

BD04

Belt type

CE compliance

Ordering method

BD04 - **48** - **N** - **N** - **S2**

Model	Lead 48: 48mm	Brake N: With no brake	Origin position N: Standard	Stroke 300: 300mm 500: 500mm 600: 600mm 700: 700mm 800: 800mm 900: 900mm 1000: 1000mm	Cable length <small>Note 1</small> 1K: 1m 3K: 3m 5K: 5m 10K: 10m	Robot positioner S2: TS-S2 <small>Note 2</small>	I/O NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board <small>Note 3</small>
						SH	Battery B: With battery (Absolute) N: None (Incremental)
						SD	1
						Robot driver SD: TS-SD	I/O cable t: 1m

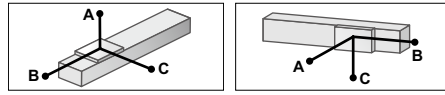
Note 1. The robot cable is flexible and resists bending.
 Note 2. See P.600 for DIN rail mounting bracket.
 Note 3. Select this selection when using the gateway function.

Basic specifications

Motor	28 □ Step motor
Resolution (Pulse/rotation)	4096
Repeatability <small>Note 1</small> (mm)	+/-0.1
Drive method	Belt
Equivalent lead (mm)	48
Maximum speed <small>Note 2</small> (mm/sec)	1100
Maximum payload (kg)	1
Stroke (mm)	300/500/600/700/800/900/1000
Overall length (mm) (Horizontal installation)	Stroke + 195.5
Maximum outside dimension of body cross-section (mm)	W40 × H101.9
Cable length (m)	Standard: 1 / Option: 3, 5, 10

Note 1. Positioning repeatability in one direction.
 Note 2. The maximum speed needs to be changed in accordance with the payload.
 See the "Speed vs. payload" graph shown on the right.

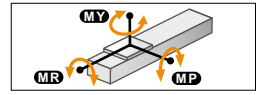
Allowable overhang



Horizontal installation (Unit: mm)				Wall installation (Unit: mm)			
	A	B	C		A	B	C
0.5kg	8036	1950	1504	0.5kg	1614	1942	8013
1kg	3933	968	747	1kg	798	961	3969

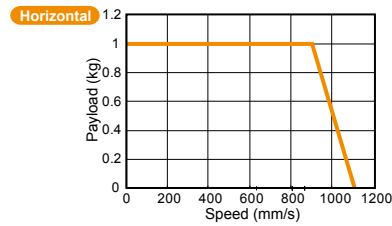
Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000km (This does not warrant the service life of the product.) (Service life is calculated for 600mm stroke models.)

