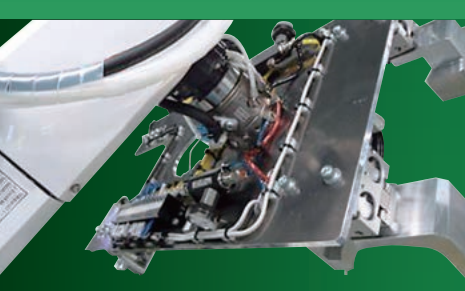
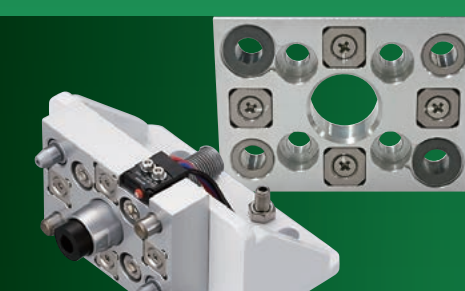
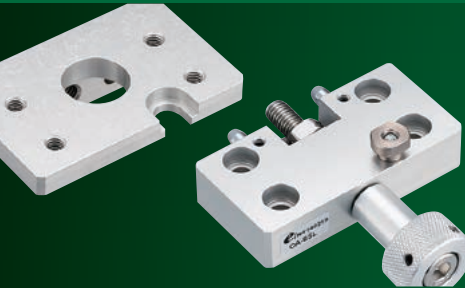


# Quick Chuck (Hand) Change



## 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 (SUS) / OA-SSI (SUS) / OC-LA / OC-LAI ..... 1-5



## Quick Chuck Change Manual (OM Type) ..... 1-6

- ▶ OM Type ..... 1-6



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- ▶ Accessories for A / B / BN Type ..... 1-18
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Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

Tool Changer

Automated Hand Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCI Communication Unit

Lightweight Parts Series

Frame / Section / Bush Cylinder / Pads / Bush Manifolds

By Industry

Logistics - Palletizing  
Steel Metal - Stamping  
Metal Fabrication

Assembling Tools

Tool / Jig

Information

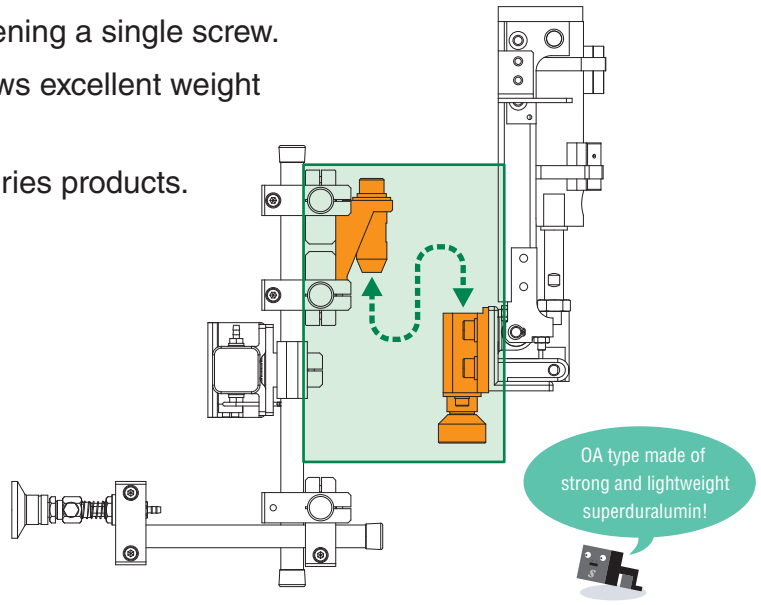
Various Products Information



Please check the performance table on the web site.

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

Quick Chuck Change ● Quick Chuck Change Manual

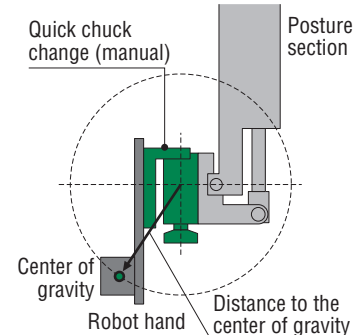
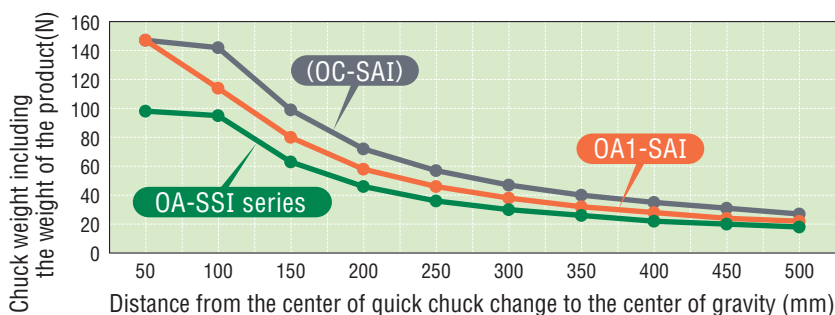


## Specification

Product name	Order code No.	Weight (g)	Weight capacity (kg)	Injection press range (ton)	Page of details
▶ Superduralumin					
Quick chuck change Manual	140219	166	~ 10	40 ~ 650	1-3
	OA-SSL				
	140151	97			
	OA-SSI				
	140290	190			
	OA1-SA				
140257	228				
OA1-SAI					
▶ Stainless steel (SUS)					
Quick chuck change Manual	140271	370	~ 10	40 ~ 650	1-5
	OA-SSL (SUS)				
	140272	265			
OA-SSI (SUS)					

Product name	Order code No.	Weight (g)	Weight capacity (kg)	Injection press range (ton)	Page of details
▶ Superduralumin					
Quick chuck change Manual	140291	547	~ 35	650 } 1,600	1-4
	OA2-LA				
	140155	548			
	OA-LAI				
▶ Made of steel					
Quick Chuck Attachment	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 (OC-SAI) (see → 1-4 for comparison between OA-LAI and OC-LAII)





# Quick Chuck Change Manual (Super Duralumin)

Switch chucks merely by tightening a single screw.

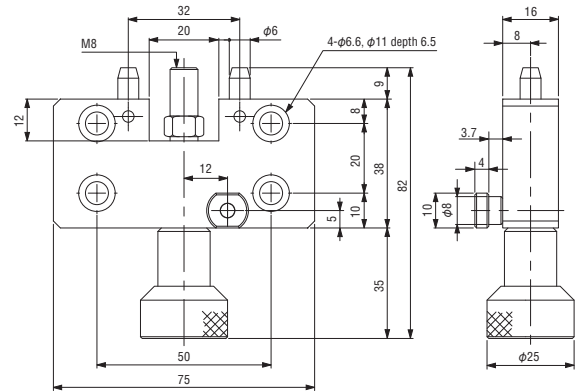
▶ Mounting bolt for OA-SS was extended.



Robot Side

Order code No.	<b>140219</b>
TYPE	<b>OA-SSL</b>

- Superduralumin
- Weight: 166g
- Mounting position: robot side
- Weight capacity: ~ 10kg
- Thickness after connection: 24mm



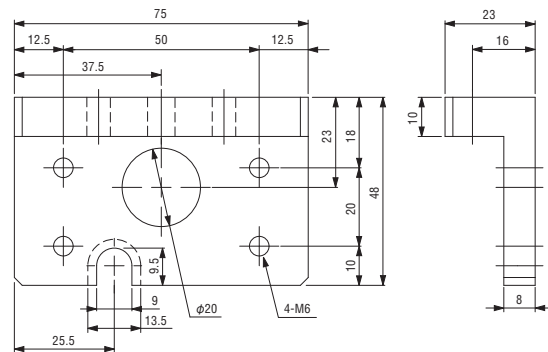
▶ Compatible with OC type QCC for robot side.



Tool Side

Order code No.	<b>140151</b>
TYPE	<b>OA-SSI</b>

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



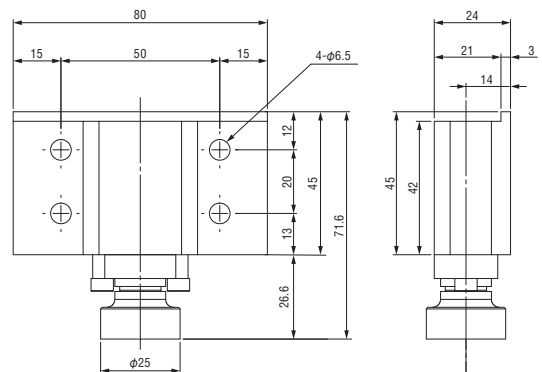
▶ Because it is made of super duralumin, it's lightweight and has excellent rigidity.



