E4000 SERIES

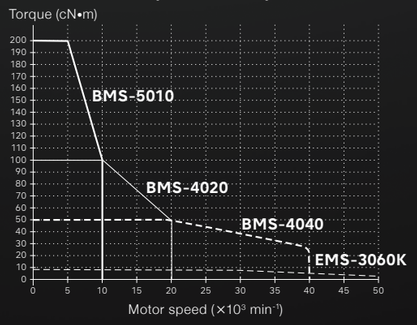
HIGH-SPEED ROTATION & HIGH PRECISION

Little Giant

The Strongest Spindle in its ϕ40 mm class

- Max. power: 1,200 W
- Max. motor speed: 40,000 min^{-1}
- The torque is 5-20 times higher than that of E3000

E4000 & E3000 torque curve comparison



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

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Spindle (Modular type)

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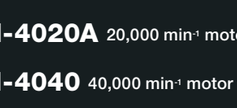

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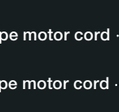

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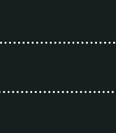

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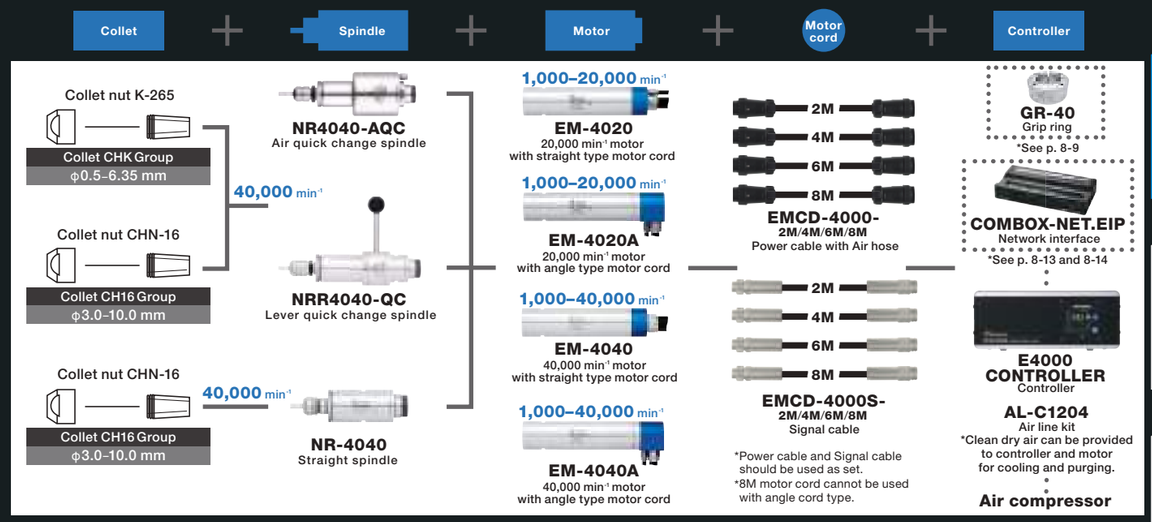
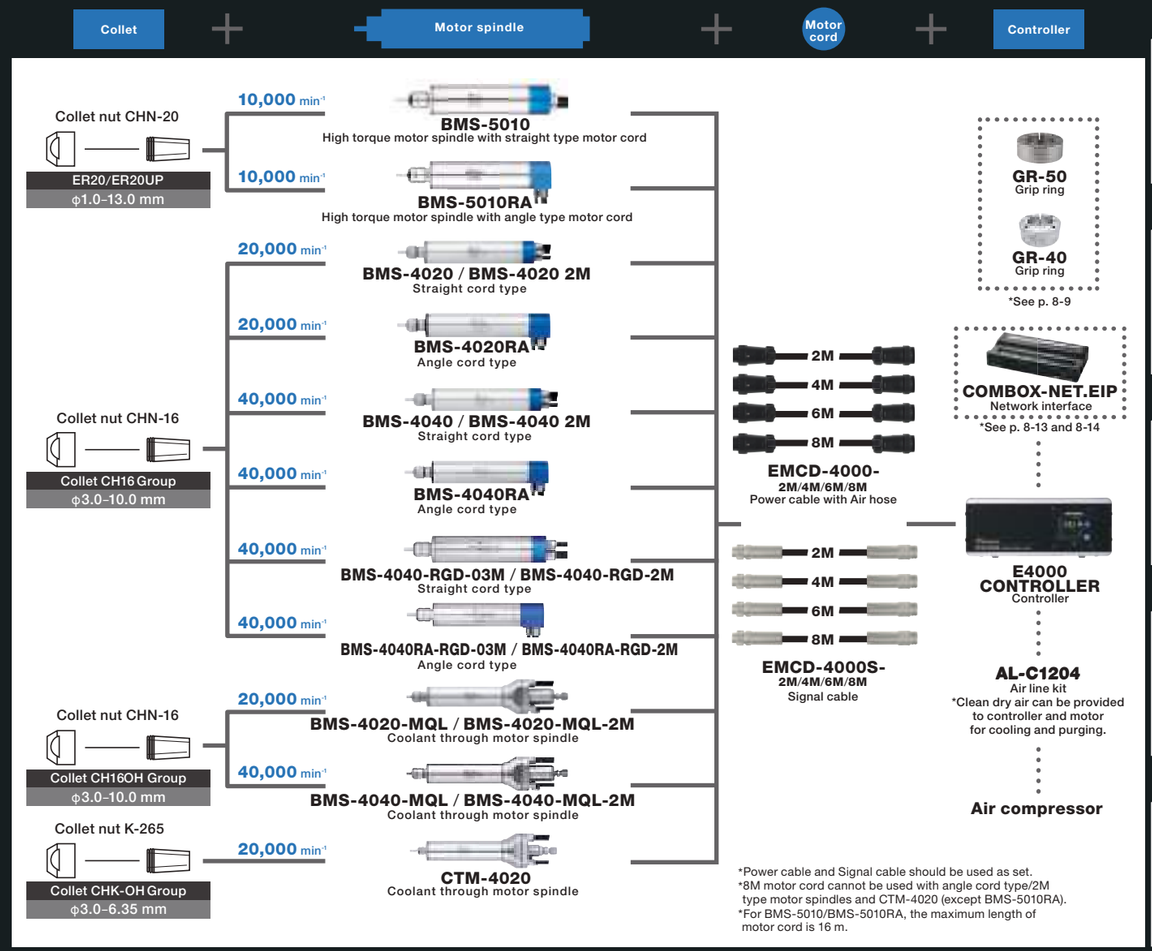
System Chart

Modular type ϕ40 mm



One-piece type ϕ50, ϕ40 mm



Spindle Guide

CH16
CHK

QC5-16 / QC5-16-R
QC5-K / QC5-K-R

NR4040-AQC

EM-4020 / EM-4040

EM-4020A / EM-4040A

Power cable 2M/4M/6M/8M
Signal cable 2M/4M/6M/8M
EMCD-4000 / EMCD-4000S

Power cable 2M/4M/6M
Signal cable 2M/4M/6M
EMCD-4000 / EMCD-4000S

E4000 CONTROLLER

AL-C1204

E4000 SERIES

Spindle (Modular type)

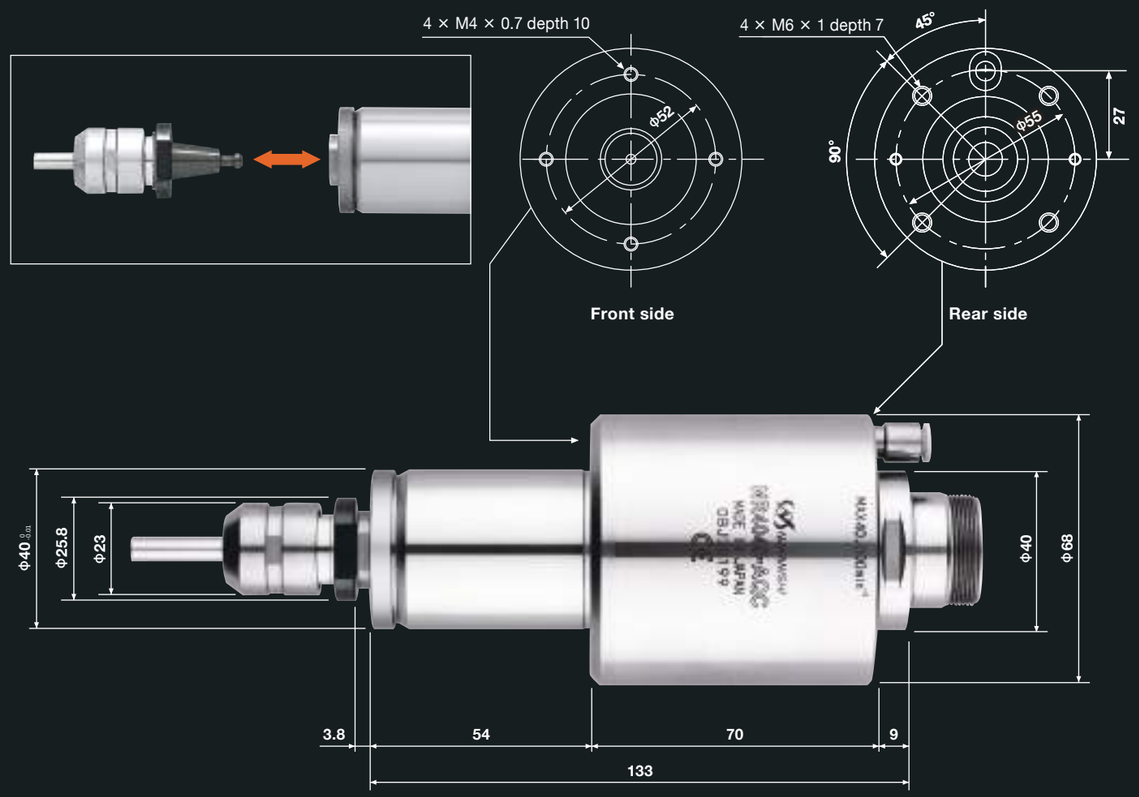
NR4040-AQC

Air quick change spindle

40
O.D. ϕ40 mm

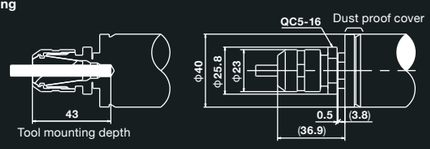
- Quick and easy Collet holder change with air chucking mechanism.
- Enhancing productivity by enabling external tool set-up.
- 2 types of Collet holders are available. (CH16 ϕ3.0–ϕ10.0 mm, CHK ϕ0.5–ϕ6.35 mm)

*The position of the mounting holes in front side and the rear side varies from product to product.

