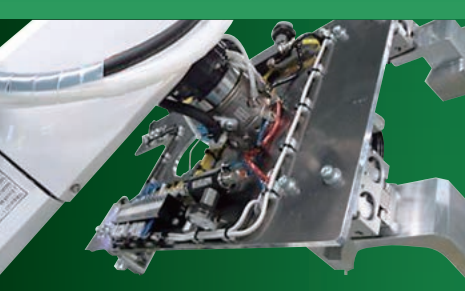
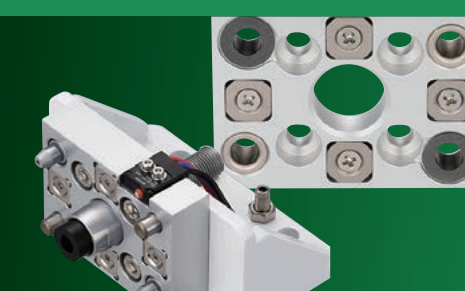


Quick Chuck Change



Quick Chuck Change (Manual) 1-2

- ▶ OA-SSL/OA-SSI/OA1-SA/OA1-SAI 1-3
- ▶ OA2-LA/OA-LAI/Chuck Spacer (Plastic) 1-4
- ▶ OA-SSL (SS)/OA-SSI (SS)/OC-LA/OC-LAII 1-5



Tool Changer 1-6

- ▶ B/BN Type 1-9
- ▶ Long Center Guide 1-14
- ▶ Additional Air Expansion for A/B/BN Type 1-15
- ▶ Accessories for A/B/BN Type 1-16
- ▶ Quick Chuck Change Automatic for Articulated Robots ... 1-20
- ▶ Accessories for Articulated Robots 1-25



Automated Chuck Exchange System 1-32

- ▶ Auto Quick Chuck Change Hanger/Hanger Tool ... 1-33
- ▶ Magnet Chuck Hanger 1-35

Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector/Filter/Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

Other Products

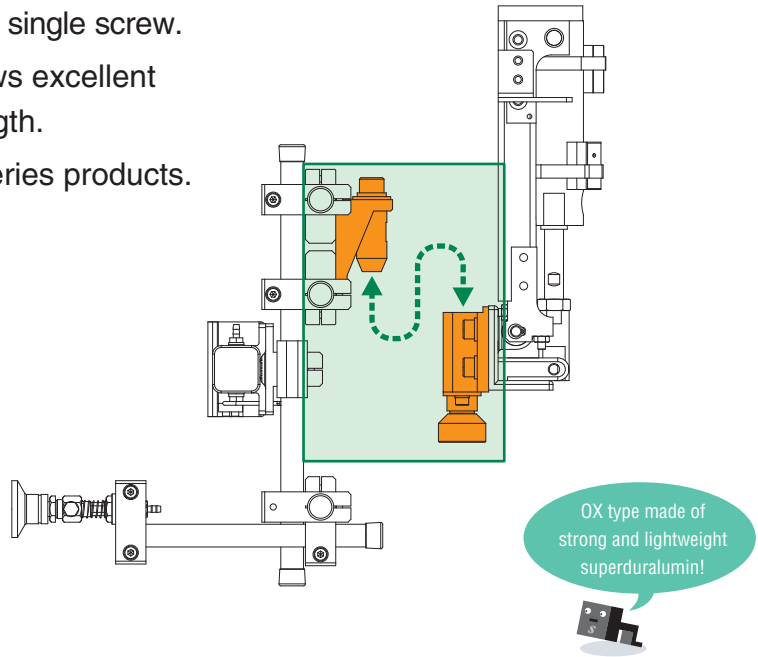
Others

Information



Quick Chuck Change (Manual)

- ▶ Switch chucks merely by tightening a single screw.
- ▶ Using superduralumin material allows excellent weight reduction and superior strength.
- ▶ Interchangeable with existing OC series products.

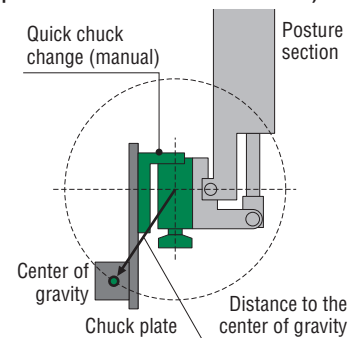
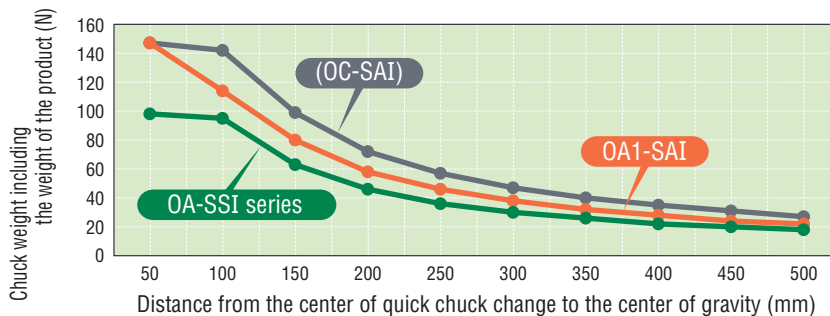


Specification

Product name	Order code No.	Weight (g)	Weight capacity(kg)	Injection press range(ton)	Page of details	
	Standard					
▶ Superduralumin						
Quick chuck change (manual)	140219	165	~ 10	40 - 650	1-3	
	OA-SSL					
	140151	97				
	OA-SSI					
	140290	156				~ 15
	OA1-SA					
140257	229					
OA1-SAI						
140291	495	~ 35	650 - 1,600	1-4		
OA2-LA						
140155	555					
OA-LAI						

Product name	Order code No.	Weight (g)	Weight capacity(kg)	Injection press range(ton)	Page of details
	Standard				
▶ Stainless steel (SS)					
Quick chuck change (manual)	140271	370	~ 10	40 - 650	1-5
	OA-SSL (SS)				
	140272	265			
	OA-SSI (SS)				
▶ Steel					
Bracket for quick chuck change	140042	1,283	~ 35	650 - 1,600	1-5
	OC-LA				
	140043	1,000			
	OC-LAII				
▶ Plastic					
Spacer	041645	35	-	-	1-4
	ECP-031				

Allowable-load curve of OA-SSI, OA1-SAI, and OC-SAI (see → 1-4) for comparison between OA-LAI and OC-LAII





Quick Chuck Change (Manual, Superduralumin)

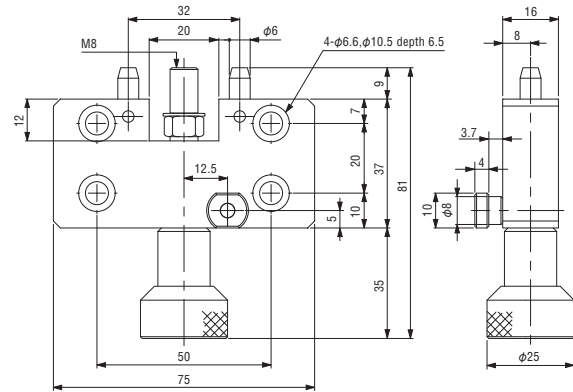
Easy E.O.A.T. exchange with only one screw.

► Mounting bolt for OA-SS was extended.



Order code No.	140219
Standard	OA-SSL

- Superduralumin
- Weight: 165g
- Mounting position: robot side
- Weight capacity: ~ 10kg
- Thickness after connection: 24mm

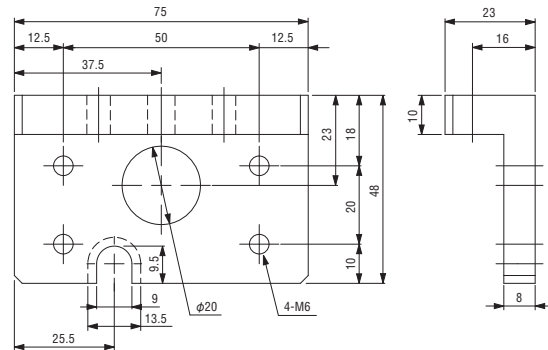


► Compatible with OC type QCC for robot side.



Order code No.	140151
Standard	OA-SSI

- Superduralumin
- Weight: 97g
- Mounting position: tool side
- Weight capacity: ~ 10kg
- Thickness after connection: 24mm

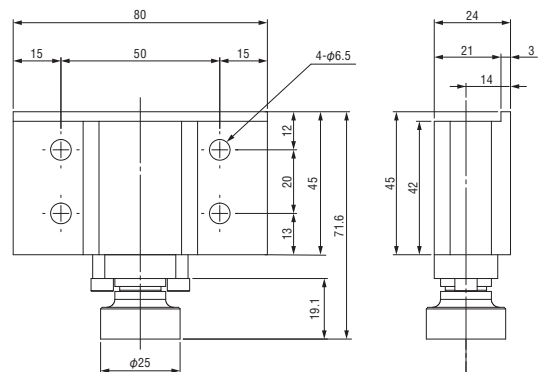


► The material is popular with the aircraft industry because of its light weight and strength.



Order code No.	140290
Standard	OA1-SA

- Superduralumin
- Weight: 156g
- Mounting position: robot side
- Weight capacity: ~ 15kg
- Thickness after connection: 33mm

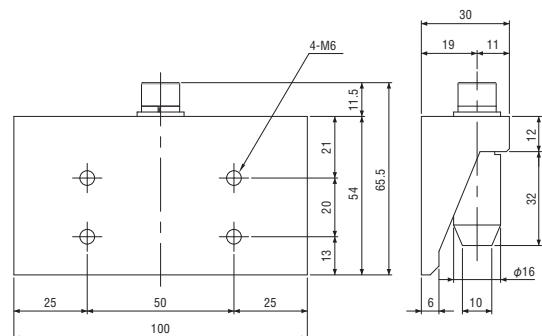


► Compatible with OC type QCC for robot side.



Order code No.	140257
Standard	OA1-SAI

- Superduralumin
- Weight: 229g
- Mounting position: tool side
- Weight capacity: ~ 15kg
- Thickness after connection: 33mm



Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector/Filter/Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

Other Products

Others

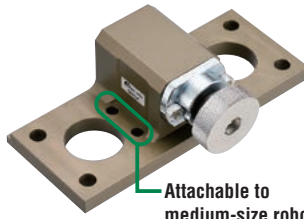
Information



Quick Chuck Change (Manual, Superduralumin) / Chuck Spacer

Easy E.O.A.T. exchange with only one screw.

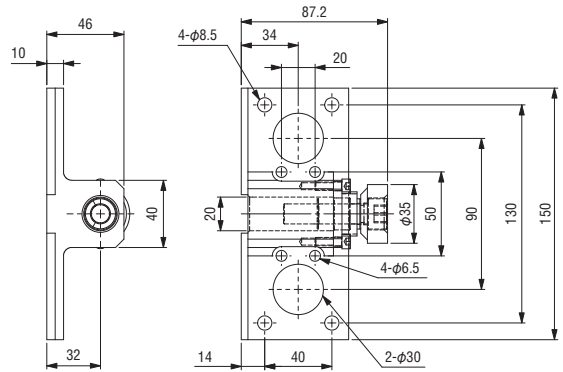
▶ Attachable to medium-size robots.



Attachable to medium-size robots.

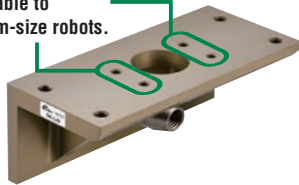
Order code No.	140291
Standard	OA2-LA

- Superduralumin
- Weight: 495g
- Mounting position: robot side
- Weight capacity: ~ 35kg
- Thickness after connection: 61mm



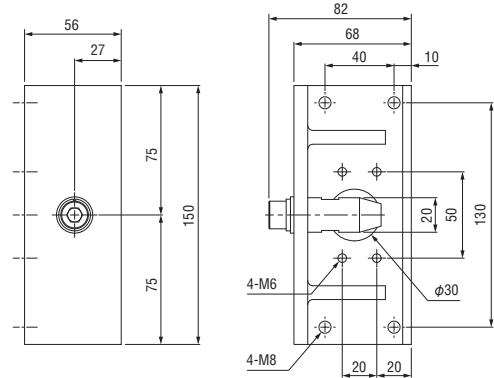
Quick Chuck Change ● Quick Chuck Change (Manual)

Attachable to medium-size robots.



Order code No.	140155
Standard	OA-LAI

- Superduralumin
- Weight: 555g
- Mounting position: tool side
- Weight capacity: ~ 35kg
- Thickness after connection: 61mm



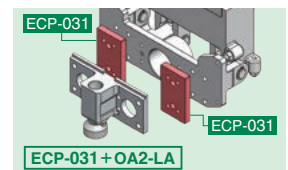
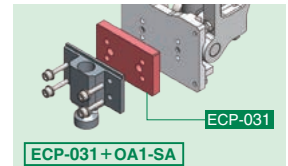
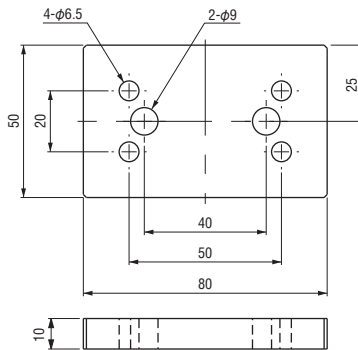
▶ Accessories



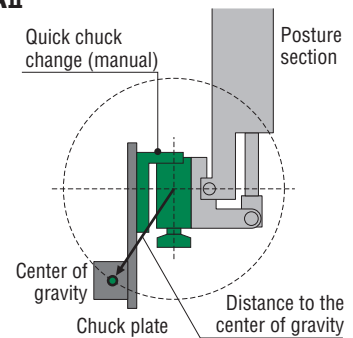
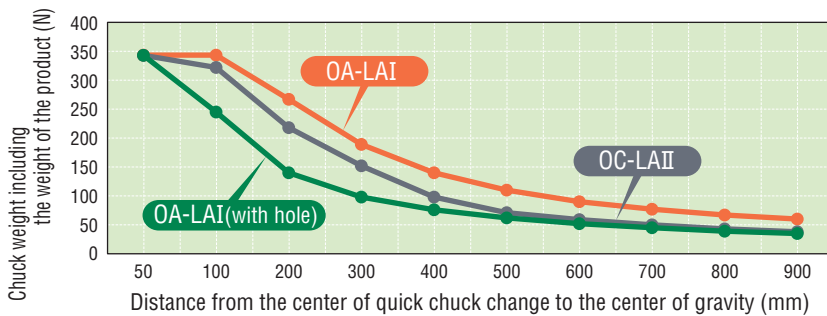
Chuck spacer · for EOAT

Order code No.	041645
Standard	ECP-031

- Plastic
- Weight: 35.0g



Allowable-load Curve of OA-LAI(with hole), OA-LAI, and OC-LAI





Quick Chuck Change (Manual, Stainless Steel) / Bracket for Quick Chuck Change (Steel)

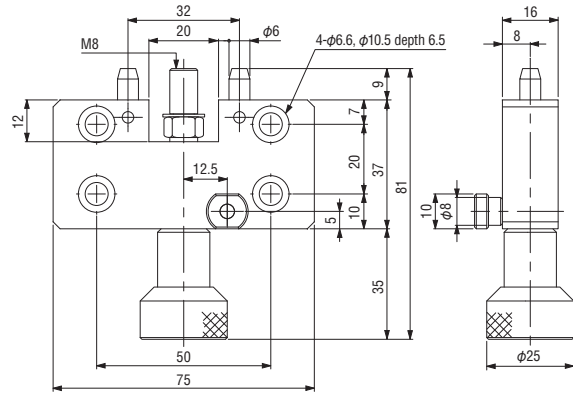
Easy E.O.A.T. exchange with only one screw.