Robot Side

Order code No.	<b>140290</b>
TYPE	<b>OA1-SA</b>

- Superduralumin
- Weight: 190g
- Mounting position: robot side
- Weight capacity: ~ 15kg
- Thickness after connection: 33mm



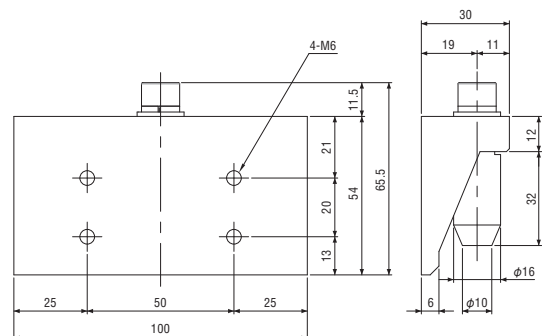
▶ Compatible with OC type QCC for robot side.



Tool Side

Order code No.	<b>140257</b>
TYPE	<b>OA1-SAI</b>

- Superduralumin
- Weight: 228g
- Mounting position: tool side
- Weight capacity: ~ 15kg
- Thickness after connection: 33mm



## Quick Chuck Change

### Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

Tool Changer

Automated Hand Exchange System

### Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

### Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

### Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

### Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

### Lightweight Parts Series

Frame / Suction / Resin Cylinders / Pads / Resin Manifolds

### By Industry

Logistics-Palletizing/ Sheet Metal-Stamping- Metal Fabrication

### Assembling Tools

Tool / Jig

### Information

Various Products Information



# Quick Chuck Change Manual (Super Duralumin) / Chuck Spacer

Switch robot hands merely by tightening a single screw.

- ▶ Because it is made of super duralumin, it's lightweight and has excellent rigidity. suitable for medium-sized robots.

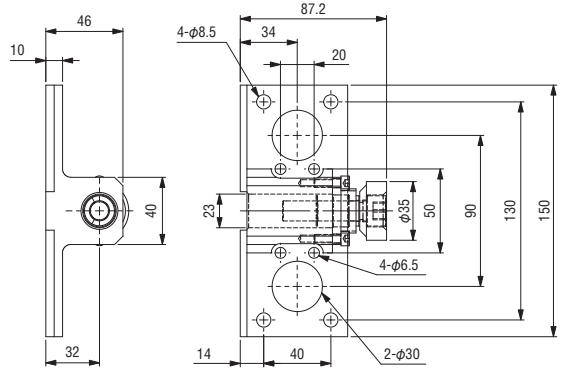


Attachable to medium-size robots. Mounting hole

Robot Side

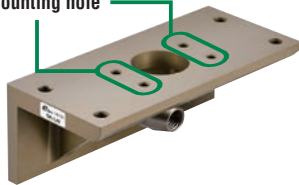
Order code No.	140291
TYPE	OA2-LA

- Superduralumin
- Weight: 547g
- Mounting position: robot side
- Weight capacity: ~ 35kg
- Thickness after connection: 61mm



- ▶ Compatible with OC type for robot side.

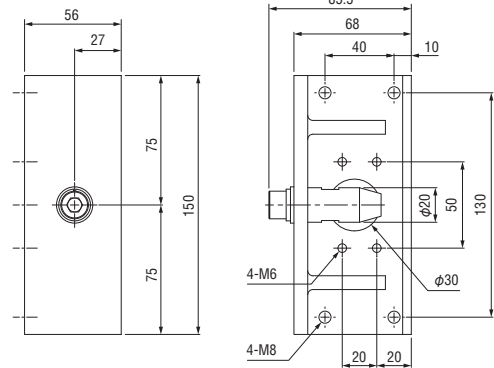
Attachable to medium-size robots. Mounting hole



Tool Side

Order code No.	140155
TYPE	OA-LAI

- Superduralumin
- Weight: 548g
- Mounting position: tool side
- Weight capacity: ~ 35kg
- Thickness after connection: 61mm



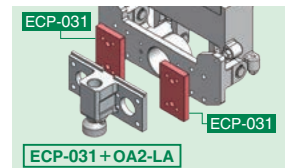
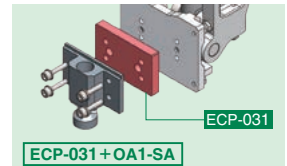
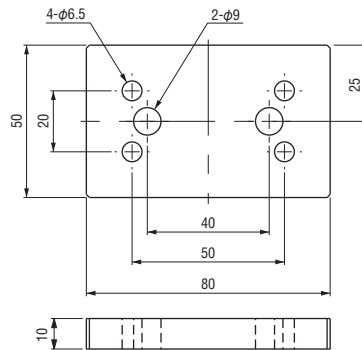
- ▶ Mounting spacer Use it when changing the height.



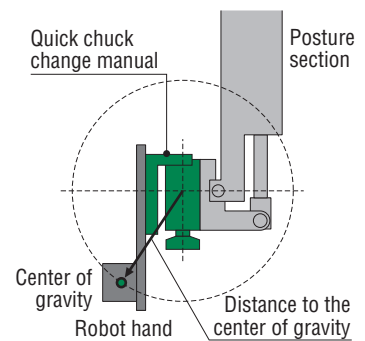
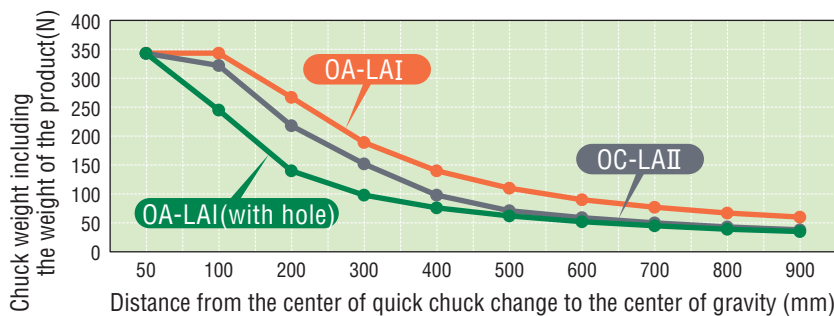
Chuck Spacer • Plastic • for chuck

Order code No.	041645
TYPE	ECP-031

- Plastic (polypropylene)
- Weight: 35g



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





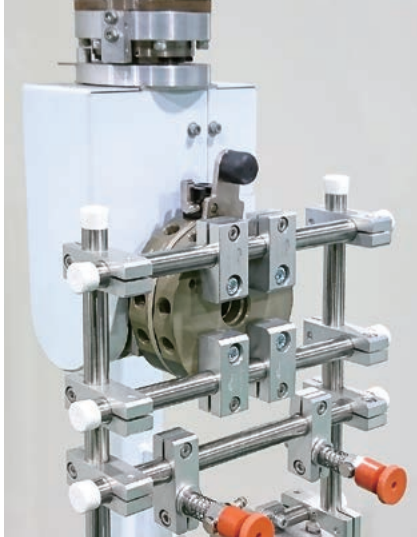




Please check the performance table on the web site.

- ▶ The qcc can be replaced by rotating the locking bolt on the robot side chuck.
- ▶ Qcc can help eliminate air connection mistakes.

Quick Chuck Change • Quick Chuck Change Manual (OM Type)

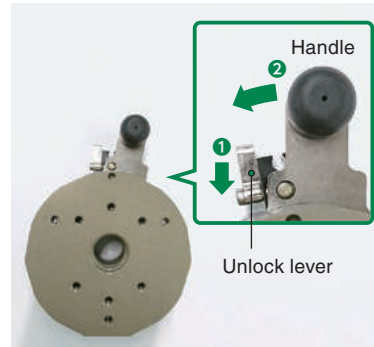


### Mounting method



Attach the tool side qcc to the robot qcc by rotating the locking bolt on robot side qcc. Make sure the tool is secure and not loose.

### Unlock method



To disengage the lock pin, press the release lever located adjacent to the handle with your finger, and then rotate the handle to the left.