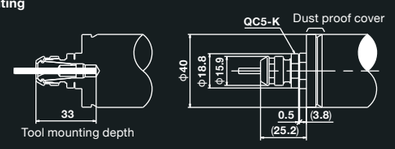


Outside view of the tip of the spindle

■ QC5-16 (Collet holder for CH16 collet) when mounting



■ QC5-K (Collet holder for CHK collet) when mounting



Order by Code No.

Specifications

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

NR4040-AQC

Code No. 9219 | Model NR4040-AQC

O.D.	Spindle accuracy	Allowable motor speed	Air for collet opening	Net weight
ϕ40 mm	Within 1 μm	40,000 min⁻¹	0.55–0.6 MPa	2,160 g

Motors	Collet holders	
EM-4020 · EM-4020A · EM-4040 · EM-4040A	QC5-16 / QC5-16-R (for CH16 collet)	QC5-K / QC5-K-R (for CHK collet)

Standard equipment and accessories	Wrench (36): 1 pc. / Air hose with filter (K-251): ϕ6 mm × 2 m

Options

Collet — You can choose the I.D. size (The following is an example of ϕ6.0 mm.) + Collet holder (Collet nut included) (QC5-16 / K, QC5-16 / K-R, D–Cut) + Wrench

CH16 I.D. ϕ3.0–ϕ10.0 mm p. 8-7	Code No.	931 6 0	9216	9225 (or)	2083
	Model	CH16- 6 . 0 (I.D. ϕ6.0 mm)	QC5-16 (for CH16 collet)	QC5-16-R (for CH16 collet)	Wrench 17 × 22 (*Required 2 pcs.)
CHK I.D. ϕ0.5–ϕ6.35 mm p. 8-5	Code No.	91 5 6 0	9215	9224 (or)	2026
	Model	CHK- 6 . 0 (I.D. ϕ6.0 mm)	QC5-K (for CHK collet)	QC5-K-R (for CHK collet)	Wrench 12 × 14 (*Required 2 pcs.)

Preset adapter (for QC5-16 / QC5-K Collet holders)

*Holding section size is ϕ20.
*QC5-16-R / QC5-K-R cannot be used with the Preset adapter.

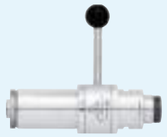
Code No.	9218	Code No.	9217
Model	QC5-16 ADP (for QC5-16 Collet holder)	Model	QC5-K ADP (for QC5-K Collet holder)

[Use below wrenches when using Preset adapter]
for CH16 collet: Wrench 17 × 22 (1 pc.)
for CHK collet: Wrench 12 × 14 (1 pc.)
See p. 8-11

Spindle Guide

CH16
CHK

QC5-16 / QC5-16-R
QC5-K / QC5-K-R



NRR4040-QC

EM-4020 / EM-4040

EM-4020A / EM-4040A

Power cable 2M/4M/6M/8M
Signal cable 2M/4M/6M/8M
EMCD-4000 / EMCD-4000S

Power cable 2M/4M/6M
Signal cable 2M/4M/6M
EMCD-4000 / EMCD-4000S

E4000 CONTROLLER

AL-C1204

E4000 SERIES

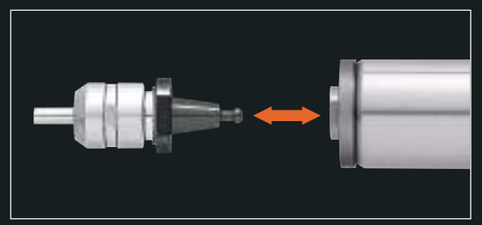
Spindle (Modular type)

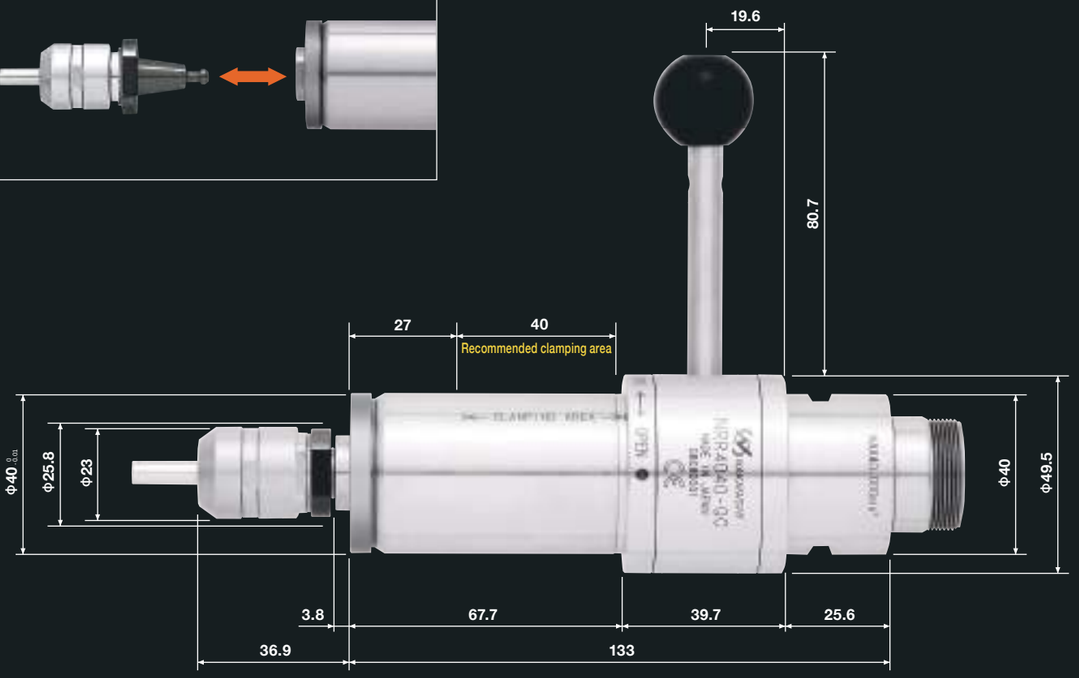
NRR4040-QC

Lever quick change spindle

40
O.D. ϕ40 mm

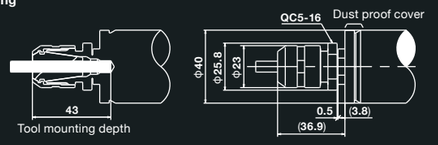
- Quick and easy Collet holder change with lever chucking mechanism.
- Enhancing productivity by enabling external tool set-up.
- 2 types of Collet holders are available. (CH16 ϕ3.0–ϕ10.0 mm, CHK ϕ0.5–ϕ6.35 mm)



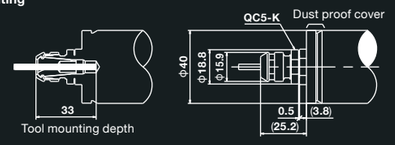


Outside view of the tip of the spindle

■ QC5-16 (Collet holder for CH16 collet) when mounting



■ QC5-K (Collet holder for CHK collet) when mounting

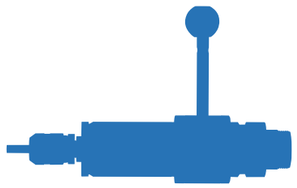


Order by Code No.

Specifications

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

NRR4040-QC



Code No.	9214	Model	NRR4040-QC

O.D.	Spindle accuracy	Allowable motor speed	Lever operating angle	Net weight
ϕ40 mm	Within 1 μm	40,000 min-1	90°	1,300 g

Motors	Collet holders	
EM-4020 · EM-4020A · EM-4040 · EM-4040A	QC5-16 / QC5-16-R (for CH16 collet)	QC5-K / QC5-K-R (for CHK collet)

Standard equipment and accessories	Wrench (36): 1 pc.

Options

Collet — You can choose the I.D. size (The following is an example of ϕ6.0 mm.) + Collet holder (Collet nut included) (QC5-16 / K, QC5-16 / K-R, D–Cut) + Wrench

CH16 I.D. ϕ3.0–ϕ10.0 mm p. 8-7	Code No.	931 6 0	9216	or 9225	2083
	Model	CH16- 6 . 0 (I.D. ϕ6.0 mm)	QC5-16 (for CH16 collet)	or QC5-16-R (for CH16 collet)	Wrench 17 × 22 (*Required 2 pcs.)
CHK I.D. ϕ0.5–ϕ6.35 mm p. 8-5	Code No.	91 5 6 0	9215	or 9224	2026
	Model	CHK- 6 . 0 (I.D. ϕ6.0 mm)	QC5-K (for CHK collet)	or QC5-K-R (for CHK collet)	Wrench 12 × 14 (*Required 2 pcs.)

Preset adapter (for QC5-16 / QC5-K Collet holders)

*Holding section size is ϕ20.
*QC5-16-R / QC5-K-R cannot be used with the Preset adapter.