► Chuck plate stainless steel (SS) can be used for food and medicinal industries.



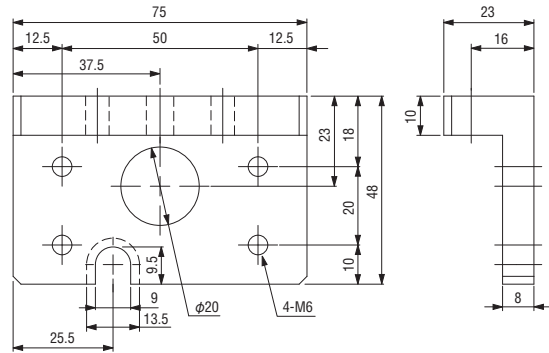
Order code No.	140271
Standard	OA-SSL (SS)

- Stainless steel
- Weight: 370g
- Mounting position: robot side
- Weight capacity: ~ 10kg
- Thickness after connection: 24mm



Order code No.	140272
Standard	OA-SSI (SS)

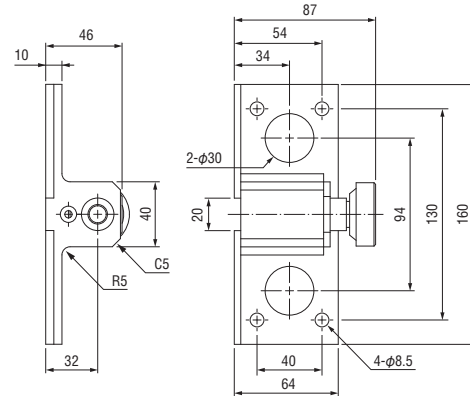
- Stainless steel
- Weight: 265g
- Mounting position: tool side
- Weight capacity: ~ 10kg
- Thickness after connection: 24mm



Quick chuck change metal fixture

Order code No.	140042
Standard	OC-LA

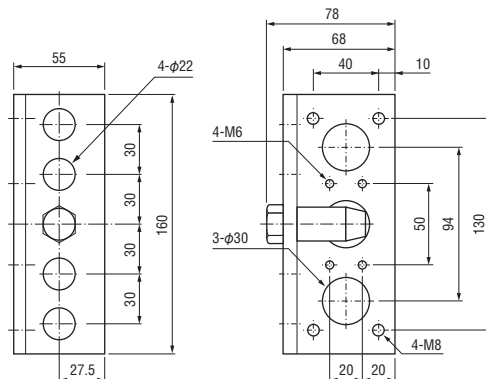
- Steel
- Weight: 1,283g
- Mounting position: robot side
- Weight capacity: ~ 35kg
- Thickness after connection: 59.5mm



Quick chuck change metal fixture

Order code No.	140043
Standard	OC-LAII

- Steel
- Weight: 1,000g
- Mounting position: tool side
- Weight capacity: ~ 35kg
- Thickness after connection: 59.5mm



Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector/Filter/Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

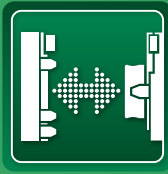
Tubing

Sensors

Other Products

Others

Information

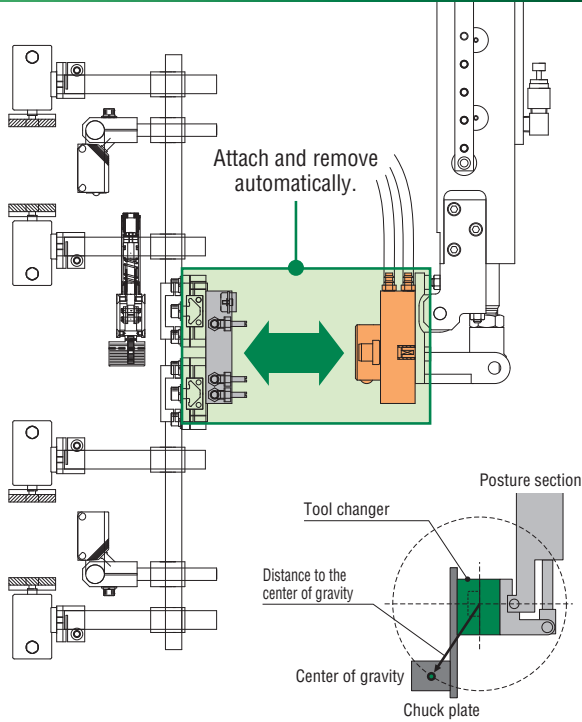


Tool Changer

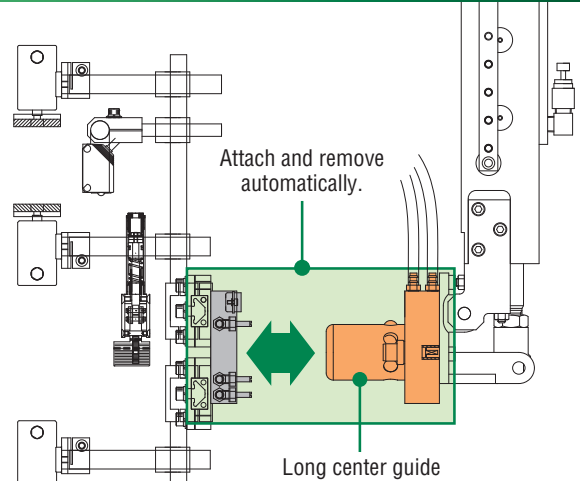
Detachable function as well as drawing function with installation. Ball-lock-type connection allows easy attachment and detachment. With air cut-off circuit (stops air supplies with detachment). High rigidity and long operating life with superduralumin and steel. Safety-circuit mechanism. Inner hold mechanism for air stop.

Quick Chuck Change • Tool Changer

A/B/BN Type



Long Center Guide



Allowable-load curve of OX-B series

OX-SSB

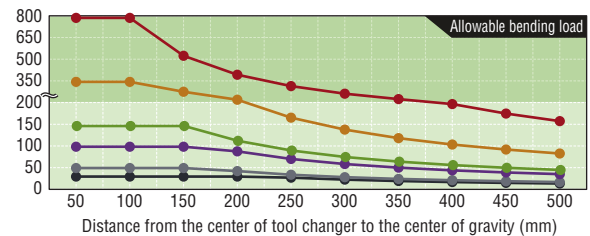
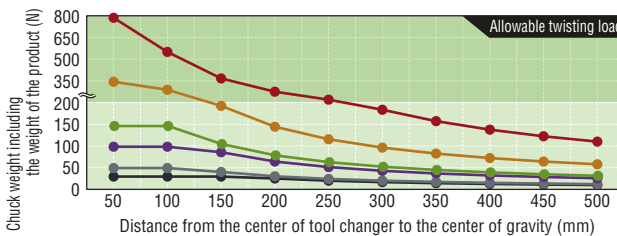
OX-SBS

OX-SB series

OX-WSB

OX-LB

OX-WLB



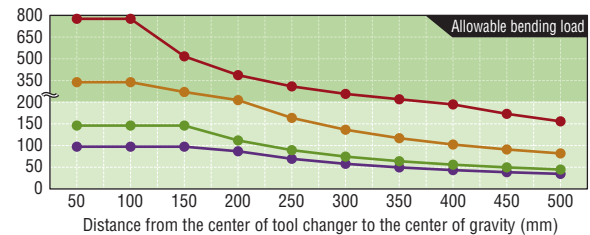
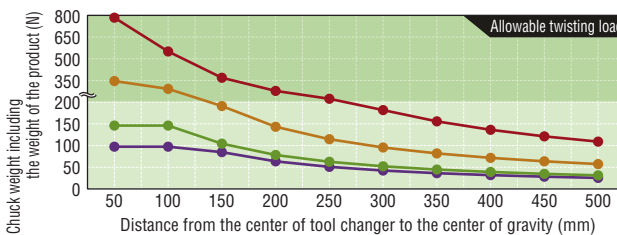
Allowable-load curve of OX-A series

OX-SA

OX-WSA

OX-LA

OX-WLA





Please read the QR code (right) using a mobile device such as a smartphone.

Specification

Product name	Order code No.	Standard	Weight (g)	Weight capacity(kg)	Injection press range(ton)	Power to draw(N) Power to force(N)	Electric contact Connector shape	Connected piping	Page of details	
B type (with connector)	140266	OX-SSB	330	~ 3	40 - 80	$\frac{315}{166}$	7Pin×2 2A DC24V Max Probe connector Solder-fix type	4 port (M5)	1-9	
	140268	OX-SSBI	120							
	140181	OX-SB	475	~ 10	80 - 650	$\frac{315}{192}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	6 port (M5)	1-9	
	140182	OX-SBI	235							
	140299	OX-WSB	845	~ 15	200 - 650	$\frac{770}{454}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	12 port (M5)	1-10	
	140301	OX-WSBI	365							
	140183	OX-LB	1,290	~ 35	650 - 1,600	$\frac{770}{454}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	6 port (M5)	1-11	
	140186	OX-LBI	615							
	140274	OX-LBF	1,485							
	140273	OX-LBFI	760							
	140184	OX-WLB	2,720	~ 80	1,600 - 5,000	$\frac{1,540}{909}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	10 port (M5)	1-11	
	140187	OX-WLBI	1,385							
	140217	OX-SBY	475	~ 10	80 - 650	$\frac{315}{192}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	6 port (M5)	1-12	
	140218	OX-SBYI	235							
	140275	OX-SBH	440							
	140276	OX-SBHI	245							
	140233	OX-SBS	305	~ 5	80 - 300	$\frac{192}{113}$	9Pin×1 2A DC24V Max D-SUB connector Probe connector	6 port (M5)	1-13	
	140234	OX-SBSI	122							
	BN type (w/o connector)	140280	OX-SSBN	318	~ 3	40 - 80	$\frac{315}{166}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	6 port (M5)	1-9
		140281	OX-SSBNI	108						
140225		OX-SBN	435	~ 10	80 - 650	$\frac{315}{192}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	6 port (M5)	1-9	
140226		OX-SBNI	195							
140300		OX-WSBN	787	~ 15	200 - 650	$\frac{770}{454}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	12 port (M5)	1-10	
140302		OX-WSBNI	320							
140231		OX-LBN	1,250	~ 35	650 - 1,600	$\frac{770}{454}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	6 port (M5)	1-11	
140232		OX-LBNI	575							
140258	OX-LBFN	1,445								
140259	OX-LBFNI	720								

*Please use manual push button "PB1-E (152308), PBW1-E(152306) → **1-16** **6-11**" for manual exchange.

Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Pad in Pad

Air Ejector / Filter / Check Valve

Micro Mold E.O.A.T

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Jungle Gym

Let's Joint

Let's Joint

Rectangular Tube

Rectangular Tube

Base Aluminum Material

Base Aluminum Material

Sliding Chuck

Sliding Chuck

Tubing/Sensors

Tubing

Tubing

Sensors

Sensors

Other Products












Others

Others

Information

Information

■ Specification

Product name	Order code No.	Standard	Weight (g)	Weight capacity(kg)	Injection press range(ton)	Power to draw(N) Power to force(N)	Electric contact Connector shape	Connected piping	Page of details	
BN type (w/o connector)	 140277	OX-WLBN	2,680	~ 80	1,600 - 5,000	$\frac{1,540}{909}$	—	6 port (M5)	1-11	
	 140278	OX-WLBNI	1,345							
	 140229	OX-SBYN	435	~ 10	80 - 650	$\frac{315}{192}$			1-12	
	 140230	OX-SBYNI	195							
	 140260	OX-SBHN	400							
	 140261	OX-SBHNI	205							
Long center guide (with connector)	 140228	OX-LB-30	1,370	~ 35	650 - 1,600	$\frac{770}{454}$	9Pin×2 2A DC24V Max D-SUB connector Probe connector	6 port (M5)		1-14
	 140283	OX-WLB-30	2,905	~ 80	1,600 - 5,000	$\frac{1,540}{909}$	9Pin×2 2A DC24V Max D-SUB connector	10 port (M5)		
Long center guide (w/o connector)	 140345	OX-SBN-30	470	~ 10	80 - 650	$\frac{315}{192}$	—	6 port (M5)		
	 140279	OX-LBN-30	1,330	~ 35	650 - 1,600	$\frac{770}{454}$		6 port (M5)		
	 140267	OX-WLBN-30	2,865	~ 80	1,600 - 5,000	$\frac{1,540}{909}$		10 port (M5)		

*Please use manual push button "PB1-E (152308), PBW1-E(152306) → 1-16 6-11" for manual exchange.