## Specification

Product name	Order code No.	TYPE	Weight (g)	Weight capacity (kg)	Connection pipe	Lever rotation angle	Fixed rotation torque	Unlock rotation torque	Electric contact Connector shape	Fixed pin number	Repeatability and Accuracy
<b>NEW</b> Quick Chuck Change Manual (OM Type)	<b>140382</b>	<b>OM-50</b>	105	~ 5	4pins (M5)	20°	30N·m	15N·m	9 pin 2A DC24V Max Connector sold separately	3	±0.02
	<b>140383</b>	<b>OM-50I</b>	65						11 pin 2A DC24V Max Connector sold separately		
	<b>140384</b>	<b>OM-90</b>	328	~ 20	6pins (PT1/8)	20°	180N·m	100N·m	16 pin 2A DC24V Max Connector sold separately	3	±0.02
	<b>140385</b>	<b>OM-90I</b>	212						16 pin 2A DC24V Max Connector sold separately		

※Check the web site for allowable static load curves. (above the QR code)

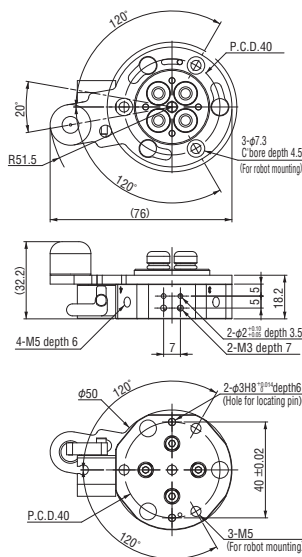
## Quick Chuck Attachment

**NEW**

**Robot Side**

Order code No.	<b>140382</b>
TYPE	<b>OM-50</b>

- Superduralumin
- Weight: 105g
- Mounting position : robot side
- Weight capacity : 5kg
- Thickness after connection : 32.7mm
- Connection pipe: 4 circuits (M5)

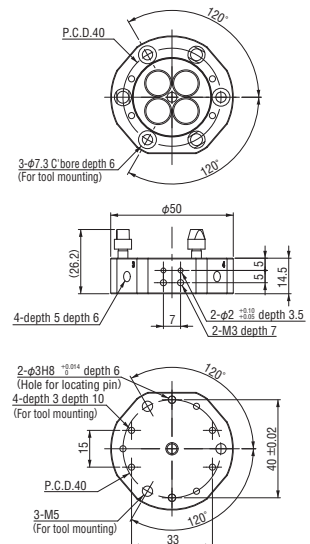


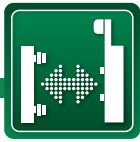
**NEW**

**Tool Side**

Order code No.	<b>140383</b>
TYPE	<b>OM-50I</b>

- Superduralumin
- Weight: 65g
- Mounting position : tool side
- Weight capacity : 5kg
- Thickness after connection : 32.7mm
- Connection pipe: 4 circuits (M5)





# Quick Chuck Change Manual (OM Type)

It can be replaced by simply rotating the locking bolt on the robot chuck.

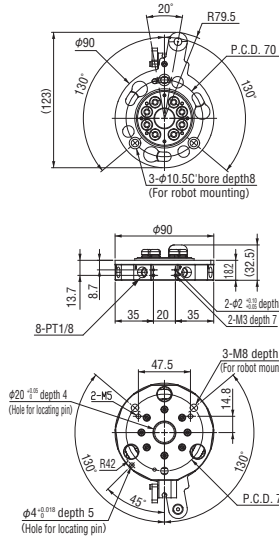
Quick Chuck Change Manual (OM Type)



You can see moving images of products by using QR code reader of your smartphone.

## Quick Chuck Attachment

NEW

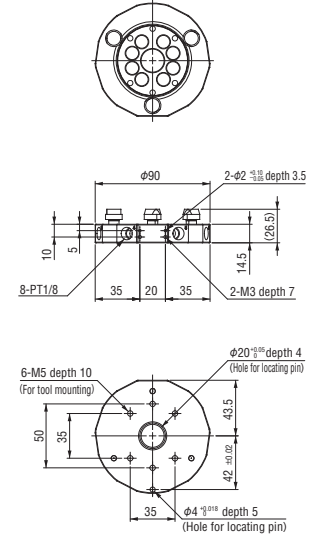


Robot Side	
Order code No.	<b>140384</b>
TYPE	<b>OM-90</b>

- Superduralumin
- Weight : 328g
- Mounting position : robot side
- Weight capacity : 20kg
- Thickness after connection : 32.7mm
- Connection pipe : 8 circuits (PT1/8)

Connector drawing → See 1-33.

NEW



Tool Side	
Order code No.	<b>140385</b>
TYPE	<b>OM-90I</b>

- Superduralumin
- Weight : 212g
- Mounting position : tool side
- Weight capacity : 20kg
- Thickness after connection : 32.7mm
- Connection pipe : 8 circuits (PT1/8)

## Connector Accessories

D-sub & probe connector	Robot side	Tool Side
	Order code No.	<b>140190</b>
	TYPE	<b>OXR-DPS09 OXR-DPS09-I</b>
	Weight	25g
	Wiring Specification	AWG22
	Electric contact	9 pin (2A)
Attached screw	Flat head screw with cross recess M4×10 [123515]	

● Connector drawing → See (1-33)

Probe connector (solder)	Robot side	Tool Side
	Order code No.	<b>140264</b>
	TYPE	<b>OXR-PS16 OXR-PS16-I</b>
	Weight	8g
	Wiring Specification	AWG22
	Electric contact	16 pin (2A)
Attached screw	Flat head screw with cross recess M4×10 [123515]	

● Connector drawing → See (1-33)

Probe connector	Robot side	Tool Side
	Order code No.	<b>140362</b>
	TYPE	<b>OXR-PSH11 OXR-PSH11-I</b>
	Weight	53g
	Wiring Specification	Solder-fix type (AWG23) 500mm
	Electric contact	11 pin (2A)
Attached screw	Flat head screw with cross recess M4×10 [123515]	

● Connector drawing → See (1-33)

NEW

Probe connector bracket	Order code No.	Weight
	<b>140388</b>	10g
	TYPE	<b>OMR-CBX20</b>
	Weight	10g

● Accessories : positioning pin, mounting bolt

● It is necessary when attaching the electrical contact connector. (Drawing → (1-33) )

## Cable Accessories

D-SUB cable •for OX(for OX-B type)	Robot side		Tool Side		
	Order code No.	<b>140197</b>	<b>140247</b>	<b>140202</b>	<b>140364</b>
	TYPE	<b>OX-DS09S-H</b>	<b>OX-DS09S-H (1.5M)</b>	<b>OX-DS09P-I-H</b>	<b>OX-DS09P-I-H (1.5M)</b>
	Weight	60g	138g	60g	140g
	Cable length	0.5m	1.5m	0.5m	1.5m
	Electric contact	9 pin			
	Wiring Specification	Movable cable (AWG22), for UL			
	● Bending radius (mm) : R46				

D-SUB cable •for OX(for OX-B type)	Robot side (L)		Tool Side (L)		
	Order code No.	<b>140203</b>	<b>140248</b>	<b>140204</b>	<b>140365</b>
	TYPE	<b>OX-DS09SL-H</b>	<b>OX-DS09SL-H (1.5M)</b>	<b>OX-DS09PL-I-H</b>	<b>OX-DS09PL-I-H (1.5M)</b>
	Weight	60g	138g	60g	140g
	Cable length	0.5m	1.5m	0.5m	1.5m
	Electric contact	9 pin			
	Wiring Specification	Movable cable (AWG22), for UL			
	● Bending radius (mm) : R46				

## Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

Tool Changer

Automated Hand Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

Lightweight Parts Series

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

By Industry

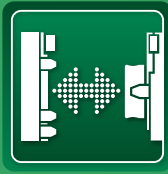
Logistics-Palletizing/Sheet Metal-Stamping-Metal Fabrication

Assembling Tools

Tool / Jig

Information

Various Products Information



# Tool Changer

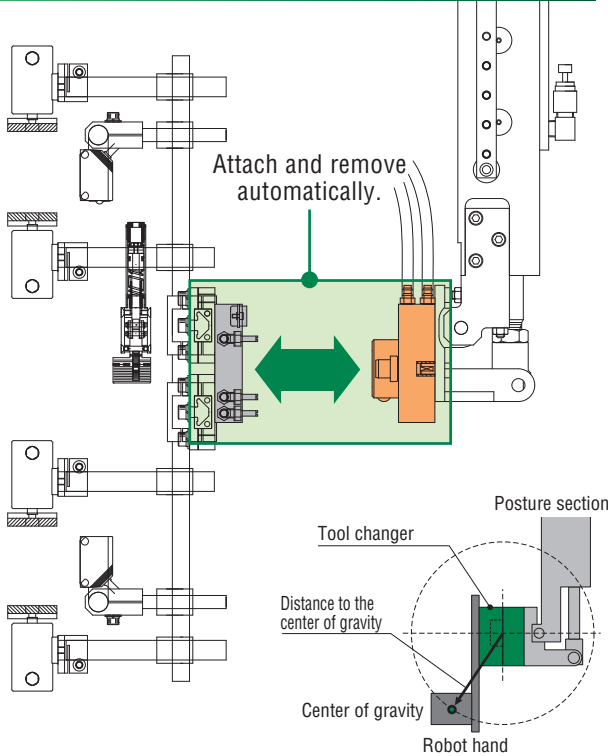
"Multifunction of the robot" and "shortening the setup time" are two capabilities of the tool changer. We increase productivity and offer a range of small-quantity items.