Code No.	9218	Code No.	9217
Model	QC5-16 ADP (for QC5-16 Collet holder)	Model	QC5-K ADP (for QC5-K Collet holder)

[Use below wrenches when using Preset adapter]
for CH16 collet: Wrench 17 × 22 (1 pc.)
for CHK collet: Wrench 12 × 14 (1 pc.)
See p. 8-11

Spindle Guide

CH16

NR-4040

EM-4020 / EM-4040

Power cable 2M/4M/6M/8M
Signal cable 2M/4M/6M/8M

EMCD-4000 / EMCD-4000S

EM-4020A / EM-4040A

Power cable 2M/4M/6M
Signal cable 2M/4M/6M

EMCD-4000 / EMCD-4000S

E4000 CONTROLLER

AL-C1204

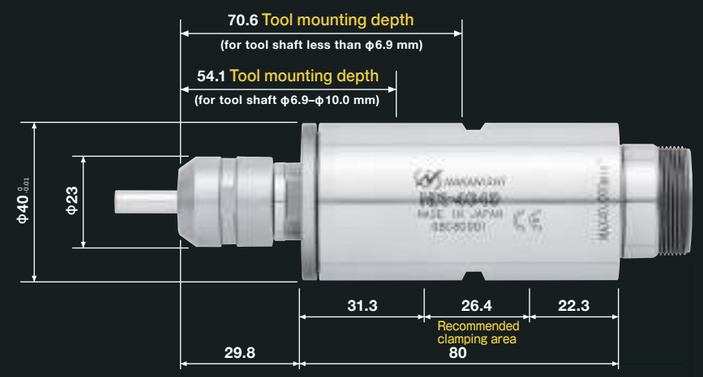
E4000 SERIES

Spindle (Modular type)

NR-4040

Straight spindle

40
O.D. ϕ40 mm



Order by Code No.

Specifications

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

NR-4040

Code No. 7902 **Model** NR-4040

O.D.	Spindle accuracy	Collet	Allowable motor speed	Motors	Net weight
ϕ40 mm	Within 1 μm	CH16 Group (ϕ3.0–ϕ10.0 mm)	40,000 min⁻¹	EM-4020 · EM-4020A EM-4040 · EM-4040A	700 g

Standard equipment and accessories	Collet nut (CHN-16) / Wrench (17 × 22): 2 pcs. · (36) 1 pc. *Collet is sold separately.
Options	Collet (CH16 Group): ϕ3.0–ϕ10.0 mm p. 8-7

Motor (Modular type)

EM-4020

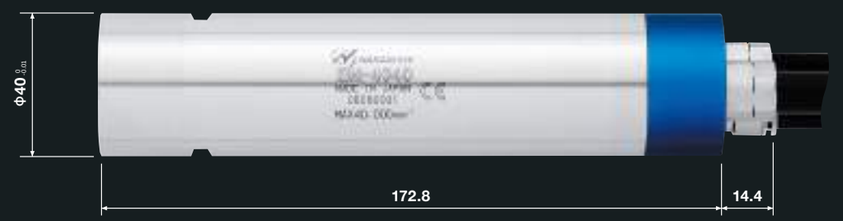
20,000 min^{-1} motor with straight type motor cord

EM-4020A

20,000 min^{-1} motor with angle type motor cord

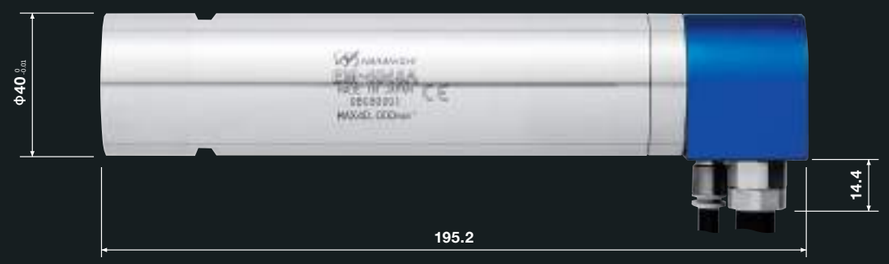
EM-4040

40,000 min^{-1} motor with straight type motor cord



EM-4040A

40,000 min^{-1} motor with angle type motor cord



Specifications

Order by Code No.

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

EM-4020

Code No.	8348	Model	EM-4020

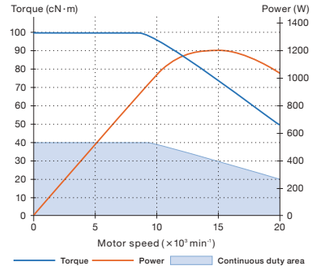
O.D.	Motor speed		Max. power
ϕ40 mm	1,000–20,000 min^{-1}		1,200 w
Cord length	**Min. bending cord radius**	**Max. torque**	**Net weight**
0.3 m	70 mm	1.0 N·m	1,300 g
Standard equipment and accessories	Wrench (36): 1 pc.		
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min		
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm		
	Signal cable: connector diameter ϕ16 mm		
Options	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)		
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26		

EM-4020A

Code No.	8349	Model	EM-4020A

O.D.	Motor speed		Max. power
ϕ40 mm	1,000–20,000 min^{-1}		1,200 w
Cord length	**Min. bending cord radius**	**Max. torque**	**Net weight**
2.0 m	70 mm	1.0 N·m	1,800 g
Standard equipment and accessories	Wrench (36): 1 pc.		
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min		
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm		
	Signal cable: connector diameter ϕ16 mm		
Options	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255)		
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259) p. 1-26		

Torque & power curve



EM-4040

Code No.	8346	Model	EM-4040

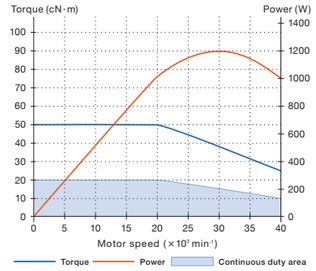
O.D.	Motor speed		Max. power
ϕ40 mm	1,000–40,000 min^{-1}		1,200 w
Cord length	**Min. bending cord radius**	**Max. torque**	**Net weight**
0.3 m	70 mm	0.5 N·m	1,300 g
Standard equipment and accessories	Wrench (36): 1 pc.		
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min		
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm		
	Signal cable: connector diameter ϕ16 mm		
Options	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)		
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26		

EM-4040A

Code No.	8347	Model	EM-4040A

O.D.	Motor speed		Max. power
ϕ40 mm	1,000–40,000 min^{-1}		1,200 w
Cord length	**Min. bending cord radius**	**Max. torque**	**Net weight**
2.0 m	70 mm	0.5 N·m	1,800 g
Standard equipment and accessories	Wrench (36): 1 pc.		
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min		
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm		
	Signal cable: connector diameter ϕ16 mm		
Options	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255)		
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259) p. 1-26		

Torque & power curve

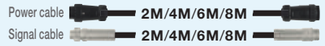


Spindle Guide

ER20UP
*Available in the market

BMS-5010

BMS-5010RA



Power cable 2M/4M/6M/8M
Signal cable 2M/4M/6M/8M

EMCD-4000 / EMCD-4000S

E4000 CONTROLLER

AL-C1204

E4000 SERIES

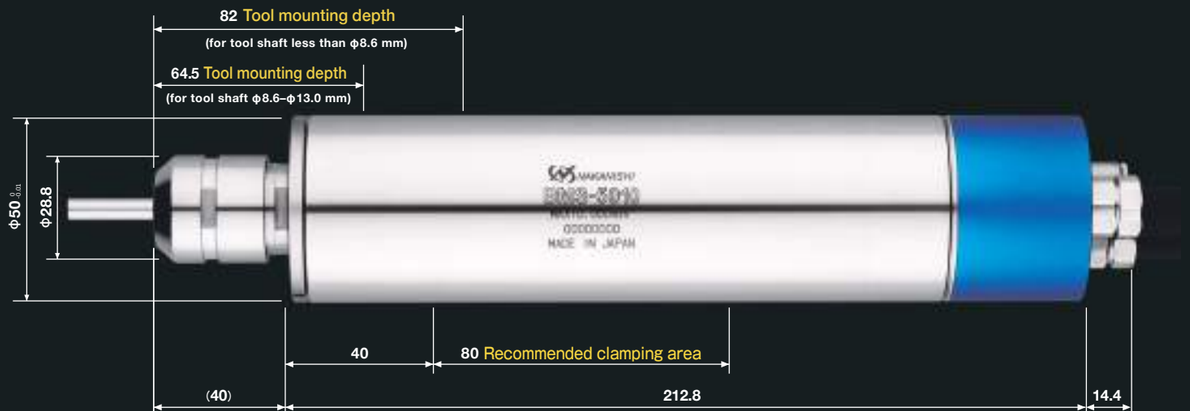
Motor spindle (One-piece type)

BMS-5010

Straight cord type

50
O.D. ϕ50 mm

• Twice the torque (up to 2 N•m) compared with the current BMS-4020.



BMS-5010RA

Angle cord type

50
O.D. ϕ50 mm

• Twice the torque (up to 2 N•m) compared with the current BMS-4020.

Specifications

Order by Code No.

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

BMS-5010

Code No. 7912 Model BMS-5010

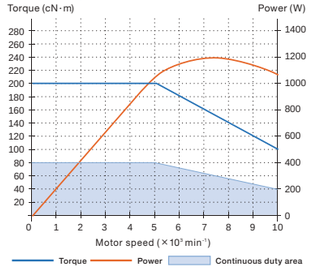
O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ50 mm	10,000 min⁻¹	Within 1 μm	ER20/ER20UP (ϕ1.0–ϕ13.0 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
0.3 m	70 mm	2.0 N·m	2.4 kg

Standard equipment and accessories	Collet nut (CHN-20) / Wrench (22 × 27): 2 pcs. *Collet is not included.
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (REGO-FIX ER20/ER20UP): ϕ1.0–ϕ13.0 mm *Available in the market.
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26

*Maximum length of motor cord for BMS-5010 is 16 m by connecting two 8 m motor cords.

Torque & power curve



! Note to customers who already have an E4000 controller

Non applicable controller

Applicable controller

If BMS-5010/BMS-5010RA are connected to non-applicable controller, it will not rotate.

BMS-5010RA

Code No. 7913 Model BMS-5010RA

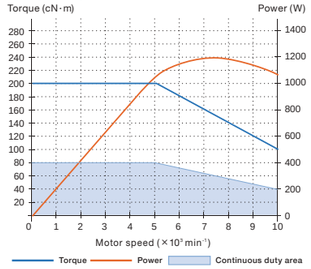
O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ50 mm	10,000 min⁻¹	Within 1 μm	ER20/ER20UP (ϕ1.0–ϕ13.0 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
2.0 m	70 mm	2.0 N·m	2.8 kg

Standard equipment and accessories	Collet nut (CHN-20) / Wrench (22 × 27): 2 pcs. *Collet is not included.
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (REGO-FIX ER20/ER20UP): ϕ1.0–ϕ13.0 mm *Available in the market.
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26

*Maximum length of motor cord for BMS-5010RA is 16 m by connecting 6 m and 8 m motor cords, since it has a 2 m motor cord attached to the main unit.