■ Common specification

Positional reproduction accuracy	Used air pressure	Drive piping	Acceptable electric wiring	Allowable temperature/humidity range
±0.1 Max.	0.49~0.7Mpa	Clean air, piping of $\phi 6$ ($\phi 4^*$), double action type	AWG20 Max.	0°C -55°C, 0% -95% (w/o condensation)

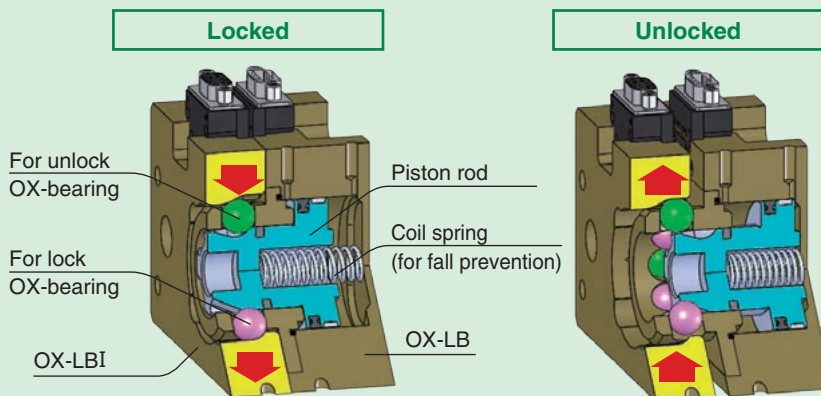
* $\phi 4$: OX-SB series (SSB, SB, SBYSBH, SBS, SBN, SBYN, SBHN)

Features

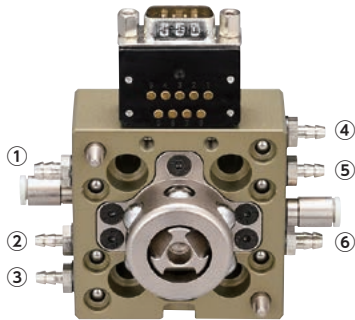
- Original detachable mechanism
(The U.S.: US7, 559, 265
Europe: EP 1 970 170)
- Falling prevention mechanism
- Air check valve

Merits

- Reduction of setup change time
- Reproducibility of mounting position
- Prevention of different piping/wiring connection



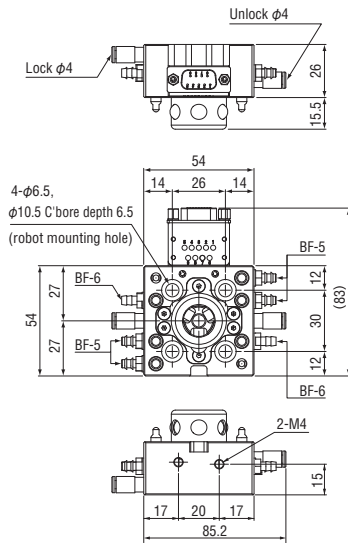
Mounting pitch
30×26



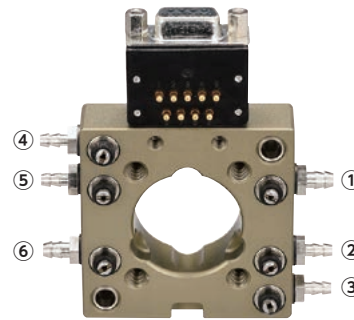
Order code No. **140233**

Standard **OX-SBS**

- Superduralumin
- Weight: 305g
- Mounting position: robot side
- Weight capacity: ~ 5kg
- Thickness after connection: 42mm



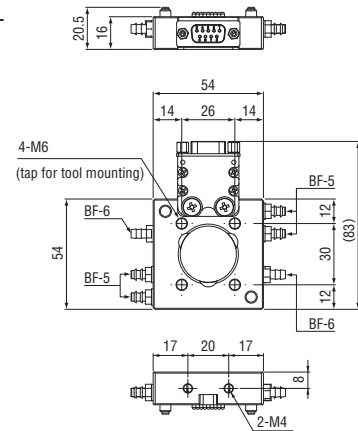
Mounting pitch
30×26



Order code No. **140234**

Standard **OX-SBSI**

- Superduralumin
- Weight: 122g
- Mounting position: tool side
- Weight capacity: ~ 5kg
- Thickness after connection: 42mm



Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector/Filter/Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

Other Products

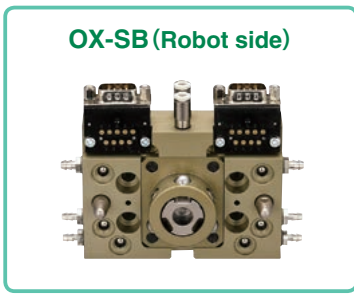
Others

Information



Additional Air Expansion

A type / B type / BN type



OX-SB (Robot side)



OX-SBA (Robot side)

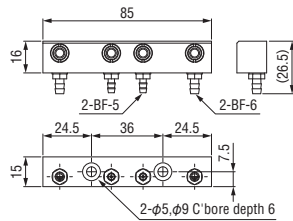


Example of mounting

For OX-SSB

Order code No.	140294
Standard	OX-SSBA

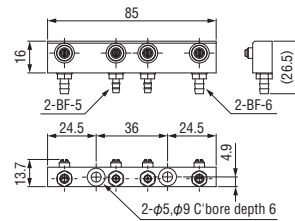
- Weight: 56g
- Attachments: mounting bolt (M3) x 2



For OX-SSBI

Order code No.	140295
Standard	OX-SSBIA

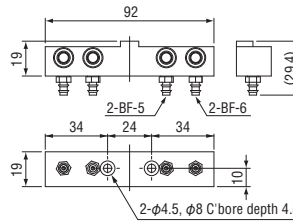
- Weight: 33g
- Attachments: mounting bolt (M3) x 2



For OX-SA/OX-SB

Order code No.	140193
Standard	OX-SBA

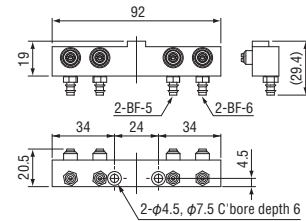
- Weight: 90g
- Attachments: mounting bolt (M4) x 2



For OX-SAI/OX-SBI

Order code No.	140194
Standard	OX-SBIA

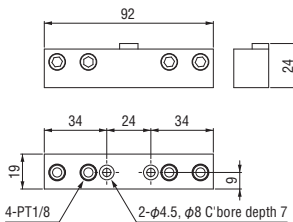
- Weight: 70g
- Attachments: mounting bolt (M4) x 2



For OX-SA/OX-SB

Order code No.	140251
Standard	OX-SBA1

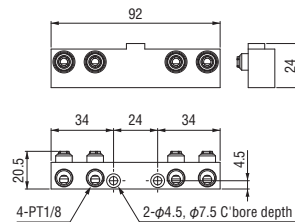
- Weight: 91g
- Air port: 1/8 hole x 4, w/o check valve
- Attachments: mounting bolt (M4) x 2



For OX-SAI/OX-SBI

Order code No.	140252
Standard	OX-SBIA1

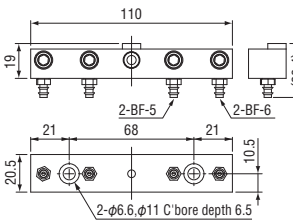
- Weight: 72g
- Air port: 1/8 hole x 4
- Attachments: mounting bolt (M4) x 2



For OX-LA/OX-LB

Order code No.	140195
Standard	OX-LBA

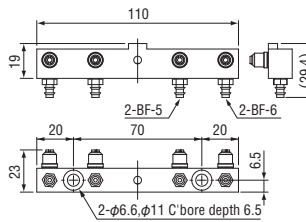
- Weight: 115g
- Attachments: mounting bolt (M6) x 2



For OX-LAI/OX-LBI

Order code No.	140196
Standard	OX-LBIA

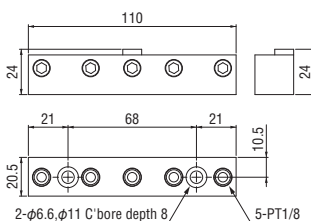
- Weight: 82g
- Attachments: mounting bolt (M6) x 2



For OX-LA/OX-LB

Order code No.	140253
Standard	OX-LBA1

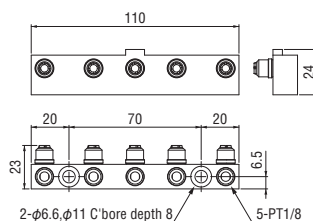
- Weight: 113g
- Air port: 1/8 hole x 5, w/o check valve
- Attachments: mounting bolt (M6) x 2



For OX-LAI/OX-LBI

Order code No.	140254
Standard	OX-LBIA1

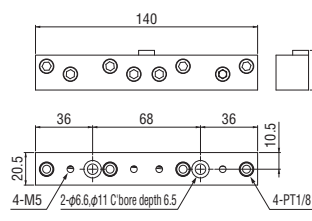
- Weight: 77g
- Air port: 1/8 hole x 5
- Attachments: mounting bolt (M6) x 2



For OX-LA/OX-LB

Order code No.	140287
Standard	OX-LBA3

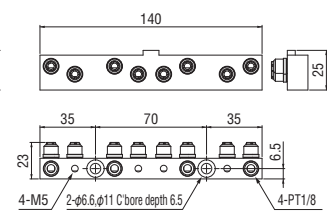
- Weight: 160g
- Air port: 1/8 hole x 4, w/o check valve, hole x 4 M5
- Attachments: mounting bolt (M6) x 2



For OX-LAI/OX-LBI

Order code No.	140288
Standard	OX-LBIA3

- Weight: 112g
- Air port: 1/8 hole x 4, hole x 4 M5
- Attachments: mounting bolt (M6) x 2



Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector / Filter / Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

Other Products

Others

Information



Accessories

A Type / B Type / BN Type

▶ Detachable valve for manual

Manual air valve push button



Order code No.	152308
Standard	PB1-E
Weight	65g

Manual air valve push slide button



Order code No.	152306
Standard	PBW1-E
Weight	75g

▶ Air port accessory

Barbed joint



	For OX-A/B	For OX-SSB/SBS
Order code No.	110623	230076
Standard	LX0004-101	XL0054-106
Weight	2g	1g

OX-bearing *Material: SS304



	For OX-A/B	For OX-SSB/SBS
Order code No.	323000	310607
Standard	φ6.35	φ5.5
Weight	1g	1g

Coil spring



	For OX-SB/SBY/LA	For OX-LB	For OX-WLB/SBH/SA/ WSA/OP manifold	For OX-SSB/SBS
Order code No.	110649	185221	110619	200223
Standard	L00999-420	SAWANE5115	L00999-316	UR5-10
Weight	0.2g	0.4g	0.1g	0.1g

Packing *Material: CR (chloroprene rubber)



L00999-313
XL0054-204



S6
1ASS-5

	For OX-A/B		For OX-SSB/SBS	
Order code No.	110551	184474	230077	271742
Standard	L00999-313	S6 (C00503-A00X8)	XL0054-204	1ASS-5
Weight	0.2g	0.05g	0.1g	0.05g

▶ Cable accessory

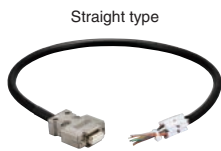
D-SUB Cable (OX-A type)



● Bending radius(mm): R46

	Robot side	Tool side	Robot side	Tool side
Order code No.	140168	140167	140170	140169
Standard	OX-DS09-H	OX-DS09-I-H	OX-DS15-H	OX-DS15-I-H
Weight	40g			
Cable Length	0.5m			
Electric contact	9Pin		15Pin	
Electrical wiring	Movable cable (AWG22), for UL			

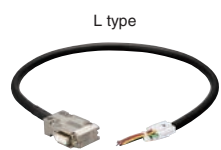
D-SUB Cable for OX (for OX-B)



● Bending radius(mm): R46

	Robot side	Robot side	Tool side
Order code No.	140197	140247	140202
Standard	OX-DS09S-H	OX-DS09S-H (1.5M)	OX-DS09P-I-H
Weight	60g	138g	60g
Cable Length	0.5m	1.5m	0.5m
Electric contact	9Pin		
Electrical wiring	Movable cable (AWG22), for UL		



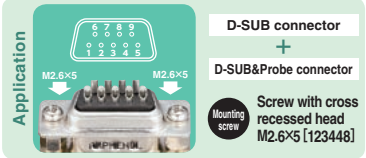
D-SUB Cable for OX (for OX-B)





● Bending radius(mm): R46



	Robot side (L)	Robot side (L)	Tool side (L)
Order code No.	140203	140248	140204
Standard	OX-DS09SL-H	OX-DS09SL-H (1.5M)	OX-DS09PL-I-H
Weight	60g	138g	60g
Cable Length	0.5m	1.5m	0.5m
Electric contact	9Pin		
Electrical wiring	Movable cable (AWG22), for UL		



▶ Connector accessory



D-SUB connector (OX-A type)		Robot side	Tool side	Robot side	Tool side
		Order code No.	140172	140171	140174
		Standard	OX-DS09	OX-DS09-I	OX-DS15
* Screws are not included.		Weight	4g		
		Electrical wiring	AWG22		
		Electric contact	9Pin		15Pin
 <p>D-SUB connector + D-SUB&Probe connector Mounting screw Screw with cross recessed head M2.6×5 [123448]</p>		Mounting screw size	OX-A Type OX-B Type	Screw with cross recessed head M3×6 [123446]	Screw with cross recessed head M3×16 (Nut 4PCS) [123449] NUT M3 [123301]
			D-SUB& probe connector	Screw with cross recessed head M2.6×5 [123448]	Screw with cross recessed head M3×10 [123447]

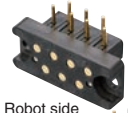

* D-SUB connector can be mounted on cable wiring.

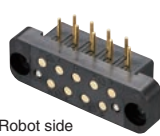

D-SUB connector (WSB type)		Robot side	Tool side
		Order code No.	140304
		Standard	OX-DS15-WS
		Weight	21g
		Electrical wiring	AWG22
		Electric contact	15Pin
		Attached screw	bolt M3×8

Connector plate		Robot side	Tool side
	Order code No.	140289	
	Standard	OX-DS09CNP	
*Required to attach D-SUB connector to OX-B type. → 1-18,19		Weight	2g
	Order code No.	140303	
	Standard	OX-DPS09WCNP	
*Required to attach D-SUB & probe connector (for OX-A/B) to OX-WSBN type.		Weight	6g

D-Sub & Probe connector (OX-A/B type)		Robot side	Tool side
		Order code No.	140324
		Standard	OX-DPS09A
		Weight	24g
		Electrical wiring	AWG22
		Electric contact	9Pin
		Attached screw	Screw with cross recessed head M3×6 [123446]

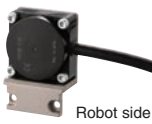

NEW Probe connector (OX-A/B type) solder-fix type		Robot side	Tool side
		Order code No.	140361
		Standard	OX-PS15
		Weight	4g
		Electrical wiring	AWG22
		Electric contact	15Pin
		Attached screw	Screw with cross recessed head M3×6 [123446]

Probe connector (OX-SSB/A/B type) solder-fix type		Robot side	Tool side
		Order code No.	140286
		Standard	OX-PLA-07
		Weight	6g
		Electrical wiring	AWG22
		Electric contact	7Pin
		Attached screw	Screw with cross recessed head M3×6 [123446]

Probe connector (OX-WSA) solder-fix type		Robot side	Tool side
		Order code No.	140220
		Standard	OX-PL09
		Weight	9g
		Electrical wiring	AWG22
		Electric contact	9Pin
		Attached screw	Screw with cross recessed head M3×16 (Nut 4PCS) [123449]
			Screw with cross recessed head M3×10 [123447]

▶ Wireless connector

Can be used for the place with moisture and dust with contactless design

Wireless connector		For SB Robot side	For SB Tool side	For LB Robot side	For LB Tool side
		Order code No.	140306	140307	140308
		Standard	OX-RS04R-SB	OX-RS04T-SBI	OX-RS12R-LB
		Weight	140g	140g	310g
		Drive voltage	12V±1.5VDC	—	12V±1.5VDC
		Input and output points	4 points + 1 point	4 points	12 points + 1 point
		Attached screw	Cross-recessed pan head screw M3×8	Cross-recessed pan head screw M3×8	Cross-recessed pan head screw M3×8

*Check the specification and precautions concerning handling. → [1-29](#) *Check the drawing. → [1-28](#)
*OX-RS12 is basically for the tool changer with load capacity 20kg or more. *For protection structure IP67 *NPN specification

Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector / Filter / Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

Other Products


Others

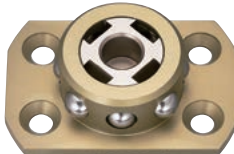
Information

Substitute Product of Tool Changer (A Type)

Repairing Parts of Tool Changer (A Type)

*For more information, please contact our sales office nearest you.