Static loading moment



(Unit: N·m)		
MY	MP	MR
10	10	20

Speed vs. payload



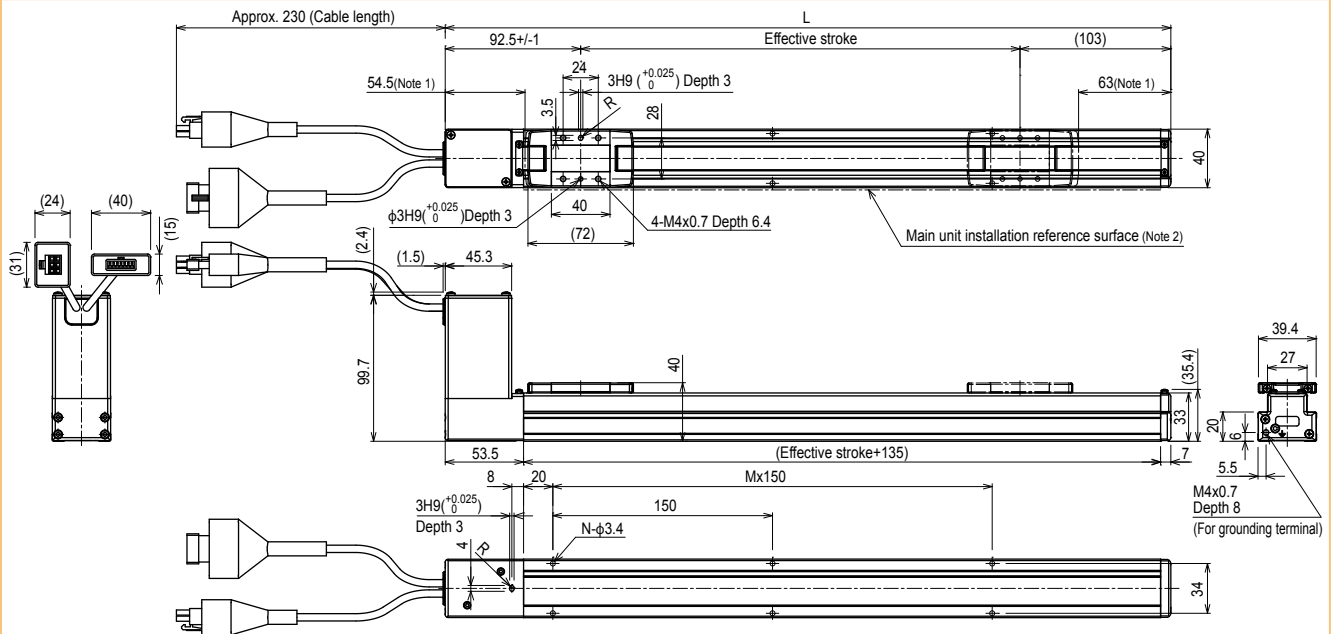
Quick reference

Payload (kg)	Speed (mm/sec)	%
1	900	90
0.5	1000	95
0	1100	100

Controller

Controller	Operation method
TS-S2	I/O point trace / Remote command
TS-SH	Remote command
TS-SD	Pulse train control

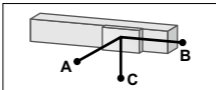
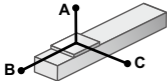
BD04



Effective stroke	300	500	600	700	800	900	1000
L	495.5	695.5	795.5	895.5	995.5	1095.5	1195.5
M	2	4	4	5	6	6	7
N	6	10	10	12	14	14	16
Weight (kg)	1.19	1.45	1.58	1.71	1.84	1.97	2.1

Note 1. Position from both ends to the mechanical stopper. (Movable range during return-to-origin)
 Note 2. When installing using the main unit installation reference surface, make the mating or positioning height 2mm or more higher than the reference surface since the R-chamfering is provided on the main unit. (Recommended height, 5mm)
 Note 3. The minimum bending radius of the motor cable is R30.

Allowable overhang Note



Horizontal installation (Unit: mm)

	A	B	C
0.5kg	8036	1950	1504
1kg	3933	968	747

Wall installation (Unit: mm)

	A	B	C
0.5kg	1614	1942	8013
1kg	798	961	3969

Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000km (This does not warrant the service life of the product.). (Service life is calculated for 600mm stroke models.)

BD05

Belt type

CE compliance

Ordering method

BD05	48	N	N			S2	
Model	Lead	Brake	Origin position	Stroke	Cable length <small>Note 1</small>	Robot positioner	I/O
	48: 48mm	N: With no brake	N: Standard	300: 300mm 500: 500mm 600: 600mm 700: 700mm 800: 800mm 900: 900mm 1000: 1000mm 1200: 1200mm 1500: 1500mm 1800: 1800mm 2000: 2000mm	1K: 1m 3K: 3m 5K: 5m 10K: 10m	S2: TS-S2 <small>Note 2</small>	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board <small>Note 3</small>
						SH	
						Robot positioner	I/O
						SH: TS-SH	NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board <small>Note 3</small>
							Battery
							B: With battery (Absolute) N: None (Incremental)
						SD	1
						Robot driver	I/O cable
						SD: TS-SD	t: 1m

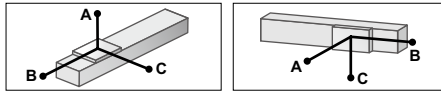
Note 1. The robot cable is flexible and resists bending.
 Note 2. See P.600 for DIN rail mounting bracket.
 Note 3. Select this selection when using the gateway function.