**[Features]**

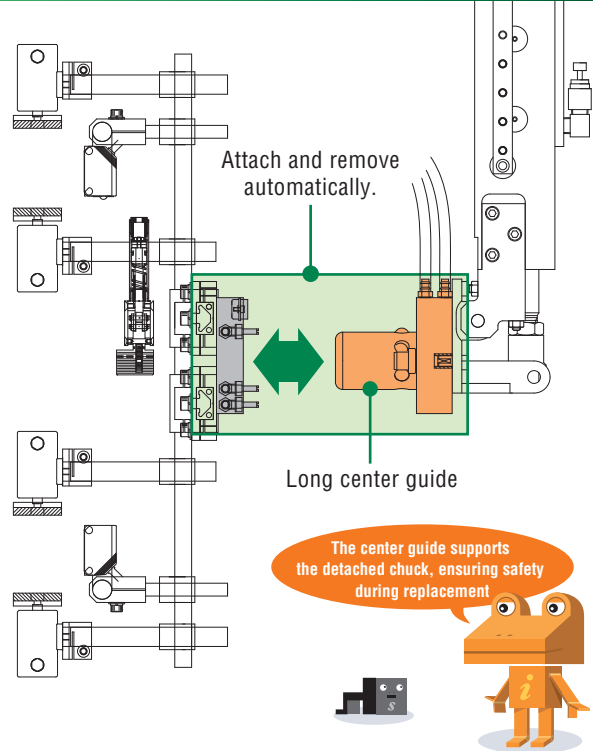
- The connecting mechanism is the ball locking type, so it's convenient to assemble and disassemble.
- Equipped with "Pull in function" and "detachable function" when assembling and disassembling.
- With air cut-off circuit (stops air supplies when detached).
- Made of Super Duralumin-strong rigidity and long operating life.
- Safety is ensured by "fail safe mechanism (drop prevention)" when air intercepts.

Quick Chuck Change • Tool Changer

## A/B/BN Type

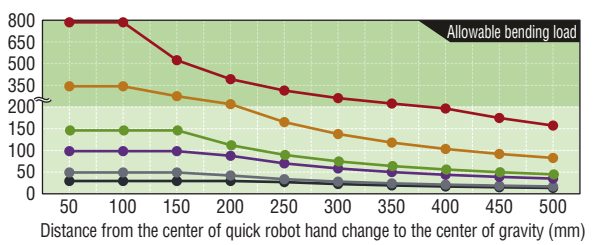
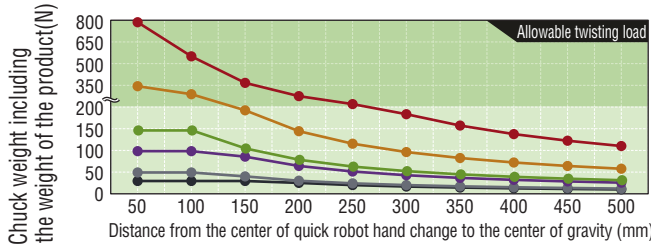


## Long Center Guide



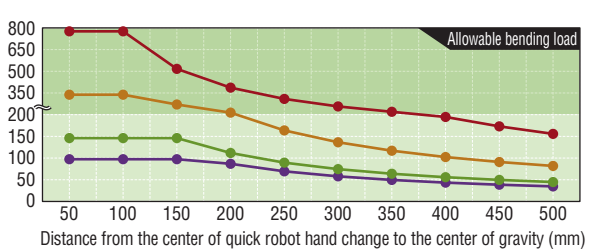
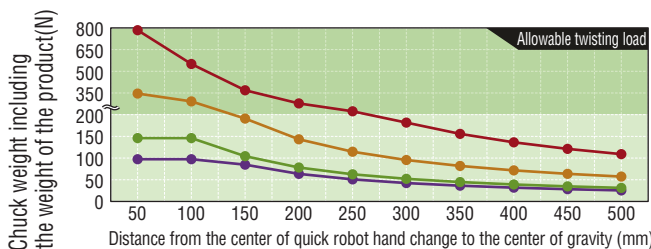
### Allowable-load curve of OX-B series

- OX-SSB OX-SBS OX-SB TYPE OX-WSB OX-LB OX-WLB



### Allowable-load curve of OX-A series

- OX-SA OX-WSA OX-LA OX-WLA






















Please check the performance table on the web site.

## Specification

Product name	Order code No.	TYPE	Weight (g)	Weight capacity (kg)	Injection press range (ton)	Allowable bending moment (Nm)	Allowable torsional moment (Nm)	Power to draw(N) Power to force(N)	Electric contact Connector shape	Piping connect	Page of details	
B/BN type (w/o connector)	 140277	OX-WLBN	2,680	~ 80	1,600 } 5,000	78.4	54.8	7,000 1,500	—	10 port (M5)	1-13	
	 140278	OX-WLBNI	1,345									
	 140229	OX-SBYN	435	~ 10	80 } 650	17.5	12.8	1,700 550		9Pin×2 2A DC24V Max D-SUB connector Probe connector	6 port (M5)	1-14
	 140230	OX-SBYNI	195									
	 140260	OX-SBHN	399									
	 140261	OX-SBHNI	202									
Long center guide (with connector)	 140228	OX-LB-30	1,370	~ 35	650 } 1,600	41.2	28.7	4,000 750	9Pin×2 2A DC24V Max D-SUB connector		6 port (M5)	1-16
	 140283	OX-WLB-30	2,905	~ 80	1,600 } 5,000	78.4	54.8	7,000 1,500			10 port (M5)	
Long center guide (w/o connector)	 140345	OX-SBN-30	470	~ 10	80 } 650	17.5	12.8	1,700 550	—	6 port (M5)	1-16	
	 140279	OX-LBN-30	1,330	~ 35	650 } 1,600	41.2	28.7	4,000 750		6 port (M5)		
	 140267	OX-WLBN-30	2,865	~ 80	1,600 } 5,000	78.4	54.8	7,000 1,500		10 port (M5)		

Please use manual push button "PB1-E (152308), PBW1-E(152306)" for manual exchange ( 1-18 , 6-11 ).

## Common specification

Positional reproduction Accuracy	Used air pressure	Drive piping	Acceptable electric wiring	Allowable temperature/humidity range
±0.02mm*1	0.5~0.7MPa	Clean air, piping of $\phi 6$ ( $\phi 4^{*2}$ ), double action type	AWG20 Max.	0°C -55°C, 0% -95% (w/o condensation)

\*1 Based on our measurement

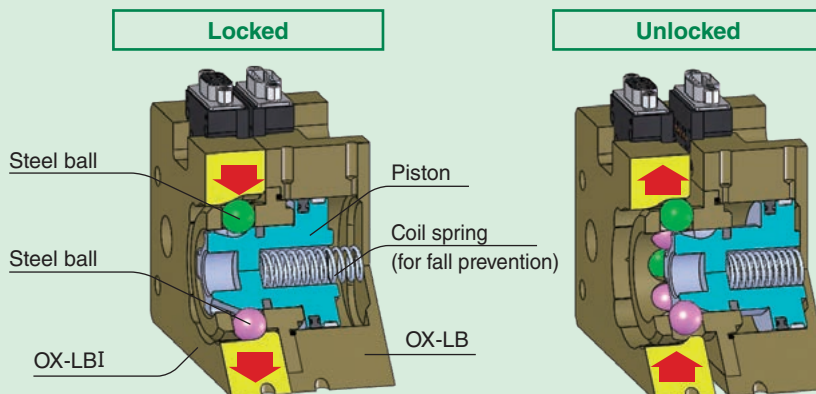
\*2  $\phi 4$ : OX-SB series (SSB, SB, SBY, SBH, SBS, SBN, SBYN, SBHN)

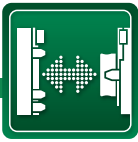
## Features

- Original detachable mechanism  
(The U.S. US: 7,559,265  
Europe: EP 1 970 170)
- Fail-safe mechanism  
(Prevention of falling off)
- Air check valve

## Merits

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

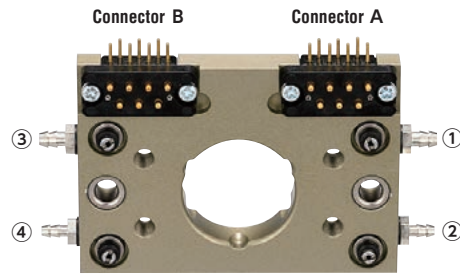
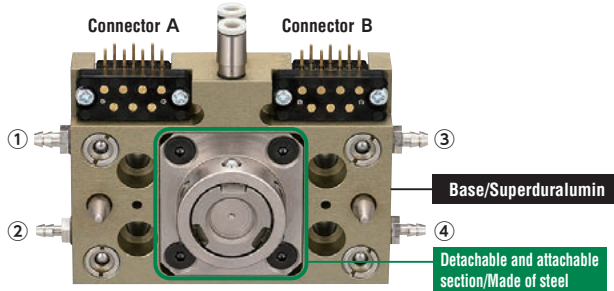




# B/BN Type

The chuck on the robot and carrier loader can be easily replaced in a short time.