Piston		For OX-SA
	Order code No.	140249
	Standard	OX-SAP
	Weight	94g
	Attachments PARTS	Piston set, Spring, Bearing, Bearing holder

Piston		For OX-LA
	Order code No.	140250
	Standard	OX-LAP
	Weight	337g
	Attachments PARTS	Piston set, Spring, Bearing, Bearing holder

Substitute Product of Tool Changer (A Type)

*For more information, please contact our sales office nearest you.

Production stopped	
Order code No.	Standard
140156	OX-SA
140157	OX-SAI
140158	OX-LA
140159	OX-LAI
140162	OX-WSA
140163	OX-WSAI
140160	OX-WLA
140161	OX-WLAI
140164	OX-SA-30
140165	OX-LA-30
140166	OX-WLA-30

Substitute		
Order code No.	Standard	Thickness (mm)
140225	OX-SBN	+5
140226	OX-SBNI	0
140231	OX-LBN	+9
140232	OX-LBNI	0
140300	OX-WSBN	+4.5
140302	OX-WSBNI	0
140277	OX-WLBN	+8
140278	OX-WLBNI	0
Production stopped		—
140279	OX-LBN-30	+8
140267	OX-WLBN-30	+7.5

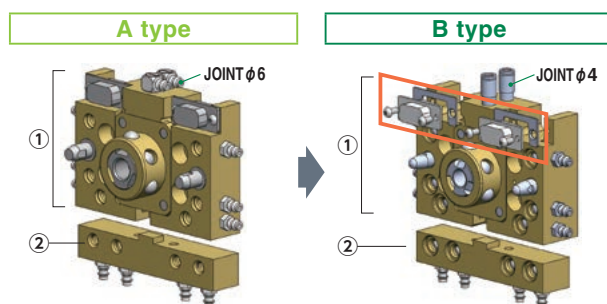
Subroutine Product of Additional Air Expansion for A Type

*For more information, please contact our sales office nearest you.

Production stopped	
Order code No.	Standard
110547	L00999-306 SET
110548	L00999-207 SET
110545	L00999-406 SET
110546	L00999-407 SET

Substitute	
Order code No.	Standard
140193	OX-SBA
140194	OX-SBIA
140195	OX-LBA
140196	OX-LBIA

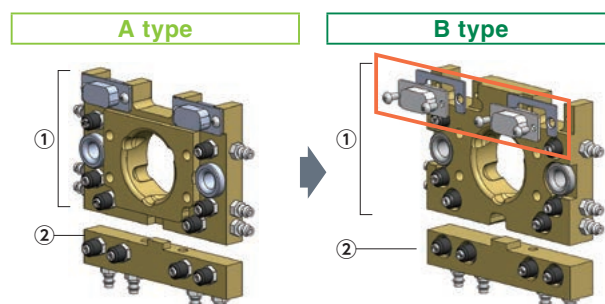
OX-SA (Robot side)



	Order code No.	Standard	Remarks	Qty
	140225	OX-SBN	Tool changer	1
①	140289	OX-DS09CNP	Connector plate	2
	140172	OX-DS09	D-SUB connector	2
	123446	BKJ 3-6 (M3*6)	Screw with cross recessed head	4
②	140193	OX-SBA	Additional air expansion	1

* ② : If not used, purchase order is not required.

OX-SAI (Tool side)



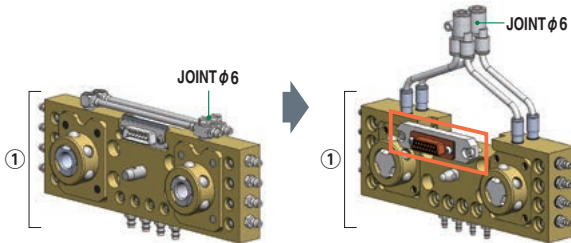
	Order code No.	Standard	Remarks	Qty
	140226	OX-SBNI	Tool changer	1
①	140289	OX-DS09CNP	Connector plate	2
	140171	OX-DS09-I	D-SUB connector	2
	123446	BKJ 3-6 (M3*6)	Screw with cross recessed head	4
②	140194	OX-SBIA	Additional air expansion	1

* ② : If not used, purchase order is not required.

OX-WSA (Robot side)

A type

B type

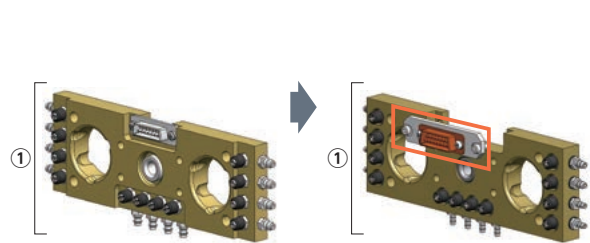


	Order code No.	Standard	Remarks	Qty
①	140300	OX-WSBN	Tool changer	1
	140304	OX-DS15-WS	D-SUB connector	1

OX-WSAI (Tool side)

A type

B type

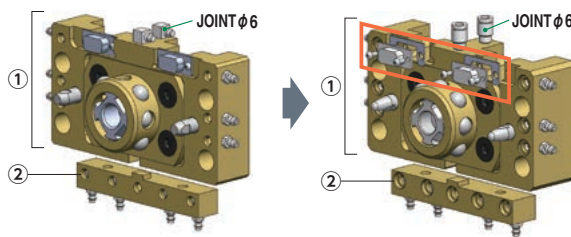


	Order code No.	Standard	Remarks	Qty
①	140302	OX-WSBNI	Tool changer	1
	140305	OX-DS15-I-WS	D-SUB connector	1

OX-LA (Robot side)

A type

B type



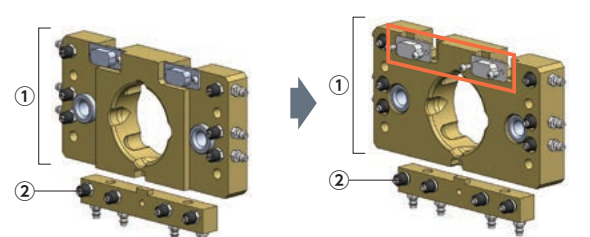
	Order code No.	Standard	Remarks	Qty
①	140231	OX-LBN	Tool changer	1
	140289	OX-DS09CNP	Connector plate	2
	140172	OX-DS09	D-SUB connector	2
	123446	BKJ 3-6 (M3*6)	Screw with cross recessed head	4
	140195	OX-LBA	Additional air expansion	1

* ② : If not used, purchase order is not required.

OX-LAI (Tool side)

A type

B type



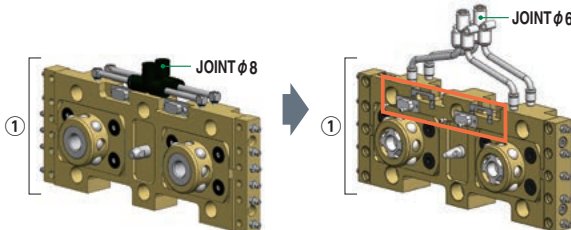
	Order code No.	Standard	Remarks	Qty
①	140232	OX-LBNI	Tool changer	1
	140171	OX-DS09-I	D-SUB connector	2
	123446	BKJ 3-6 (M3*6)	Screw with cross recessed head	4
	140196	OX-LBIA	Additional air expansion	1

* ② : If not used, purchase order is not required.

OX-WLA (Robot side)

A type

B type

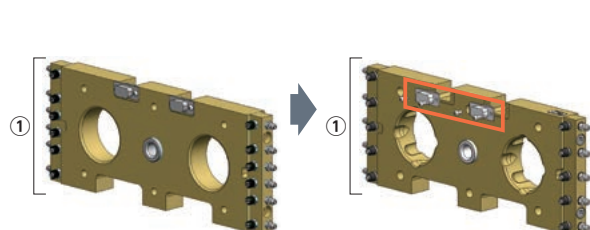


	Order code No.	Standard	Remarks	Qty
①	140277	OX-WLBN	Tool changer	1
	140289	OX-DS09CNP	Connector plate	2
	140172	OX-DS09	D-SUB connector	2
	123446	BKJ 3-6 (M3*6)	Screw with cross recessed head	4

OX-WLAI (Tool side)

A type

B type



	Order code No.	Standard	Remarks	Qty
①	140278	OX-WLBNI	Tool changer	1
	140171	OX-DS09-I	D-SUB connector	2
	123446	BKJ 3-6 (M3*6)	Screw with cross recessed head	4

Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

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Container Cylinders

Accessories for Container Cylinder

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Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector / Filter / Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

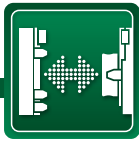
Tubing

Sensors

Other Products

Others

Information



Quick Chuck Change Automatic for Articulated Robots









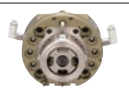

Essential tool for high performance of robot.

Tool changer
(for articulated robots)



You can watch our product video by using a mobile device such as a smartphone.

Specification

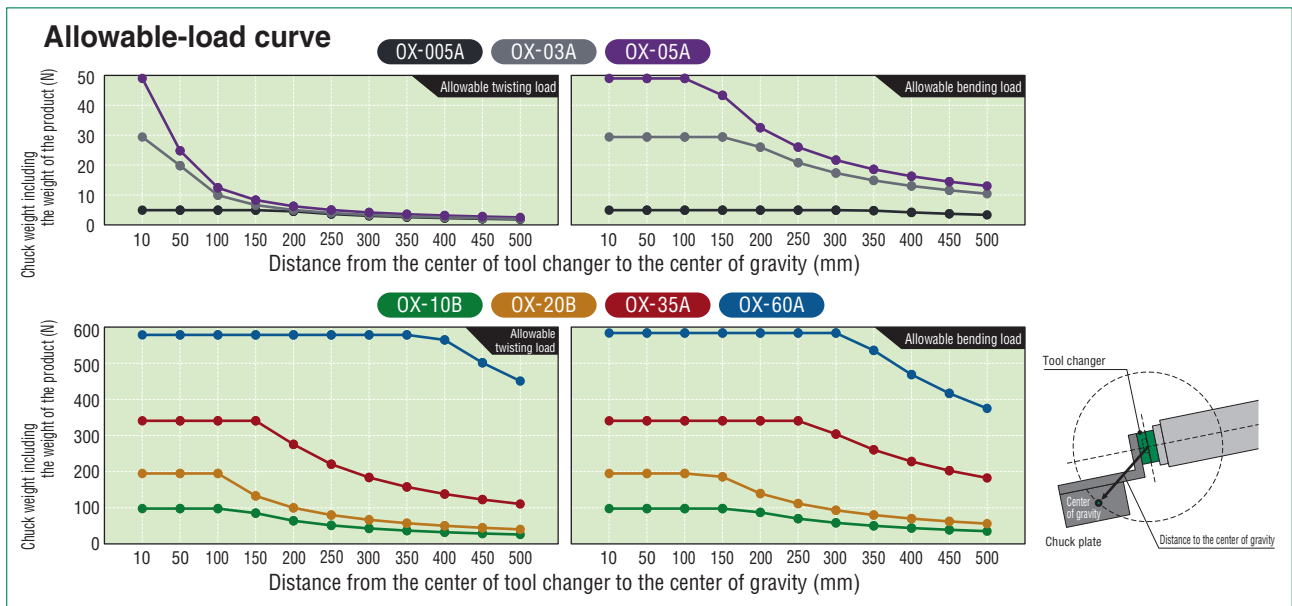
Product name	Order code No.	Standard	Weight (g)	Weight capacity (kg)	Power to draw(N) Power to force(N)	Electric contact Connector shape	Connected piping	Page of details	
Tool changer	 140235	OX-03A	125	~ 3	123 63	9Pin 2A DC24V Max Connector (option) 16Pin 2A DC24V Max Connector (option)	6 port (M5)	1-21	
	 140236	OX-03AI	45						
	 140237	OX-05A	250	~ 5					
	 140238	OX-05AI	115						
	 140262	OX-10B	199	~ 10	277 198				
	 140263	OX-10BI	115						
	 140240	OX-20A	561	~ 20	492 215				1-22
	 140242	OX-20AI	229						
	 140292	OX-20B	507	~ 20	492 215				
	 140293	OX-20BI	226						

*Production of OX-20A and OX-20AI stopped. The sale ends when all the stocked items are sold out.
*Please use manual push button "PB1-E, PBW1-E" for manual exchange (1-25) (6-11)

Common specification

Positional reproduction Accuracy	Used Air pressure	Drive piping	Acceptable electric wiring	Allowable temperature/humidity range
±0.1 Max.	0.49~0.7Mpa	Clean air, piping of $\phi 6$ ($\phi 4^*$), double action type	AWG20 Max.	0~55°C, 0~95% (w/o condensation)

* $\phi 6$: OX-35A, OX-35AT, OX-60A



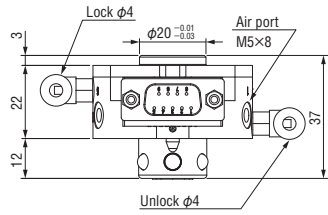
Description of standard

OX-03 A I

Installation side NONE (Robot side)
I (Tool side)

Maximum weight capacity (kg)

Version

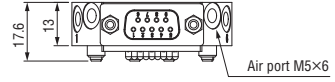
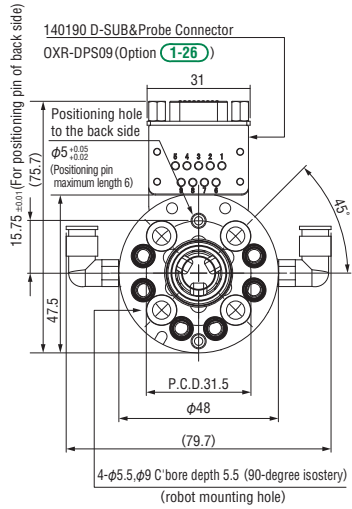


Order code No. 140235
Standard OX-03A

- Superduralumin
- Weight: 125g
- Mounting position: robot side
- Weight capacity: ~ 3kg
- Thickness after connection: 38mm

Order code No. 140237
Standard OX-05A

- Steel
- Weight: 250g
- Mounting position: robot side
- Weight capacity: ~ 5kg
- Thickness after connection: 38mm

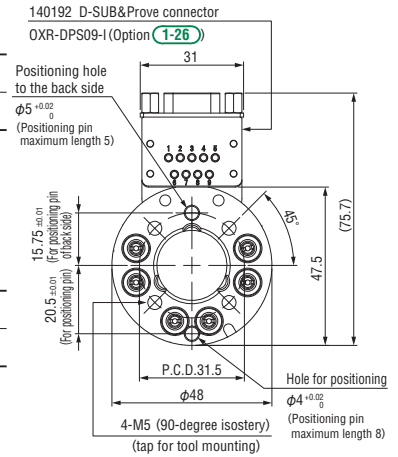


Order code No. 140236
Standard OX-03AI

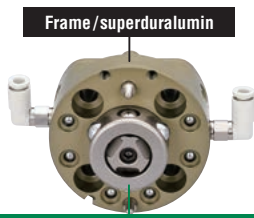
- Superduralumin
- Weight: 45g
- Mounting position: tool side
- Weight capacity: ~ 3kg
- Thickness after connection: 38mm

Order code No. 140238
Standard OX-05AI

- Steel
- Weight: 115g
- Mounting position: tool side
- Weight capacity: ~ 5kg
- Thickness after connection: 38mm



► Superduralumin-made frame. Improved durability: steel hybrid structure of detachable and attachable section.

