

HES SERIES

HIGH-SPEED ROTATION & HIGH PRECISION

Transformer

Transform your machining center to high-speed specifications.

[HES810-BT/IT/HSK/ST32]

- Max. power: 350 W
- Max. motor speed: 80,000 min⁻¹

[HES510-BT/IT/HSK/ST32]

- Max. power: 340 W
- Max. motor speed: 50,000 min⁻¹

Spindle accuracy: within 1 µm

- Optimum for high-precision machining
- Longer tool life

Ceramic bearings

- Almost twice as durable as steel bearings
- Rigidity allows higher machining conditions

Brushless motor

- Eliminates the need of changing carbon brushes
- Higher power, longer product life, low maintenance and quiet operation



E4000

E3000

E2000

iSpeed3

Air-Speed

HES

TURBINES

ACCESSORIES

Index

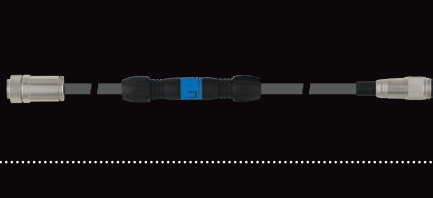
80,000 min ⁻¹ motor spindle			
HES810-BT30		p. 6-5	
HES810-BT40		p. 6-5	
HES810-IT40		p. 6-5	
HES810-BT50		p. 6-7	
HES810-HSK A63		p. 6-7	
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50,000 min ⁻¹ motor spindle			
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Controller

E3000 CONTROLLER		p. 6-13
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Motor cord

EMCD-810		p. 6-14
[Length] 4 m, 6 m, 8 m		

Combination Example

[HES810 SERIES]



1

2

3

4

[HES810-BT40]			
	Code No.	Model	Description
1	7879	HES810-BT40	Motor spindle
2	9248	EMCD-810-4M	Motor cord 4 m
3	8422	E3000	E3000 Controller
4	4504	AL-C1204	Air line kit
5	91440	CHA-4.0	Collet φ4.0 mm

[HES510 SERIES]



1

2

3

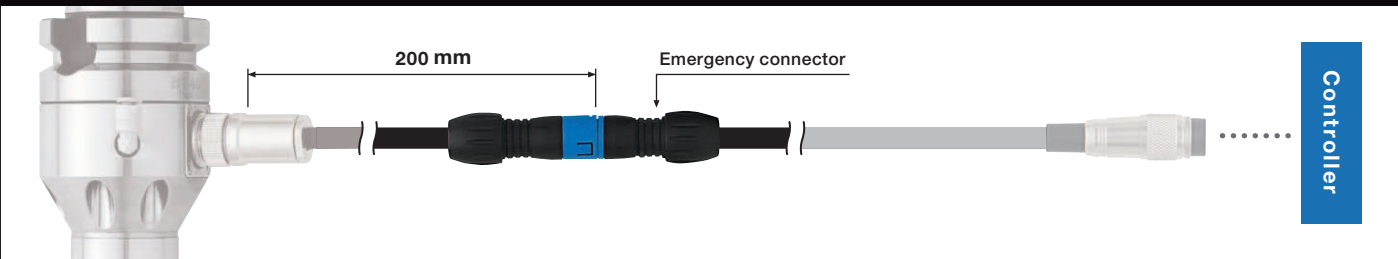
4

[HES510-BT40]			
	Code No.	Model	Description
1	7891	HES510-BT40	Motor spindle
2	9248	EMCD-810-4M	Motor cord 4 m
3	8422	E3000	E3000 Controller
4	4504	AL-C1204	Air line kit
5	91540	CHK-4.0	Collet φ4.0 mm

Safety function

HES810 / 510 have a motor cord with the Emergency connector.

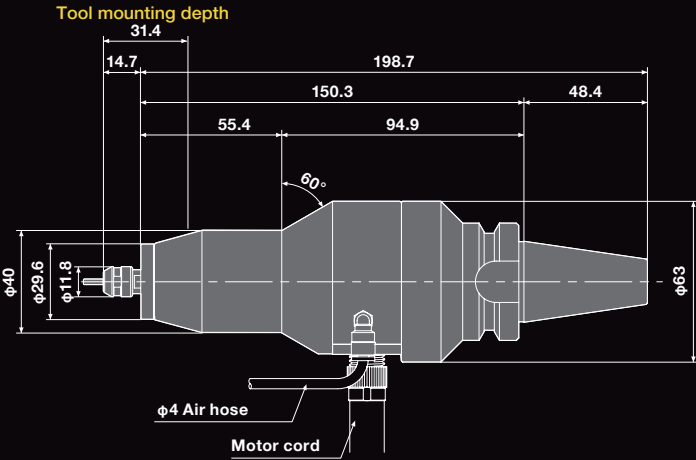
In case the machine spindle rotates by accident, the Emergency connector disconnects by itself to minimize the damage both the machine and controller.



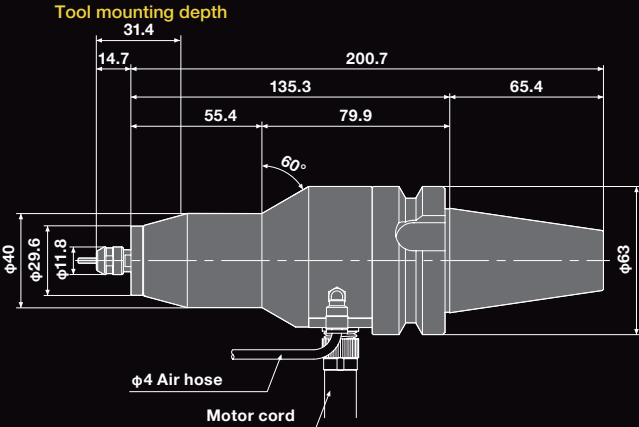
! It is crucial to install the controller and the cable according to "OPERATION MANUAL" in order to function the Emergency connector properly.

80,000 min⁻¹ motor spindle

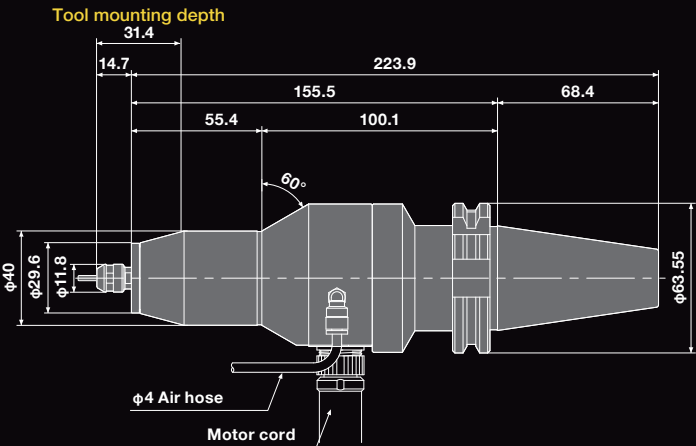
HES810-BT30



HES810-BT40



HES810-IT40



Specifications

CAD drawings

CAD drawings (DXF/STEP) are available on our website

Order by Code No.

HES810-BT30

Code No. 7878 Model HES810-BT30



Max. power	Motor speed	Spindle accuracy	Net weight
350 w	20,000–80,000 min ⁻¹ *Recommended motor speed: 50,000–80,000 min ⁻¹	Within 1 μm	2.0 kg
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each *Collet is sold separately.		
Options	Collet (CHA Group): φ0.5–φ4.0 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

HES810-BT40

Code No. 7879 Model HES810-BT40



Max. power	Motor speed	Spindle accuracy	Net weight
350 w	20,000–80,000 min ⁻¹ *Recommended motor speed: 50,000–80,000 min ⁻¹	Within 1 μm	2.2 kg
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each *Collet is sold separately.		
Options	Collet (CHA Group): φ0.5–φ4.0 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

