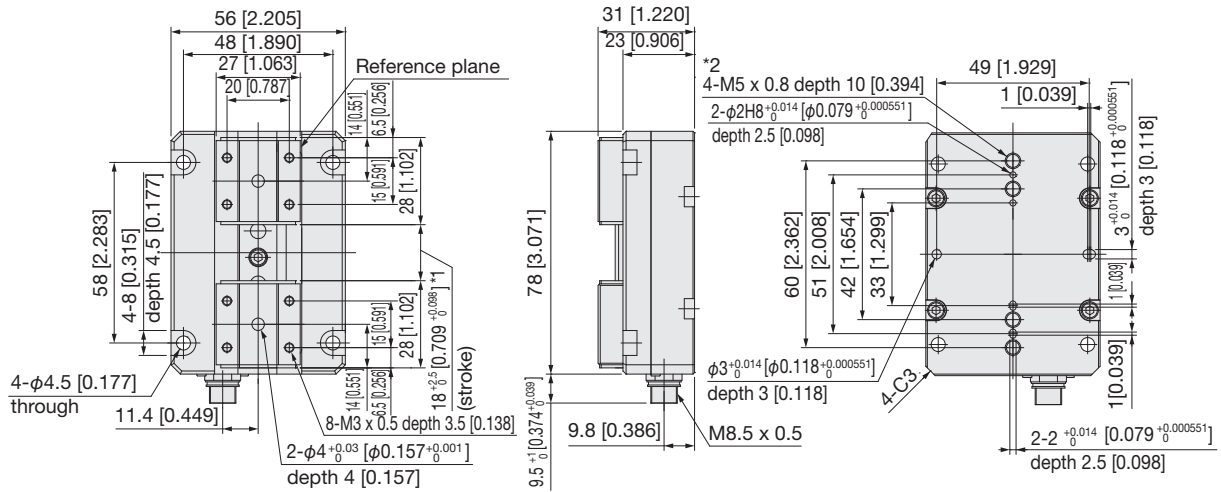


*1 Dimensions of the origin position on the open side. Use the origin shift function when it is necessary to adjust the origin position.
 *2 Can be directly mounted to a KOGANEI auto hand changer (MJC3T or MJC10T).

Cable direction: 1, 2, or 3



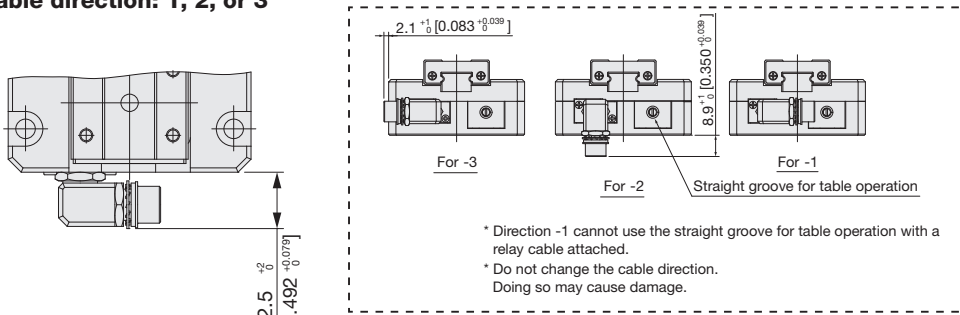
EW2H28



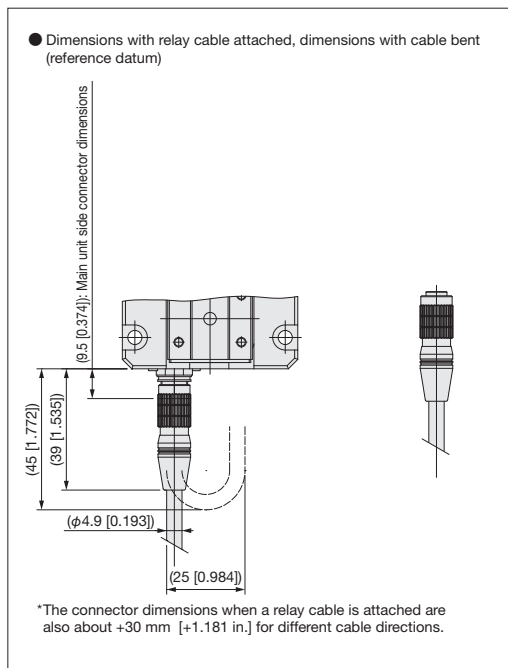
*1 Dimensions of the origin position on the open side. Use the origin shift function when it is necessary to adjust the origin position.

*2 Can be directly mounted to a KOGANEI auto hand changer (MJC10T or MJC20T).

Cable direction: 1, 2, or 3



* Direction -1 cannot use the straight groove for table operation with a relay cable attached.
 * Do not change the cable direction. Doing so may cause damage.



EW2H

EW2HL

EWHA □ A

EWHA □ H

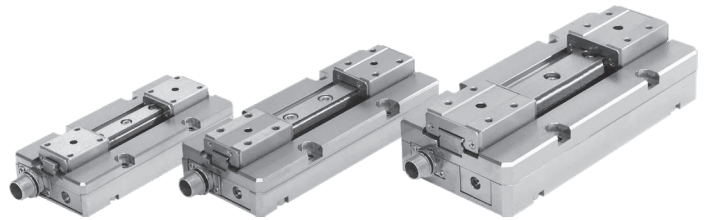
EWHRT

EWM5

Material

Electric hand

Flat type
Long stroke



Specifications

Main unit basic specifications

Item	Type	EW2HL8	EW2HL18	EW2HL28	
Motor		Brushless motor			
Maximum speed (one side, when using positioning mode)	mm/s [in./sec]	50 [1.969]			
Maximum speed (one side, when using gripping mode)	mm/s [in./sec]	20 [0.787]	30 [1.181]	20 [0.787]	
Minimum speed (one side)	mm/s [in./sec]	5 [0.197]			
Maximum gripping force ^{*1}	N	8 to 16	18 to 33	28 to 50	
Operating temperature range	°C [°F]	0 to 40 [32 to 104]			
Open/closed stroke	mm [in.]	32 [1.260] (16 mm [0.630 in.] on one side)	42 [1.654] (21 mm [0.827 in.] on one side)	52 [2.047] (26 mm [1.024 in.] on one side)	
Repeated positioning precision	mm [in.]	±0.05 [±0.002]			
Dynamic allowable moment ^{*2}	Mp	N·m [in·lbf]	0.05 [0.4]	0.1 [0.9]	0.3 [2.7]
	My	N·m [in·lbf]	0.03 [0.3]	0.1 [0.9]	0.4 [3.5]
	Mr	N·m [in·lbf]	0.06 [0.5]	0.2 [1.8]	0.8 [7.1]
Maximum payload ^{*3} (one side)	kg [lb]	0.2 (0.1) [0.441 (0.220)]	0.3 (0.15) [0.661 (0.331)]	0.4 (0.2) [0.882 (0.441)]	
Mass	kg [lb]	0.14 [0.309]	0.25 [0.551]	0.48 [1.058]	
Applicable controllers		EW2C-H-NP, EW2C-H-PN, EW2C-H-CC, EW2C-H-CCD			

*1 The maximum gripping force at gripping level 5. For details on the gripping force and gripping speed, see the graph on page ⑩.

*2 The dynamic allowable moment is safety coefficient 10 of the static allowable moment (page ⑨). However, the value is not guaranteed.

*3 Total mass of both side claws mounted to table.

Order Codes

EW2HL - [] - [] - [] - [] - [] - []

Elewave electric hand flat type long stroke

Size
 8: Gripping force 8 N
 18: Gripping force 18 N
 28: Gripping force 28 N

Cable direction^{*1}
 Not specified: Straight
 1: Direction 1 fetching^{*2}
 2: Direction 2 fetching
 3: Direction 3 fetching

Controller type
 Not specified: Without controller
 NP: Point input type (NPN specifications)
 PN: Point input type (PNP specifications)
 CC: CC-Link remote I/O type
 CCD: CC-Link remote device type

Locating dowel pin
 Not specified: Without locating dowel pin
 P: With locating dowel pin (two included)

DIN rail mounting plate
 Not specified: Without mounting plate
 DP: With mounting plate (cannot be selected without controller)

Cable length (for relay)
 Not specified: Without cable
 3L: 3 m [9.843 ft.]
 5L: 5 m [16.404 ft.]

<Cable direction>

*1 The cable direction cannot be changed after purchase. Select the direction after confirming the state of the settings in advance.
 *2 The EW2HL8 and EW2HL18 cannot use the straight groove for table operation. The EW2HL28 can only use the straight groove when a relay cable is not attached.

Additional Parts

Controller

Point input type

EW2C - H - [] - []

DIN rail mounting plate
 Not specified: Without mounting plate
 DP: With mounting plate

Controller type
 NP: Point input type (NPN specifications)
 PN: Point input type (PNP specifications)



*See pages ⑱ and ⑳ for the controller specifications.

CC-Link type

EW2C - H - [] - []

DIN rail mounting plate
 Not specified: Without mounting plate
 DP: With mounting plate

Controller type
 CC: CC-Link remote I/O type
 CCD: CC-Link remote device type



*See pages ⑳ and ㉑ for the controller specifications.

Accessories: Power cable, I/O cable



Power cable



Cable for I/O

Accessories: Power cable, terminal resistance, connector for CC-Link



Power cable



Terminal resistance

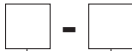


Connector for CC-Link

Additional parts

● Cable

EW2K



Length (types P and I cannot be selected)

Not specified: Unspecified

008L: 80 mm [3.150 in.]

015L: 150 mm [5.906 in.]

025L: 250 mm [9.843 in.]

1L: 1 m [3.281 ft.]

3L: 3 m [9.843 ft.]

5L: 5 m [16.404 ft.]

Type

A: For relay

P: For power supply

I: For I/O

D: daisy chain (for RS485 communication)

N: For communication (for RS485 communication)

BA: Relay cable (loose wire) for main unit*

BB: Relay cable (loose wire) for controller*

*For auto hand changer (MJC) wiring

*The robot cable for relay (A, BA, BB).