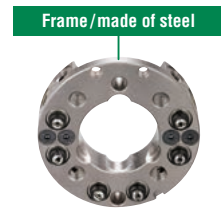
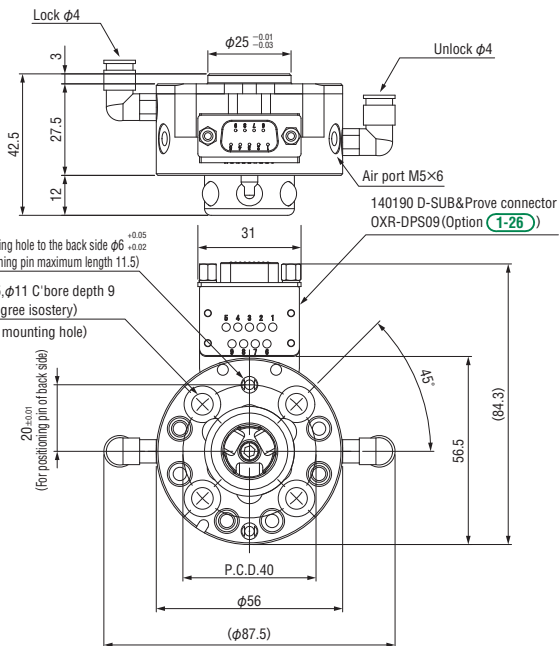


Frame/superduralumin

Order code No. 140262
Standard OX-10B

- Weight: 199g
- Mounting position: robot side
- Weight capacity: ~ 10kg
- Thickness after connection: 43mm

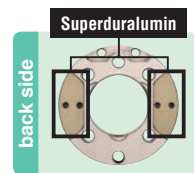
Detachable and attachable section/made of steel



Frame/made of steel

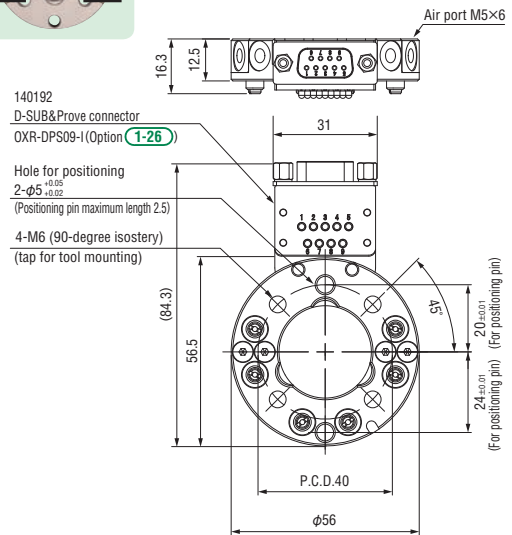
Order code No. 140263
Standard OX-10BI

- Weight: 115g
- Mounting position: tool side
- Weight capacity: ~ 10kg
- Thickness after connection: 43mm



Superduralumin

back side



Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector/Filter/Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

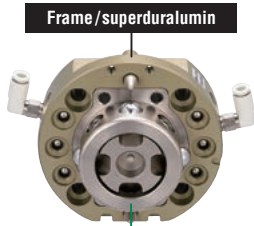
Other Products

Others

Information

Quick Chuck Change Automatic for Articulated Robots

● Production of OX-20A and OX-20AI stopped. The sale ends when all the stock is sold out.

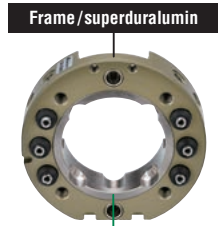
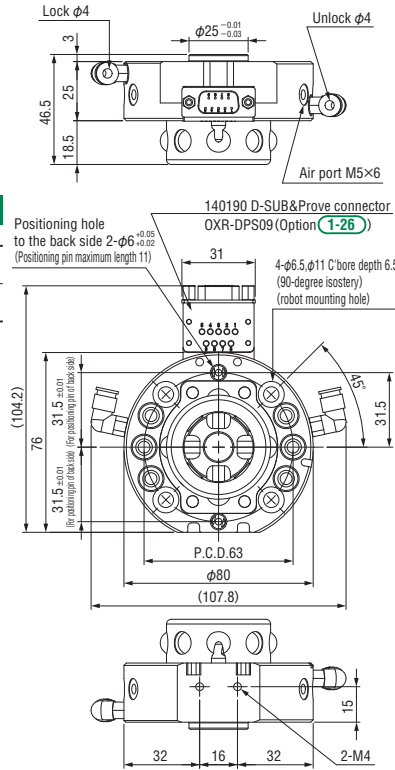


Frame/superduralumin

Detachable and attachable section/Made of steel

Order code No.	140240
Standard	OX-20A

- Weight: 561g
- Mounting position: robot side
- Weight capacity: ~ 20kg
- Thickness after connection: 47mm

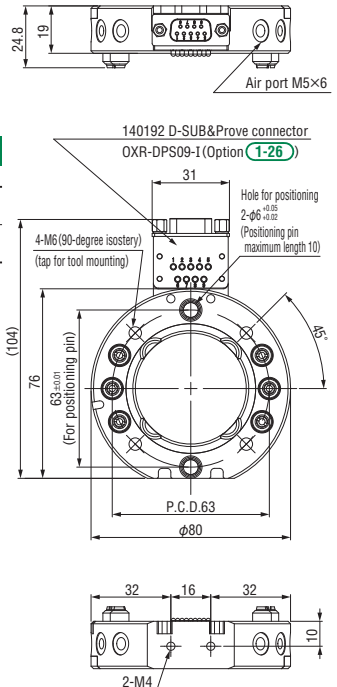


Frame/superduralumin

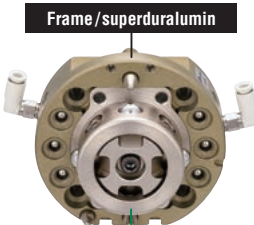
Detachable and attachable section/Made of steel

Order code No.	140242
Standard	OX-20AI

- Weight: 229g
- Mounting position: tool side
- Weight capacity: ~ 20kg
- Thickness after connection: 47mm



▶ Superduralumin-made frame. Improved durability: steel hybrid structure of detachable and attachable section.

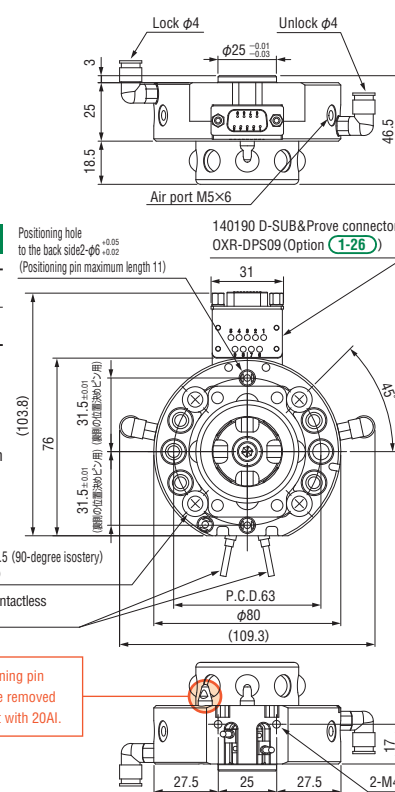


Frame/superduralumin

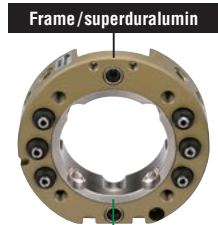
Detachable and attachable section/Made of steel

Order code No.	140292
Standard	OX-20B

- Weight: 507g
- Mounting position: robot side
- Weight capacity: ~ 20kg
- Thickness after connection: 47mm
- Compatibility with A type
- Operation check sensor of piston can be attached (OP).



Positioning pin should be removed to connect with 20AI.

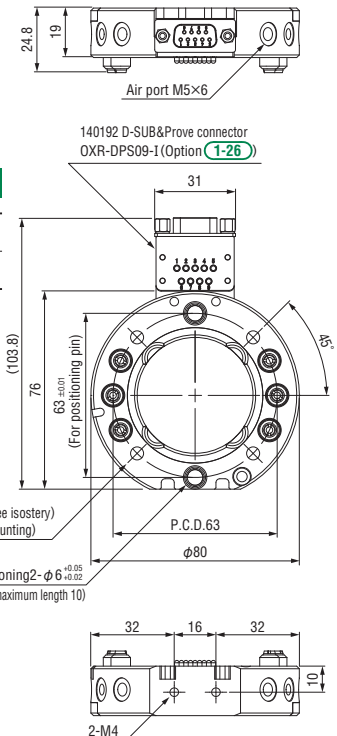


Frame/superduralumin

Detachable and attachable section/Made of steel

Order code No.	140293
Standard	OX-20BI

- Weight: 226g
- Mounting position: tool side
- Weight capacity: ~ 20kg
- Thickness after connection: 47mm
- Compatibility with A type



Quick Chuck Change Automatic for Articulated Robots

Description of standard	OX-60 A I	Installation side NONE (Robot side)
		I (Tool side)
Maximum weight capacity (kg)		Version

- Specification and dimension may be changed as the product is under development.
- Please visit our web site or contact our sales offices for more information about selling period and price/specifications.

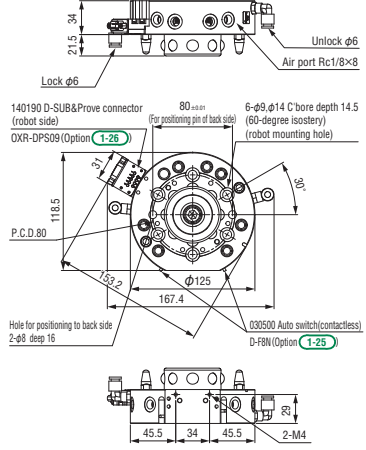
▶ Tool changer for middle-size robots. Load capacity 60kg specification.

OX-60A



Order code No.	140313
Standard	OX-60A

- Weight: 1440g
- Mounting position: robot side
- Weight capacity: ~ 60kg
- Thickness after connection: 56mm

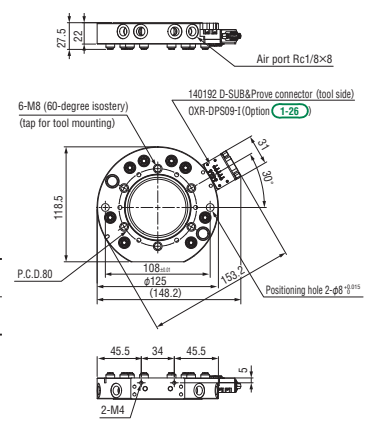


OX-60AI



Order code No.	140318
Standard	OX-60AI

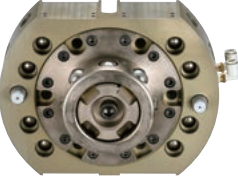
- Weight: 734g
- Mounting position: tool side
- Weight capacity: ~ 60kg
- Thickness after connection: 56mm



▶ Tool changer for large-size robot (load capacity 200kg) will be added to product lineup soon.

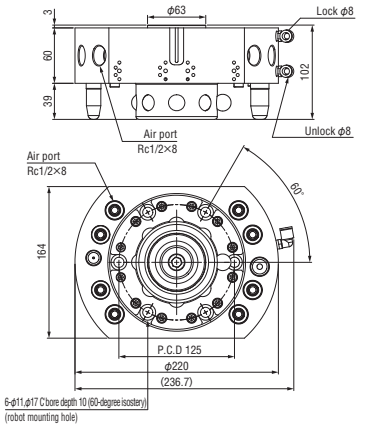
Please contact our sales offices for more information about the sales schedule.

OX-200A



Order code No.	140314
Standard	OX-200A

- Weight: 6431g
- Mounting position: robot side
- Weight capacity: ~ 200kg
- Thickness after connection: 103mm

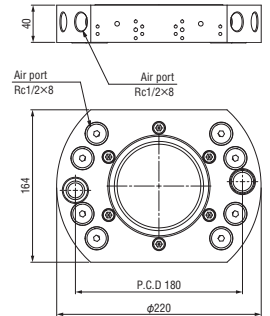


OX-200AI



Order code No.	140319
Standard	OX-200AI

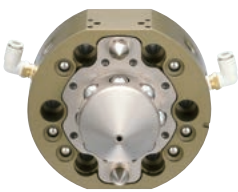
- Weight: 3965g
- Mounting position: tool side
- Weight capacity: ~ 200kg
- Thickness after connection: 103mm



▶ Connected properly even if approach error (± 10 mm) is large in high-speed operation.

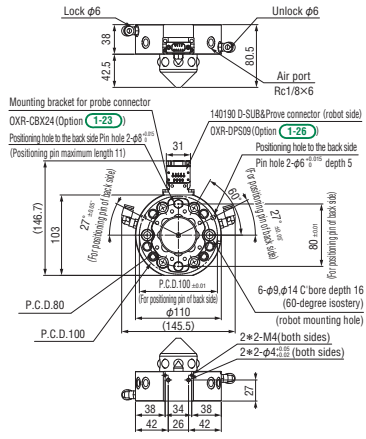
- The products are created after your order. Please contact our sales offices for more information about delivery date/price.