Torque & power curve



! Note to customers who already have an E4000 controller

Non applicable controller

Applicable controller

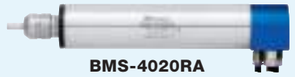
If BMS-5010/BMS-5010RA are connected to non-applicable controller, it will not rotate.

Spindle Guide

CH16

BMS-4020

BMS-4020 2M



BMS-4020RA

Power cable 2M/4M/6M/8M
Signal cable 2M/4M/6M/8M
EMCD-4000 / EMCD-4000S

Power cable 2M/4M/6M
Signal cable 2M/4M/6M
EMCD-4000 / EMCD-4000S

E4000 CONTROLLER

AL-C1204

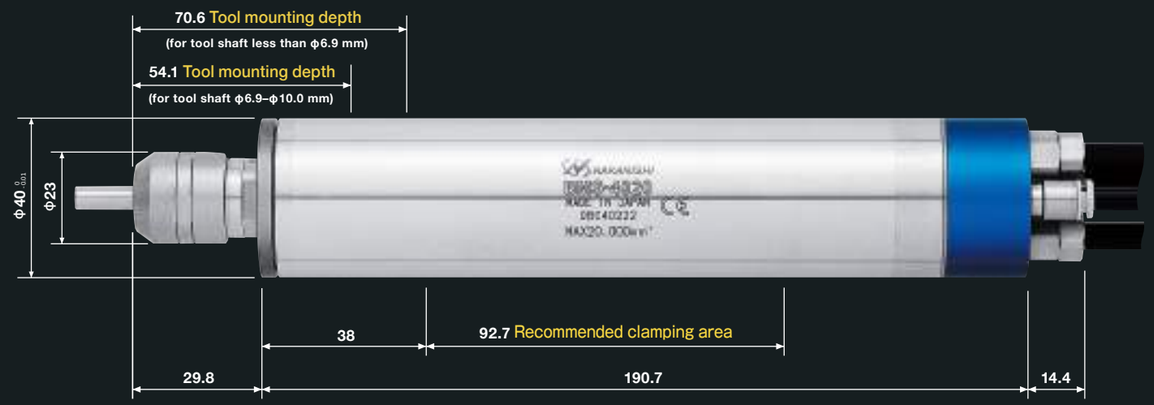
E4000 SERIES

Motor spindle (One-piece type)

BMS-4020 / BMS-4020 2M

Straight cord type

40
O.D. ϕ40 mm



BMS-4020RA

Angle cord type

40
O.D. ϕ40 mm

Specifications

Order by Code No.

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

BMS-4020 / BMS-4020 2M

Code No.	7803	Model	BMS-4020
Code No.	7805	Model	BMS-4020 2M

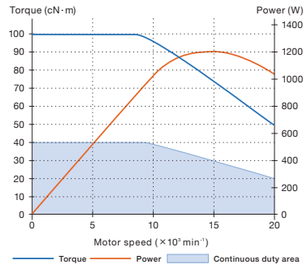
O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ40 mm	20,000 min⁻¹	Within 1 μm	CH16 Group (ϕ3.0–ϕ10.0 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
BMS-4020: 0.3 m BMS-4020 2M: 2.0 m	70 mm	1.0 N·m	BMS-4020: 1.5 kg BMS-4020 2M: 2.0 kg

Standard equipment and accessories	Collet nut (CHN-16) / Wrench (17 × 22): 2 pcs. *Collet is sold separately.
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (CH16 Group): ϕ3.0–ϕ10.0 mm p. 8-7
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26

*8M motor cord cannot be used with BMS-4020 2M.

Torque & power curve



BMS-4020RA

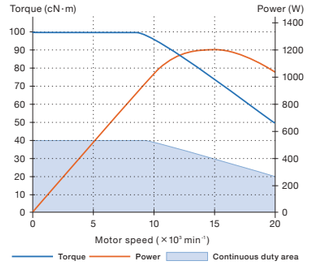
Code No.	7804	Model	BMS-4020RA

O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ40 mm	20,000 min⁻¹	Within 1 μm	CH16 Group (ϕ3.0–ϕ10.0 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
2.0 m	70 mm	1.0 N·m	2.0 kg

Standard equipment and accessories	Collet nut (CHN-16) / Wrench (17 × 22): 2 pcs. *Collet is sold separately.
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (CH16 Group): ϕ3.0–ϕ10.0 mm p. 8-7
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259) p. 1-26

Torque & power curve



Spindle Guide

CH16

BMS-4040

BMS-4040 2M

BMS-4040RA

Power cable 2M/4M/6M/8M
Signal cable 2M/4M/6M/8M
EMCD-4000 / EMCD-4000S

Power cable 2M/4M/6M
Signal cable 2M/4M/6M
EMCD-4000 / EMCD-4000S

E4000 CONTROLLER

AL-C1204

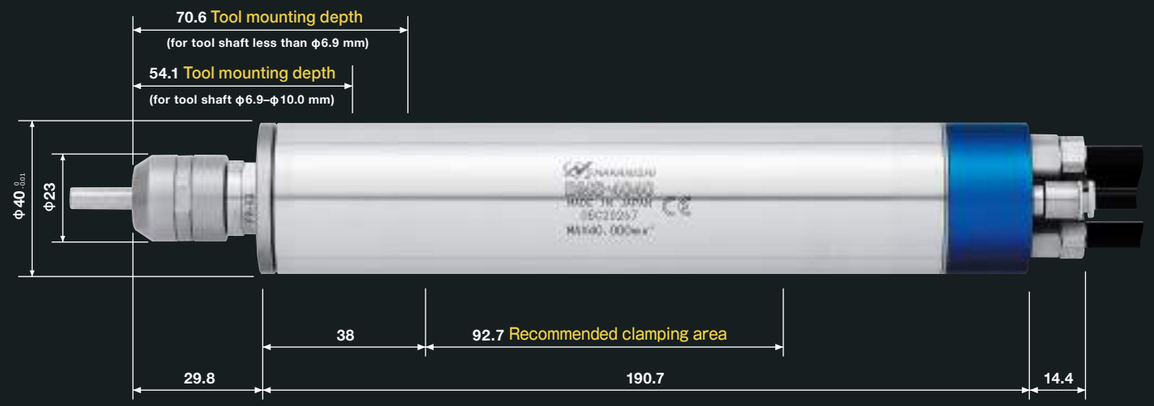
E4000 SERIES

Motor spindle (One-piece type)

BMS-4040 / BMS-4040 2M

Straight cord type

40
O.D. ϕ40 mm



BMS-4040RA

Angle cord type

40
O.D. ϕ40 mm

Specifications

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

Order by Code No.

BMS-4040 / BMS-4040 2M

Code No.	7806	Model	BMS-4040
Code No.	7809	Model	BMS-4040 2M

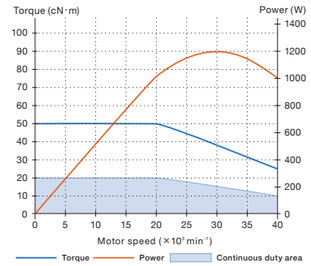
O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ40 mm	40,000 min⁻¹	Within 1 μm	CH16 Group (ϕ3.0–ϕ10.0 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
BMS-4040: 0.3 m BMS-4040 2M: 2.0 m	70 mm	0.5 N·m	BMS-4040: 1.5 kg BMS-4040 2M: 2.0 kg

Standard equipment and accessories	Collet nut (CHN-16) / Wrench (17 × 22): 2 pcs. *Collet is sold separately.
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (CH16 Group): ϕ3.0–ϕ10.0 mm p. 8-7
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26

*8M motor cord cannot be used with BMS-4020 2M.

Torque & power curve



BMS-4040RA

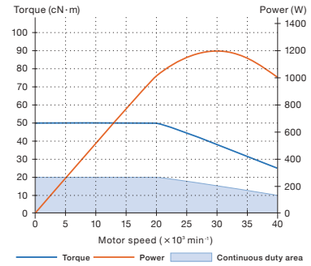
Code No.	7807	Model	BMS-4040RA

O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ40 mm	40,000 min⁻¹	Within 1 μm	CH16 Group (ϕ3.0–ϕ10.0 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
2.0 m	70 mm	0.5 N·m	2.0 kg

Standard equipment and accessories	Collet nut (CHN-16) / Wrench (17 × 22): 2 pcs. *Collet is sold separately.
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (CH16 Group): ϕ3.0–ϕ10.0 mm p. 8-7
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259) p. 1-26

Torque & power curve



Spindle Guide

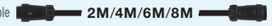
CH16

BMS-4040-RGD-03M

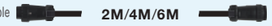
BMS-4040RA-RGD-03M

BMS-4040-RGD-2M

BMS-4040RA-RGD-2M



EMCD-4000 / EMCD-4000S



EMCD-4000 / EMCD-4000S

E4000 CONTROLLER

AL-C1204

E4000 SERIES

Motor spindle (Rigidity type)

BMS-4040-RGD-03M / BMS-4040-RGD-2M

Straight cord type

40
O.D. ϕ40 mm

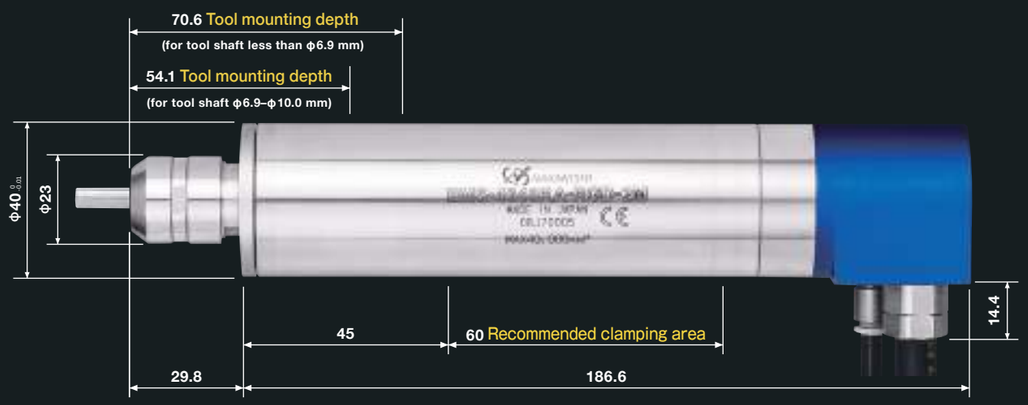
• Twice as high rigidity as BMS-4040 in thrust and radial directions.