Basic specifications

Motor	42 □ Step motor
Resolution (Pulse/rotation)	20480
Repeatability <small>Note 1</small> (mm)	+/-0.1
Drive method	Belt
Equivalent lead (mm)	48
Maximum speed <small>Note 2</small> (mm/sec)	1400
Maximum payload (kg)	5
Stroke (mm)	300/500/600/700/800/900/ 1000/1200/1500/1800/2000
Overall length (mm) (Horizontal installation)	Stroke + 241.8
Maximum outside dimension of body cross-section (mm)	W58 × H123
Cable length (m)	Standard: 1 / Option: 3, 5, 10

Note 1. Positioning repeatability in one direction.
 Note 2. The maximum speed needs to be changed in accordance with the payload.
 See the "Speed vs. payload" graph shown on the right.

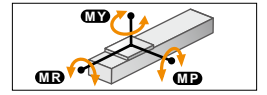
Allowable overhang



Horizontal installation (Unit: mm)				Wall installation (Unit: mm)			
	A	B	C		A	B	C
1kg	9445	2274	1681	1kg	1784	2312	9545
3kg	2982	702	553	3kg	573	743	3082
5kg	1689	385	325	5kg	331	429	1789

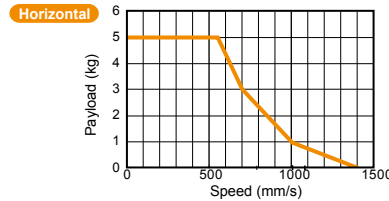
Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000km (This does not warrant the service life of the product.). (Service life is calculated for 600mm stroke models.)

Static loading moment



(Unit: N·m)		
MY	MP	MR
27	27	52

Speed vs. payload

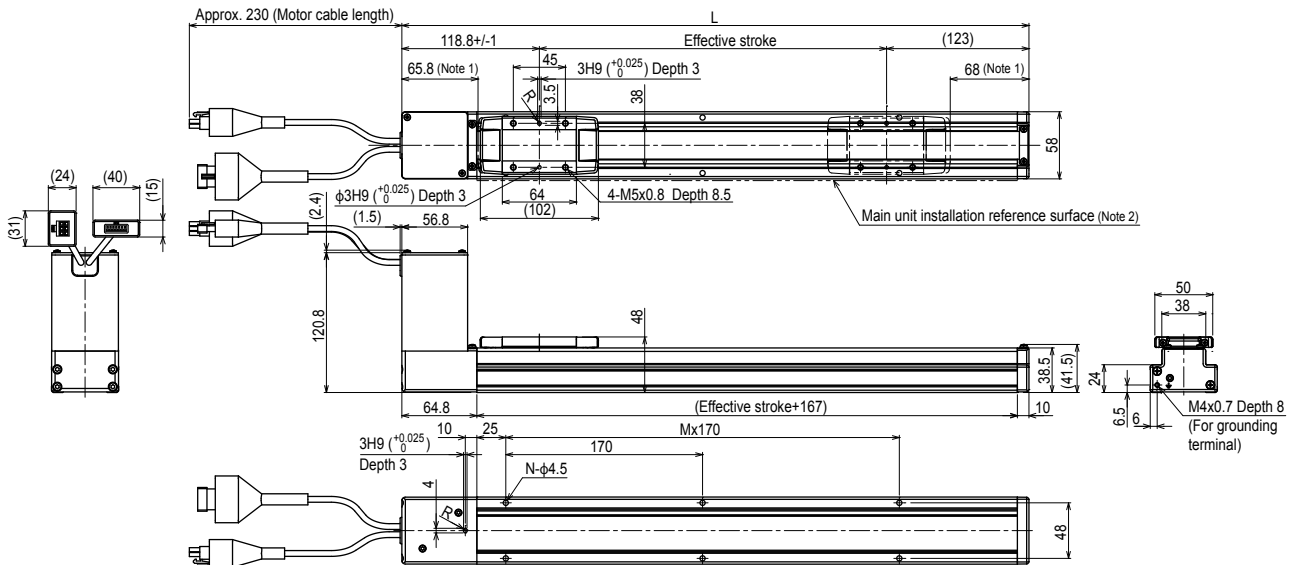


Quick reference	Payload (kg)	Speed (mm/sec)	%
	5	550	39
	3	700	50
	1	1000	71
	0	1400	100

Controller

Controller	Operation method
TS-S2	I/O point trace / Remote command
TS-SH	I/O point trace / Remote command
TS-SD	Pulse train control