OX-35AT



Order code No.	140312
Standard	OX-35AT

- Weight: 1445g
- Mounting position: robot side
- Weight capacity: ~ 35kg
- Thickness after connection: 60mm

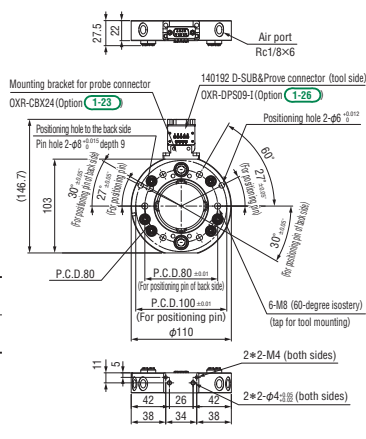


OX-35ATI



Order code No.	140317
Standard	OX-35ATI

- Weight: 535g
- Mounting position: tool side
- Weight capacity: ~ 35kg
- Thickness after connection: 60mm





Accessories for Articulated Robots

Quick chuck change automatic (for articulated robots)

▶ Detachable valve for manual

Manual air valve push button



Order code No.	152308
Standard	PB1-E
Weight	65g

Manual air valve push slide button



Order code No.	152306
Standard	PBW1-E
Weight	75g

▶ Air port accessory

■ For OX-20B

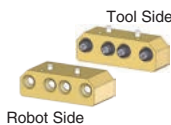
Air option



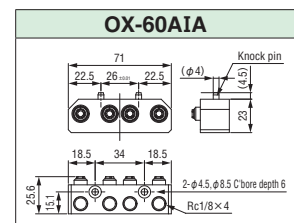
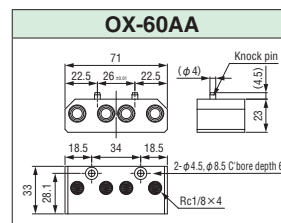
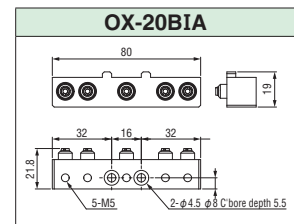
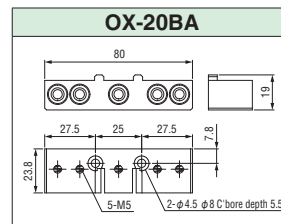
	For OX-20B	For OX-20B
Order code No.	140296	140297
Standard	OX-20BA	OX-20BIA
Weight	76g	57g

■ For OX-35A,60A

Air option



	For OX-35/60	For OX-35/60
Order code No.	140342	140343
Standard	OX-60AA	OX-60AIA
Weight	147g	80g



Barbed joint	For OX-20	For OX-03/05/10
Order code No.	110623	230076
Standard	LX0004-101	XL0054-106
Weight	2g	1g

OX-bearing *Material: SS304	For OX-20	For OX-03/05/10
Order code No.	323000	310607
Standard	φ6.35	φ5.5
Weight	1g	1g

Coil spring	For OX-20	For OX-03/05/10
Order code No.	110649	200223
Standard	L00999-420	UR5-10
Weight	0.2g	0.1g

Packing	For OX-20		For OX-03/05/10	
Order code No.	110551	184474	230077	271742
Standard	L00999-313	S6 (C00503-A00X8)	XL0054-204	1ASS-5
Weight	0.2g	0.05g	0.1g	0.05g

▶ Auto switch · contactless

Auto switch



Order code No.	030500
Standard	D-F8N
Weight	7g

- Applied load: relay PLC
- Load voltage: DC24V
- Maximum load electric current: 5-40mA
- Wiring: See (6-21)
- W/indicator lamp

Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector/Filter/Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

Other Products

Others

Information

Accessories for Articulated Robots

▶ Connector accessory

D-SUB & Probe connector		Robot side	Tool side
	Order code No.	140190	140192
	Standard	OXR-DPS09	OXR-DPS09-I
	Weight	25g	
	Wiring specification	AWG22	
	Electric contact	9Pin	
Attached screw		Flat head screw with cross recess M4×10 [123515]	

Probe connector (Solder)		Robot side	Tool side
	Order code No.	140264	140265
	Standard	OXR-PS16	OXR-PS16-I
	Weight	8g	11g
	Wiring specification	AWG22	
	Electric contact	16Pin	
Attached screw		Flat head screw with cross recess M4×10 [123515]	

D-SUB connector (OX-A type)		Robot side	Tool side
	Order code No.	140172	140171
	Standard	OX-DS09	OX-DS09-I
	Weight	4g	
	Wiring specification	AWG22	
Electric contact		9Pin	

● Screws are not included.

Application

D-SUB connector
+

D-SUB & Probe connector

Mounting screw
Screw with cross recessed head
M2.6×5 [123448]

*D-SUB connector can be mounted on cable wiring.

▶ Wireless connector

Can be used for the place with moisture and dust with contactless design

NEW

Wireless connector		For 03/05 Robot side	For 03/05 Tool side	For 10/20 Robot side	For 10/20 Tool side
	Order code No.	140320	140322	140321	140323
	Standard	OXR-RS04R-03	OXR-RS04T-03I	OXR-RS04R-10	OXR-RS04T-10I
	Weight	120g	120g	120g	110g
	Drive voltage	12V±1.5VDC	—	12V±1.5VDC	—
Input and output points		4points + 1point	4points	4points + 1point	4points
Attached screw		Cross-recessed countersunk screw M4×14		Cross-recessed countersunk screw M4×20	
		*Check the specification and precautions concerning handling. ➔ (1-29)		*Check the drawing. ➔ (1-28)	
		*For protection structure IP67		*NPN specification	

		For 20 Robot side	For 20 Tool side	
	Order code No.	140330	140331	
	Standard	OXR-RS12R-20	OXR-RS12T-20I	
	Weight	290g	260g	
	Drive voltage	12V±1.5VDC	—	
	Input and output points		12points + 1point	12points
	Attached screw		Cross-recessed countersunk screw M4×10	
		*Check the specification and precautions concerning handling. ➔ (1-29)		
		*OXR-RS20 is basically for the tool changer with load capacity 20kg or more.		
		*For protection structure IP67		
		*NPN specification		

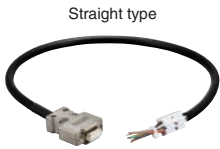
► Cable accessory

D-SUB cable for OX-A type	Robot side	Tool side	Robot side	Tool side
Order code No.	140168	140167	140170	140169
Standard	OX-DS09-H	OX-DS09-I-H	OX-DS15-H	OX-DS15-I-H
Weight	40g			
Cable Length	0.5m			
Electric Contact	9Pin		15Pin	
Electrical Wiring	Movable cable (AWG22), for UL			



● Bending radius (mm) : R46

D-SUB cable for OX (OX-B)	Robot side	Robot side	Tool side
Order code No.	140197	140247	140202
Standard	OX-DS09S-H	OX-DS09S-H (1.5M)	OX-DS09P-I-H
Weight	60g	138g	60g
Cable Length	0.5m	1.5m	0.5m
Electric Contact	9Pin		
Electrical Wiring	Movable cable (AWG22), for UL		



● Bending radius (mm) : R46

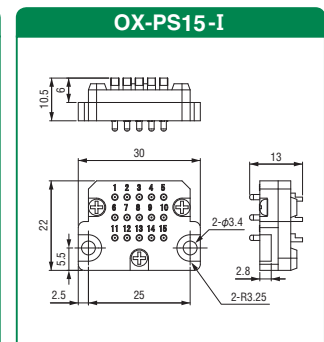
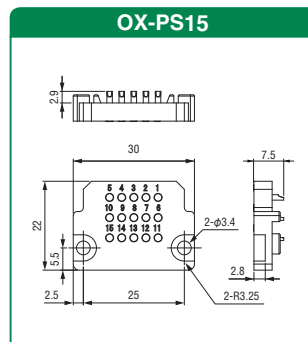
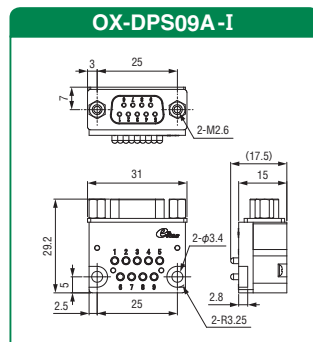
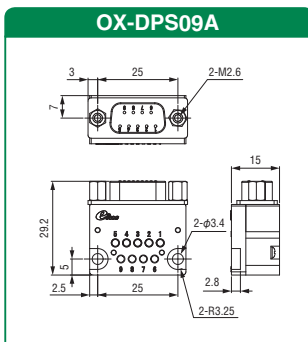
D-SUB cable for OX (OX-B)	Robot side (L)	Robot side (L)	Tool Side (L)
Order code No.	140203	140248	140204
Standard	OX-DS09SL-H	OX-DS09SL-H (1.5M)	OX-DS09PL-I-H
Weight	60g	138g	60g
Cable Length	0.5m	1.5m	0.5m
Electric Contact	9Pin		
Electrical Wiring	Movable cable (AWG22), for UL		



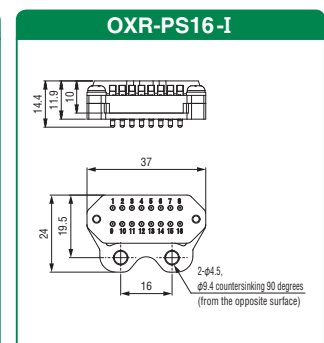
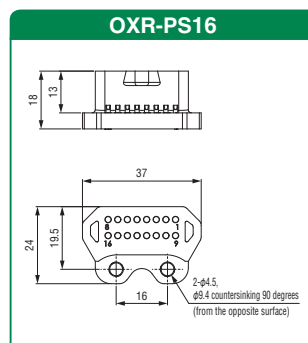
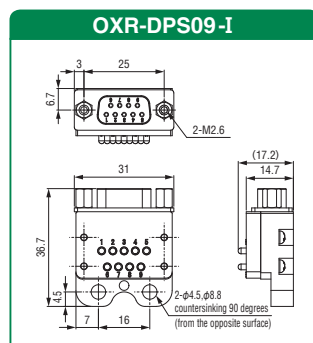
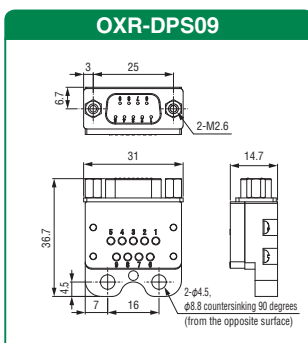
● Bending radius (mm) : R46

Probe connector drawing

► For take-out robot - 1-17



► Quick chuck change automatic (for articulated robots) - 1-26



Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

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Frame/Module

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Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

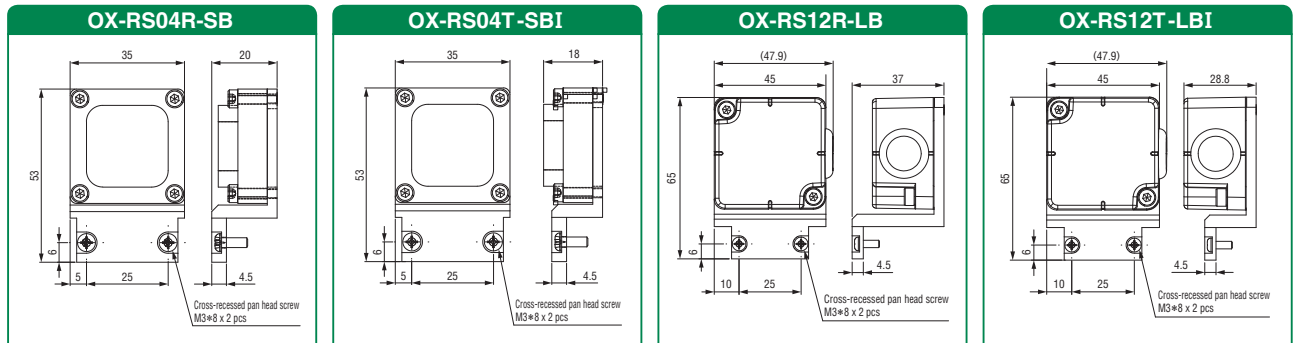
Other Products

Others

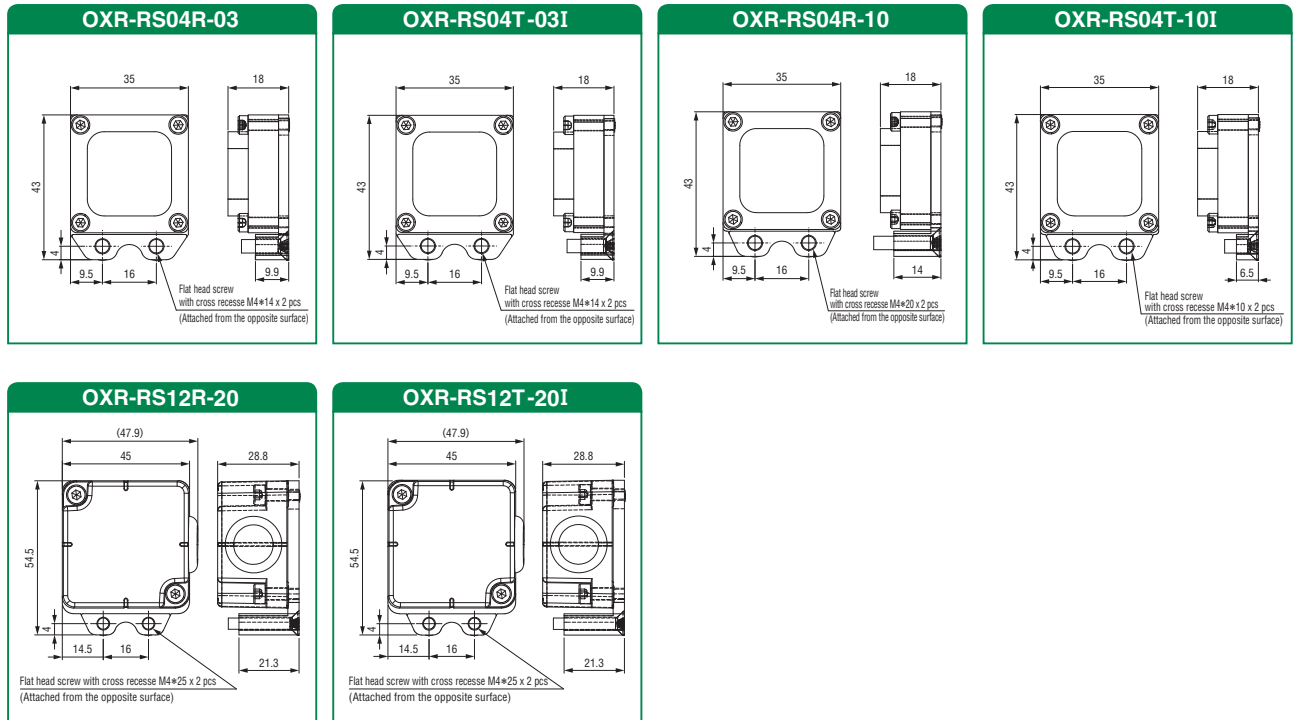
Information

Drawing of wireless connector

► For take-out robot → **1-17**



► Quick chuck change automatic (for articulated robots) → **1-26**



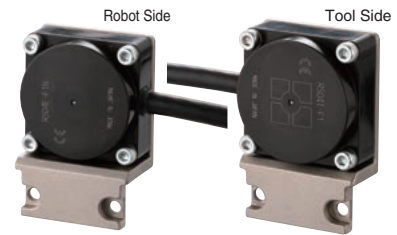
Wireless connector specification and precautions concerning handling

● See (1-17) and (1-26) for more information about wireless connector.