BMS-4040RA-RGD-03M / BMS-4040RA-RGD-2M

Angle cord type

40
O.D. ϕ40 mm

• Twice as high rigidity as BMS-4040 in thrust and radial directions.



Specifications

Order by Code No.

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

BMS-4040-RGD-03M / BMS-4040-RGD-2M

Code No.	7740	Model	BMS-4040-RGD-03M
Code No.	7769	Model	BMS-4040-RGD-2M

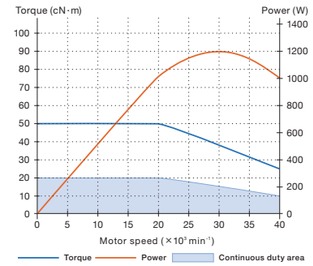
O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ40 mm	40,000 min⁻¹	Within 1 μm	CH16 Group (ϕ3.0–ϕ10.0 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
BMS-4040-RGD-03M: 0.3 m BMS-4040-RGD-2M: 2.0 m	70 mm	0.5 N·m	BMS-4040-RGD-03M: 1.4 kg BMS-4040-RGD-2M: 1.9 kg

Standard equipment and accessories	Collet nut (CHN-16) / Wrench (17 × 22): 2 pcs. *Collet is sold separately.
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (CH16 Group): ϕ3.0–ϕ10.0 mm p. 8-7
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26

*8M motor cord cannot be used with BMS-4040-RGD-2M.

Torque & power curve



BMS-4040RA-RGD-03M / BMS-4040RA-RGD-2M

Code No.	7741	Model	BMS-4040RA-RGD-03M
Code No.	7770	Model	BMS-4040RA-RGD-2M

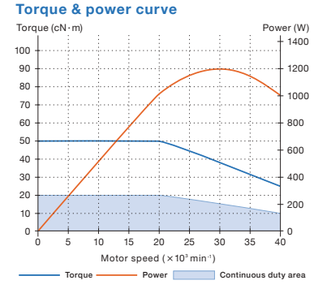
O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ40 mm	40,000 min⁻¹	Within 1 μm	CH16 Group (ϕ3.0–ϕ10.0 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
BMS-4040RA-RGD-03M: 0.3 m BMS-4040RA-RGD-2M: 2.0 m	70 mm	0.5 N·m	BMS-4040RA-RGD-03M: 1.4 kg BMS-4040RA-RGD-2M: 1.9 kg

Standard equipment and accessories	Collet nut (CHN-16) / Wrench (17 × 22): 2 pcs. *Collet is sold separately.
Specifications	Air pressure: 0.35 MPa / Max. air consumption: 100 NL/min
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (CH16 Group): ϕ3.0–ϕ10.0 mm p. 8-7
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26

*8M motor cord cannot be used with BMS-4040RA-RGD-2M.

Torque & power curve



Spindle Guide

CH16OH

BMS-4020-MQL / BMS-4040-MQL

BMS-4020-MQL-2M / BMS-4040-MQL-2M

Power cable 2M/4M/6M/8M
Signal cable 2M/4M/6M/8M
EMCD-4000 / EMCD-4000S

Power cable 2M/4M/6M
Signal cable 2M/4M/6M
EMCD-4000 / EMCD-4000S

E4000 CONTROLLER

AL-C1204

E4000 SERIES

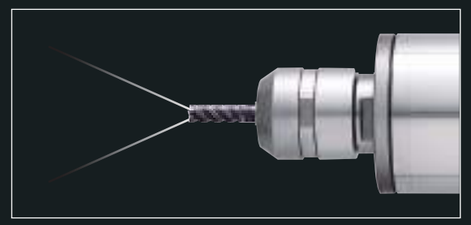
Motor spindle (One-piece type: ϕ3.0–ϕ10.0 mm)

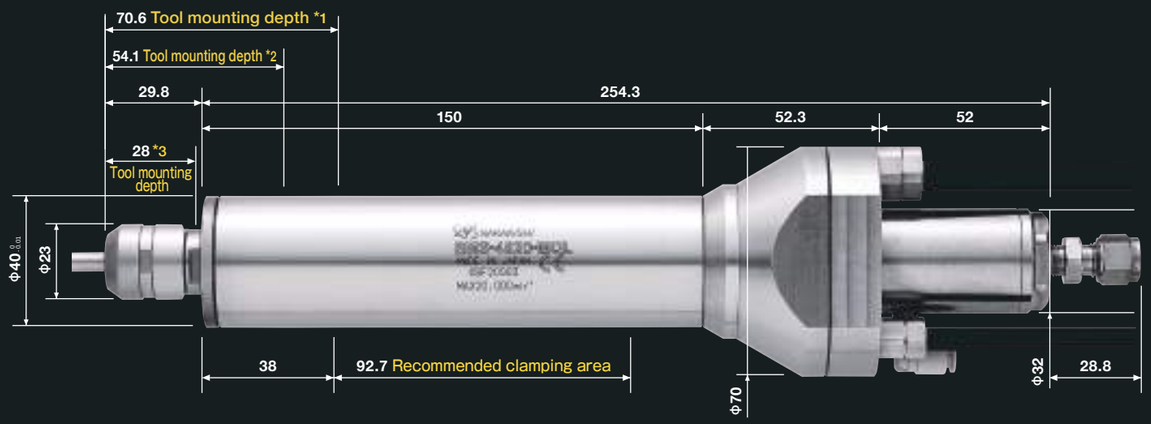
BMS-4020-MQL / BMS-4020-MQL-2M
BMS-4040-MQL / BMS-4040-MQL-2M

Coolant through motor spindle

40
O.D. ϕ40 mm

- Pressurized coolant entered through the back of the spindle and through the cutting tool at a speed of 40,000 RPM.
- Coolant through improves chip clearance, accuracy, productivity and extends tool-life.





*1: When the shank is between ϕ4 mm and less than ϕ6.9 mm (through-hole for sizes less then ϕ4 mm)
*2: When the shank is ϕ6.9 mm to ϕ10.0 mm
*3: The tool needs to be inserted more than 28 mm, or the oil leaks

! "High pressure coolant device" or "oil mist supply device" must be arranged by the customer.

Order by Code No.

Specifications

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

BMS-4020-MQL / BMS-4020-MQL-2M

Code No.	7716	Model	BMS-4020-MQL
Code No.	7717	Model	BMS-4020-MQL-2M

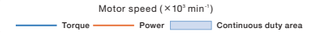
O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ40 mm	20,000 min⁻¹	Within 1 μm	CH16OH Group (ϕ3.0–ϕ10.0 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
BMS-4020-MQL: 0.3 m BMS-4020-MQL-2M: 2.0 m	70 mm	1.0 N·m	BMS-4020-MQL: 2.3 kg BMS-4020-MQL-2M: 2.8 kg

Standard equipment and accessories	Collet nut (CHN-16) / Insert / Wrench (17 × 22): 2 pcs.
	*Collet is sold separately.
Specifications	Coolant pressure: 0.2–3.0 MPa / Oil mist pressure: 0.2–1.0 MPa
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (CH16OH Group): ϕ3.0–ϕ10.0 mm p. 8-7
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26

*8M motor cord cannot be used with BMS-4020-MQL-2M.

Torque & power curve



BMS-4040-MQL / BMS-4040-MQL-2M

Code No.	7714	Model	BMS-4040-MQL
Code No.	7715	Model	BMS-4040-MQL-2M

O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ40 mm	40,000 min⁻¹	Within 1 μm	CH16OH Group (ϕ3.0–ϕ10.0 mm)	1,200 W

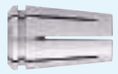
Cord length	Min. bending cord radius	Max. torque	Net weight
BMS-4040-MQL: 0.3 m BMS-4040-MQL-2M: 2.0 m	70 mm	0.5 N·m	BMS-4040-MQL: 2.3 kg BMS-4040-MQL-2M: 2.8 kg

Standard equipment and accessories	Collet nut (CHN-16) / Insert / Wrench (17 × 22): 2 pcs.
	*Collet is sold separately.
Specifications	Coolant pressure: 0.2–3.0 MPa / Oil mist pressure: 0.2–1.0 MPa
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (CH16OH Group): ϕ3.0–ϕ10.0 mm p. 8-7
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255), 8 m (9256)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259), 8 m (9260) p. 1-26

*8M motor cord cannot be used with BMS-4040-MQL-2M.

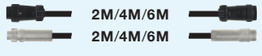
Torque & power curve

Spindle Guide



CHK-OH

CTM-4020



EMCD-4000 / EMCD-4000S

E4000 CONTROLLER

AL-C1204

E4000 SERIES

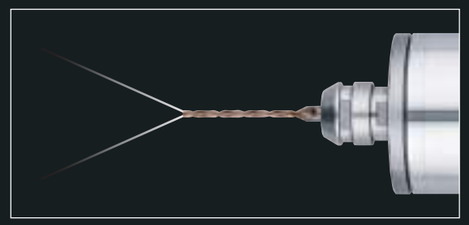
Motor spindle (One-piece type: ϕ3.0–ϕ6.35 mm)

CTM-4020

Coolant through spindle

40
O.D. ϕ40 mm

- Pressurized coolant is introduced through the back of the spindle and through the cutting tool at a speed of up to 20,000 RPM.
- Supports high-pressure coolant of up to 30 MPa.
- Coolant through improves chip clearance, accuracy, productivity and extends tool-life.