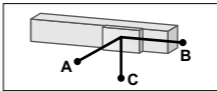
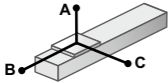
BD05



Effective stroke	300	500	600	700	800	900	1000	1200	1500	1800	2000
L	541.8	741.8	841.8	941.8	1041.8	1141.8	1241.8	1441.8	1741.8	2041.8	2241.8
M	2	3	4	4	5	6	6	7	9	11	12
N	6	8	10	10	12	14	14	16	20	24	26
Weight (kg)	2.39	2.85	3.08	3.31	3.54	3.77	4	4.46	5.15	5.84	6.3

Note 1. Position from both ends to the mechanical stopper. (Movable range during return-to-origin)
 Note 2. When installing using the main unit installation reference surface, make the mating or positioning height 2mm or more higher than the reference surface since the R-chamfering is provided on the main unit. (Recommended height, 5mm)
 Note 3. The minimum bending radius of the motor cable is R30.

Allowable overhang Note



Horizontal installation (Unit: mm)

Wall installation (Unit: mm)

	A	B	C
1kg	9445	2274	1681
3kg	2982	702	553
5kg	1689	385	325

	A	B	C
1kg	1784	2312	9545
3kg	573	743	3082
5kg	331	429	1789

Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000km (This does not warrant the service life of the product.). (Service life is calculated for 600mm stroke models.)

BD07

Belt type



CE compliance

Ordering method

BD07	48	N	N			S2	
Model	Lead 48: 48mm	Brake N: With no brake	Origin position N: Standard	Stroke	Cable length ^{Note 1}	Robot positioner S2: TS-S2 ^{Note 2}	I/O
				300: 300mm 500: 500mm 600: 600mm 700: 700mm 800: 800mm 900: 900mm 1000: 1000mm 1200: 1200mm 1500: 1500mm 1800: 1800mm 2000: 2000mm	1K: 1m 3K: 3m 5K: 5m 10K: 10m		NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board ^{Note 3}
						SH	
						Robot positioner SH: TS-SH	I/O
							NP: NPN PN: PNP CC: CC-Link DN: DeviceNet™ EP: EtherNet/IP™ PT: PROFINET GW: No I/O board ^{Note 3}
						SD	1
						Robot driver SD: TS-SD	I/O cable t: 1m

Note 1. The robot cable is flexible and resists bending.
 Note 2. See P.600 for DIN rail mounting bracket.
 Note 3. Select this selection when using the gateway function.

Basic specifications

Motor	56 □ Step motor
Resolution (Pulse/rotation)	20480
Repeatability ^{Note 1} (mm)	+/-0.1
Drive method	Belt
Equivalent lead (mm)	48
Maximum speed ^{Note 2} (mm/sec)	1500
Maximum payload (kg)	14
Stroke (mm)	300/500/600/700/800/900/ 1000/1200/1500/1800/2000
Overall length (mm) (Horizontal installation)	Stroke + 285.6
Maximum outside dimension of body cross-section (mm)	W70 × H147.5
Cable length (m)	Standard: 1 / Option: 3, 5, 10

Note 1. Positioning repeatability in one direction.
 Note 2. The maximum speed needs to be changed in accordance with the payload.
 See the "Speed vs. payload" graph shown on the right.

Allowable overhang

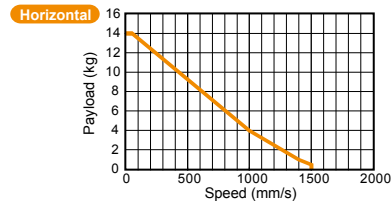
Horizontal installation (Unit: mm)				Wall installation (Unit: mm)			
	A	B	C		A	B	C
3kg	5767	1353	1247	3kg	1324	1354	5588
8kg	1839	399	458	8kg	474	399	1658
14kg	829	154	254	14kg	255	151	643

Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000km (This does not warrant the service life of the product.). (Service life is calculated for 600mm stroke models.)