HES810-IT40

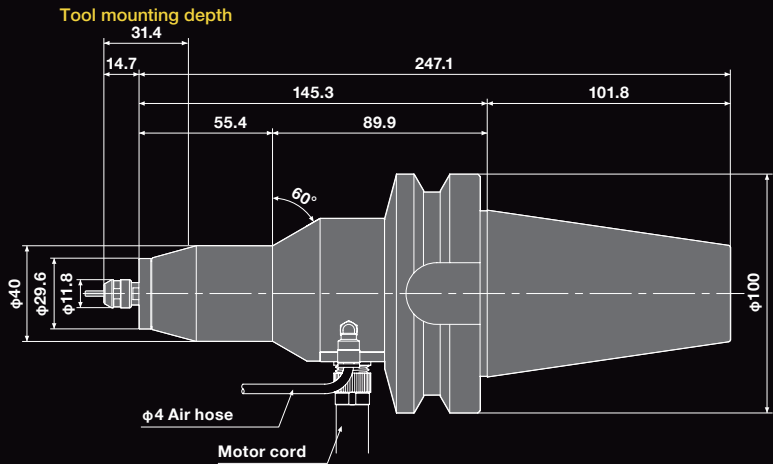
Code No. 7883 Model HES810-IT40



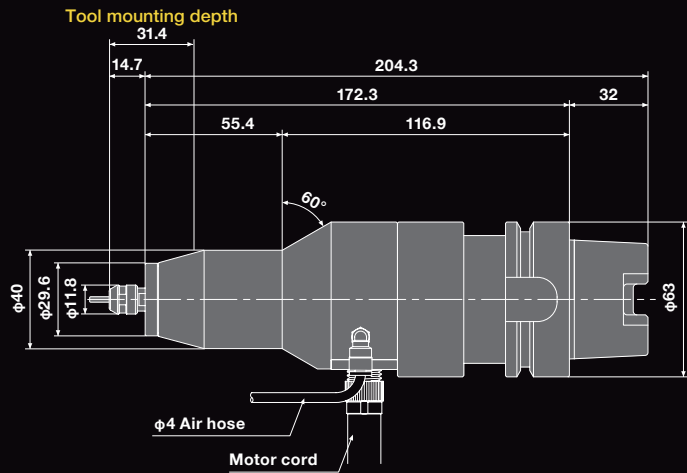
Max. power	Motor speed	Spindle accuracy	Net weight
350 w	20,000–80,000 min ⁻¹ *Recommended motor speed: 50,000–80,000 min ⁻¹	Within 1 μm	2.4 kg
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each *Collet is sold separately.		
Options	Collet (CHA Group): φ0.5–φ4.0 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

80,000 min⁻¹ motor spindle

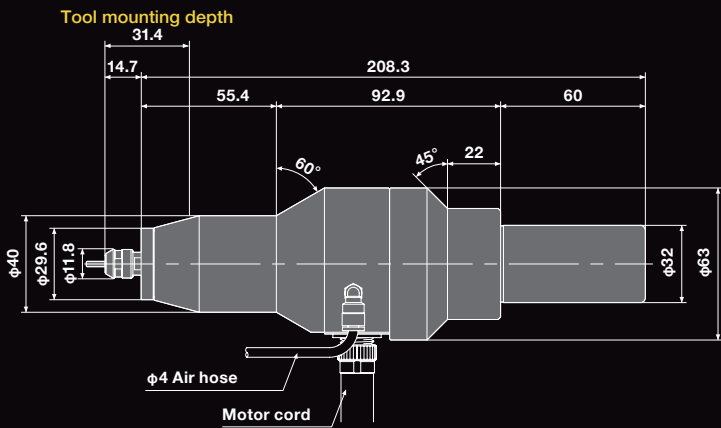
HES810-BT50



HES810-HSK A63



HES810-ST32



Specifications

CAD drawings

CAD drawings (DXF/STEP) are available on our website

HES810-BT50

Code No. 7880 Model HES810-BT50



Max. power	Motor speed	Spindle accuracy	Net weight
350 w	20,000–80,000 min ⁻¹ *Recommended motor speed: 50,000–80,000 min ⁻¹	Within 1 μm	4.9 kg
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each *Collet is sold separately.		
Options	Collet (CHA Group): φ0.5–φ4.0 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

HES810-HSK A63

Code No. 7884 Model HES810-HSK A63



Max. power	Motor speed	Spindle accuracy	Net weight
350 w	20,000–80,000 min ⁻¹ *Recommended motor speed: 50,000–80,000 min ⁻¹	Within 1 μm	2.6 kg
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each *Collet is sold separately.		
Options	Collet (CHA Group): φ0.5–φ4.0 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

HES810-ST32

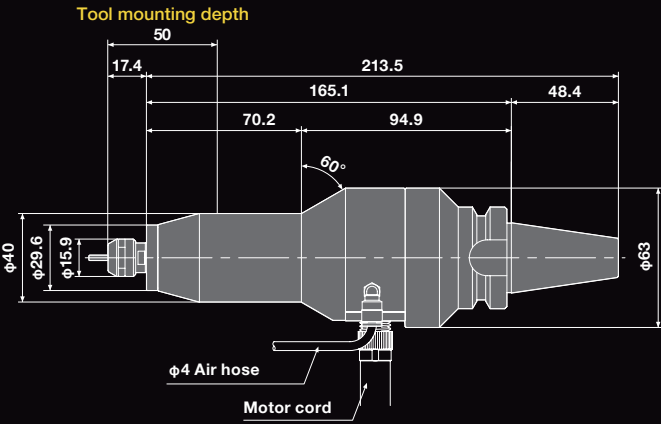
Code No. 7885 Model HES810-ST32



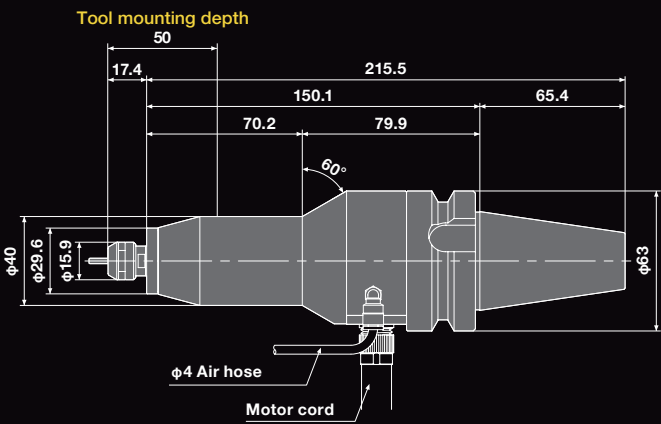
Max. power	Motor speed	Spindle accuracy	Net weight
350 w	20,000–80,000 min ⁻¹ *Recommended motor speed: 50,000–80,000 min ⁻¹	Within 1 μm	2.3 kg
Standard equipment and accessories	Collet nut (CHN-A) / Wrench (8 × 5) · (9 × 11): 1 pc. each *Collet is sold separately.		
Options	Collet (CHA Group): φ0.5–φ4.0 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

50,000 min⁻¹ motor spindle

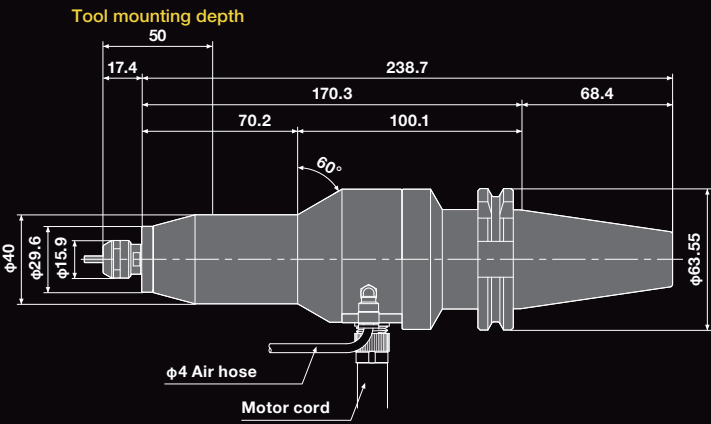
HES510-BT30



HES510-BT40



HES510-IT40



Specifications

CAD drawings

CAD drawings (DXF/STEP) are available on our website

HES510-BT30

Code No. 7890 Model HES510-BT30



Max. power	Motor speed	Spindle accuracy	Net weight
340 w	5,000–50,000 min ⁻¹	Within 1 μm	2.2 kg
Standard equipment and accessories	Collet nut (K-265) / Wrench (12 × 14): 2 pcs. <i>*Collet is sold separately.</i>		
Options	Collet (CHK Group): φ0.5–φ6.35 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

HES510-BT40

Code No. 7891 Model HES510-BT40



Max. power	Motor speed	Spindle accuracy	Net weight
340 w	5,000–50,000 min ⁻¹	Within 1 μm	2.3 kg
Standard equipment and accessories	Collet nut (K-265) / Wrench (12 × 14): 2 pcs. <i>*Collet is sold separately.</i>		
Options	Collet (CHK Group): φ0.5–φ6.35 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