Combinations of cable types and lengths

Length Type	008L	015L	025L	1L	3L	5L	Remarks
A	-	-	-	-	○	○	For relay
P	-	-	-	-	-	-	For power supply
I	-	-	-	-	-	-	For I/O
D	○	-	-	○	○	-	For daisy chain (for RS485 communication)
N	-	-	-	○	○	-	For communication (for RS485 communication)
BA	-	-	○	-	-	-	Main unit/loose wire specifications
BB	-	-	-	-	○	○	Controller/loose wire specifications



EW2KA: For relay



EW2KP: For power supply



EW2KI: For I/O



EW2KD: For daisy chain (for RS485 communication)



EW2KBA: Relay cable (loose wire) for main unit



EW2KN: For communication (for RS485 communication)



EW2KBB: Relay cable (loose wire) for controller

● Communication cable (USB-RS485 converter)

IBM2A - H1 -



Not specified: With USB cable

N: Without USB cable

● Terminal resistance (for RS485 communication)

EW2FR



(for CC-Link)

EW2FC



● Connector for CC-Link

EW2CC



● Branch connector for CC-Link

EW2CY



● Teaching box

EW2TB



*See page 27 for the specifications.

● DIN rail mounting plate

EW2DP



● Adapter for compliance light (CPLHB) installation

EW2A - H

Size (gripping force)

8 : 8 N (for CPL□34□)

18 : 18 N (for CPL□54□)

28 : 28 N (for CPL□70□)



[Included parts]
Locating dowel pin
Mounting bolt



(g [oz.])

Type	EW2A-H8	EW2A-H18	EW2A-H28
Mass	40 [1.411]	76 [2.681]	116 [4.092]

*With included parts

● Locating dowel pin (x 1)

EW2P -



Size

3: ϕ 3 [0.118] (for EW2□8, EW2□18)

4: ϕ 4 [0.157] (for EW2□28)

EW2H

EW2HL

EWHA A

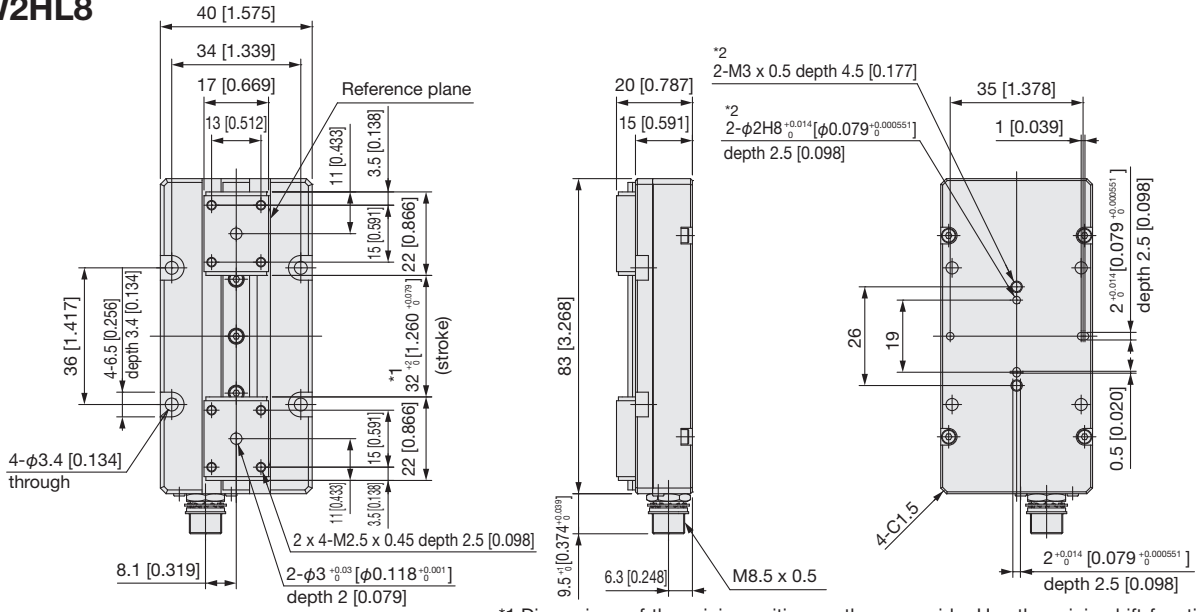
EWHA H

EWHR

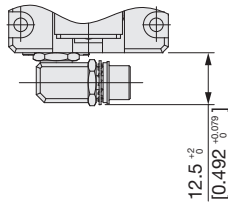
EW5

Material

EW2HL8

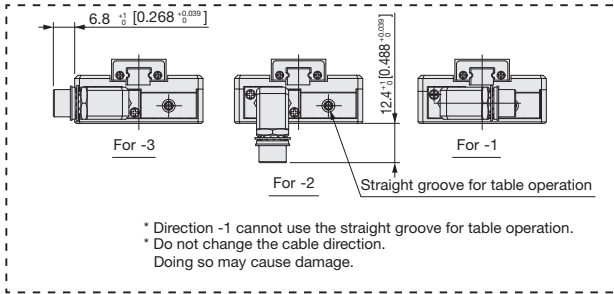


Cable direction: 1, 2, or 3



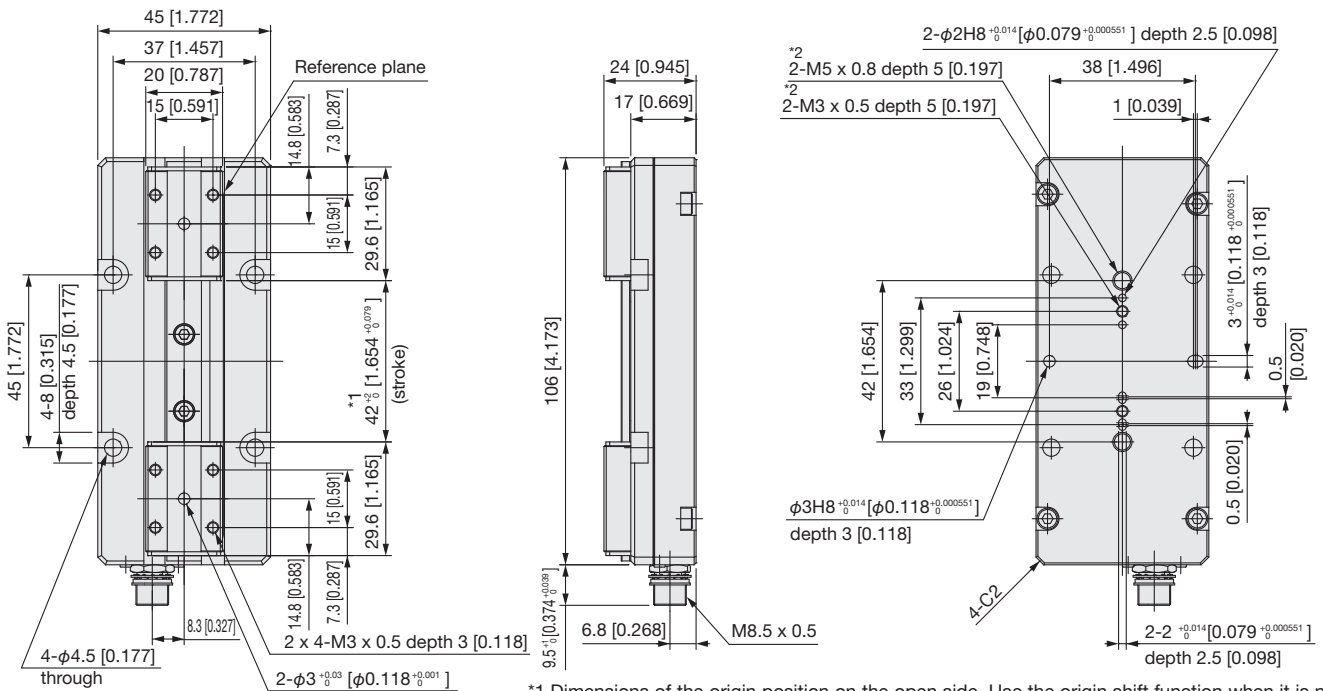
*1 Dimensions of the origin position on the open side. Use the origin shift function when it is necessary to adjust the origin position.

*2 Can be directly mounted to a KOGANEI auto hand changer (MJC3T).

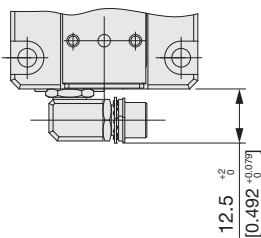


* Direction -1 cannot use the straight groove for table operation.
* Do not change the cable direction. Doing so may cause damage.