► Cautions in installation (Please be sure to read before use.)

Please read this manual well to gain a thorough understanding of the contents to make safe and proper operation.

- Make installation/maintenance/measures at the failure after you turn off the power.
- Please use constant voltage power supply such as switching power supply. (Malfunction may occur if you use the power with ripple of more than the rated value such as full wave rectifying power.)
- Carry out wiring of each unit properly according to the wiring diagram.
- Carry out wiring of cable well away from power line and high voltage apparatus to prevent malfunction caused by induction noise.
- Be careful not splash organic solvent and such liquid on case and transmission face if they are made of resin (ABS or ABS+PBT).
- Be careful not splash water and cutting water on the cable end (wiring section). (Liquid penetration from cable core to the main body may cause problems such as short circuit and corrosion.)
- Install the output section not always faced with metal. Metal section may be overheated or internal element may be damaged.



► 4 contact specification

■ Specification

Type	RS04T-F1-PU-__
Sensor	Direct current three-wire sensor
Drive voltage	12V ± 1.5V DC
No. of input signals	4points
Drive current	≤ 30mA ≤ 60mA
Transmission distance	0...3mm 0...2mm
Allowable axis misalignment	± 2mm ± 1mm
Ambient temperature	0...+50°C
Protection structure	IP67
Connection cable	PUR φ 6.3 7x0.259mm ²
Material	ABS
Weight	Main Body 25g + Cable 60g/m

Type	NPN output PNP output	RS04E-F1N-PU-__ RS04E-F1P-PU-__
Power supply voltage		24V DC ± 10% (Ripple included)
Current consumption		≤ 200mA
No. Of output signals		4points+ 1point(In-zone)
Load electric current		≤ 50mA/1 Output
LED display		Status (green), in-zone (orange)
Circuit protection		Short-circuit protection, reverse connection protection, and surge protection
Ambient temperature		0...+50°C
Protection structure		IP67
Connection cable		PUR φ 6.3 7x0.259mm ²
Material		ABS
Weight		Main body 25g + Cable 60g/m

- *Total current consumption value of each sensor should be less than the drive current value to use two or more sensors for detection.
- *Decrease the number of connected sensors if the actual value exceeds the drive current value.

► 12 contact specification

■ Specification

Type	RS12T-422-PU-__
Sensor	Direct current three-wire sensor
Drive voltage	12V ± 1.5V DC
No. Of input signals	12points
Drive current	≤ 230mA
Transmission distance	2...5mm
Allowable axis misalignment	± 3mm
Ambient temperature	0...+50°C
Protection structure	IP67
Connection cable	PUR φ 8.6 2×0.5mm ² +13×0.18mm ²
Material	ABS
Weight	Main body 75g + Cable 105g/m

Type	NPN output PNP output	RS12E-422N-PU-__ RS12E-422P-PU-__
Power supply voltage		24V DC ± 10% (Ripple included)
Current consumption		≤ 600mA
No. of output signals		12points + 1point(status)
Load electric current		≤ 50mA/1 Output
LED display		Status (green), in-zone (orange)
Circuit protection		Short-circuit protection, reverse connection protection, and surge protection
Ambient temperature		0...+50°C
Protection structure		IP67
Connection cable		PUR φ 8.6 2×0.5mm ² +13×0.18mm ²
Material		ABS
Weight		Main body 80g + Cable 105g/m

- *Total current consumption value of each sensor should be less than the drive current value to use two or more sensors for detection.
- *Decrease the number of connected sensors if the actual value exceeds the drive current value.

■ Allowed sensors

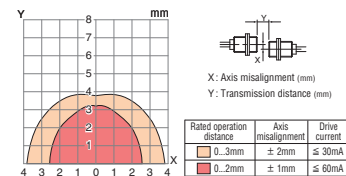
Power supply voltage	12V DC
Total consumption current	≤ 60mA
Residual voltage	≤ 3.5V
Load electric current	—

Use the sensor properly operates under the condition of above list.

■ Transmission area drawing

(Example: power supply voltage 24V/metal not imbedded)

RS04T-F1-PU-__ / RS04E-F1N-PU-__,
RS04E-F1P-PU-__



■ Allowed sensors

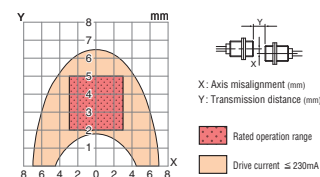
Power supply voltage	12V DC
Total consumption current	≤ 230mA
Residual voltage	≤ 3.5V
Load electric current	—

Use the sensor properly operates under the condition of above list.

■ Transmission area drawing

(Example: power supply voltage 24V/metal not imbedded)

RS12T-422-PU-__ / RS12E-422N-PU-__,
RS12E-422P-PU-__



Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector / Filter / Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

Other Products

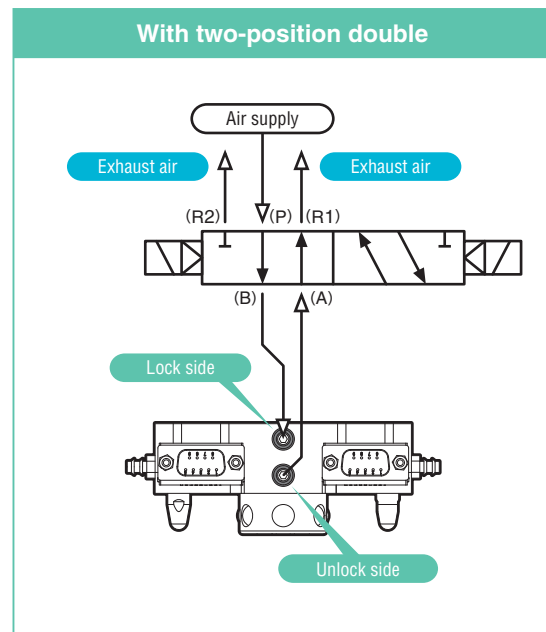
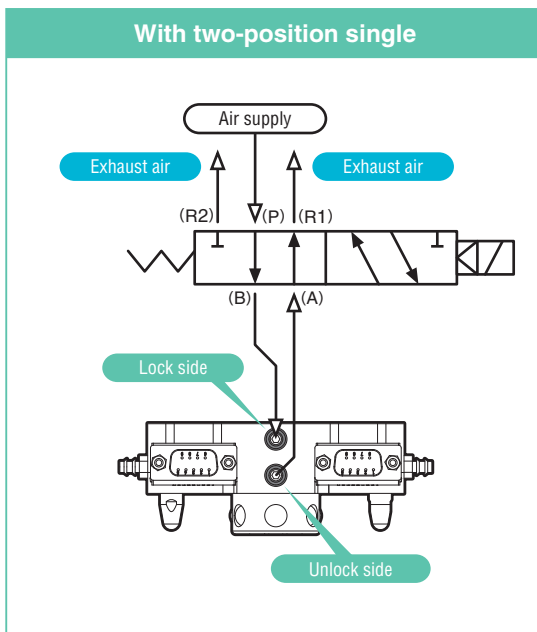
Others

Information

Cautions when using tool changer

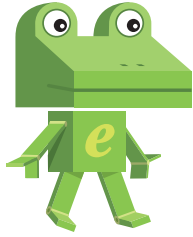
- Check load capacity, bending direction, twist direction, and composite moment. Use the product within reference values. Robot side and tool side may be incompletely connected if proper value is not set.
- Strong friction is created at the end of probe pin if tool changer is connected/detached in an energized state. Turn off the power if you connect and remove the tool changer.
- Do not make operation under the condition with fluffy/accidental/corrosive gas generated by water/water vapor/liquid. Conduction defect of electrode may be caused under the condition with cutting chip/cutting oil/dust/sputter.
- Devices may be damaged if pressure is applied only by tool changer. Supply air after you attach the product to the robot or to the plate.
- Regarding the components related to tool changer, Eins products should be used. We are not liable for any problems and failures caused by combination with the products of other companies.
- OX series (tool changer) has active capture and release mechanism. Your finger may be caught between robot side and tool side when you manually attach / detach the component.
- After you determine the suction port, use the component after you remove the check mechanism of robot side. Remove the blind plug of the back side of the robot. And remove stainless steel ball, spring, and packing. Then attach the blink plug again.
- Operation air for lock/unlock
Use solenoid valve to keep air pressure on for locking side even when power failure occurs.
- Do not make idling of robot-side piston with tool side of tool changer separated. Or tool side cannot be attached.
- Stop using/not using tool changer for a long time without air supply. Mechanism section of tool changer and other devices may be damaged.

Reference Piping connection diagram



MEMO

A series of horizontal dashed lines for writing.

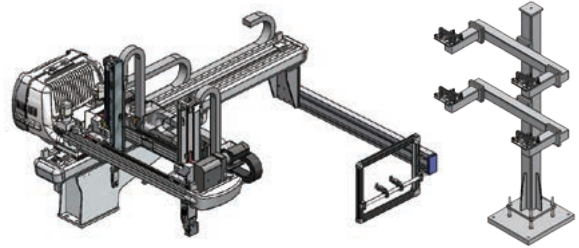


Chuck automatic exchange is effective for reduction of setup change time, different connection of air and electrical components, and location accuracy for hand exchanges.

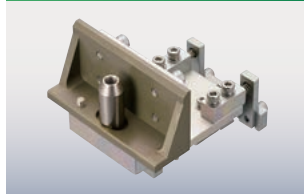
▶ Example of tool station

Tool station types: floorstanding tree type, NT type (attached to traverse rail). Stations are created according to the number of setup changes and facility spaces.

* Please contact our sales office nearest your office or Eins.



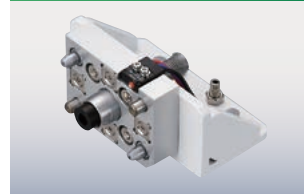
Auto Quick Chuck Change Hanger



Hanger unit attached to tool station.(Station Side)

1-33

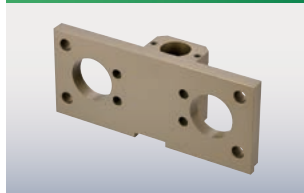
Magnet Chuck Hanger (Fix Side)



Hanger unit to use and hold the magnet power of Neodymium.(Station Side)

1-35

Hanger Tool



Hold unit attached to the tool side.

1-33

Magnet Chuck Hanger (Tool Side)



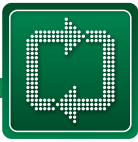
Hold unit attached to the tool side.

1-35

■ Specification

	Product name	Order code No.	Weight (g)	Weight capacity (kg)	Page of details
		Standard			
Auto quick chuck change hanger		072600	182	~ 3	1-33
		HSL			
		072601	1,300	~ 10	1-34
		HSAL			
	072602	2,800	~ 35	1-34	
	HLAL				
Hanger tool		196532	43	~ 3	1-33
		TS			
		196533	99	~ 10	1-34
		TSA			
	196656	356	~ 35	1-34	
	TLA1				

	Product name	Order code No.	Weight (g)	Weight capacity (kg)	Page of details
		Standard			
Magnet chuck hanger (fix side)		072732	540	~ 1 (9.8N)	1-35
		HNE-48			
		072733	680		
		HNE-S			
	072811	632	1-36		
	HNE-SL				
Magnet chuck hanger (tool side)		196636	70	~ 1 (9.8N)	1-35
		TNE-48I			
		196637	140		
		TNE-SI			
	196727	115	1-36		
	TNE-SLI				



Auto Quick Chuck Change Hanger / Hanger Tool

Auto quick chuck change hanger attached to station side. And hanger tool attached to tool side.

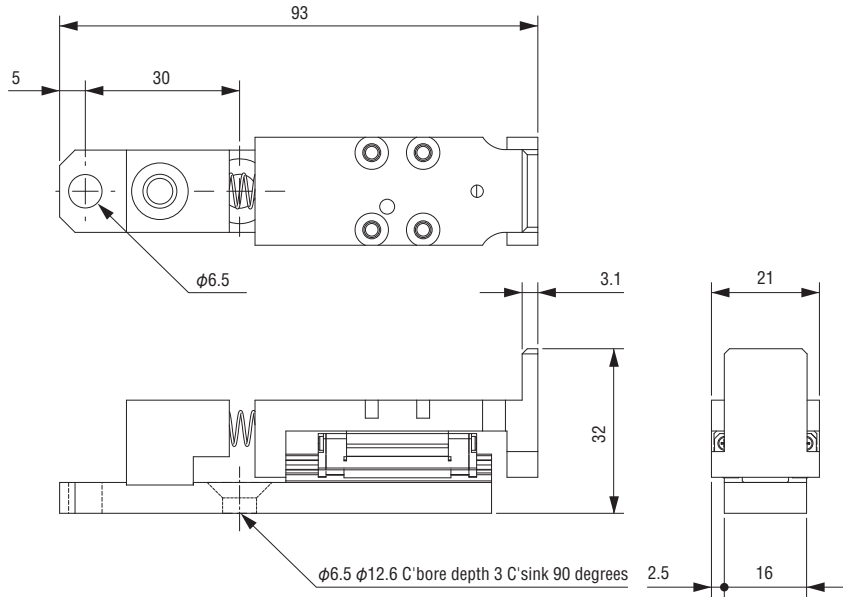
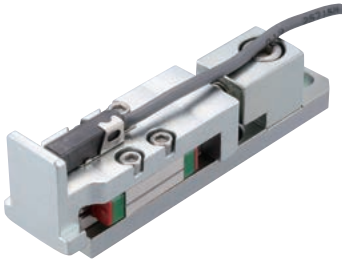
Auto Quick Chuck Change Hanger (Hook Specification)



You can watch our product video by using a mobile device such as a smartphone.

● Delivery will take a few days. Please contact our sales office nearest your office or Eins.