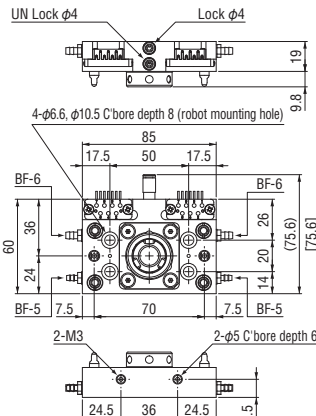
## ► Weight capacity 3kg Type



### Robot Side

Order code No.	<b>140266</b>
TYPE	<b>OX-SSB</b>

- Weight: 330g
- Mounting position: robot side
- Weight capacity: ~3kg
- Thickness after connection: 29mm

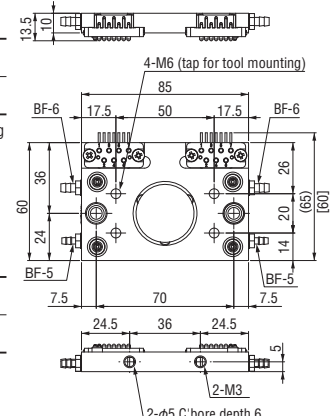


\* The value in [ ] shows the type w/o connector.

### Tool Side

Order code No.	<b>140268</b>
TYPE	<b>OX-SSBI</b>

- Superduralumin
- Weight: 120g
- Mounting position: tool side
- Weight capacity: ~3kg
- Thickness after connection: 29mm

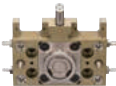


\* The value in [ ] shows the type w/o connector.

### W/o connector

Order code No.	<b>140280</b>
TYPE	<b>OX-SSBN</b>

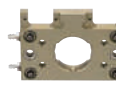
- Weight: 318g
- Mounting position: robot side
- Weight capacity: ~3kg
- Thickness after connection: 29mm



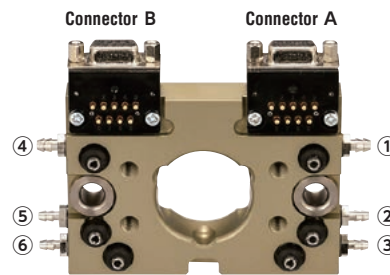
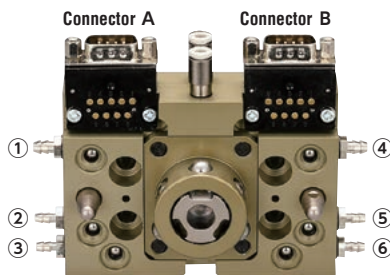
### W/o connector

Order code No.	<b>140281</b>
TYPE	<b>OX-SSBNI</b>

- Superduralumin
- Weight: 108g
- Mounting position: tool side
- Weight capacity: ~3kg
- Thickness after connection: 29mm



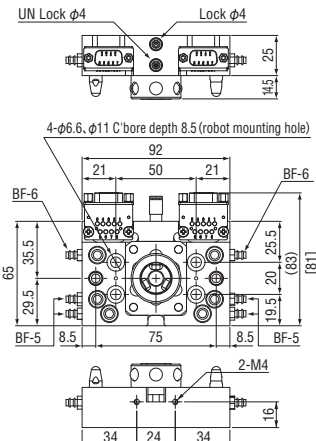
## ► Weight capacity 10kg Type



### Robot Side

Order code No.	<b>140181</b>
TYPE	<b>OX-SB</b>

- Superduralumin
- Weight: 475g
- Mounting position: robot side
- Weight capacity: ~10kg
- Thickness after connection: 40mm

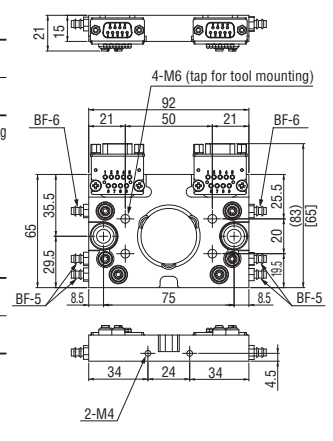


\* The value in [ ] shows the type w/o connector.

### Tool Side

Order code No.	<b>140182</b>
TYPE	<b>OX-SBI</b>

- Superduralumin
- Weight: 235g
- Mounting position: tool side
- Weight capacity: ~10kg
- Thickness after connection: 40mm
- Can be installed on OX-SBY



\* The value in [ ] shows the type w/o connector.

### W/o connector

Order code No.	<b>140225</b>
TYPE	<b>OX-SBN</b>

- Superduralumin
- Weight: 431g
- Mounting position: robot side
- Weight capacity: ~10kg
- Thickness after connection: 40mm



### W/o connector

Order code No.	<b>140226</b>
TYPE	<b>OX-SBNI</b>

- Superduralumin
- Weight: 197g
- Mounting position: tool side
- Weight capacity: ~10kg
- Thickness after connection: 40mm
- Can be installed on OX-SBY



### Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

### Tool Changer

Automated Hand Exchange System

### Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

### Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

### Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

### Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

### Pneumatic Components: Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

### Lightweight Parts Series

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

### By Industry

Logistics-Palletizing / Sheet Metal-Stamping-Metal Fabrication

### Assembling Tools

Tool / Jig

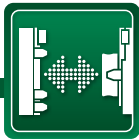
### Information

Various Products Information







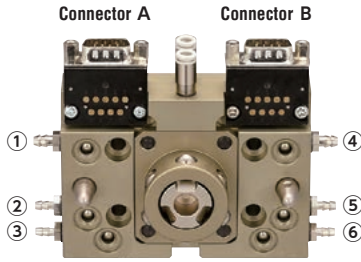


# B/BN Type

Also compatible with the mounting pattern of cartesian robots made by many other manufacturers.

## ► Weight capacity 10kg Type

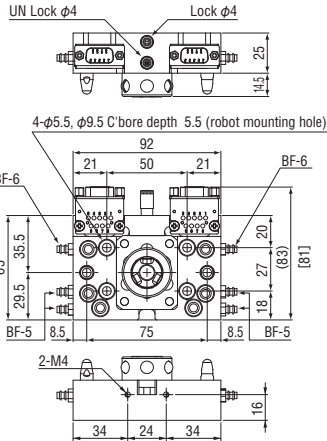
Mounting pitch  
**27×50**



Robot Side

Order code No.	<b>140217</b>
TYPE	<b>OX-SBY</b>

- Superduralumin
- Weight: 475g
- Mounting position: robot side
- Weight capacity: ~ 10kg
- Thickness after connection: 40mm



\* The value in [ ] shows the type w/o connector.

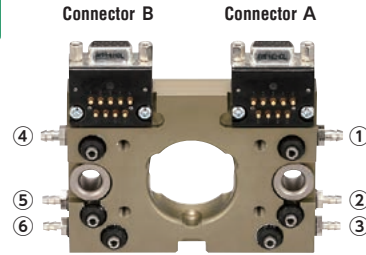
### W/o connector

Order code No.	<b>140229</b>
TYPE	<b>OX-SBYN</b>

- Superduralumin
- Weight: 435g
- Mounting position: robot side
- Weight capacity: ~ 10kg
- Thickness after connection: 40mm



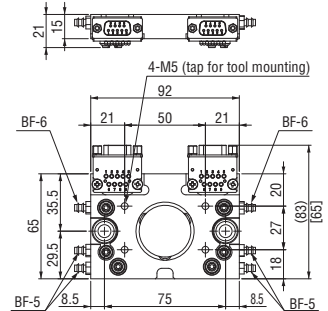
Mounting pitch  
**27×50**



Tool Side

Order code No.	<b>140218</b>
TYPE	<b>OX-SBYI</b>

- Superduralumin
- Weight: 235g
- Mounting position: tool side
- Weight capacity: ~ 10kg
- Thickness after connection: 40mm
- Can be Installable on OX-SB



\* The value in [ ] shows the type w/o connector.