HES510-IT40

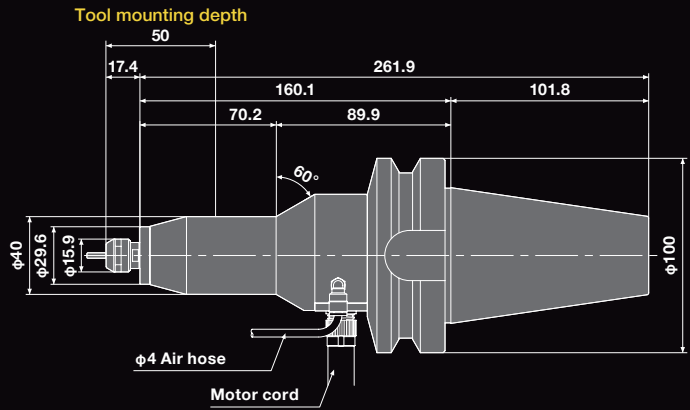
Code No. 7895 Model HES510-IT40



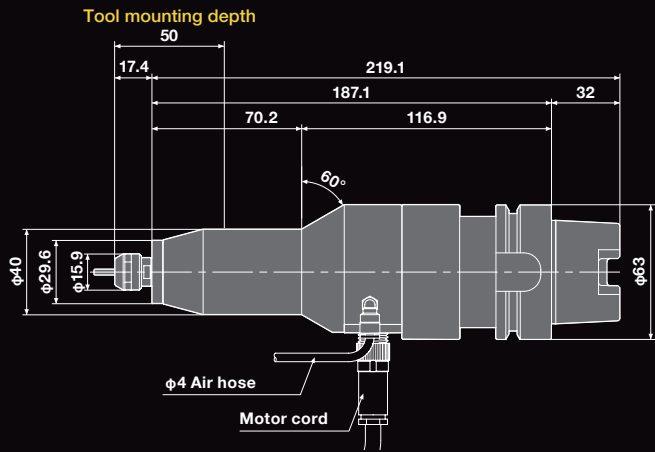
Max. power	Motor speed	Spindle accuracy	Net weight
340 w	5,000–50,000 min ⁻¹	Within 1 μm	2.6 kg
Standard equipment and accessories	Collet nut (K-265) / Wrench (12 × 14): 2 pcs. <i>*Collet is sold separately.</i>		
Options	Collet (CHK Group): φ0.5–φ6.35 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

50,000 min⁻¹ motor spindle

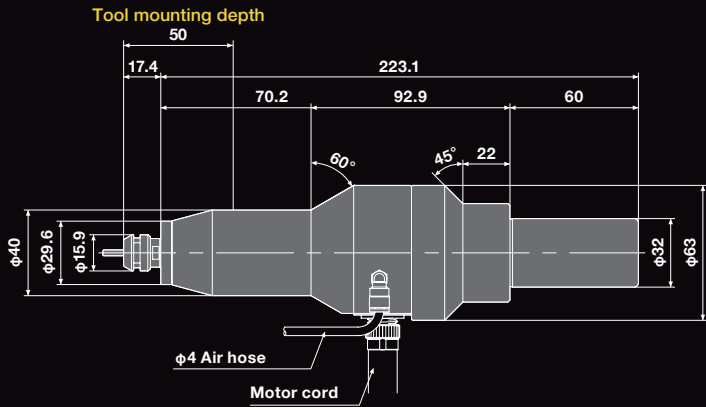
HES510-BT50



HES510-HSK A63



HES510-ST32



Specifications

CAD drawings

CAD drawings (DXF/STEP) are available on our website

Order by Code No.

HES510-BT50

Code No.

7892

Model

HES510-BT50



Max. power	Motor speed	Spindle accuracy	Net weight
340 w	5,000–50,000 min ⁻¹	Within 1 μm	5.0 kg
Standard equipment and accessories	Collet nut (K-265) / Wrench (12 × 14): 2 pcs. <i>*Collet is sold separately.</i>		
Options	Collet (CHK Group): φ0.5–φ6.35 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

HES510-HSK A63

Code No.

7897

Model

HES510-HSK A63



Max. power	Motor speed	Spindle accuracy	Net weight
340 w	5,000–50,000 min ⁻¹	Within 1 μm	2.7 kg
Standard equipment and accessories	Collet nut (K-265) / Wrench (12 × 14): 2 pcs. <i>*Collet is sold separately.</i>		
Options	Collet (CHK Group): φ0.5–φ6.35 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

HES510-ST32

Code No.

7899

Model

HES510-ST32

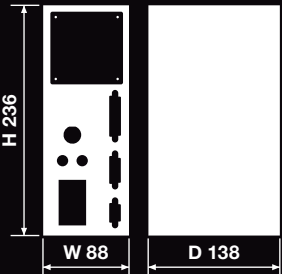


Max. power	Motor speed	Spindle accuracy	Net weight
340 w	5,000–50,000 min ⁻¹	Within 1 μm	2.4 kg
Standard equipment and accessories	Collet nut (K-265) / Wrench (12 × 14): 2 pcs. <i>*Collet is sold separately.</i>		
Options	Collet (CHK Group): φ0.5–φ6.35 mm p. 8-5		
	Motor cord: 4 m (9248), 6 m (9249), 8 m (9250) p. 6-14		

E3000 Controller

E3000 CONTROLLER
Controller

Code No.
8422



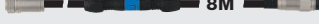
External control function

- **External input**
Rotating ON/OFF, Forward/reverse rotation, Motor speed control, Safety relay brake, etc.
- **External output**
Motor current, Rotating pulse, Error, Load, Motor speed, etc.
- **Parameter setting**
Setting maximum motor speed, Setting fixed motor speed, Speed point, etc.

*For more information, please refer to the operation manual on our website.

Motor speed	
1,000–80,000 min ⁻¹	
Input voltage	
AC100–240 v Without plug Multiple output power	
Max. power	Power consumption
350 w	AC1.8 A
Air consumption	Net weight
30 NL/min (0.25–0.3 MPa)	2.8 kg
Standard equipment and accessories	
Power cord: 3 m / Air hose with filter (K-251: 2058): 2 m	
Reducer / Connector cap (included)	
Bracket / Nylon clip / Screw / Rubber pad	
Fuse T6.3AL 250V (2063): 2 pcs.	

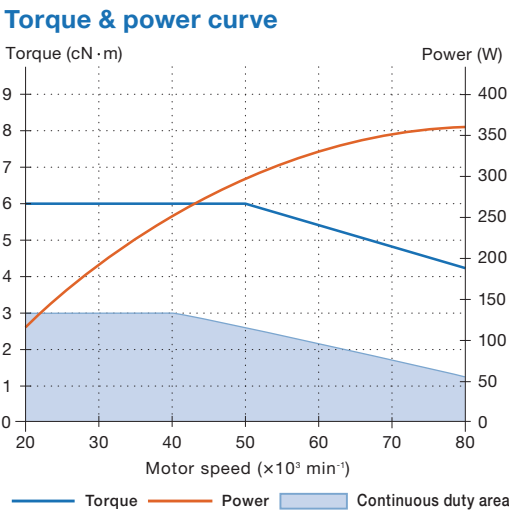
Motor cord

Motor cord	Code No.	Model	Cord length	Standard equipment and accessories
 4M	9248	EMCD-810-4M	4 m	Air cooling hose Connector cap (included)
 6M	9249	EMCD-810-6M	6 m	
 8M	9250	EMCD-810-8M	8 m	

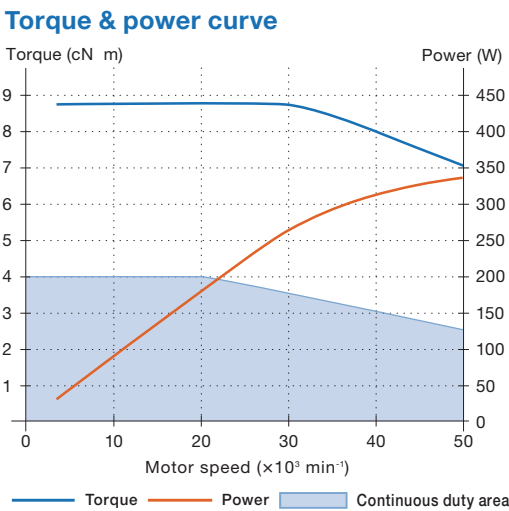
*The minimum cord bending radius for above motor cords is 60 mm.