▶ Station side

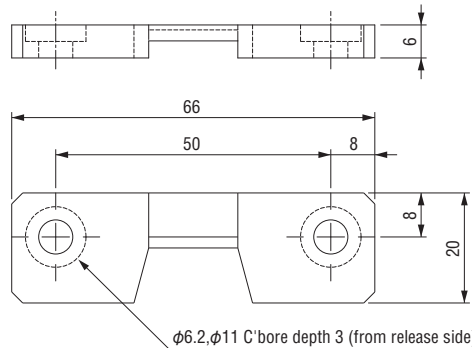
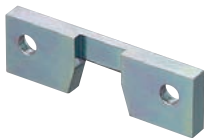


Auto quick chuck change hanger

Order code No.	072600
Standard	HSL

- Weight: 182g ● Weight capacity: ~ 3kg
- With sensor: E2S-Q13

▶ Tool side

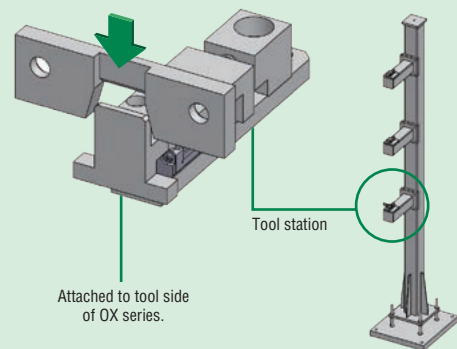


Hanger tool

Order code No.	196532
Standard	TS

- Weight: 43g ● Weight capacity: ~ 3kg

Example of combination: HSL and TS



Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector / Filter / Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

Other Products

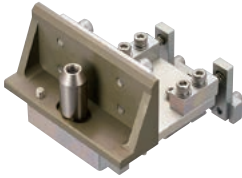
Others

Information

Auto Quick Chuck Change Hanger / Hanger Tool

● Delivery will take a few days. Please contact our sales office nearest your office or Eins.

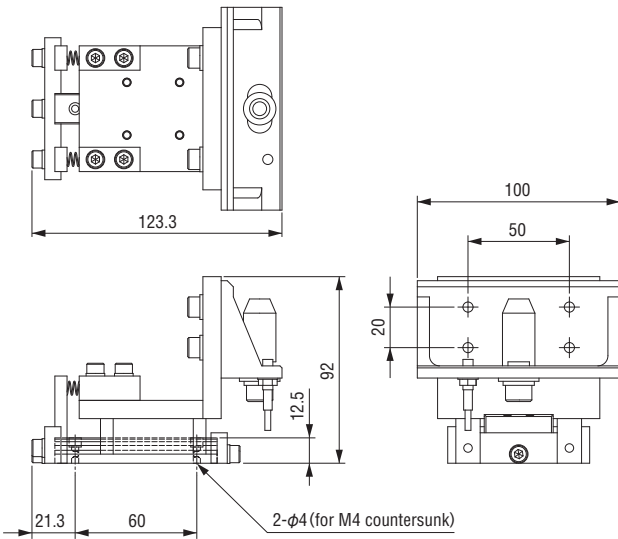
▶ Station side



Auto quick chuck change hanger

Order code No.	072601
Standard	HSAL

- Weight: 1.3kg ● Weight capacity: ~ 10kg
- With sensor: E2E-X1C1
- Detects sensor with mounting bolt of hanger tool.



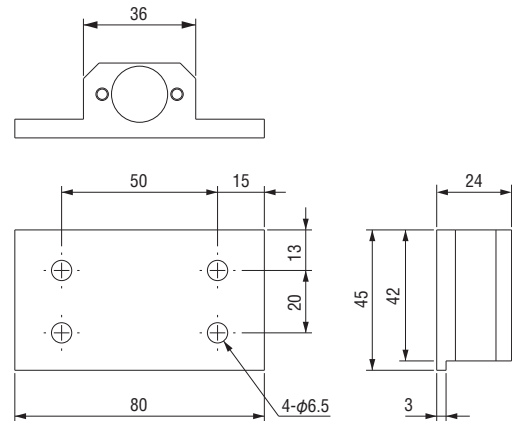
▶ Tool side



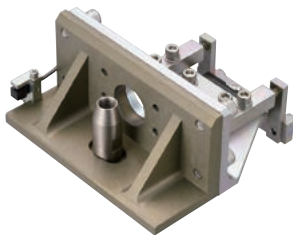
Hanger tool

Order code No.	196533
Standard	TSA

- Weight: 99g
- Weight capacity: ~ 10kg



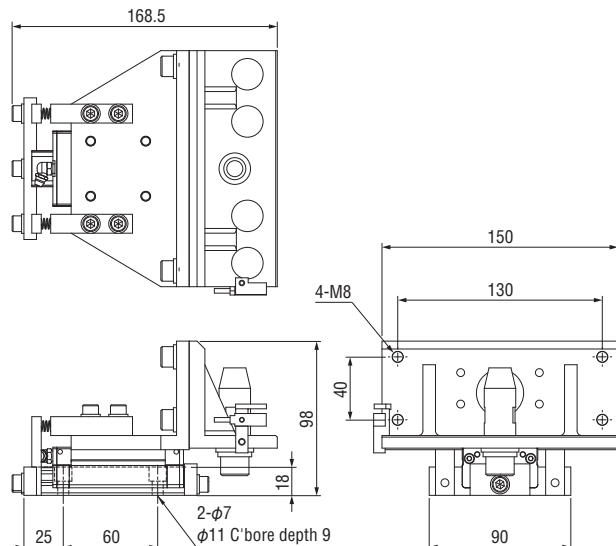
▶ Station side



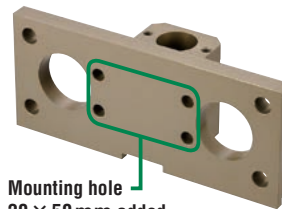
Auto quick chuck change hanger

Order code No.	072602
Standard	HLAL

- Weight: 2.8kg ● Weight capacity: ~ 35kg
- With sensor: E2S-W21
- Detects sensor with mounting bolt of hanger tool.



▶ Tool side

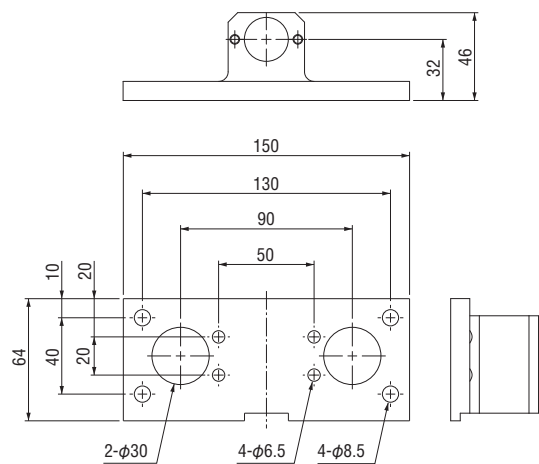


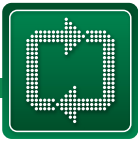
Chuck hanger (tool side)

Order code No.	196656
Standard	TLA1

- Weight: 356g
- Weight capacity: ~ 35kg

Mounting hole
20 × 50 mm added





Magnet Chuck Hanger

Hanger unit to use and hold the magnet power of Neodymium.

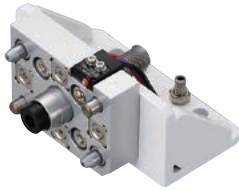
Auto Quick Chuck Change Hanger (Neodymium specification)



You can watch our product video by using a mobile device such as a smartphone.

● Delivery will take a few days. Please contact our sales office nearest your office or Eins.

Station side

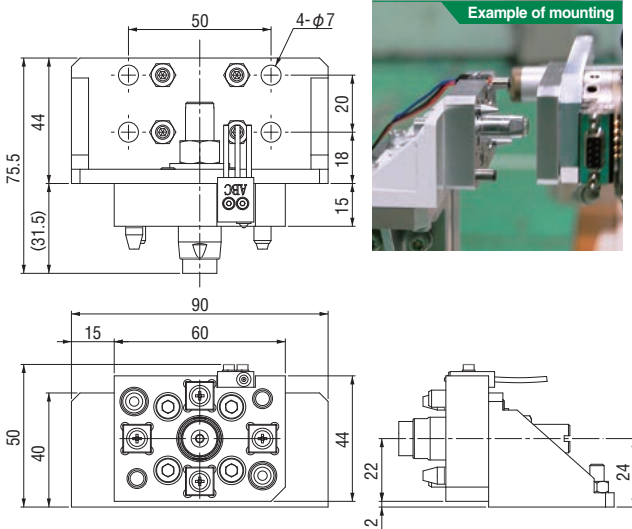


Magnet chuck hanger (fix side)

Order code No. **072732**

Standard **HNE-48**

- Weight: 540g ● Weight capacity: ~1kg(9.8N)
- W/sensor (030317 D2JW-011-MD)
- Wiring: black (COM) blue (NO) red (NC)



Tool side

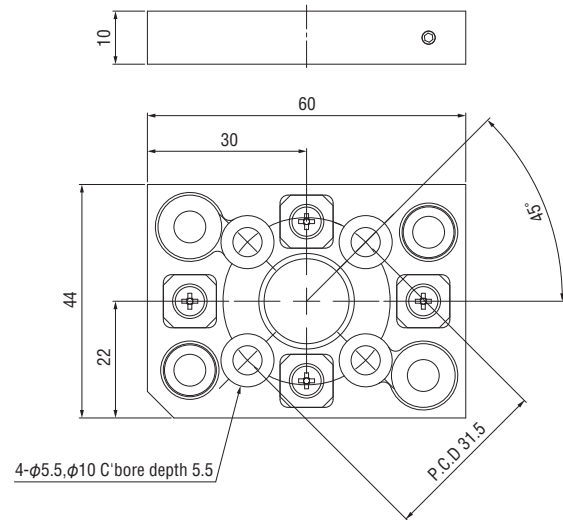


Magnet chuck hanger (tool side)

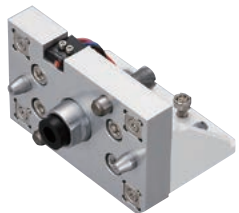
Order code No. **196636**

Standard **TNE-48I**

- Weight: 70g
- Weight capacity: ~1kg (9.8N)



Station side

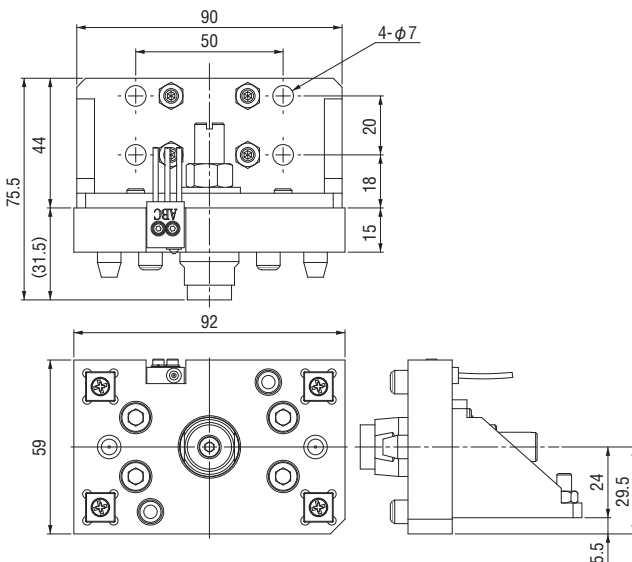


Magnet chuck hanger (fix side)

Order code No. **072733**

Standard **HNE-S**

- Weight: 680g ● Weight capacity: ~1kg(9.8N)
- W/sensor (030317 D2JW-011-MD)
- Wiring: black (COM) blue (NO) red (NC)



Tool side

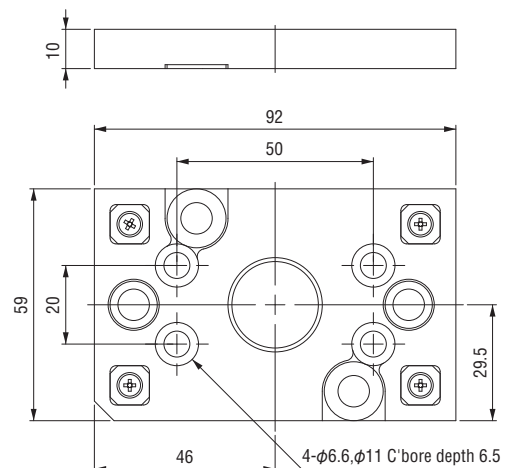


Magnet chuck hanger (tool side)

Order code No. **196637**

Standard **TNE-SI**

- Weight: 140g
- Weight capacity: ~1kg (9.8N)



Quick Chuck Change

Quick Chuck Change (Manual)

Tool Changer

Automated Chuck Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Buffer Material

Suction

Suction Cups

Suction Stem

Pad in Pad

Air Ejector/ Filter/ Check Valve

Micro Mold E.O.A.T

Cut

Mini Air Nippers

Air Nippers

Frame/Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Tubing/Sensors

Tubing

Sensors

Other Products

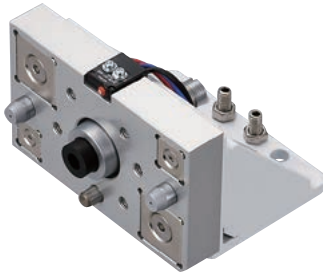
Others

Information

Magnet Chuck Hanger

● Delivery will take a few days. Please contact our sales office nearest your office or Eins.

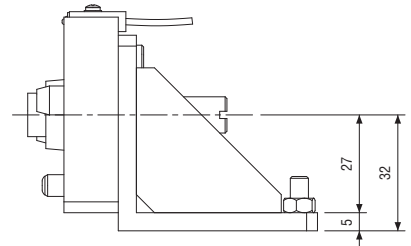
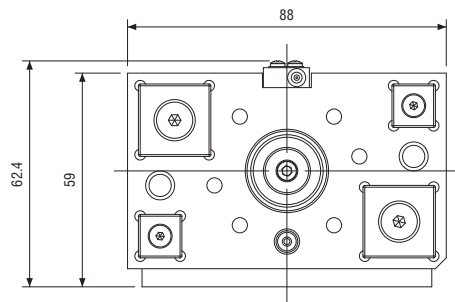
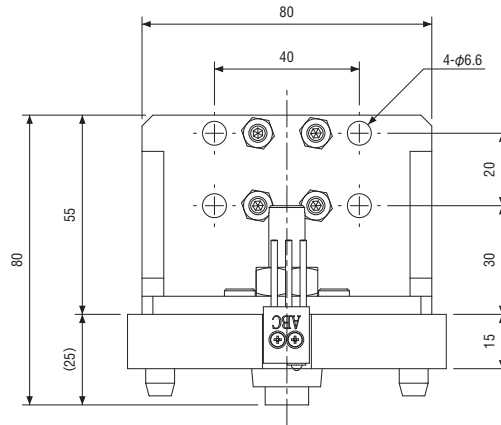
▶ Station side



Magnet chuck hanger (fix side)

Order code No.	072811
Standard	HNE-SL

- Weight: 632g
- Weight capacity: ~ 1kg (9.8N)
- W/ sensor (030317 D2JW-011-MD)
- Wiring: black (COM) blue (NO) red (NC)



▶ Tool side



Magnet chuck hanger (tool side)

Order code No.	196727
Standard	TNE-SLI

- Weight: 115g
- Weight capacity: ~ 1kg (9.8N)