EW2HL18

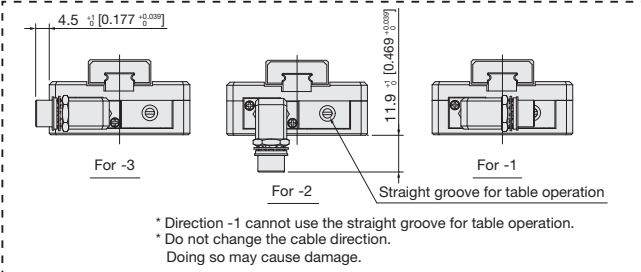


Cable direction: 1, 2, or 3



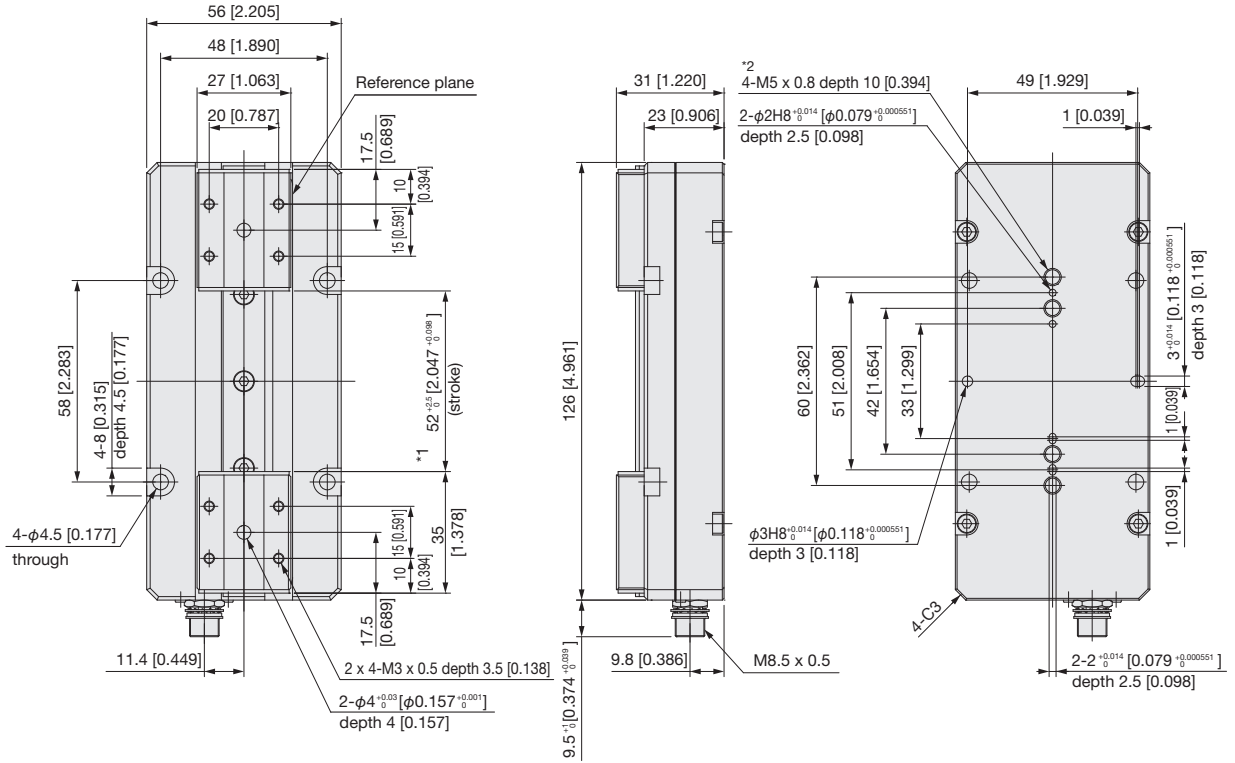
*1 Dimensions of the origin position on the open side. Use the origin shift function when it is necessary to adjust the origin position.

*2 Can be directly mounted to a KOGANEI auto hand changer (MJC3T or MJC10T).



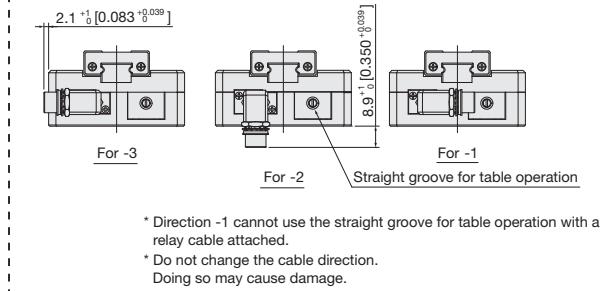
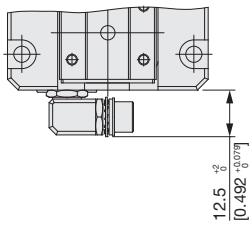
* Direction -1 cannot use the straight groove for table operation.
* Do not change the cable direction. Doing so may cause damage.

EW2HL28

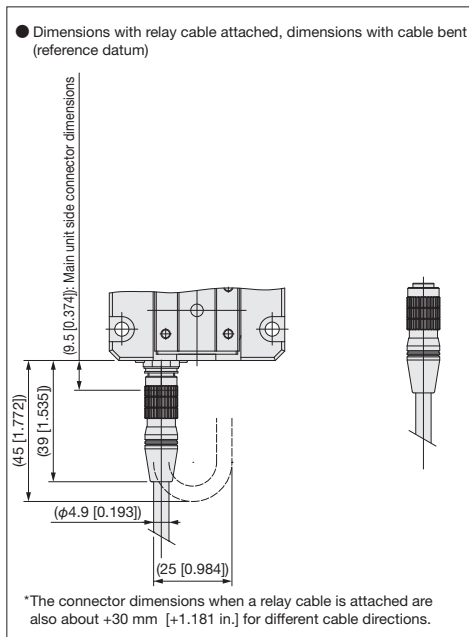


*1 Dimensions of the origin position on the open side. Use the origin shift function when it is necessary to adjust the origin position.
 *2 Can be directly mounted to a KOGANEI auto hand changer (MJC10T or MJC20T).

Cable direction: 1, 2, or 3



* Direction -1 cannot use the straight groove for table operation with a relay cable attached.
 * Do not change the cable direction. Doing so may cause damage.



EW2H

EW2HL

EWHA □ A

EWHA □ H

EWHRT

EWM5

Material

Controller

Point input type NPN Specifications



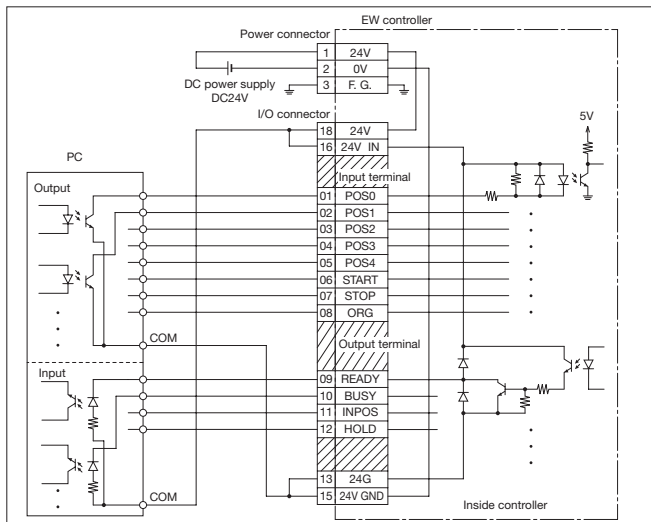
Specifications

Item	Type	EW2C-H-NP
Control specifications	Motor drive system	Square wave drive
	Control method	Closed loop control*1
	Operating method	PTP, force control
	Origin detection method	Stroke end detection
	Position detection method	Hall IC output
	Minimum setting distance	0.05 mm [0.002 in.]
	Point setting	32 points
	Point input method	Numeric input, teaching input, direct teaching
	Point setting input	5 points (POS0~POS4)
	Control input	3 points (ORG, START, STOP)
	Control output	4 points (READY, BUSY, HOLD, INPOS)
	Error detection output	Time over, wiring disconnection, data error, system error
	Motor drive cable	
Hall IC cable		
RS485 Communication method	External communication	RS485 1 ch (computer, TB communication) Daisy chain available (maximum 16 connections)
	Communication method	Half duplex
	Synchronous method	Start-stop synchronization
	Communication speed	115.2 kbps
	Parity bit	Odd
	Communication distance	Total cable length 100 m [328.084 ft.] or less
Communication cable	Dedicated cable (two pair twisted shielded cable)	
General specifications	Mass	0.2 kg [0.441 lb]
	Power supply	DC 24 V±10 % 1.6 A Max (common power supply with RS485 communication)
	Power supply indication	PWR
	Operating temperature range	0 to 40 °C [32 to 104°F]
	Operating humidity range	35 to 85 % RH (without condensation)
	Storage temperature range	-10 to 65 °C [14 to 149°F]
	Backup	Setting conditions retained in EEPROM
	Noise resistance	IEC61000-4-4 level 3
Accessories	I/O cable, power cable	

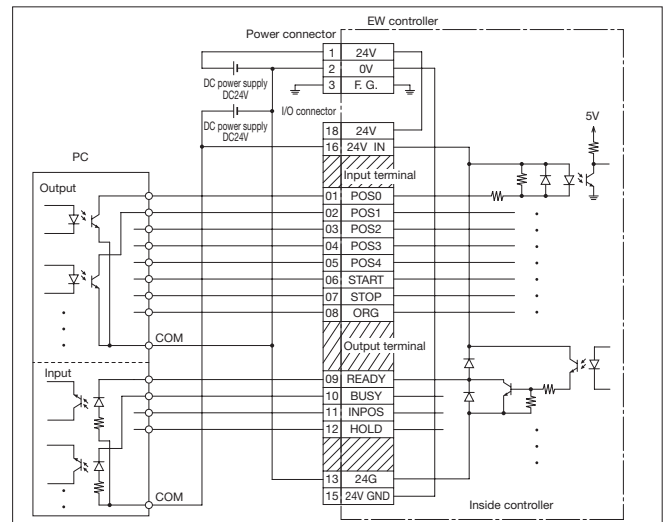
*1 Missed step detection is performed with a Hall IC.