Torque & power curve

[HES810 SERIES]



[HES510 SERIES]



ACCESSORIES

Air line kit	p. 8-3-4
Collet	p. 8-5-7
Collet nut	p. 8-8
Grip ring / Spacer / Bush	p. 8-9-10
Collet holder / Preset adapter	p. 8-11
COMBOX-NET.EIP, etc.	p. 8-12-14

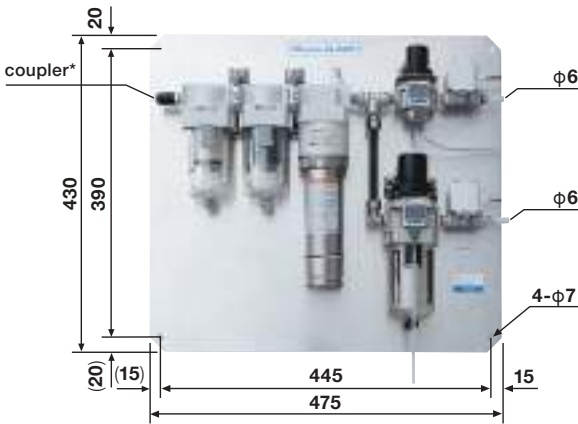


Air line kit

Order by Code No.

AL-A0611

Filtration: 0.01 μm



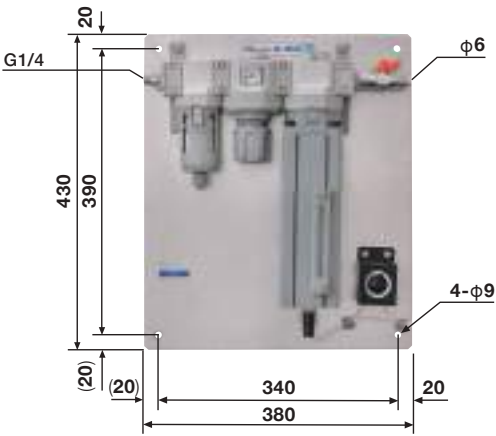
- Air piping
Inlet: Coupler (Model: KK13P-02M made by SMC Corporation)
Outlet: φ6.0 mm × 2 parts
- Net weight: 8.2 kg

Standard accessories	Spacer: 4 pcs.
Standard equipment	Mist separator / Micro-mist separator Membrane air dryer / Air regulator Regulator with Micro-mist separator Digital pressure switch: 2 pcs. / Solenoid valve: 2 pcs.
Compatible model	E3000 (NRAF-5080) · ABT series Xspeed series

*If you do not use our air line kit, please prepare a micro mist separator with 0.01 μm filtration.

AL-M1201BL

Filtration: 0.3 μm



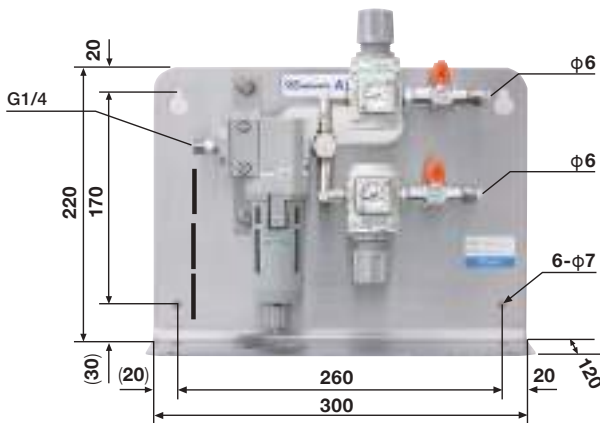
- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm
- Net weight: 5.2 kg

Standard accessories	Hose pipe (K-275): 2 m / Connection joint: 1 pc. φ6 mm Air hose: 1 pc. / Spacer: 4 pcs. Lubricating oil (K-202) 1 L: 1 pc. Bolt (M8 × 20 L): 4 pcs.
Standard equipment	Air filter / Air regulator / Lubricator ON-OFF valve / Alarm buzzer
Compatible model	E3000 (RG-3004M) · HTS series PLANET series

*Recommendation of nominal filtration rating: 0.3 μm,
Pressure range: 0.1-1.0 MPa Recommendation of air filter: M2000-WS (CKD)

AL-A1205

Filtration: 0.3 μm



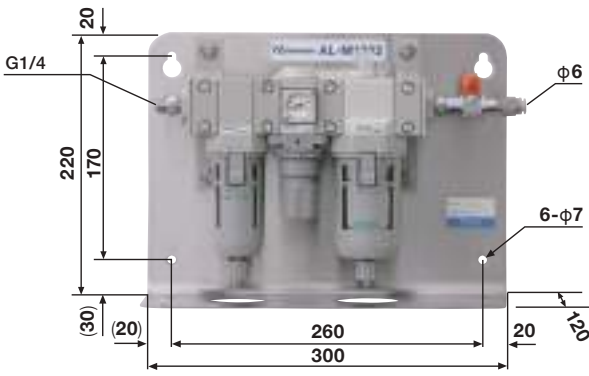
- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm × 2 parts
- Net weight: 2.4 kg

Standard accessories	Hose pipe (K-275): 2 m Mounting screw (M6 × 20): 4 pcs. Washer: 4 pcs. / Rubber pad: 4 pcs.
Standard equipment	Oil mist filter / Air regulator: 2 pcs. ON-OFF valve: 2 pcs.
Compatible model	E3000 (NRAF-5080) · ABT series

*Recommendation of nominal filtration rating: 0.3 μm,
Pressure range: 0.1-1.0 MPa Recommendation of air filter: M2000-WS (CKD)

AL-M1202

Filtration: 0.3 μm

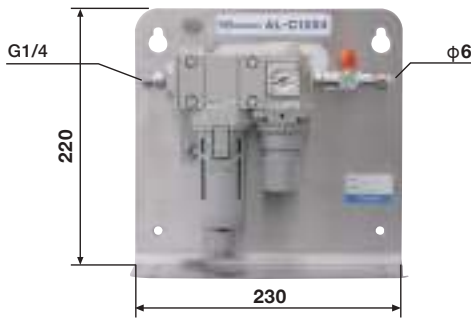


- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm
- Net weight: 2.8 kg

Standard accessories	Hose pipe (K-275): 2 m / Hose band: 1 pc. Lubricating oil (K-211) 70 cc: 1 pc. Mounting screw (M6 × 20): 4 pcs. Washer: 4 pcs. / Rubber pad: 4 pcs.
Standard equipment	Air filter / Air regulator / Lubricator ON-OFF valve
Compatible model	Air-Speed series · HTS series · PLANET series

AL-C1204

Filtration: 0.3 μm

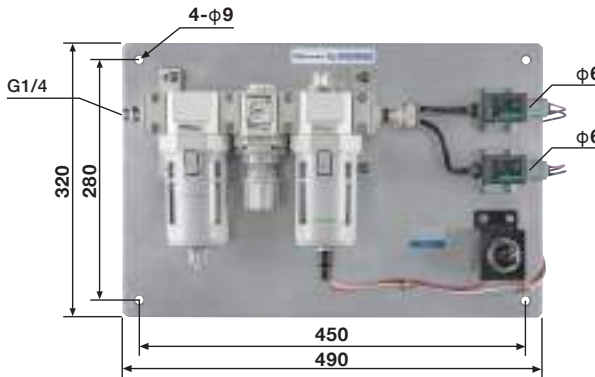


- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm
- Net weight: 1.9 kg

Standard accessories	Hose pipe (K-275): 2 m / Rubber pad: 4 pcs. Mounting screw (M6 × 20): 4 pcs. Washer: 4 pcs. / Hose band: 1 pc.
Standard equipment	Air filter / Air regulator / Air pressure gauge ON-OFF valve
Compatible model	E4000 series · E3000 series · E2000 series iSpeed3 series · HES series

AL-M1203BS2

Filtration: 0.3 μm



- Air piping
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm × 2 parts
- Net weight: 3.9 kg

Standard accessories	Hose pipe (K-275): 2 m Lubricating oil (K-202) 1 L: 1 pc. Bolt (M8 × 20 L): 4 pcs. / Spacer: 4 pcs.
Standard equipment	Air filter / Air regulator / Lubricator Solenoid valve: 2 pcs. / Alarm buzzer
Compatible model	Air-Speed series

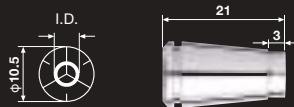
Collet

Order by Code No.