### W/o connector

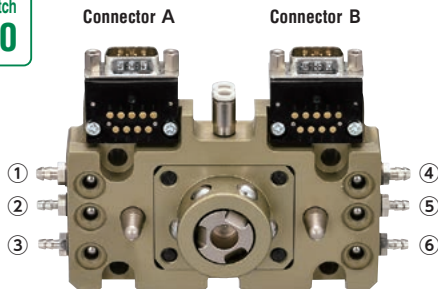
Order code No.	<b>140230</b>
TYPE	<b>OX-SBYNI</b>

- Superduralumin
- Weight: 195g
- Mounting position: tool side
- Weight capacity: ~ 10kg
- Thickness after connection: 40mm
- Can be Installable on OX-SB



## ► Weight capacity 10kg Type

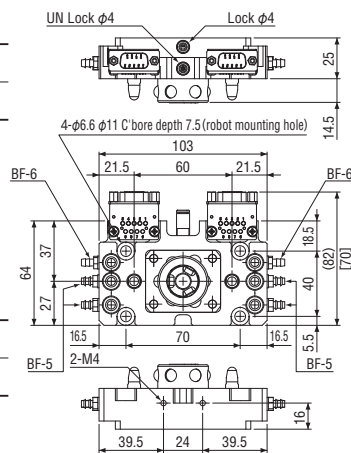
Mounting pitch  
**40×70**



Robot Side

Order code No.	<b>140275</b>
TYPE	<b>OX-SBH</b>

- Superduralumin
- Weight: 440g
- Mounting position: robot side
- Weight capacity: ~ 10kg
- Thickness after connection: 40mm



\* The value in [ ] shows the type w/o connector.

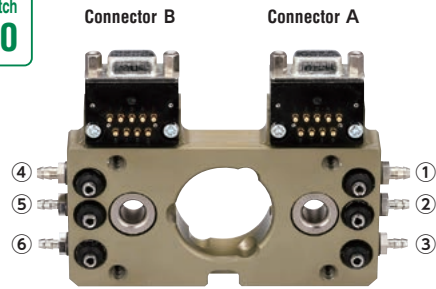
### W/o connector

Order code No.	<b>140260</b>
TYPE	<b>OX-SBHN</b>

- Superduralumin
- Weight: 399g
- Mounting position: robot side
- Weight capacity: ~ 10kg
- Thickness after connection: 40mm



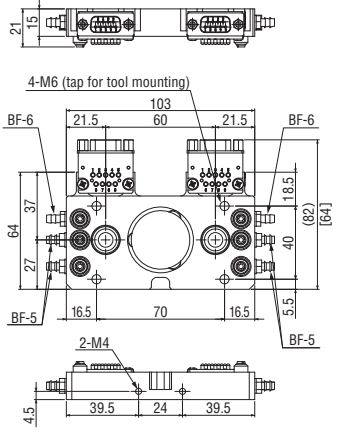
Mounting pitch  
**40×70**



Tool Side

Order code No.	<b>140276</b>
TYPE	<b>OX-SBHI</b>

- Superduralumin
- Weight: 245g
- Mounting position: tool side
- Weight capacity: ~ 10kg
- Thickness after connection: 40mm



\* The value in [ ] shows the type w/o connector.

### W/o connector

Order code No.	<b>140261</b>
TYPE	<b>OX-SBHNI</b>

- Superduralumin
- Weight: 202g
- Mounting position: tool side
- Weight capacity: ~ 10kg
- Thickness after connection: 40mm





**Description of type**

**OX-SBYNI**

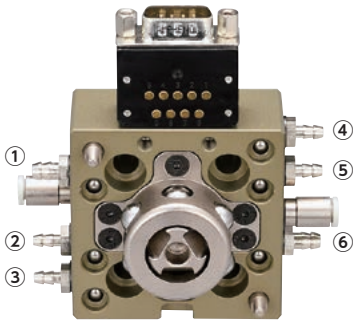
Installation side None (ROBOT SIDE)  
I (TOOL SIDE)

Type (size)

Connector N (NONE)  
No (w / connector)

**▶ Weight capacity 5kg Type**

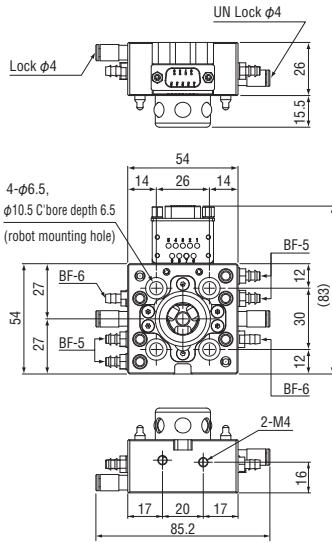
Mounting pitch  
**30×26**



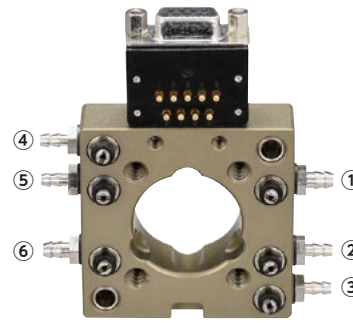
**Robot Side**

Order code No.	<b>140233</b>
TYPE	<b>OX-SBS</b>

- Superduralumin
  - Weight: 305g
  - Mounting position: robot side
  - Weight capacity: ~ 5kg
  - Thickness after connection: 42mm
  - The connector used is OXR for articulation
- ➔ See **(1-31)**



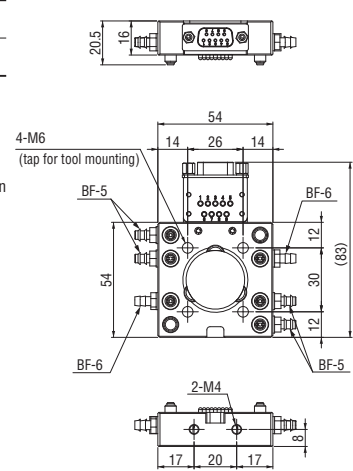
Mounting pitch  
**30×26**



**Tool Side**

Order code No.	<b>140234</b>
TYPE	<b>OX-SBSI</b>

- Superduralumin
  - Weight: 122g
  - Mounting position: tool side
  - Weight capacity: ~ 5kg
  - Thickness after connection: 42mm
  - The connector used is OXR for articulation
- ➔ See **(1-31)**



**Quick Chuck Change**

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

**Tool Changer**

Automated Hand Exchange System

**Grip**

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

**Suction**

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

**Cut**

Air Nipper (Small-Medium)

Air Nipper (Large)

**Frame / Module**

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

**Pneumatic Components / Sensors**

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

**Lightweight Parts Series**

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

**By Industry**

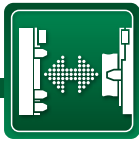
Logistics-Palletizing/Sheet Metal-Stamping-Metal Fabrication

**Assembling Tools**

Tool / Jig

**Information**

Various Products Information



# Long Center Guide

Easy exchange of heavy chuck plate with long center guide.

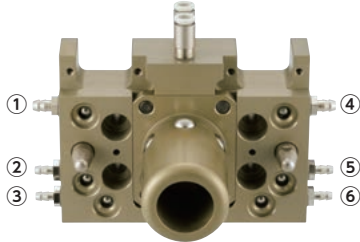
Tool changer  
(Long center guide)



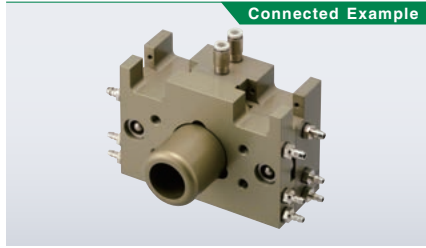
You can see moving images of products by using QR code reader of your smartphone.

● Since the center guide comes out of the tool mounting surface about 30 mm in combination, When assembled, the center guide protrudes about 30mm from the tool mounting surface, so it is necessary to be careful about EOAT/Chuck robot hand design.