Controller Wiring Method

1. When using the internal power supply of the controller



2. When not using the internal power supply of the controller



Controller

Point input type PNP Specifications



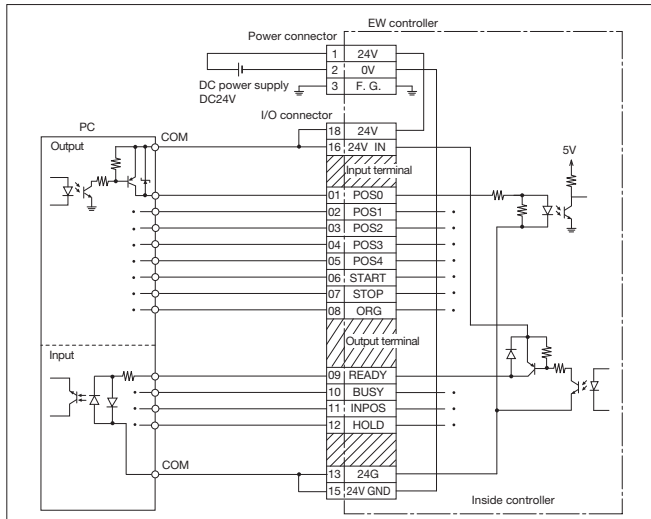
Specifications

Item	Type	EW2C-H-PN
Control specifications	Motor drive system	Square wave drive
	Control method	Closed loop control*1
	Operating method	PTP, force control
	Origin detection method	Stroke end detection
	Position detection method	Hall IC output
	Minimum setting distance	0.05 mm [0.002 in.]
	Point setting	32 points
	Point input method	Numeric input, teaching input, direct teaching
	Point setting input	5 points (POS0~POS4)
	Control input	3 points (ORG, START, STOP)
	Control output	4 points (READY, BUSY, HOLD, INPOS)
	Error detection output	Time over, wiring disconnection, data error, system error
	Motor drive cable	
Hall IC cable		
RS485 Communication method	External communication	RS485 1 ch (computer, TB communication) Daisy chain available (maximum 16 connections)
	Communication method	Half duplex
	Synchronous method	Start-stop synchronization
	Communication speed	115.2 kbps
	Parity bit	Odd
	Communication distance	Total cable length 100 m [328.084 ft.] or less
Communication cable	Dedicated cable (two pair twisted shielded cable)	
General specifications	Mass	0.2 kg [0.441 lb]
	Power supply	DC 24 V±10 % 1.6 A Max (common power supply with RS485 communication)
	Power supply indication	PWR
	Operating temperature range	0 to 40 °C [32 to 104°F]
	Operating humidity range	35 to 85 % RH (without condensation)
	Storage temperature range	-10 to 65 °C [14 to 149°F]
	Backup	Setting conditions retained in EEPROM
	Noise resistance	IEC61000-4-4 level 3
Accessories	I/O cable, power cable	

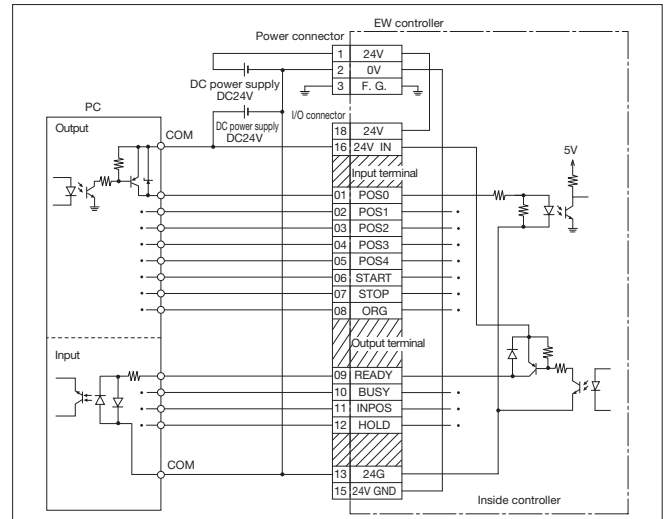
*1 Missed step detection is performed with a Hall IC.

Controller Wiring Method

1. When using the internal power supply of the controller



2. When not using the internal power supply of the controller



Controller

CC-Link Remote I/O Type



Specifications

Item	Type	EW2C-H-CC					
Control specifications	Motor drive system	Square wave drive					
	Control method	Closed loop control ^{*1}					
	Operating method	PTP, force control					
	Origin detection method	Stroke end detection					
	Position detection method	Hall IC output					
	Minimum setting distance	0.05 mm [0.002 in.]					
	Point setting	32 points					
	Point input method	Numeric input, teaching input, direct teaching					
	Point setting input	5 points (POS0~POS4)					
	Control input	3 points (ORG, START, STOP)					
	Control output	4 points (READY, BUSY, HOLD, INPOS)					
	Error detection output	Time over, wiring disconnection, data error, system error					
	Motor drive cable	Motor drive output, Hall IC input dedicated cable (F.G, shielded)					
	Hall IC cable						
RS485 Communication method	External communication	RS485 1 ch (computer, TB communication) Daisy chain available (maximum 16 connections)					
	Communication method	Half duplex					
	Synchronous method	Start-stop synchronization					
	Communication speed	115.2 kbps					
	Parity bit	Odd					
	Communication distance	Total cable length 100 m [328.084 ft.] or less					
	Communication cable	Dedicated cable (two pair twisted shielded cable)					
General specifications	Mass	0.2 kg [0.441 lb]					
	Power supply	DC 24 V \pm 10 % 1.6 A Max (common power supply with RS485 communication and CC-Link communication)					
	Power supply indication	PWR					
	Operating temperature range	0 to 40 °C [32 to 104°F]					
	Operating humidity range	35 to 85 % RH (without condensation)					
	Storage temperature range	-10 to 65 °C [14 to 149°F]					
	Backup	Setting conditions retained in EEPROM					
	Noise resistance	IEC61000-4-4 level 3					
	Accessories	CC-Link connector, power cable, CC-Link terminal resistance					
CC-Link Communication specifications	Version	Ver.1.10					
	Communication method	Broadcast polling method					
	Synchronous method	Frame synchronization method					
	Transmission line method	Bus format (EIA RS485 compliant)					
	Communication speed	Switch between 156 k/625 k/2.5 M/5 M/10 Mbps (rotary switch)					
	Occupied station count	One remote I/O station					
	Maximum connected device count	64 devices					
	Station number setting	Switch from 1 to 64 (rotary switch)					
	CLEAR/HOLD	Switch (DIP switch) CLEAR: When a CC-Link communication error occurs, data other than the controller connection are cleared HOLD: When a CC-Link communication error occurs, the state before the error occurred is retained					
	Indication	PW, L RUN, SD, RD, L ERR (red LED)					
	Transmission distance	Communication speed (bps)	156 k	625 k	2.5 M	5 M	10 M
		Total cable length (m [ft.])	1200 [3,937.008]	900 [2,952.756]	400 [1,312.336]	160 [524.934]	100 [328.084]
	Communication cable	Dedicated CC-Link cable supporting Ver.1.10					
Terminal resistance	110 Ω (when using dedicated CC-Link cable supporting Ver.1.10)						

*1 Missed step detection is performed with a Hall IC.

Controller

CC-Link remote device type



EW2H

EW2HL

EWHA A

EWHA H

EWHRT

EWM5

Material

Specifications

Item	Type	EW2C-H-CCD					
Control specifications	Motor drive system	Square wave drive					
	Control method	Closed loop control ^{*1}					
	Operating method	PTP, force control					
	Origin detection method	Stroke end detection					
	Position detection method	Hall IC output					
	Minimum setting distance	0.05 mm [0.002 in.]					
	Point setting	32 points					
	Point input method	Numeric input, teaching input, direct teaching					
	Point setting input	5 points (POS0~POS4)					
	Error detection output	Time over, wiring disconnection, data error, system error					
	Motor drive cable	Motor drive output, Hall IC input dedicated cable (F.G, shielded)					
	Hall IC cable						
RS485 Communication method	External communication	RS485 1 ch (computer, TB communication) Daisy chain available (maximum 16 connections)					
	Communication method	Half duplex					
	Synchronous method	Start-stop synchronization					
	Communication speed	115.2 kbps					
	Parity bit	Odd					
	Communication distance	Total cable length 100 m [328.084 ft.] or less					
	Communication cable	Dedicated cable (two pair twisted shielded cable)					
General specifications	Mass	0.2 kg [0.441 lb]					
	Power supply	DC 24 V±10 % 1.6 A Max (common power supply with RS485 communication and CC-Link communication)					
	Power supply indication	PWR					
	Operating temperature range	0 to 40 °C [32 to 104°F]					
	Operating humidity range	35 to 85 % RH (without condensation)					
	Storage temperature range	-10 to 65 °C [14 to 149°F]					
	Backup	Setting conditions retained in FRAM					
	Noise resistance	IEC61000-4-4 level 3					
Accessories	CC-Link connector, power cable, CC-Link terminal resistance						
CC-Link Communication specifications	Version	Ver.1.10					
	Communication method	Broadcast polling method					
	Synchronous method	Frame synchronization method					
	Transmission line method	Bus format (EIA RS485 compliant)					
	Communication speed	Switch between 156 k/625 k/2.5 M/5 M/10 Mbps (rotary switch)					
	Occupied station count	1/2/4 remote device stations (parameter switch)					
	Maximum connected device count	1 station occupied: 42 devices; 2 stations occupied: 32 devices; 4 stations occupied: 16 devices					
	Station number setting	Switch (rotary switch) 1 station occupied: 1 to 64; 2 stations occupied: 1 to 63; 4 stations occupied: 1 to 61					
	CLEAR/HOLD	Switch (DIP switch) CLEAR: When a CC-Link communication error occurs, data other than the controller connection are cleared HOLD: When a CC-Link communication error occurs, the state before the error occurred is retained					
	Indication	PW, L RUN, SD, RD, L ERR (blue LED)					
	Transmission distance	Communication speed (bps)	156 k	625 k	2.5 M	5 M	10 M
		Total cable length (m [ft.])	1200 [3,937.008]	900 [2,952.756]	400 [1,312.336]	160 [524.934]	100 [328.084]
	Communication cable	Dedicated CC-Link cable supporting Ver.1.10					
Terminal resistance	110 Ω (when using dedicated CC-Link cable supporting Ver.1.10)						

*1 Missed step detection is performed with a Hall IC.

Dimensions mm [in.]