CHA Group		Fit nuts: CHN-A, CHN-AA, CHN-CTA, CHN-3A			
		Code No.	Model	I.D. (mm)	Compatible model
 φ1.0 and over	91494	CHA-3.0AA	φ3.0AA*	CTS-2630 / 2620A (Type AA only) CTS-3030 EM20-S6000 · EM25-S6000 EMS-3060A · NR-3080S MSS-19 · MSS-20 · MSS-22 PMS-3020A QC3-A (NRR3060-QC / NR3060-AQC) ABT-1000 / 1600 Xpeed1600 (Type AA only) HES810 series HTS series iSpeed3 series	
	91496	CHA-3.175AA	φ3.175AA*		
	91495	CHA-4.0AA	φ4.0AA*		
	91492	CHA-2.35	φ2.35		
	91430	CHA-3.0	φ3.0		
 φ0.5-φ0.9	91493	CHA-3.175	φ3.175		
	91440	CHA-4.0	φ4.0		
	914 □□	CHA-□□	φ0.5, φ0.6, φ0.7, φ0.8, φ0.9		
			φ1.0, φ1.5, φ2.0, φ2.5, φ3.5		
			φ1.1, φ1.2, φ1.3, φ1.4, φ1.6, φ1.7, φ1.8, φ1.9 φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9 φ3.1, φ3.2, φ3.3, φ3.4, φ3.6, φ3.7, φ3.8, φ3.9		

CHB Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		92820	CHB-2.0	φ2.0	NR33-6000ATC-ESD NR40-5100 ATC · NRR-3060				
		92830	CHB-3.0	φ3.0					
		92893	CHB-3.175	φ3.175					
		92835	CHB-3.5	φ3.5					
		92840	CHB-4.0	φ4.0					

CHK Group

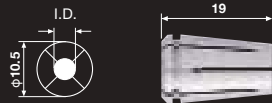
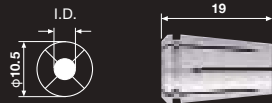


φ1.0 and over



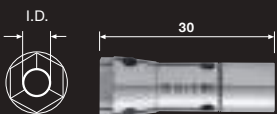
φ0.5~φ0.9

Code No.	Model	I.D. (mm)	Compatible model
91597	CHK-3.0AA	φ3.0AA*	EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · NR-2551 · NR-3060 NR-3060S · NR-403E · NR-453E NRAF-5080 · NRF-3060S · RAS-151E RAX-71E · RAX-271E MSS-25 · MSST-23 · PMA-3013K PMR-3005K · PMS-3020K NR-303 · NR-311 · NR-2351 · RAS-101 QC5-K (NRR4040-QC / NR4040-AQC) QC3-K (NRR3060-QC / NR3060-AQC) Xpeed1200 (Type AA only) HES510 series PLANET series
91598	CHK-3.175AA	φ3.175AA*	
91599	CHK-4.0AA	φ4.0AA*	
91600	CHK-6.0AA	φ6.0AA*	
91601	CHK-6.35AA	φ6.35AA*	
91592	CHK-2.35	φ2.35	
91530	CHK-3.0	φ3.0	
91593	CHK-3.175	φ3.175	
91540	CHK-4.0	φ4.0	
91594	CHK-4.76	φ4.76	
91560	CHK-6.0	φ6.0	
91596	CHK-6.35	φ6.35	
915 □□	CHK-□□	φ0.5, φ0.6, φ0.7, φ0.8, φ0.9	
		φ1.0, φ1.5, φ2.0, φ2.5, φ3.5, φ4.5, φ5.0, φ5.5	
		φ1.1, φ1.2, φ1.3, φ1.4, φ1.6, φ1.7, φ1.8, φ1.9	
		φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9	
		φ3.1, φ3.2, φ3.3, φ3.4, φ3.6, φ3.7, φ3.8, φ3.9	
		φ4.1, φ4.2, φ4.3, φ4.4, φ4.6, φ4.7, φ4.8, φ4.9	
		φ5.1, φ5.2, φ5.3, φ5.4, φ5.6, φ5.7, φ5.8, φ5.9	
			*High precision type AA (Run-out accuracy within 2 μm)

CHK-OH Group					Fit nut: K-265				
		Code No.	Model	I.D. (mm)	Compatible model				
		93630	CHK-OH-3.0	φ3.0	CTM-4020 BMS-4020-MQL-CHK / 2M BMS-4040-MQL-CHK / 2M				
		93631	CHK-OH-3.175	φ3.175					
		93640	CHK-OH-4.0	φ4.0					
		93650	CHK-OH-5.0	φ5.0					
		93660	CHK-OH-6.0	φ6.0					
		93663	CHK-OH-6.35	φ6.35					

CHM Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		90910	CHM-1.0	φ1.0	AMH-301 · NR-601				
		90916	CHM-1.6	φ1.6					
		90920	CHM-2.0	φ2.0					
		90992	CHM-2.35	φ2.35					
		90930	CHM-3.0	φ3.0					
		90993	CHM-3.175	φ3.175					

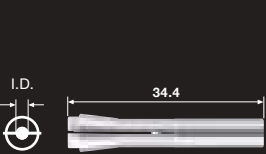
CHR Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		91920	CHR-2.0	φ2.0	NR50-5100 ATC				
		91930	CHR-3.0	φ3.0					
		91993	CHR-3.175	φ3.175					
		91940	CHR-4.0	φ4.0					
		91960	CHR-6.0	φ6.0					
		91996	CHR-6.35	φ6.35					

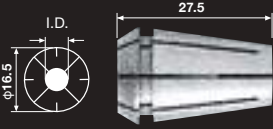
CHR RS Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		93201	CHR-3.0RS	φ3.0	NR50-5100 ATC NR50-5100 ATC RS · NR50-6000ATC-RS				
		93202	CHR-3.175RS	φ3.175					
		93203	CHR-4.0RS	φ4.0					
		93204	CHR-6.0RS	φ6.0					
		93205	CHR-6.35RS	φ6.35					

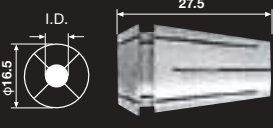
CHS Group				
	Code No.	Model	I.D. (mm)	Compatible model
	90516	CHS-1.6	φ1.6	RA-200 · RA-271E
	90592	CHS-2.35	φ2.35	
	90530	CHS-3.0	φ3.0	
	90593	CHS-3.175	φ3.175	
	905□□	CHS-□□	φ0.8, φ0.9	
			φ1.0, φ2.0, φ2.5	
φ1.1, φ1.2, φ1.3, φ1.4, φ1.5, φ1.7, φ1.8, φ1.9				
φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9				

CHSS Group									
		Code No.	Model	I.D. (mm)	Compatible model				
		93010	CHSS-1.0	φ1.0	EMA-3020S · PMA-3013S QC3-SS (NRR3060-QC / NR3060-AQC)				
		93015	CHSS-1.5	φ1.5					
		93020	CHSS-2.0	φ2.0					
		93025	CHSS-2.5	φ2.5					
		93092	CHSS-2.35	φ2.35					
		93030	CHSS-3.0	φ3.0					
		93093	CHSS-3.175	φ3.175					

Collet

CH8 Group				
	Code No.	Model	I.D. (mm)	Compatible model
	91092	CH8-2.35	φ2.35	RA-100 · RA-151E
	91030	CH8-3.0	φ3.0	
	91093	CH8-3.175	φ3.175	
	910 □□	CH8-□□	φ0.8, φ0.9	
			φ1.0, φ1.5, φ2.0, φ2.5	
			φ1.1, φ1.2, φ1.3, φ1.4, φ1.6, φ1.7, φ1.8, φ1.9	
			φ2.1, φ2.2, φ2.3, φ2.4, φ2.6, φ2.7, φ2.8, φ2.9	

CH16 Group					Fit nut: CHN-16
 *CH16-10.0 Length 24.5	Code No.	Model	I.D. (mm)	Compatible model	
	93130	CH16-3.0	φ3.0	BMS-4020 / 2M · BMS-4020RA BMS-4040 / 2M BMS-4040-RGD-03M / 2M BMS-4040RA-RGD-03M / 2M BMS-4040RA · NR-4040 QC5-16 (NRR4040-QC / NR4040-AQC)	
	93193	CH16-3.175	φ3.175		
	93140	CH16-4.0	φ4.0		
	93160	CH16-6.0	φ6.0		
	93196	CH16-6.35	φ6.35		
	93180	CH16-8.0	φ8.0		
	93100	CH16-10.0	φ10.0		

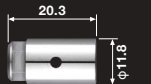
CH16OH Group					Fit nut: CHN-16
 *CH16OH-9.0, 10.0 Length 24.5	Code No.	Model	I.D. (mm)	Compatible model	
	93330	CH16OH-3.0	φ3.0	BMS-4020-MQL / 2M BMS-4040-MQL / 2M	
	93331	CH16OH-3.175	φ3.175		
	93340	CH16OH-4.0	φ4.0		
	93350	CH16OH-5.0	φ5.0		
	93360	CH16OH-6.0	φ6.0		
	93363	CH16OH-6.35	φ6.35		
	93370	CH16OH-7.0	φ7.0		
	93380	CH16OH-8.0	φ8.0		
	93390	CH16OH-9.0	φ9.0		
	93400	CH16OH-10.0	φ10.0		

Collet nut

Order by Code No.