## ▶ Weight capacity 10kg Type



Connected Example

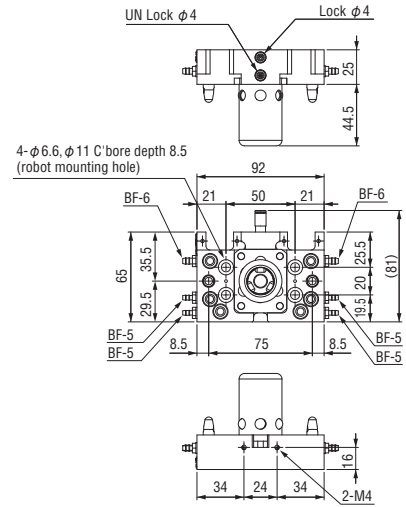


Robot Side

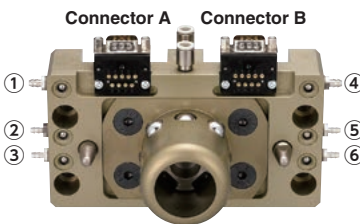
W/o connector

Order code No.	140345
TYPE	OX-SBN-30

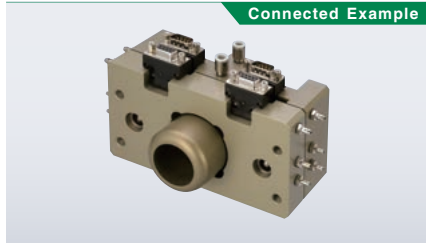
- Superduralumin
- Weight: 470g
- Mounting position: robot side
- Weight capacity: ~ 10kg
- Tools: OX-SBN1, OX-SBYN1



## ▶ Weight capacity 35kg Type



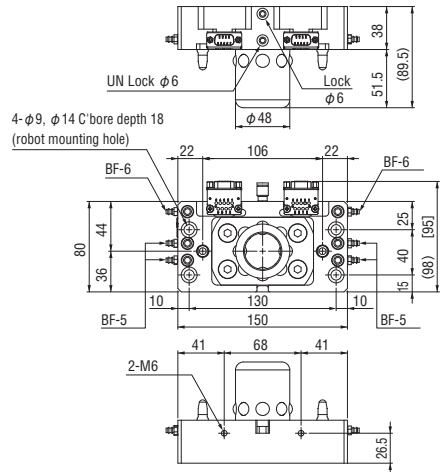
Connected Example



Robot Side

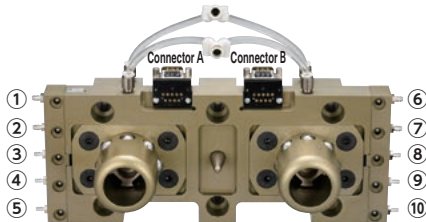
Order code No.	140228
TYPE	OX-LB-30

- Superduralumin
- Weight: 1,370g
- Mounting position: robot side
- Weight capacity: ~ 35kg
- Tools: OX-LB1

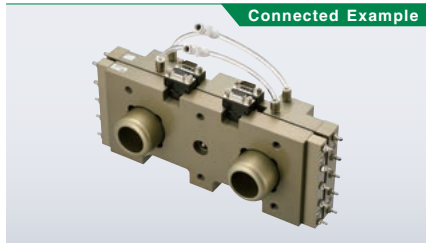


\* The value in [ ] shows the type w/o connector.

## ▶ Weight capacity 80kg Type



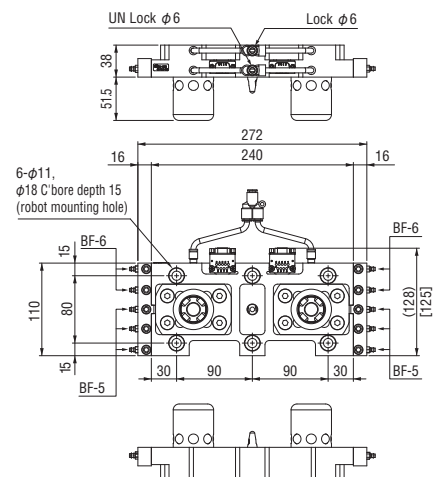
Connected Example



Robot Side

Order code No.	140283
TYPE	OX-WLB-30

- Superduralumin
- Weight: 2,905g
- Mounting position: robot side
- Weight capacity: ~ 80kg
- Tools: OX-WLB1

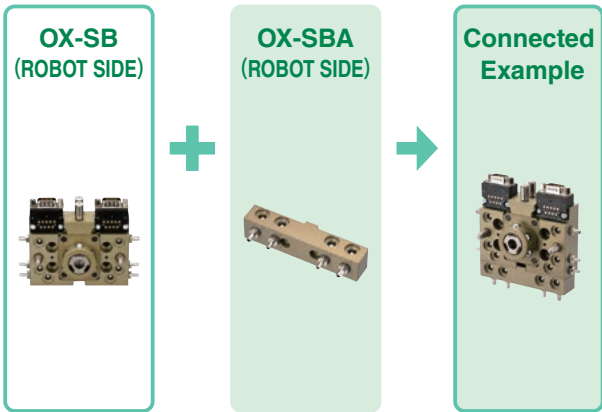


\* The value in [ ] shows the type w/o connector.



# Additional Air Expansion

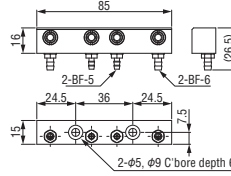
A Type / B Type / BN Type



## FOR OX-SSB (Robot Side)

Order code No.	140294
TYPE	OX-SSBA

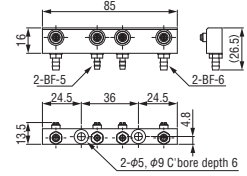
- Weight: 56g
- Attachments: mounting bolt (M3) × 2
- Air port: M5 hole × 4
- 8 ports in total including the air port of robot side body



## FOR OX-SSBI (Tool Side)

Order code No.	140295
TYPE	OX-SSBIA

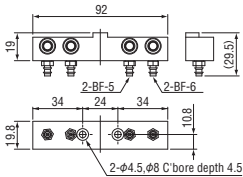
- Weight: 33g
- Attachments: mounting bolt (M3) × 2
- Air port: M5 hole × 4
- 8 ports in total including the air port of tool side body



## FOR OX-SA/OX-SB (Robot Side)

Order code No.	140193
TYPE	OX-SBA

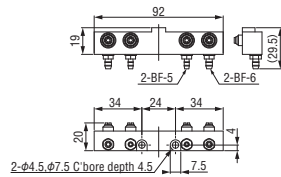
- Weight: 90g
- Attachments: mounting bolt (M4) × 2
- Air port: M5 hole × 4
- 10 ports in total including the air port of robot side body



## FOR OX-SAI/OX-SBI (Tool Side)

Order code No.	140194
TYPE	OX-SBIA

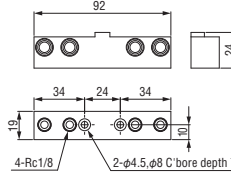
- Weight: 70g
- Attachments: mounting bolt (M4) × 2
- Air port: M5 hole × 4
- 10 ports in total including the air port of tool side body



## FOR OX-SA/OX-SB (Robot Side)

Order code No.	140251
TYPE	OX-SBA1

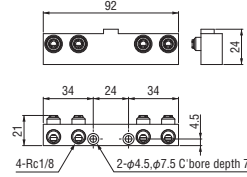
- Weight: 91g
- Attachments: mounting bolt (M4) × 2
- Air port: 1/8 hole × 4, w/o check valve
- 10 ports in total including the air port of robot side body



## FOR OX-SAI/OX-SBI (Tool Side)

Order code No.	140252
TYPE	OX-SBIA1

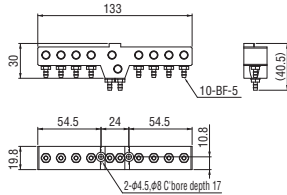
- Weight: 72g
- Attachments: mounting bolt (M4) × 2
- Air port: 1/8 hole × 4
- 10 ports in total including the air port of tool side body



## NEW FOR OX-SB (Robot Side)

Order code No.	140391
TYPE	OX-SCA-10

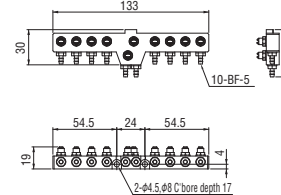
- Weight: 144g
- Attachments: mounting bolt (M4) × 2
- Air port: M5 hole × 10
- 16 ports in total including the air port of robot side body



## NEW FOR OX-SBI (Tool Side)

Order code No.	140392
TYPE	OX-SCIA-10

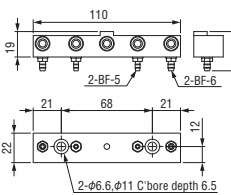
- Weight: 90.7g
- Attachments: mounting bolt (M4) × 2
- Air port: M5 hole × 10
- 16 ports in total including the air port of tool side body



## FOR X-LA/OX-LB (Robot Side)

Order code No.	140195
TYPE	OX-LBA

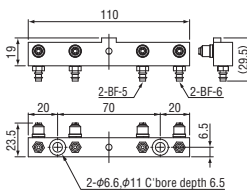
- Weight: 115g
- Attachments: mounting bolt (M6) × 2
- Air port: M5 hole × 4
- 10 ports in total including the air port of robot side body



## FOR OX-LAI/OX-LBI (Tool Side)

Order code No.	140196
TYPE	OX-LBIA

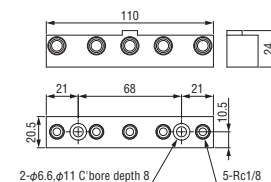
- Weight: 82g
- Attachments: mounting bolt (M6) × 2
- Air port: M5 hole × 4
- 10 ports in total including the air port of tool side body