*1: When the shank is between ϕ4 mm to ϕ6.35 mm (through-hole for sizes less then ϕ4 mm)
*2: The tool needs to be inserted more than 20 mm, or the coolant will leak

! "High pressure coolant device" or "oil mist supply device" must be arranged by the customer.

Order by Code No.

Specifications

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

CTM-4020

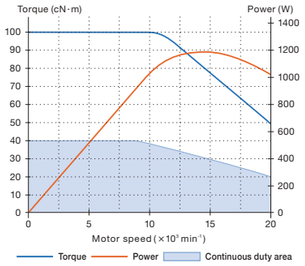
Code No. 7918 Model CTM-4020

O.D.	Motor speed	Spindle accuracy	Collet	Max. power
ϕ40 mm	20,000 min⁻¹	Within 1 μm	CHK-OH Group (ϕ3.0–ϕ6.35 mm)	1,200 W

Cord length	Min. bending cord radius	Max. torque	Net weight
2.0 m	70 mm	1.0 N·m	2.6 kg

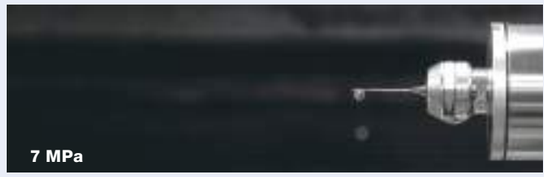
Standard equipment and accessories	Collet nut (K-265) / Wrench (12 × 14): 2 pcs.
	*Collet is sold separately.
Specifications	Coolant pressure: 0.5-30.0 MPa
	Power cable with Air hose: connector diameter ϕ30 mm / air hose ϕ6 mm
	Signal cable: connector diameter ϕ16 mm
Options	Collet (CHK-OH Group): ϕ3.0–ϕ6.35 mm p. 8-5
	Power cable with Air hose: 2 m (9253), 4 m (9254), 6 m (9255)
	Signal cable: 2 m (9257), 4 m (9258), 6 m (9259) p. 1-26

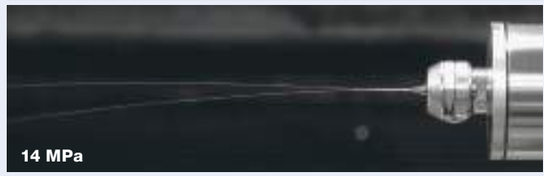
Torque & power curve



Comparison of coolant discharge

- High-pressure coolant of up to 30 MPa can be applied, and even small tools with a diameter of ϕ0.5 mm can be sufficiently cooled.
- This improves chip removal, improves machining accuracy, and reduces processing time.





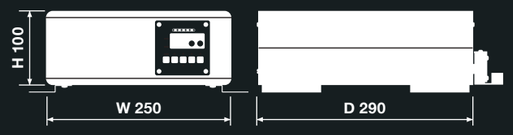
[Conditions]
Tool: ϕ0.5 mm
Coolant: Oil-based coolant with viscosity VG7

E4000 Controller

E4000 CONTROLLER

Controller

Code No. **8472**



External control function

- **External Input**
  Rotating ON/OFF, Forward/reverse rotation, Motor speed control, 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.

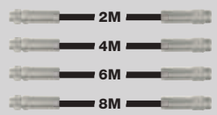
*For more information, please refer to the operation manual on our website.

Max. power	Input voltage	Motor speed	Power consumption	Air consumption	Net weight
1,200 W	AC200–240 V Without plug Multiple output power	1,000–40,000 min⁻¹	AC3.2 A	100 NL/min (0.2–0.35 MPa)	6.7 kg

Standard equipment and accessories	Power cord: 4 m / Air hose with filter (K-251: 2058): 2 m / Motor connector cap (included)
	Connector cover (included) / Bracket: 4 pcs. / Rubber pad: 4 pcs.

Motor cord

Order by Code No.

Motor cord	Code No.	Model	Cord length	Standard equipment and accessories	Compatible model
Power cable with Air hose Connector diameter: ϕ30 mm	9253	EMCD-4000-2M	2 m	Air hose	BMS-5010·BMS-5010RA BMS-4020·BMS-4040·BMS-4020RA BMS-4040RA·BMS-4020 2M BMS-4040 2M·EM-4020·EM-4040 EM-4020A·EM-4040A CTM-4020 BMS-4020-MQL·BMS-4020-MQL-2M BMS-4040-MQL·BMS-4040-MQL-2M BMS-4020-MQL-CHK·BMS-4020-MQL-CHK-2M BMS-4040-MQL-CHK·BMS-4040-MQL-CHK-2M BMS-4040-RGD-03M·BMS-4040-RGD-2M BMS-4040RA-RGD-03M·BMS-4040RA-RGD-2M
	9254	EMCD-4000-4M	4 m		
	9255	EMCD-4000-6M	6 m		
	9256	EMCD-4000-8M	8 m		BMS-5010·BMS-5010RA BMS-4020·BMS-4040·EM-4020·EM-4040 BMS-4020-MQL·BMS-4040-MQL BMS-4020-MQL-CHK·BMS-4040-MQL-CHK BMS-4040-RGD-03M·BMS-4040RA-RGD-03M
Signal cable  Connector diameter: ϕ16 mm	9257	EMCD-4000S-2M	2 m	–	BMS-5010·BMS-5010RA BMS-4020·BMS-4040·BMS-4020RA BMS-4040RA·BMS-4020 2M BMS-4040 2M·EM-4020·EM-4040 EM-4020A·EM-4040A CTM-4020 BMS-4020-MQL·BMS-4020-MQL-2M BMS-4040-MQL·BMS-4040-MQL-2M BMS-4020-MQL-CHK·BMS-4020-MQL-CHK-2M BMS-4040-MQL-CHK·BMS-4040-MQL-CHK-2M BMS-4040-RGD-03M·BMS-4040-RGD-2M BMS-4040RA-RGD-03M·BMS-4040RA-RGD-2M
	9258	EMCD-4000S-4M	4 m		
	9259	EMCD-4000S-6M	6 m		
	9260	EMCD-4000S-8M	8 m		BMS-5010·BMS-5010RA BMS-4020·BMS-4040·EM-4020·EM-4040 BMS-4020-MQL·BMS-4040-MQL BMS-4020-MQL-CHK·BMS-4040-MQL-CHK BMS-4040-RGD-03M·BMS-4040RA-RGD-03M

*Power cable and Signal cable should be used as set.
*8M motor cord cannot be used with angle cord type/2M type motor spindles and CTM-4020 (except BMS-5010RA).
*For BMS-5010/BMS-5010RA, the maximum length of motor cord is 16 m.
*The minimum cord bending radius for the above motor cords is 70 mm.

Accessories

E4000-PB

Box for control panel

Net weight: 216 g

Code No.	8473	Model	E4000-PB
Standard accessories	Case / Blind plate / Screw (M3): 6 pcs.		
	Screw (M4): 2 pcs.		

*Control panel is sold separately.

E4000-PEX4

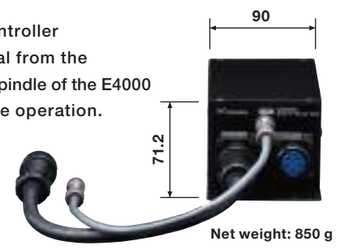
Control panel extention cord (4 m)

Code No.	8474	Model	E4000-PEX4
Standard accessories	Assembled product (cord length: 4 m)		
	Mounting screw: 4 pcs.		

E4000-SRB

Safety relay box

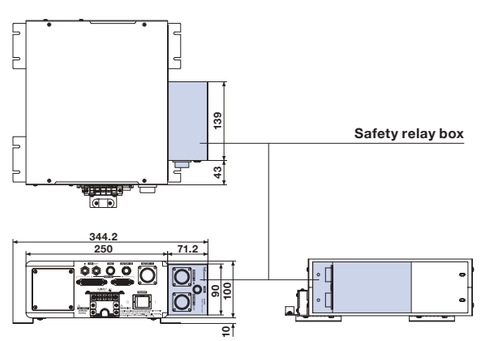
- Mounts directly on E4000 Controller
- Allows Emergency Stop Signal from the CNC to stop the E4000 Motor spindle of the E4000 Controller to stop the machine operation.



Net weight: 850 g

Code No.	8475	Model	E4000-SRB
Standard accessories	Power cord: 400 mm		
	Emergency stop cord: 400 mm		

Placing controller with Safety relay box



ACCESSORIES

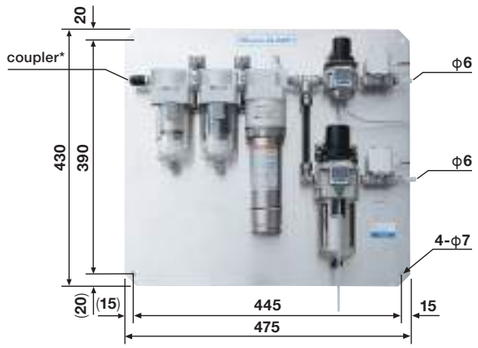
Air line kit ····· p. 8-3-4
Collet ····· p. 8-5-7
Collet nut ····· p. 8-8
Grip ring / Spacer / Bush ····· p. 8-9-10
Collet holder / Preset adapter ····· p. 8-11
COMBOX-NET.EIP, etc. ····· p. 8-12-14

Air line kit

Order by Code No.