Static loading moment

(Unit: N·m)		
MY	MP	MR
46	46	101

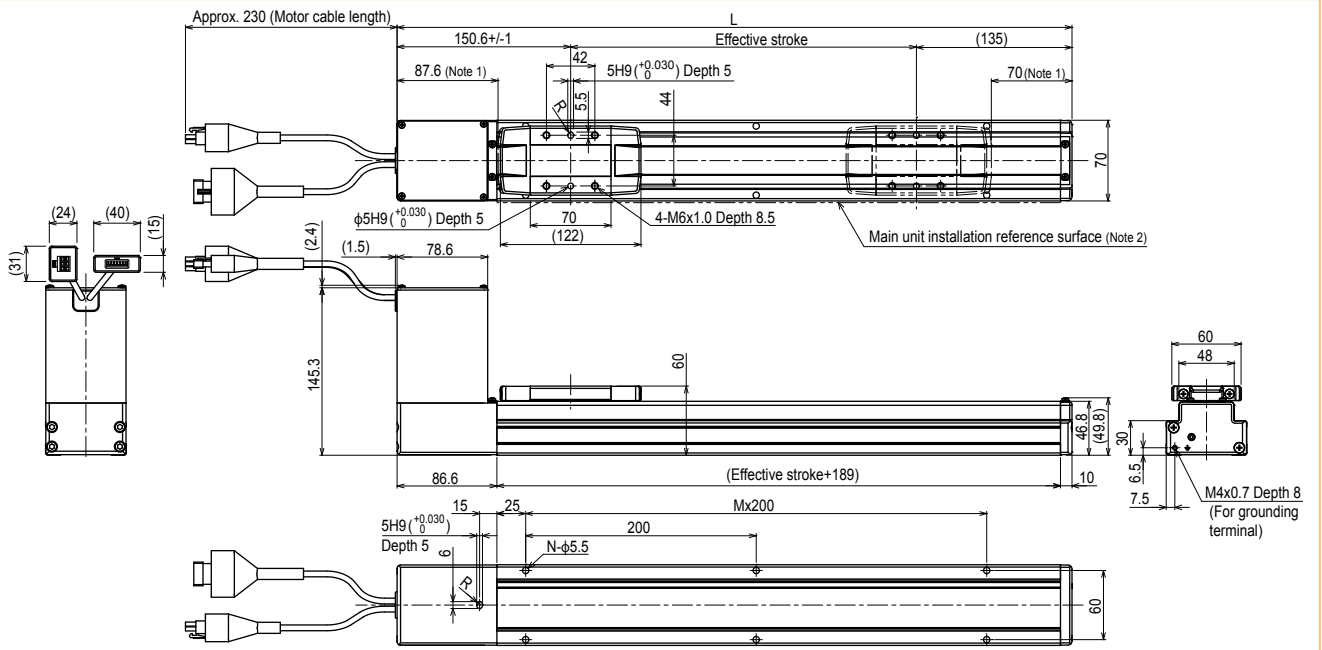
Speed vs. payload



Controller

Controller	Operation method
TS-S2	I/O point trace / Remote command
TS-SH	Remote command
TS-SD	Pulse train control

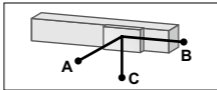
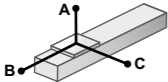
BD07



Effective stroke	300	500	600	700	800	900	1000	1200	1500	1800	2000
L	585.6	785.6	885.6	985.6	1085.6	1185.6	1285.6	1485.6	1785.6	2085.6	2285.6
M	2	3	3	4	4	5	5	6	8	9	10
N	6	8	8	10	10	12	12	14	18	20	22
Weight (kg)	4.12	4.8	5.14	5.48	5.82	6.16	6.5	7.18	8.2	9.22	9.9

Note 1. Position from both ends to the mechanical stopper. (Movable range during return-to-origin)
 Note 2. When installing using the main unit installation reference surface, make the mating or positioning height 2mm or more higher than the reference surface since the R-chamfering is provided on the main unit. (Recommended height, 5mm)
 Note 3. The minimum bending radius of the motor cable is R30.

Allowable overhang Note



Horizontal installation (Unit: mm)

Wall installation (Unit: mm)

	A	B	C
3kg	5767	1353	1247
8kg	1839	399	458
14kg	829	154	254

	A	B	C
3kg	1324	1354	5588
8kg	474	399	1658
14kg	255	151	643

Note. Distance from center of slider upper surface to carrier center-of-gravity at a guide service life of 10,000km (This does not warrant the service life of the product.). (Service life is calculated for 600mm stroke models.)