CHN-A					Fit collet: CHA Group
	Code No.	Model	Description	Compatible model	
	2102	CHN-A	Collet nut for CHA collet	QC3-A (NRR3060-QC / NR3060-AQC) EM20-S6000 · EM25-S6000 EMS-3060A · NR-3080S MSS-19 · MSS-20 · MSS-22 PMS-3020A HES810 series iSpeed3 series	

CHN-AA					Fit collet: CHA Group
	Code No.	Model	Description	Compatible model	
	2159	CHN-AA	Collet nut for CHA collet	HTS series	

CHN-CTA					Fit collet: CHA Group
	Code No.	Model	Description	Compatible model	
	7798	CHN-CTA-3.0	Collet nut for CHA collet	CTS-2630 / 2620A / 3030	
	7799	CHN-CTA-3.175			
	7800	CHN-CTA-4.0			

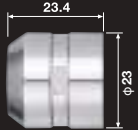
CHN-3A					Fit collet: CHA Group
	Code No.	Model	Description	Compatible model	
	2160	CHN-3A	Collet nut for CHA collet	ABT series · Xpeed1600	

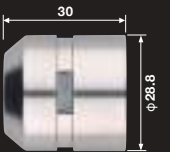
K-265

Fit collets: CHK Group, CHK-OH Group

	Code No.	Model	Description	Compatible model
	2129	K-265	Collet nut for CHK collet	CTM-4020 BMS-4020-MQL-CHK / 2M BMS-4040-MQL-CHK / 2M QC5-K (NRR4040-QC / NR4040-AQC) QC3-K (NRR3060-QC / NR3060-AQC) EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · NR-403E · NR-453E NR-2551 · NR-3060 · NR-3060S NRF-3060S · RAS-151E · RAX-71E RAX-271E MSS-25 · MSST-23 NR-303 · NR-311 · NR-2351 · RAS-101 PMA-3013K · PMR-3005K · PMS-3020K HES510 series PLANET series

K-265A					Fit collet: CHK Group
	Code No.	Model	Description	Compatible model	
	2158	K-265A	Collet nut for CHK collet	NRAF-5080 Xpeed1200	

CHN-16					Fit collets: CH16 Group, CH16OH Group
	Code No.	Model	Description	Compatible model	
	2161	CHN-16	Collet nut for CH16 collet	BMS-4020 / 2M · BMS-4020-MQL / 2M BMS-4020RA · BMS-4040 / 2M BMS-4040-MQL / 2M · BMS-4040RA BMS-4040RA-RGD-03M / 2M BMS-4040-RGD-03M / 2M · NR-4040 QC5-16 (NRR4040-QC / NR4040-AQC)	

CHN-20					Recommended : REGO-FIX ER20/ER20UP
	Code No.	Model	Description	Compatible model	
	7914	CHN-20	Collet nut for BMS-5010 collet	BMS-5010 / RA	

Grip ring

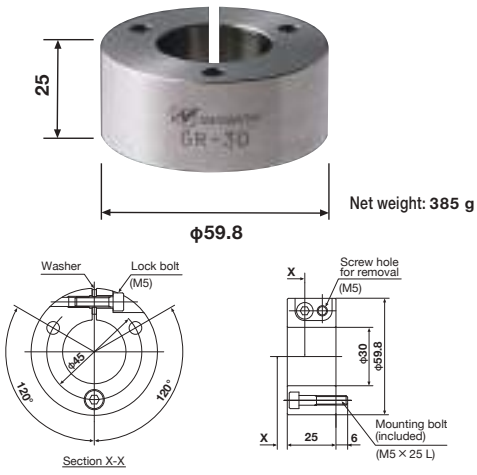
GR-22.8



Code No.	1888	Model	GR-22.8
Standard accessories	Mounting bolt (M5 × 25 L): 3 pcs.		
Compatible model	$\phi 22.8$ mm Spindle		

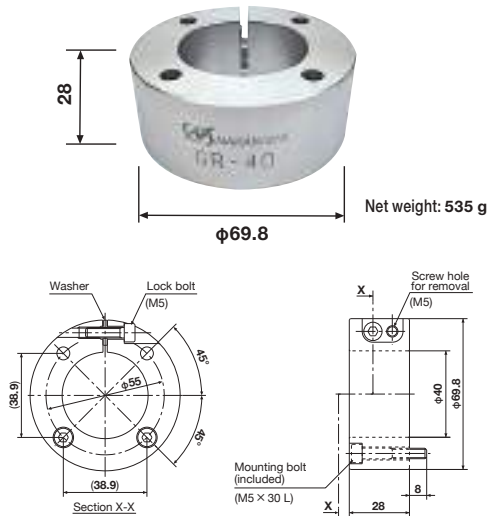
*GR-22.8 cannot be used with NR-311.

GR-30



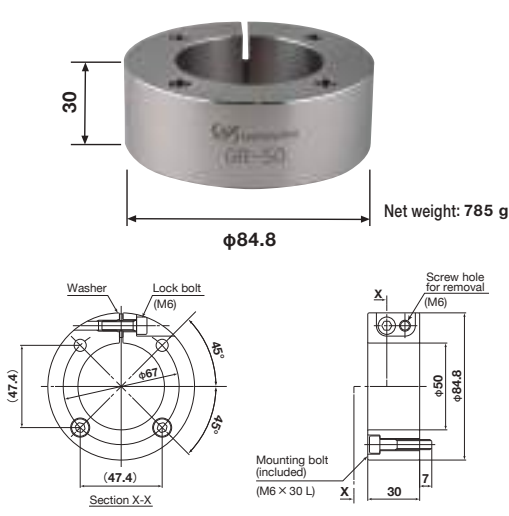
Code No.	1885	Model	GR-30
Standard accessories	Mounting bolt (M5 × 25 L): 3 pcs.		
Compatible model	$\phi 30$ mm Spindle		

GR-40



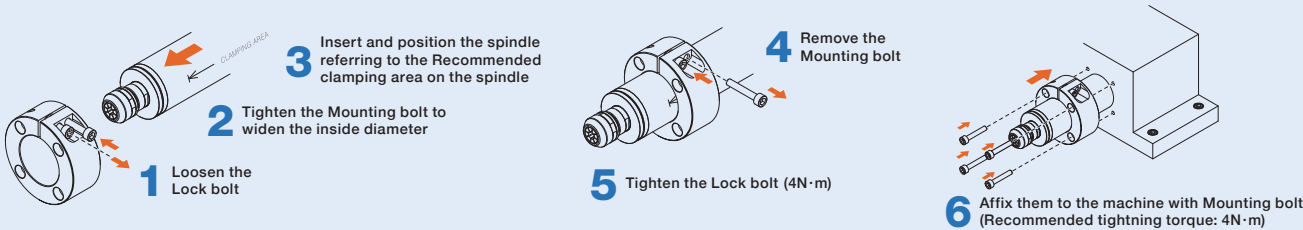
Code No.	1886	Model	GR-40
Standard accessories	Mounting bolt (M5 × 30 L): 4 pcs.		
Compatible model	$\phi 40$ mm Spindle		

GR-50



Code No.	1889	Model	GR-50
Standard accessories	Mounting bolt (M6 × 30 L): 4 pcs.		
Compatible model	$\phi 50$ mm Spindle		

How to mount to a machine tool



*The above figure shows GR-40 and GR-50, while GR-22.8 and GR-30 require three mounting bolts.