● Controller

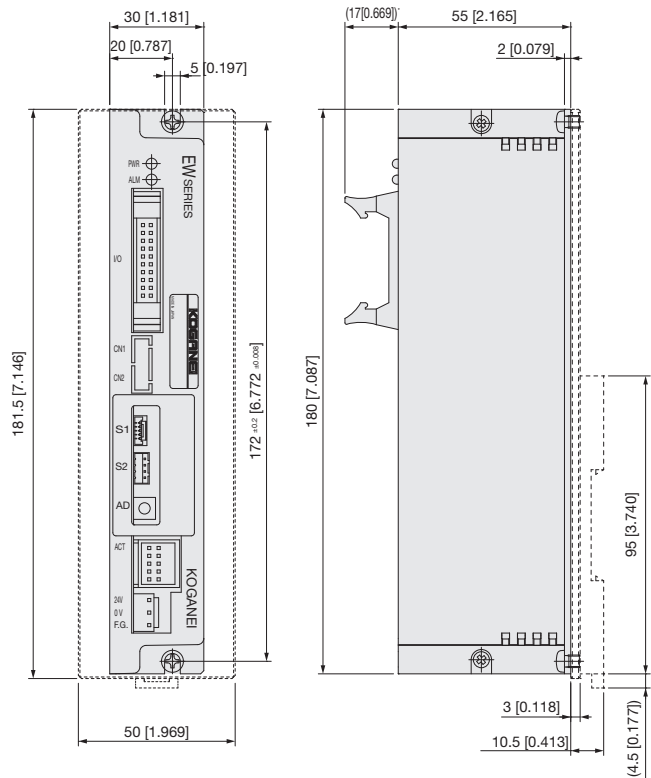
Point input type

EW2C-H-

DIN rail mounting plate
 Not specified : Without mounting plate
 DP: With mounting plate

Controller type

NP : Point input type (NPN specifications)
 PN : Point input type (PNP specifications)



*The dotted line indicates the DIN rail mounting plate dimensions

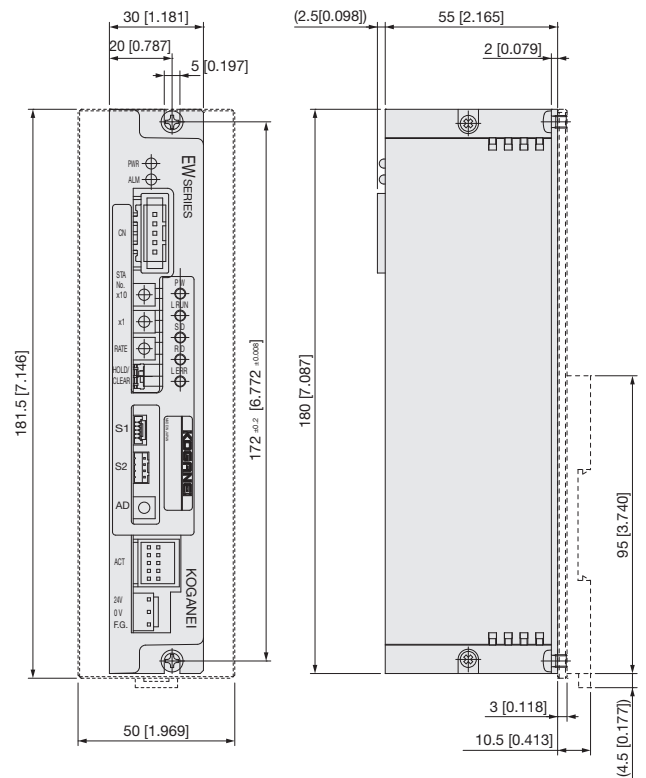
CC-Link type

EW2C-H-

DIN rail mounting plate
 Not specified : Without mounting plate
 DP: With mounting plate

Controller type

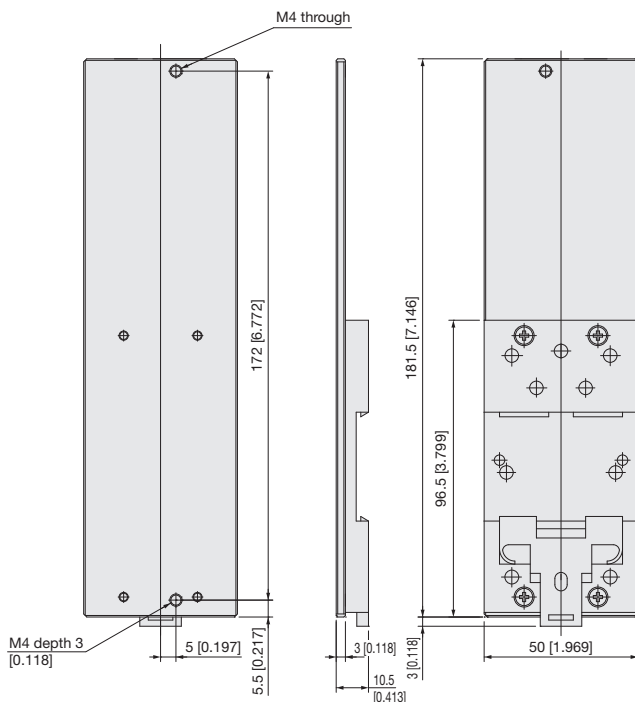
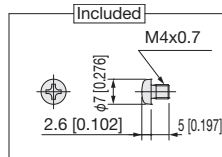
CC: CC-Link remote I/O type
 CCD: CC-Link remote device type



*The dotted line indicates the DIN rail mounting plate dimensions

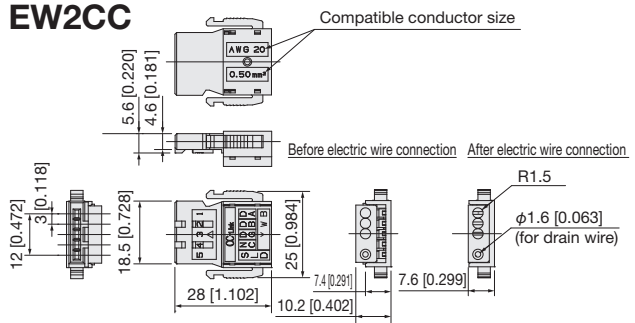
● DIN rail mounting plate

EW2DP



● Connector for CC-Link

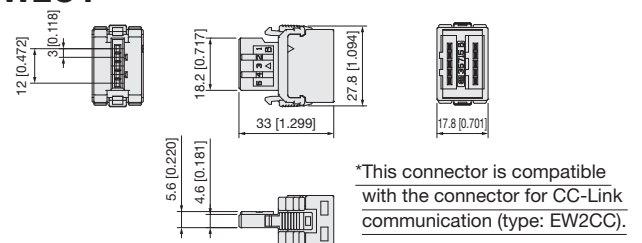
EW2CC



*This connector is compatible with the cable for CC-Link communication.

● Branch connector for CC-Link

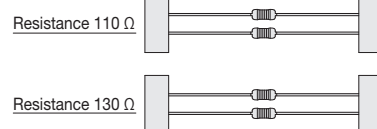
EW2CY



*This connector is compatible with the connector for CC-Link communication (type: EW2CC).

● Terminal resistance (for CC-Link)

EW2FC



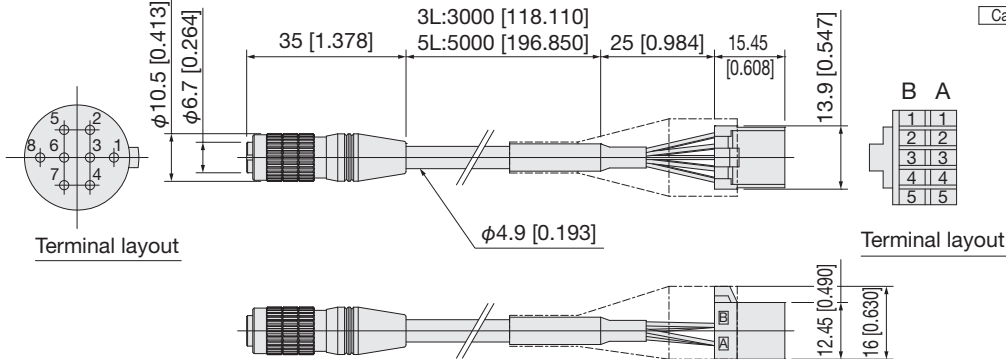
Dimensions mm [in.]

● Cable (robot cable)

• For relay

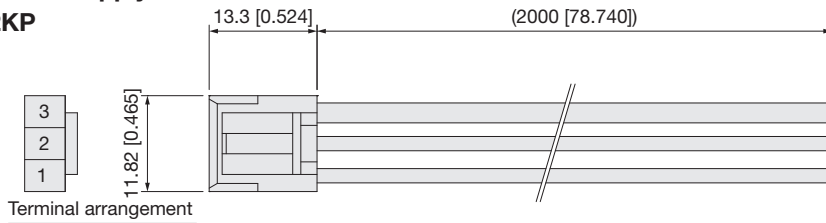
EW2KA-

3L: 3 m [9.843 ft.]
5L: 5 m [16.404 ft.]



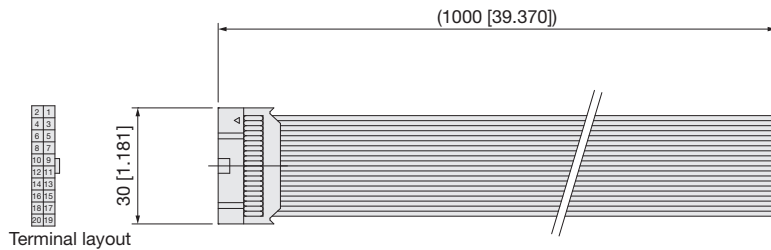
• For power supply

EW2KP



• For I/O

EW2KI



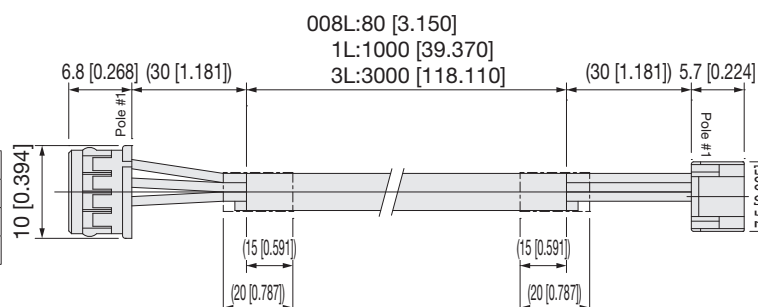
• For daisy chain (for RS485 communication)

EW2KD -

008L: 80 mm [3.150 in.]
1L: 1 m [3.281 ft.]
3L: 3 m [9.843 ft.]