AL-A0611

Filtration: 0.01 μm



Code No.	1548	Model	AL-A0611

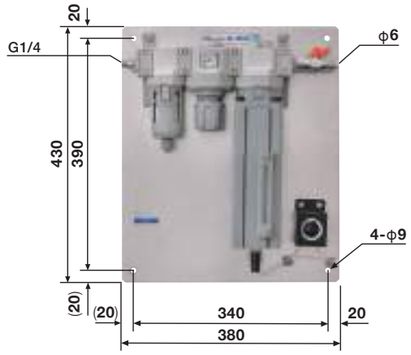
■ **Air piping**
Inlet: Coupler (Model: KK13P-02M made by SMC Corporation)
Outlet: φ6.0 mm × 2 parts
■ **Net weight: 8.2 kg**

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 Xpeed 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



Code No.	4501	Model	AL-M1201BL

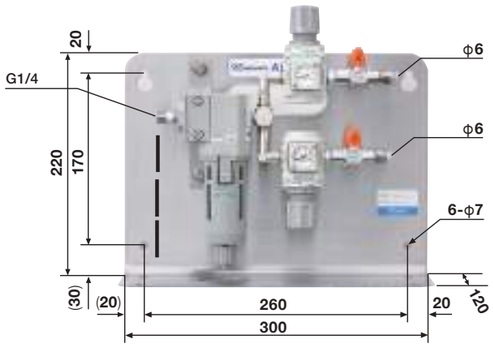
■ **Air piping**
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm
■ **Net weight: 5.2 kg**

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



Code No.	4505	Model	AL-A1205

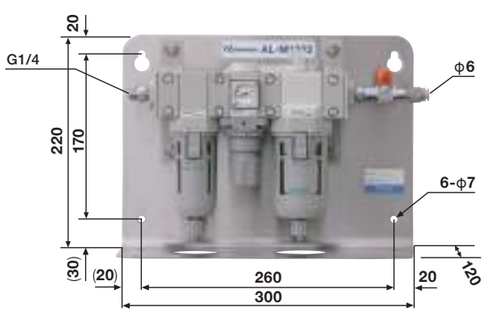
■ **Air piping**
Inlet: G1/4 male thread for connection hose
Outlet: φ6.0 mm × 2 parts
■ **Net weight: 2.4 kg**

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



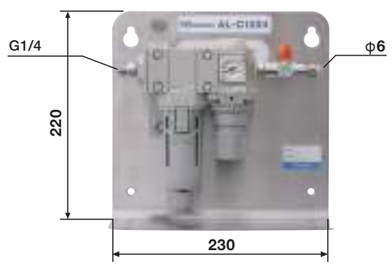
Code No.	4502	Model	AL-M1202

■ **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



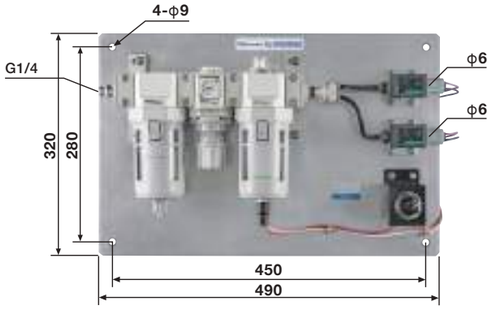
Code No.	4504	Model	AL-C1204

■ **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



Code No.	4503	Model	AL-M1203BS2

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

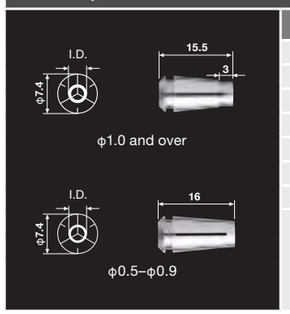
Standard accessories	Hose pipe (K-275): 2 m Lubricating oil (K-202) 1 L: 1 pc. Bolt (M8 × 20 L): 4 pcs. / Spacer: 4 pcs.
Standard equipment	Air filter / Air regulator / Lubricator Solenoid valve: 2 pcs. / Alarm buzzer
Compatible model	Air-Speed series

Collet

Order by Code No.

CHA Group

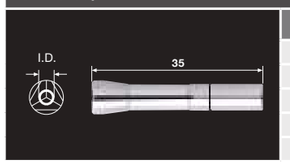
Fit nuts: CHN-A, CHN-AA, CHN-CTA, CHN-3A



Code No.	Model	I.D. (mm)	Compatible model
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	
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	

*High precision type AA (Run-out accuracy within 2 μm)

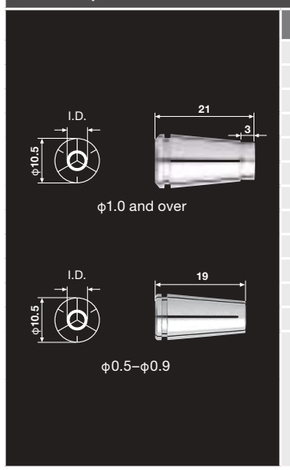
CHB Group



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

Fit nuts: K-265, K-265A

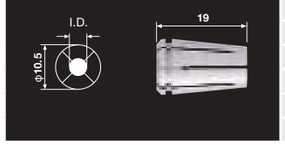


Code No.	Model	I.D. (mm)	Compatible model
91597	CHK-3.0AA	φ3.0AA*	EM30-S6000 · EMA-3020K · EMR-3008K EMS-3060K · NR-2551 · NR-3060 NR-3060S · NR-403E · NR-453E NRAF-5080 · NRF-3060S · RAS-151E RAX-71E · RAX-271E MSS-25 · MSST-23 · PMA-3013K PMR-3005K · PMS-3020K NR-303 · NR-311 · NR-2351 · RAS-101 QC5-K (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)

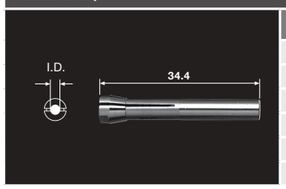
CHK-OH Group

Fit nut: K-265



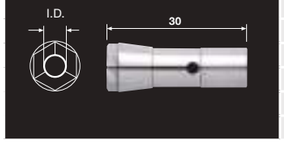
Code No.	Model	I.D. (mm)	Compatible model
93630	CHK-OH-3.0	φ3.0	CTM-4020 BMS-4020-MQL-CHK / 2M BMS-4040-MQL-CHK / 2M
93631	CHK-OH-3.175	φ3.175	
93640	CHK-OH-4.0	φ4.0	
93650	CHK-OH-5.0	φ5.0	
93660	CHK-OH-6.0	φ6.0	
93663	CHK-OH-6.35	φ6.35	

CHM Group



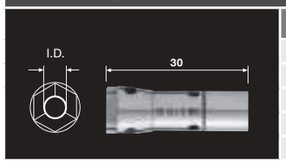
Code No.	Model	I.D. (mm)	Compatible model
90910	CHM-1.0	φ1.0	AMH-301 · NR-601
90916	CHM-1.6	φ1.6	
90920	CHM-2.0	φ2.0	
90992	CHM-2.35	φ2.35	
90930	CHM-3.0	φ3.0	
90993	CHM-3.175	φ3.175	

CHR Group



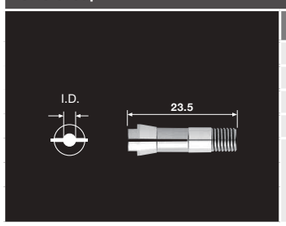
Code No.	Model	I.D. (mm)	Compatible model
91920	CHR-2.0	φ2.0	NR50-5100 ATC
91930	CHR-3.0	φ3.0	
91993	CHR-3.175	φ3.175	
91940	CHR-4.0	φ4.0	
91960	CHR-6.0	φ6.0	
91996	CHR-6.35	φ6.35	

CHR RS Group



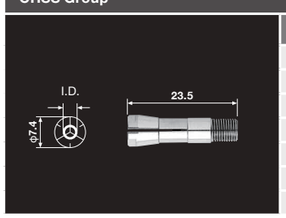
Code No.	Model	I.D. (mm)	Compatible model
93201	CHR-3.0RS	φ3.0	NR50-5100 ATC NR50-5100 ATC RS · NR50-6000ATC-RS
93202	CHR-3.175RS	φ3.175	
93203	CHR-4.0RS	φ4.0	
93204	CHR-6.0RS	φ6.0	
93205	CHR-6.35RS	φ6.35	

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	

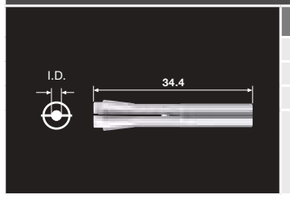
CHSS Group



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

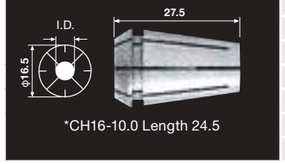
CH8 Group



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

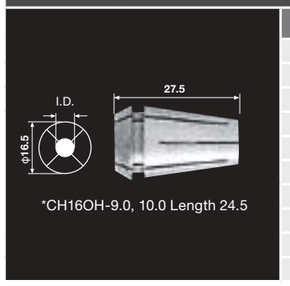


*CH16-10.0 Length 24.5

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

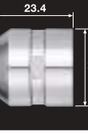
K-265A

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)

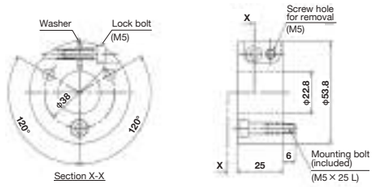
CHN-20

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

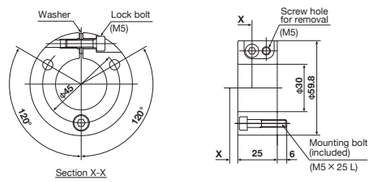
GR-22.8



Code No.	1888	Model	GR-22.8
Standard accessories	Mounting bolt (M5 × 25 L): 3 pcs.		
Compatible model	ϕ22.8 mm Spindle		

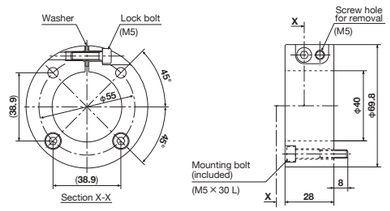
*GR-22.8 cannot be used with NR-311.