Spacer

Spacer	Code No.	Model	Description / Description (I.D. × T)	Compatible model
	1882	SP-22 × 10 L	Spacer ($\phi 22 \times 10$ mm)	BM-322FL · BM-322FR

Bush

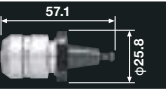
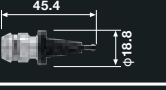
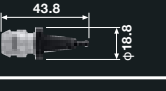
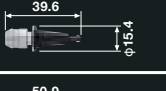
Bushings to allow smaller diameter spindles to be mounted in larger diameter holders

Bush	Code No.	Model	Description / Dimensions (I.D. × O.D. × L)	Compatible model
	1887	RB-19.05 × 25.4 × 36 L	$\phi 25.4$ Bush ($\phi 19.05 \times \phi 25.4 \times 36$ mm)	BM-319 · BM-319F · BMF-319 · BMJ-319 MSS-1902R / RA · MSS-1908R / RA MSS-1930R / RA
	1877	RB-20 × 22	$\phi 22$ Bush ($\phi 20 \times \phi 22 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1876	RB-20 × 22.8	$\phi 22.8$ Bush ($\phi 20 \times \phi 22.8 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1875	RB-20 × 23	$\phi 23$ Bush ($\phi 20 \times \phi 23 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1878	RB-20 × 25	$\phi 25$ Bush ($\phi 20 \times \phi 25 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1879	RB-20 × 25.4	$\phi 25.4$ Bush ($\phi 20 \times \phi 25.4 \times 40$ mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1883	RB-22 × 25 × 34 L	$\phi 25$ Bush ($\phi 22 \times \phi 25 \times 33.5$ mm)	BM-322 · BM-322FL · BM-322FR BM-322FS · BMF-322 · BMJ-322
	1884	RB-22 × 25.4 × 34 L	$\phi 25.4$ Bush ($\phi 22 \times \phi 25.4 \times 33.5$ mm)	BM-322 · BM-322FL · BM-322FR BM-322FS · BMF-322 · BMJ-322
	1872	RBS-22.8 × 25	$\phi 25$ Bush ($\phi 22.8 \times \phi 25 \times 25$ mm)	AMH-301 · NR-303 · NR-311 · NR-2351 RA-200 · RAS-101
	1871	RB-22.8 × 25	$\phi 25$ Bush ($\phi 22.8 \times \phi 25 \times 44$ mm)	RA-100
	1874	RBS-22.8 × 25.4	$\phi 25.4$ Bush ($\phi 22.8 \times \phi 25.4 \times 25$ mm)	AMH-301 · NR-303 · NR-311 · NR-2351 RA-200 · RAS-101
	1873	RB-22.8 × 25.4	$\phi 25.4$ Bush ($\phi 22.8 \times \phi 25.4 \times 44$ mm)	RA-100
	1880	RB-30 × 32	$\phi 32$ Bush ($\phi 30 \times \phi 32 \times 45$ mm)	NR-3060 · NR-3060S · NR-403E
	1881	RB-30 × 36	$\phi 36$ Bush ($\phi 30 \times \phi 36 \times 45$ mm)	NR-3060 · NR-3060S · NR-403E

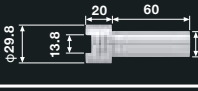
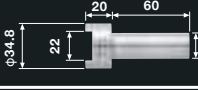
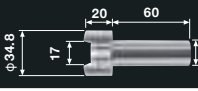
Adjuster bolt

Adjuster bolt	Code No.	Model	Description	Compatible model
	7739	ADJUSTER BOLT	Adjuster bolt	BMS-4020-MQL-CHK / 2M BMS-4040-MQL-CHK / 2M

Collet holder

Collet holder	Code No.	Model	Description	Compatible model
	9216	QC5-16	Collet holder for CH16 *with CHN-16	NR4040-AQC · NRR4040-QC
	9225	QC5-16-R		
	9215	QC5-K	Collet holder for CHK *with K-265	
	9224	QC5-K-R		
	9210	QC3-K	Collet holder for CHK *with K-265	NR3060-AQC · NRR3060-QC
	9223	QC3-K-R		
	9209	QC3-A	Collet holder for CHA *with CHN-A	
	9222	QC3-A-R		
	7794	QC3-SS	Collet holder for CHSS	

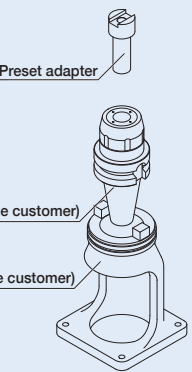
Preset adapter

Preset adapter	Code No.	Model	Description	Compatible collet holder
	9211	QC3-ADP	Preset adapter for QC3	QC3-A · QC3-K · QC3-SS
	9218	QC5-16 ADP	Preset adapter for QC5-16	QC5-16
	9217	QC5-K ADP	Preset adapter for QC5-K	QC5-K

Set-up outside machines

1

In case using a milling holder

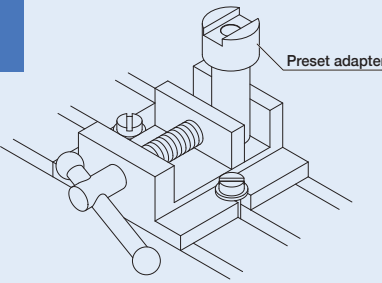


Preset adapter

Milling holder (arrangement by the customer)

Setup stand (arrangement by the customer)

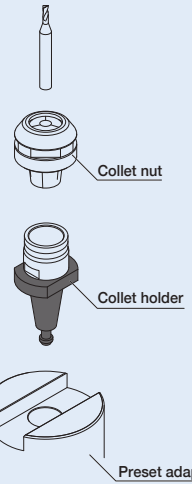
In case using a vice



Preset adapter

2

For QC3-K/A
QC5-16/K

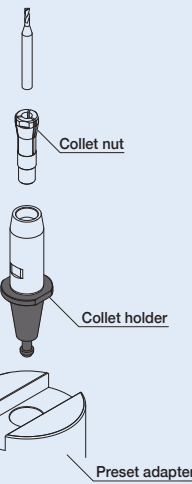


Collet nut

Collet holder

Preset adapter

For QC3-SS

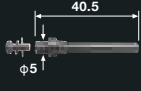
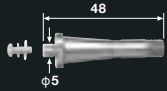
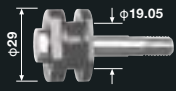


Collet nut

Collet holder

Preset adapter

Metal saw arbor · Grindstone arbor · Grindstone flange

Metal saw arbor	Code No.	Model	Description / Specifications		Compatible model
	2146	KCH-02 (5.0)	φ5.0 (I.D.)	Metal saw arbor : for φd (I.D.) × φ30 mm or less (O.D.) Run-out accuracy: within 0.02 mm	RA-100 · RA-151E
	1077	KCH-02 (6.0)	φ6.0 (I.D.)		
	2147	KCH-02 (8.0)	φ8.0 (I.D.)		
	2148	KCH-03 (5.0)	φ5.0 (I.D.)	Metal saw arbor : for φd (I.D.) × φ30 mm or less (O.D.) Run-out accuracy: within 0.02 mm	EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · MSS-25 · MSST-23 · NR-303 · NR-311 NR-403E · NR-453E · NR-2351 · NR-2551 · NR-3060 NR-3060S · NRF-3060S · PMA-3013K · PMR-3005K PMS-3020K · RAS-101 · RAS-151E RAX-71E · RAX-271E
	2130	KCH-03 (6.0)	φ6.0 (I.D.)		
	2149	KCH-03 (8.0)	φ8.0 (I.D.)		
Grindstone arbor	Code No.	Model	Description / Specifications		Compatible model
	1029	AGM-01	Grindstone arbor Run-out accuracy: within 0.02 mm Grindstone I.D. φ5.0 mm		AMH-301 · NR-601
	2131	AGM-03	Grindstone arbor Run-out accuracy: within 0.02 mm Grindstone I.D. φ5.0 mm		EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · MSS-25 · MSST-23 · NR-303 · NR-403E NR-453E · NR-2351 · NR-2551 · NR-3060 · NR-3060S NRF-3060S · PMA-3013K · PMS-3020K · RAS-101 RAS-151E · RAX-71E · RAX-271E
Grindstone flange	Code No.	Model	Description / Specifications		Compatible model
	2138	EGF-19	Grindstone flange Available grindstone dimension φ19.05 (I.D.) × φ40 (O.D.) mm × 7 (width) mm		EM30-S6000 · EMR-3008K · EMS-3060K NR-403E · NR-453E · NR-2551 · NR-3060 · NR-3060S NRF-3060S · PMS-3020K
	2143	NGF2-19	Grindstone flange Available grindstone dimension φ19.05 (I.D.) × φ40 (O.D.) mm × 7 (width) mm		NR-311