Connector terminal arrangement
(Upper controller)

NO.	Parts	Color	
1	A	Brown	1
2	B	Blue	2
3	GND	Black	3
4			4



Connector terminal arrangement
(Lower controller)

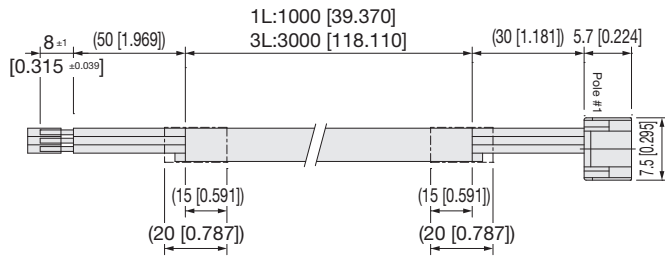
NO.	Parts	Color	
1	A	Brown	1
2	B	Blue	2
3	GND	Black	3
4			4
5			5

Dimensions mm [in.]

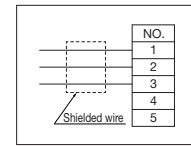
• For communication (for RS485 communication)

EW2KN - □

1L: 1 m [3.281 ft.]
3L: 3 m [9.843 ft.]



Cable wire chart



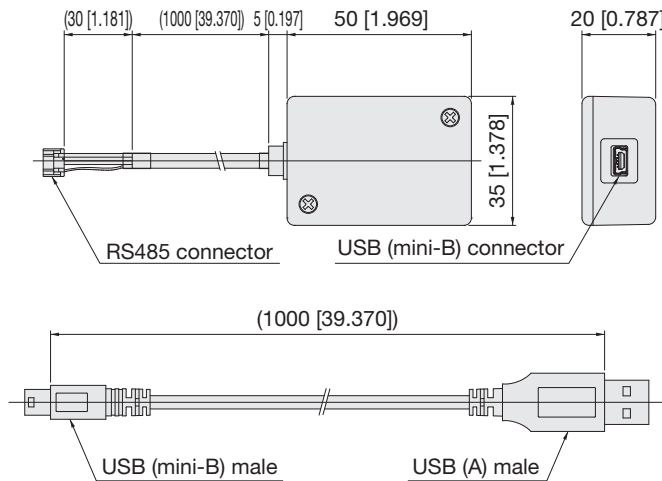
Connector terminal arrangement (Lower controller)

NO.	Parts	Color
1	A	White
2	B	Pink
3	GND	Yellow
4		
5		

• USB-RS485 converter for communication

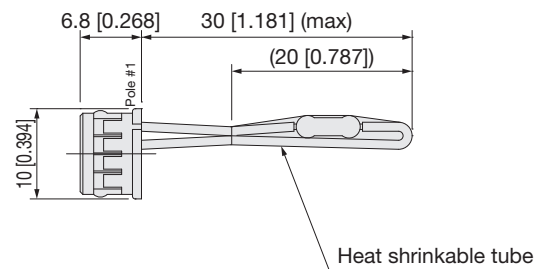
IBM2A - H1 - □

Not specified: With USB cable
N: Without USB cable



● Terminal resistance (for RS485 communication)

EW2FR



• Relay cable (loose wire) for main unit* (robot cable)

EW2KBA- □

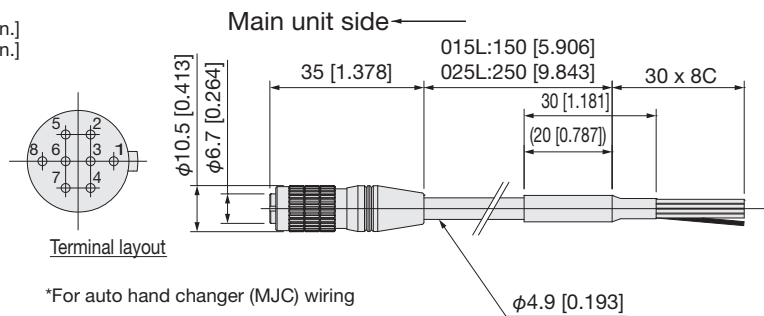
015L: 150 mm [5.906 in.]
025L: 250 mm [9.843 in.]

Main unit side connector

NO.	Parts	Color
1	U	Green
2	V	Brown
3	W	Yellow
4	Vcc	Orange
5	HU	White
6	HV	Red
7	HW	Black
8	GND	Blue

Cable shield

Cable wire chart



Terminal layout

*For auto hand changer (MJC) wiring

• Relay cable (loose wire) for controller* (robot cable)

EW2KBB- □

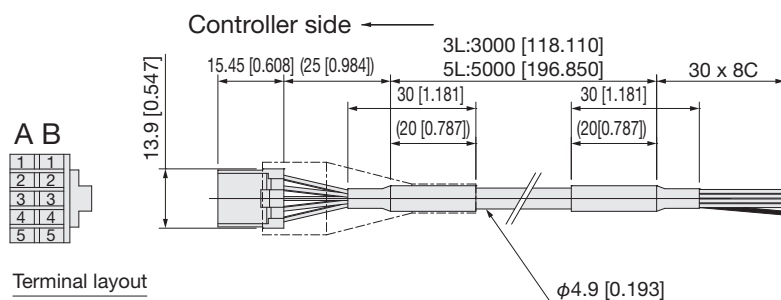
3L: 3 m [9.843 ft.]
5L: 5 m [16.404 ft.]

Controller side connector

NO.	Parts	Color
A1	U	Green
B1	V	Brown
A2	W	Yellow
B2	FG	Shield
A3	Vcc	Orange
B3	GND	Blue
A4	HU	White
B4	HV	Red
A5	HW	Black
B5	N.C.	-

Cable shield

Cable wire chart



Terminal layout

*For auto hand changer (MJC) wiring

Dimensions mm [in.]

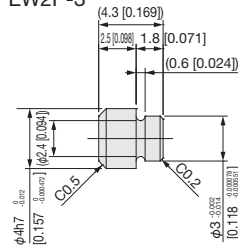
Locating dowel pin

EW2P - 

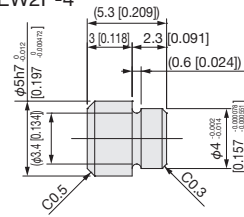
Size

- 3: $\phi 3$ [0.118] (for EW2□8, EW2□18)
- 4: $\phi 4$ [0.157] (for EW2□28)

EW2P-3



EW2P-4



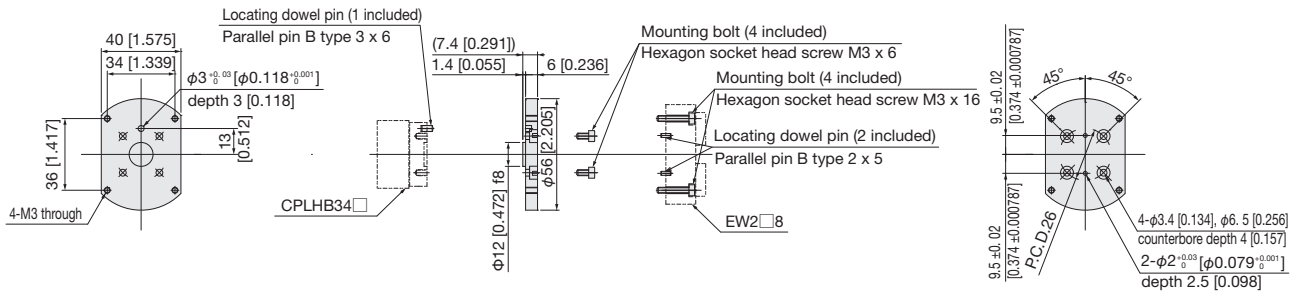
Adapter for compliance light installation

EW2A-H 

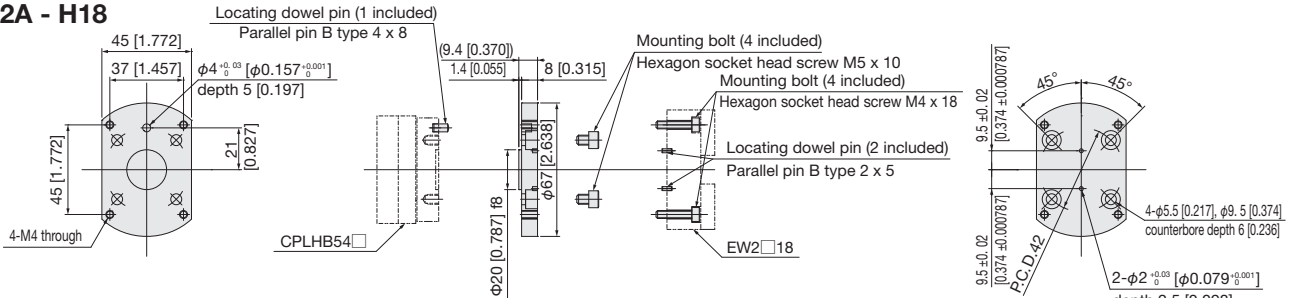
Size (gripping force)

- 8 : 8 N (for CPL□34□)
- 18 : 18 N (for CPL□54□)
- 28 : 28 N (for CPL□70□)

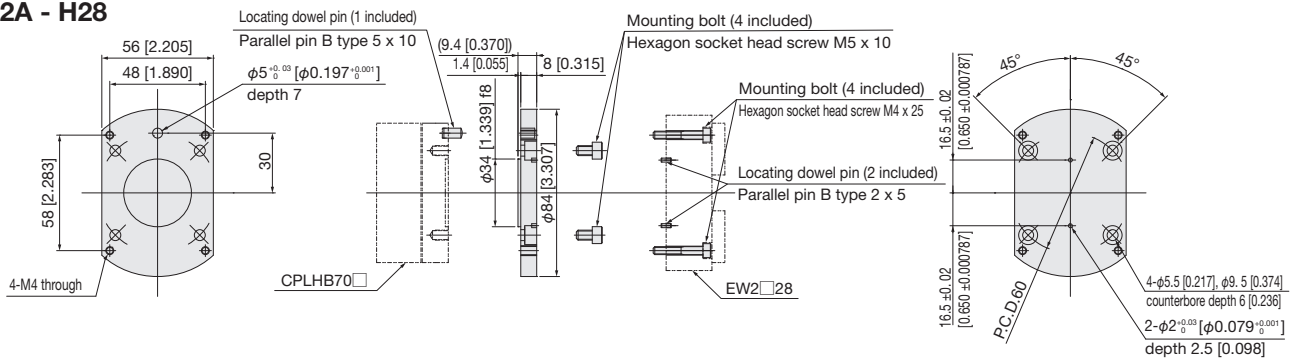
EW2A - H8



EW2A - H18



EW2A - H28



Maximum tightening torque (when mounting workpiece)

Bolt used	Maximum tightening torque (N·m [in·lbf])
M3 x 0.5	0.63 [5.58]
M4 x 0.5	1.5 [13.28]
M5 x 0.8	3 [26.55]

Mass (adapter for compliance light installation)

Type	g [oz.]		
	EW2A-H8	EW2A-H18	EW2A-H28
Mass*	40 [1.411]	76 [2.681]	116 [4.092]

*With included parts.