GR-30



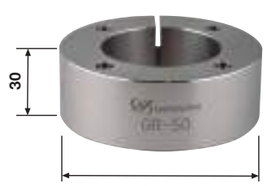
Code No.	1885	Model	GR-30
Standard accessories	Mounting bolt (M5 × 25 L): 3 pcs.		
Compatible model	ϕ30 mm Spindle		

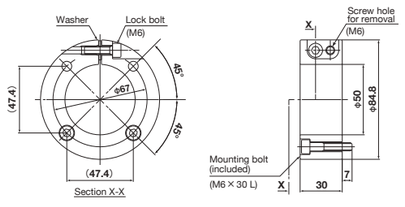
GR-40



Code No.	1886	Model	GR-40
Standard accessories	Mounting bolt (M5 × 30 L): 4 pcs.		
Compatible model	ϕ40 mm Spindle		

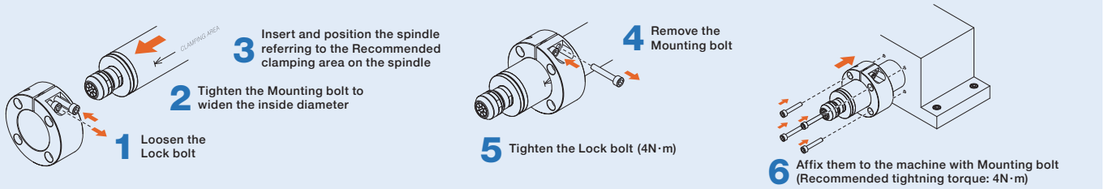
GR-50





Code No.	1889	Model	GR-50
Standard accessories	Mounting bolt (M6 × 30 L): 4 pcs.		
Compatible model	ϕ50 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

Order by Code No.

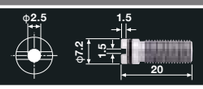
Spacer	Code No.	Model	Description / Description (I.D. × T)	Compatible model
	1882	SP-22 × 10 L	Spacer (ϕ22 × 10 mm)	BM-322FL · BM-322FR

Bush

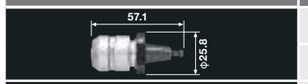
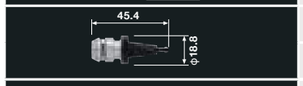
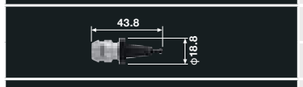
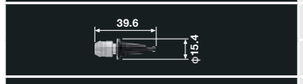
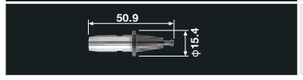
Bushings to allow smaller diameter spindles to be mounted in larger diameter holders

Bush	Code No.	Model	Description / Dimensions (I.D. × O.D. × L)	Compatible model
	1887	RB-19.05 × 25.4 × 36 L	ϕ25.4 Bush (ϕ19.05 × ϕ25.4 × 36 mm)	BM-319 · BM-319F · BMF-319 · BMJ-319 MSS-1902R / RA · MSS-1908R / RA MSS-1930R / RA
	1877	RB-20 × 22	ϕ22 Bush (ϕ20 × ϕ22 × 40 mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1876	RB-20 × 22.8	ϕ22.8 Bush (ϕ20 × ϕ22.8 × 40 mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1875	RB-20 × 23	ϕ23 Bush (ϕ20 × ϕ23 × 40 mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1878	RB-20 × 25	ϕ25 Bush (ϕ20 × ϕ25 × 40 mm)	BM-320 · BMF-320 · BMJ-320 · EM20-S6000 MSS-2002R / RA · MSS-2008R / RA MSS-2030R / RA
	1879	RB-20 × 25.4	ϕ25.4 Bush (ϕ20 × ϕ25.4 × 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	ϕ25 Bush (ϕ22 × ϕ25 × 33.5 mm)	BM-322 · BM-322FL · BM-322FR BM-322FS · BMF-322 · BMJ-322
	1884	RB-22 × 25.4 × 34 L	ϕ25.4 Bush (ϕ22 × ϕ25.4 × 33.5 mm)	BM-322 · BM-322FL · BM-322FR BM-322FS · BMF-322 · BMJ-322
	1872	RBS-22.8 × 25	ϕ25 Bush (ϕ22.8 × ϕ25 × 25 mm)	AMH-301 · NR-303 · NR-311 · NR-2351 RA-200 · RAS-101
	1871	RB-22.8 × 25	ϕ25 Bush (ϕ22.8 × ϕ25 × 44 mm)	RA-100
	1874	RBS-22.8 × 25.4	ϕ25.4 Bush (ϕ22.8 × ϕ25.4 × 25 mm)	AMH-301 · NR-303 · NR-311 · NR-2351 RA-200 · RAS-101
	1873	RB-22.8 × 25.4	ϕ25.4 Bush (ϕ22.8 × ϕ25.4 × 44 mm)	RA-100
	1880	RB-30 × 32	ϕ32 Bush (ϕ30 × ϕ32 × 45 mm)	NR-3060 · NR-3060S · NR-403E
	1881	RB-30 × 36	ϕ36 Bush (ϕ30 × ϕ36 × 45 mm)	NR-3060 · NR-3060S · NR-403E

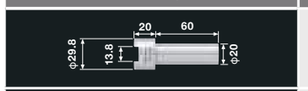
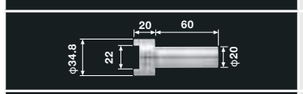
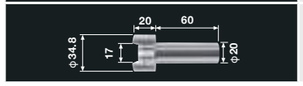
Adjuster bolt

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	

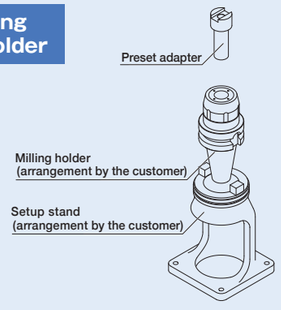
Preset adapter

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

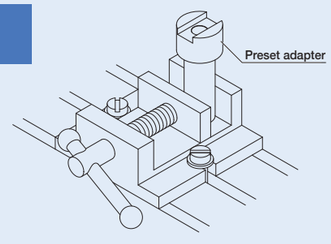
Set-up outside machines

1

In case using a milling holder

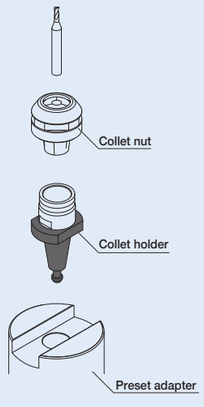


In case using a vice

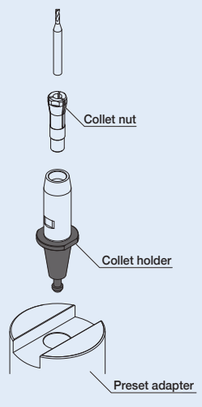


2

For QC3-K/A QC5-16/K

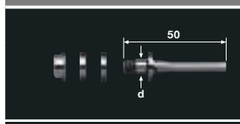
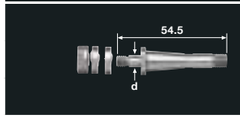


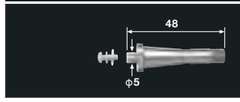
For QC3-SS

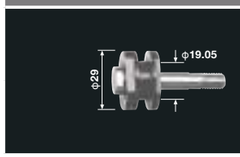


Order by Code No.

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)	ϕ8.8 (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)	ϕ8.8 (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

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

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.

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

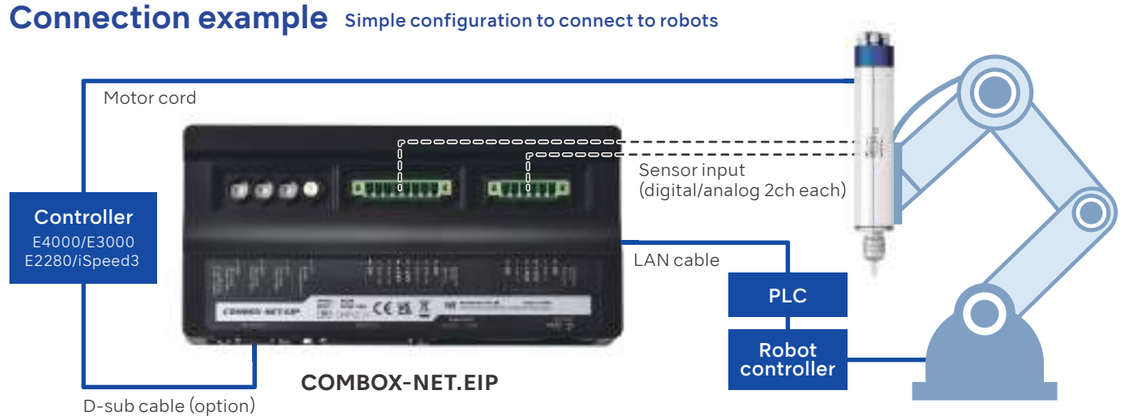
- **Connectable to Ethernet/IP compatible devices via LAN cable** *Support for other protocols is pending
- **Reduction of the number of lines in the ladder program in PLCs is possible**
- **I/O-related devices are no longer needed, reducing the amount of wiring required**

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

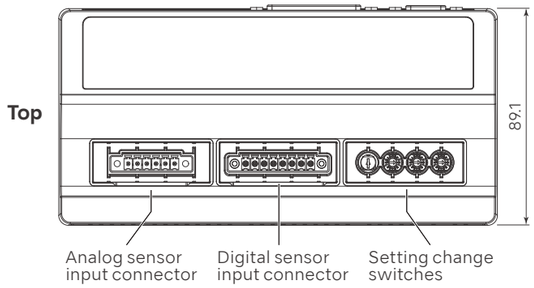
Previous
[I/O related device is required]

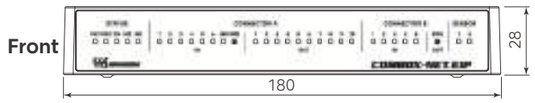
Using COMBOX-NET.EIP
[No I/O related device is required]

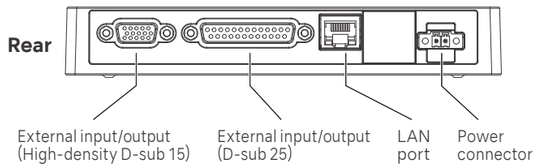
Connection example Simple configuration to connect to robots



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

Code No.	7796	Model	COMBOX-NET.EIP

*D-sub cables are sold separately.

Option

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

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.

E4000 controller
S/N: E*******

E3000 controller
S/N: G*******

E2280 controller
S/N: B*******

iSpeed3 controller
S/N: C*******

*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.