Grease · Oil

Grease	Code No.	Model	Description	Compatible model
	1547	—	Grease for Speed reducer (2.5 mL)	ARG-011E · ARG-021E EMR-3008K · EMA-3020K RAX-271E · RAX-71E PMR-3005K
	1550	—	Grease for Speed reducer (10 mL)	
	1549	—	Grease for Speed reducer (100 mL)	
				
Oil	Code No.	Model	Description	Compatible model
	1057	K-211	Lubricating oil (70 cc)	Air line kit (AL-M1201BL · AL-M1202 · AL-M1203BS2)
	1058	K-202	Lubricating oil (1 L)	

COMBOX



Code No.	8495	Model	COMBOX
• By connecting the COMBOX to a CITIZEN “Cincom” CNC automatic lathe, iSpeed3 and E3000 motors can be easily operated by using the external M code signal.			
Specifications	Input voltage: DC24 V (DC23-25 V) Dimensions: W142 × D240 × H31 mm / Net weight: 1.2 kg		
Standard equipment and accessories	I/F Cable (High density D-SUB 15 connector): 1 pc. Cable D · E · F: 1 pc. each / Relay: 1 pc. Screw · Nut: 2 pcs. each / Connector cap: 4 pcs.		
Compatible controllers	E3000 controller · iSpeed3 controller		
External connecting device	CNC automatic lathe For details, please contact us or your local distributor.		

Network Interface COMBOX-NET.EIP

Easy IoT remote control and management of Nakanishi Spindle via EtherNet/IP.
Easy connection to a robot or special-purpose machine tool's PLC with a single LAN cable.

Code No.	7796	Model	COMBOX-NET.EIP
Code No.	7906	Model	COMBOX-NET D-sub Cable Set



EtherNet/IP™ is a trademark of ODVA, Inc.

Feature 1 Remote management through IoT

- **Easy remote error/warning display**
Error or warning output from the controller can be easily displayed remotely. *Display contents vary depending on S/N
- **Up to 4 sensors (digital × 2, analog × 2) can be connected**
Various commercially available sensors can be added and used for condition monitoring.

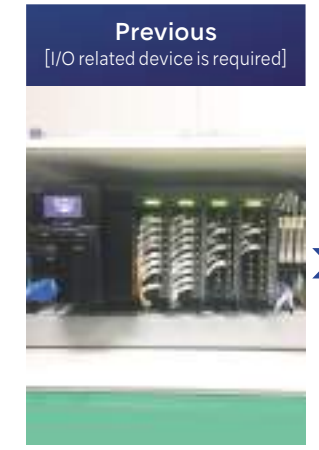


PLC display example

Feature 2 Reduce design and production work hours

- **Connectable to Ethernet/IP compatible devices via LAN cable** *Support for other protocols is pending
- **Reduction of the number of lines in the ladder program in PLCs is possible**
- **I/O-related devices are no longer needed, reducing the amount of wiring required**

33% reduction in work hours
(compared to in-house measurements)

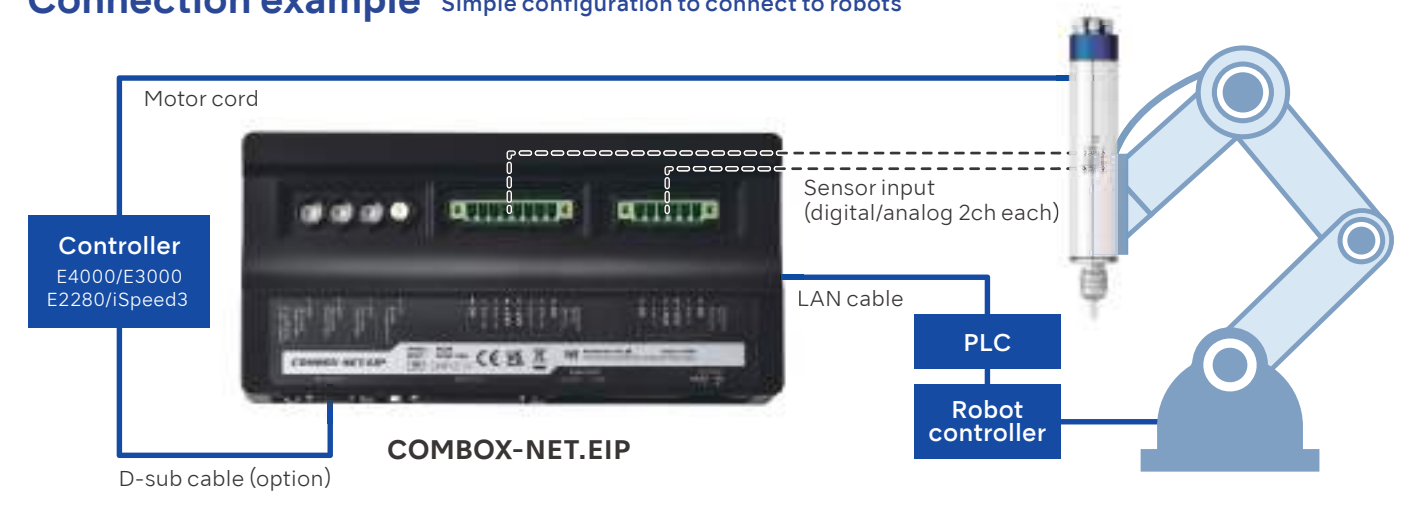


Previous
[I/O related device is required]

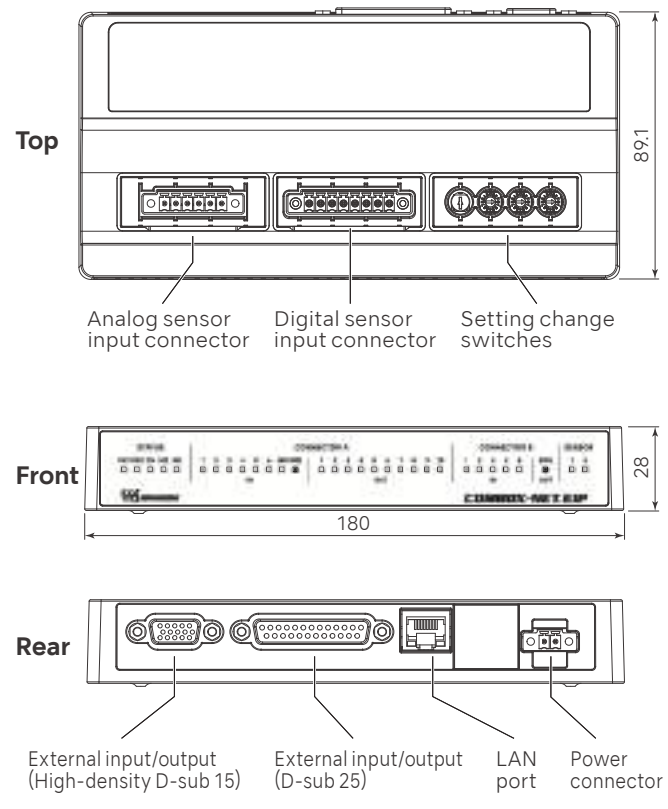


Using COMBOX-NET.EIP
[No I/O related device is required]

Connection example Simple configuration to connect to robots



Outside view



Specifications

Communication standard	EtherNet/IP
Baud rate	10 Mbps / 100 Mbps
Communication cycle (RPI)	4 ms or more
LAN cable specifications	Straight, category 5 or higher (STP cable recommended)
Rated input voltage	DC 24 V±10%
Dimensions	W180 × D89.1 × H28 mm
Net weight	282 g

Basic package

- COMBOX-NET.EIP Main Body 1 pc.
- Bracket 1 pc.
- Mounting screw 4 pcs.
- Power connector 1 pc.
- Protect covers Attached on the main body

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*D-sub cables are sold separately.

Option

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D-sub 15 cable (500 mm) and D-sub 25 cable (500 mm)
*Since D-sub cable has special size, we recommend the above product.

Compatible controllers Connectable to all 4 models All inputs and outputs are handled via network communication.



*Controllers with the above S/Ns or later will display an error or warning code.
Controllers with the S/Ns prior to the above will only indicate the presence or absence of an error or warning.

E4000
E3000
E2000
iSpeed3
Air-Speed
HES
TURBINES
ACCESSORIES