EW2H

EW2HL

EWHA □ A

EWHA □ H

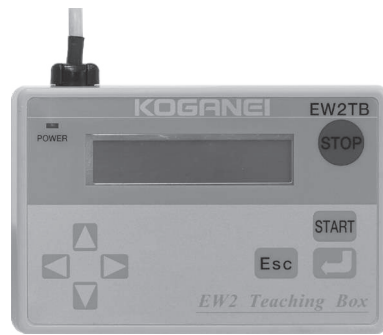
EWHRT

EW5

Material

Teaching Box

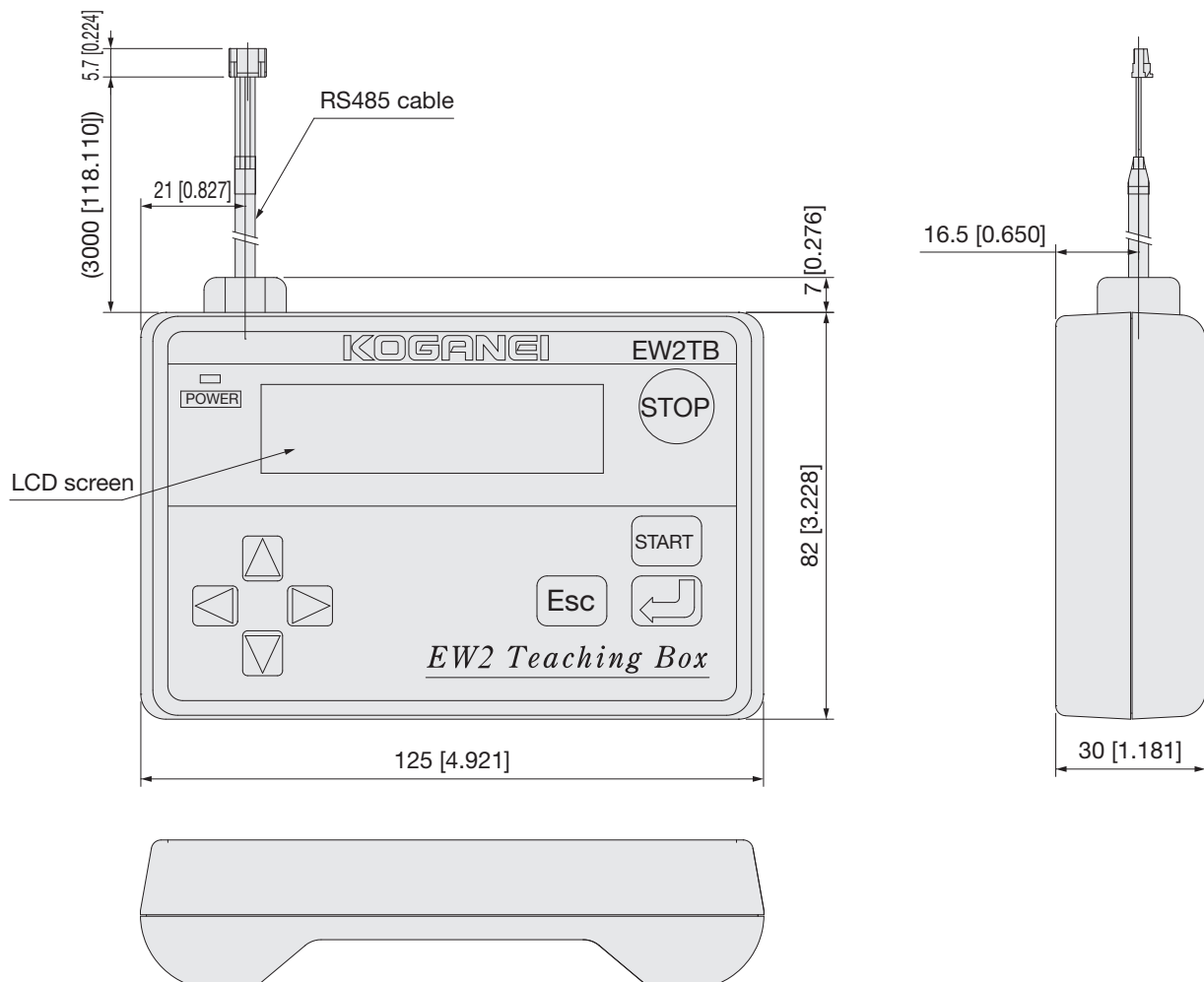
EW2TB



Specifications

Item	Type	EW2TB
Power supply	Power supply voltage	DC 24 V (supplied from controller)
	Consumption current	50mA MAX.
Indication	Setting display	LCD 16 characters x 2 lines
	Power supply indication	LED lit when power turned ON (internal 5 V)
General	Setting method	Key operation: 8 buttons
	Communication method	RS485 (serial communication)
	Cable length	3 m [9.843 ft.]
	Mass	Main unit: 200 g [7.055 oz.]
	Operating temperature	0 to 40 °C [32 to 104°F]
	Operating humidity	35 to 80 % RH (without condensation)
	Storage temperature	-10 to 65 °C [14 to 149°F]

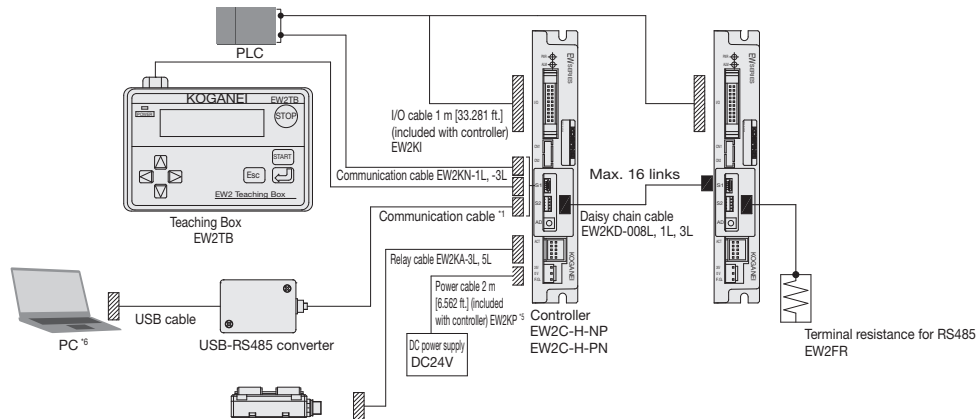
Teaching box dimensions mm [in.]



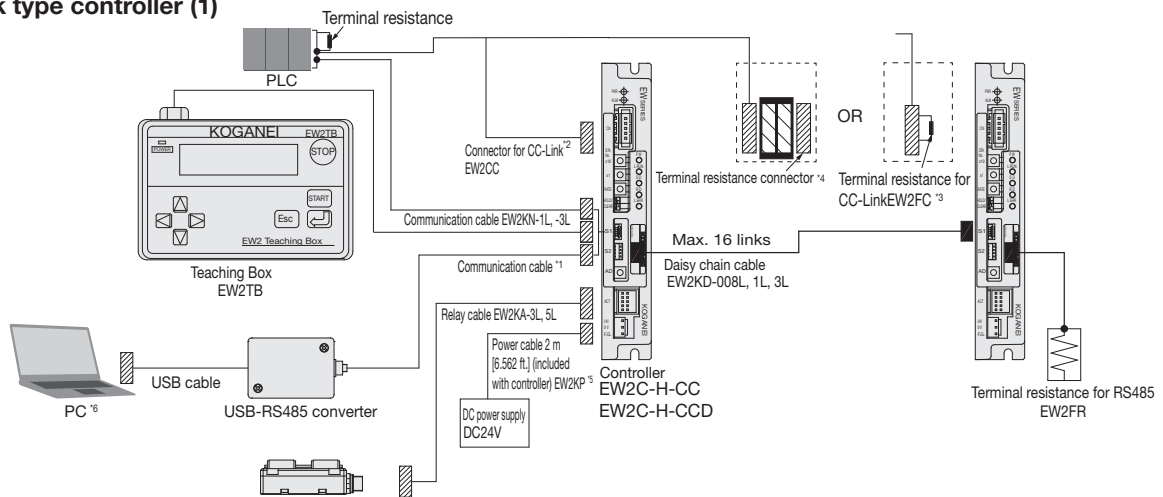
Selection guidelines

● System configuration of electric hand flat type (example)

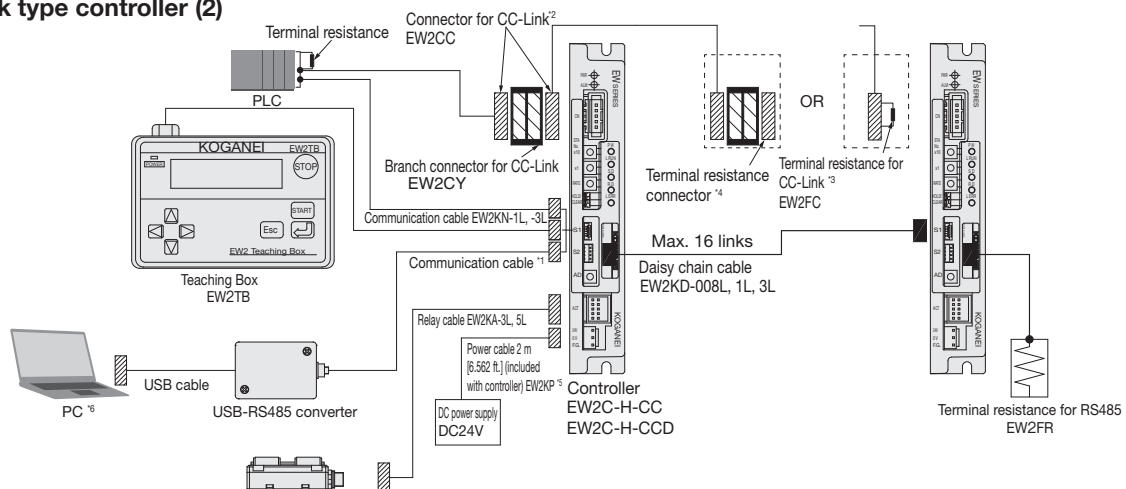
● Point input type controller



● CC-Link type controller (1)



● CC-Link type controller (2)



*1 One of the following communication cables can be selected.

- IBM2A-H1: USB-RS485 converter, with USB cable
- IBM2A-H1-N: USB-RS485 converter, without USB cable
- EW2KN: For communication

*2 Only the connector for CC-Link is provided. The cable must be provided by the customer. (Dedicated CC-Link cable supporting Ver1.1)

*3 When the EW2C-H-CC will be the end unit, make sure to use the terminal resistance for CC-Link (EW2FC) or terminal resistance connector.

*4 The terminal resistance connector must be provided by the customer.

[Recommended] 35T05-6M00-B0M GF from 3M
*5 The installation of a noise filter is recommended. (see page 10)

*6 The support software for setting the controller can be downloaded from the KOGANEI website free of charge.

EW2H

EW2HL

EWHA A

EWHA H

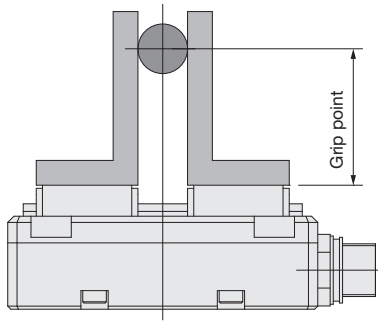
EWHR

EW5

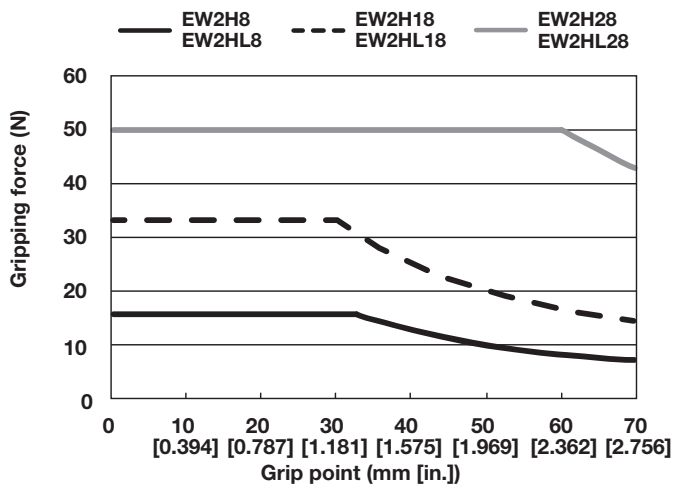
Material

Selection guidelines

● Grip point gripping force limitation

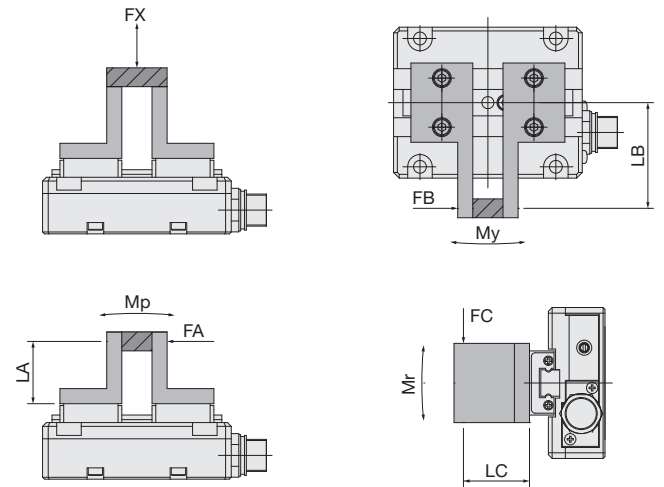


● Grip point and gripping force graph



*Indicates the grip point of the maximum gripping force for each size. Set a grip point at or below the allowable moment (Mp).

● Allowable load and static allowable moment



- $M_p = F_A \times L_A$ (N·m [in·lbf])
- $M_y = F_B \times L_B$ (N·m [in·lbf])
- $M_r = F_C \times L_C$ (N·m [in·lbf])

[Electric hand flat type]

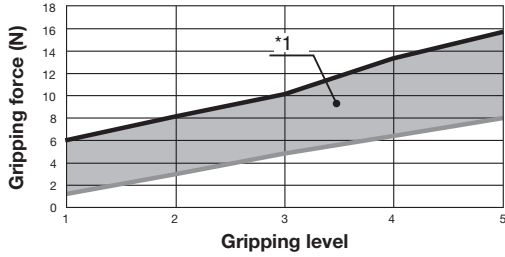
Load and moment	F_X	M_p	M_y	M_r
Type	N	N·m [in·lbf]	N·m [in·lbf]	N·m [in·lbf]
EW2 □ 8	40	0.5 [4.4]	0.3 [2.7]	0.6 [5.3]
EW2 □ 18	120	1.0 [8.9]	1.0 [8.9]	2.0 [17.7]
EW2 □ 28	190	3.0 [26.6]	4.0 [35.4]	8.0 [70.8]

Selection guidelines

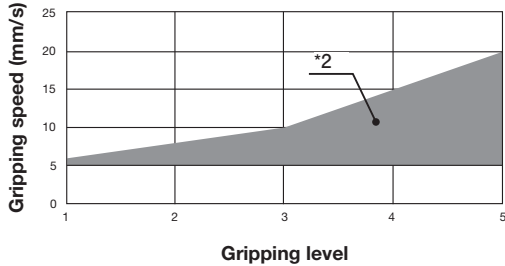
● Gripping force specifications

EW2H8

EW2HL8 Gripping level ⇔ gripping force



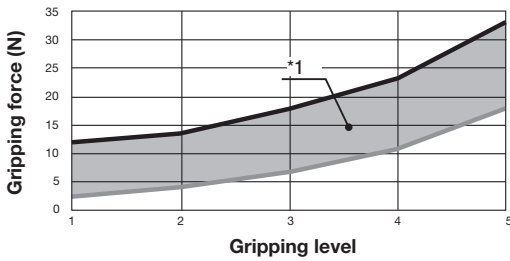
Gripping level ⇔ available speed range



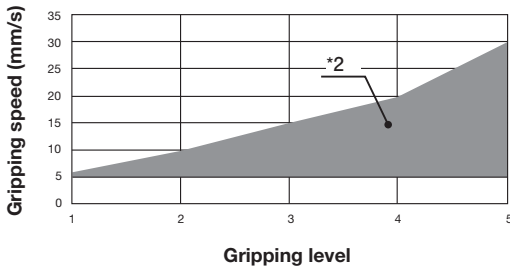
*The above gripping graph is an estimate.

EW2H18

EW2HL18 Gripping level ⇔ gripping force



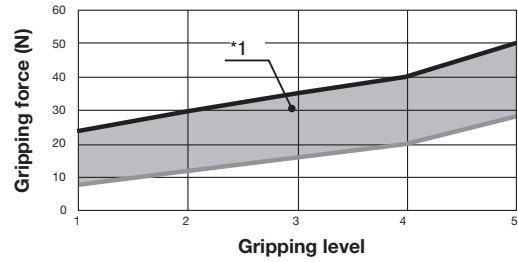
Gripping level ⇔ available speed range



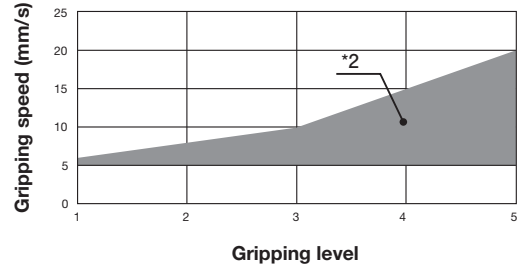
*The above gripping graph is an estimate.

EW2H28

EW2HL28 Gripping level ⇔ gripping force



Gripping level ⇔ available speed range



*The above gripping graph is an estimate.

*1 Force is generated within the graph range at the set gripping level.

*2 The gripping speed can be set within the graph range at the set gripping level.

● Electric hand operation mode

Mode	Positioning		Gripping ^{*1}		Pushing with acceleration/deceleration movement Perform acceleration/deceleration movement and add pushing operation.
	Acceleration or deceleration is performed and movement is stopped at the specified point.		C	O	
Setting value	A	I ²	C	O	U
Description	Move to the position of the specified point with the coordinates of 0 as the origin position	Move to the position of the specified point from the current position	Operate to close side	Operate to open side	Move to the specified point and perform pushing operation at the speed of PRM7 from the distance before the point specified at PRM8
Operation pattern					
Remarks	—		—		Suitable for high-frequency soft gripping.

*1 Do not use C to O, or O to C motion in gripping mode as it will result in malfunction.

*2 When operation is performed in mode I after changing the position manually, the reference position is that before changing the position manually.

*3 Perform workpiece gripping in the gripping mode (C, O) or pushing mode (U) with acceleration/deceleration movement.

When a workpiece is gripped with the positioning mode (A, I), an alarm is output and gripping cannot be performed normally.