## FOR OX-LA/OX-LB (Robot Side)

Order code No.	140253
TYPE	OX-LBA1

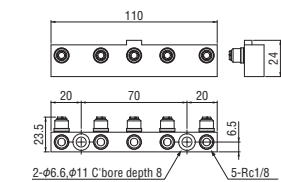
- Weight: 113g
- Attachments: mounting bolt (M6) × 2
- Air port: 1/8 hole × 5, w/o check valve
- 11 ports in total including the air port of robot side body



## FOR OX-LAI/OX-LBI (Tool Side)

Order code No.	140254
TYPE	OX-LBIA1

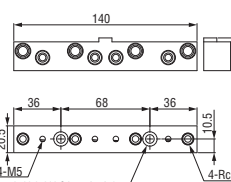
- Weight: 77g
- Attachments: mounting bolt (M6) × 2
- Air port: 1/8 hole × 5
- 11 ports in total including the air port of tool side body



## FOR OX-LA/OX-LB (Robot Side)

Order code No.	140287
TYPE	OX-LBA3

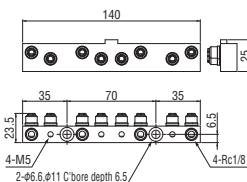
- Weight: 160g
- Attachments: mounting bolt (M6) × 2
- Air port: 1/8 hole × 5, w/o check valve, hole (M5) × 4
- 14 ports in total including the air port of robot side body



## FOR OX-LAI/OX-LBI (Tool Side)

Order code No.	140288
TYPE	OX-LBIA3

- Weight: 112g
- Attachments: mounting bolt (M6) × 2
- Air port: 1/8 hole × 5, hole (M5) × 4
- 14 ports in total including the air port of tool side body



### Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

### Tool Changer

Automated Hand Exchange System

### Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

### Section

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

### Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

### Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

### Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

### Lightweight Parts Series

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

### By Industry

Logistics-Palletizing / Sheet Metal-Stamping- Metal Fabrication

### Assembling Tools

Tool / Jig

### Information

Various Products Information



# Accessories

A Type / B Type / BN Type

## ▶ Remote valve for manual tool change actuation

### Manual air valve push button (Return Type)



Order code No.	<b>152308</b>
TYPE	<b>PB1-E</b>
Weight	65g

### Manual air valve push slide button (Retention Type)



Order code No.	<b>152306</b>
TYPE	<b>PBW1-E</b>
Weight	75g

## ▶ Replacement Parts

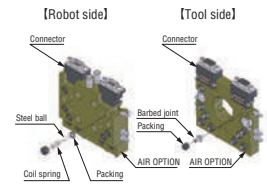
Barbed joint	Tool side			
	For OX-*A/*B	For OX-SSB	new For OX-SBS	For WSBI
Order code No.	<b>110623</b>	<b>230116</b>	<b>230117</b>	<b>110722</b>
TYPE	<b>LX0004-101</b>	<b>XL0054-106A</b>	<b>XL0054-206A</b>	<b>LX0181-203</b>
Weight	2g	1g	1g	1g



Steel ball *Material:SUS304	Robot side	
	For OX-*A/*B	For OX-SSB/SBS
Order code No.	<b>323000</b>	<b>310607</b>
TYPE	<b>φ6.35</b>	<b>φ5.5</b>
Weight	1g	1g



Coil spring	Robot side			
	For OX-SB/SBY/LA	For OX-LB	OX-WLB/SBH/SA/WSA/ Additional air expansion	For OX-SSB/SBS
Order code No.	<b>110649</b>	<b>185221</b>	<b>110619</b>	<b>200223</b>
TYPE	<b>L00999-420</b>	<b>SAWANE5115</b>	<b>L00999-316</b>	<b>UR5-10</b>
Weight	0.2g	0.4g	0.1g	0.1g



Packing *Material: CR (chloroprene rubber)	For OX-*A/*B		For OX-SSB/SBS	
	Tool side	Robot side	Tool side	Robot side
Order code No.	<b>110551</b>	<b>184474</b>	<b>230077</b>	<b>271742</b>
TYPE	<b>L00999-313</b>	<b>S6 (C00503-A00X8)</b>	<b>XL0054-204</b>	<b>1ASS-5</b>
Weight	0.2g	0.05g	0.1g	0.05g



L00999-313  
XL0054-204



S6  
1ASS-5

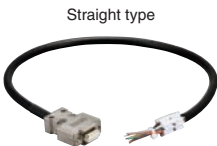
## ▶ Cable Accessories

D-SUB cable (OX-*A type)	Robot side	Tool side	Robot side	Tool side
Order code No.	<b>140168</b>	<b>140167</b>	<b>140170</b>	<b>140169</b>
TYPE	<b>OX-DS09-H</b>	<b>OX-DS09-I-H</b>	<b>OX-DS15-H</b>	<b>OX-DS15-I-H</b>
Weight	40g			
Cable length	0.5m			
Electric contact	9Pin		15Pin	
Electrical wiring	Movable cable (AWG22), for UL			



● Bending radius (mm): R46

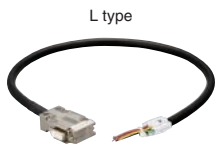
D-SUB cable for OX (OX-*B type)	Robot side	Robot side	Tool side	Tool side
Order code No.	<b>140197</b>	<b>140247</b>	<b>140202</b>	<b>140364</b>
TYPE	<b>OX-DS09S-H</b>	<b>OX-DS09S-H (1.5M)</b>	<b>OX-DS09P-I-H</b>	<b>OX-DS09P-I-H (1.5M)</b>
Weight	60g	138g	60g	140g
Cable length	0.5m	1.5m	0.5m	1.5m
Electric contact	9Pin			
Electrical wiring	Movable cable (AWG22), for UL			



Straight type

● Bending radius (mm): R46

D-SUB cable for OX (OX-*B type)	Robot side (L)	Robot side (L)	Tool side (L)	Tool side (L)
Order code No.	<b>140203</b>	<b>140248</b>	<b>140204</b>	<b>140365</b>
TYPE	<b>OX-DS09SL-H</b>	<b>OX-DS09SL-H (1.5M)</b>	<b>OX-DS09PL-I-H</b>	<b>OX-DS09PL-I-H (1.5M)</b>
Weight	60g	138g	60g	140g
Cable length	0.5m	1.5m	0.5m	1.5m
Electric contact	9Pin			
Electrical wiring	Movable cable (AWG22), for UL			



L type

● Bending radius (mm): R46

**Quick Chuck Change**

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

**Tool Changer**

Automated Hand Exchange System

**Grip**

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

**Suction**

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

**Cut**

Air Nipper (Small-Medium)

Air Nipper (Large)

**Frame / Module**

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

**Pneumatic Components / Sensors**

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

**Lightweight Parts Series**

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

**By Industry**

Logistics - Palletizing / Sheet Metal - Stamping - Metal Fabrication



**Assembling Tools**

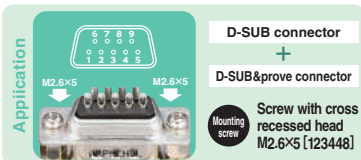
Tool / Jig

**Information**



Various Products Information



**Connector Accessories**

D-SUB connector (OX-A type)		Robot side	Tool side	Robot side	Tool side
 Robot side  Tool side * Screws are not included.	<b>Order code No.</b>	<b>140172</b>	<b>140171</b>	<b>140174</b>	<b>140173</b>
	<b>TYPE</b>	<b>OX-DS09</b>	<b>OX-DS09-I</b>	<b>OX-DS15</b>	<b>OX-DS15-I</b>
<b>Weight</b>	4g				
<b>Electrical wiring</b>	AWG22				
<b>Electric contact</b>	9Pin (2A DC24V MAX)		15Pin (2A DC24V MAX)		
<b>Mounting screw size</b>	<b>OX-A TYPE</b> <b>OX-B TYPE</b>	Screw with cross recessed head M3×6[123446]		Screw with cross recessed head M3×16 (NUT 4PCS) [123449]	Screw with cross recessed head M3×10 [123447]
	<b>D-SUB&amp; prove connector</b>	Screw with cross recessed head M2.6×5[123448]		M3 NUT [123301]	

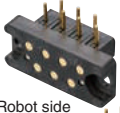



\*D-SUB connector can be mounted on cable wiring.

D-SUB connector (for WSB)		Robot side	Tool side
 Robot side  Tool side	<b>Order code No.</b>	<b>140304</b>	<b>140305</b>
	<b>TYPE</b>	<b>OX-DS15-WS</b>	<b>OX-DS15-I-WS</b>
<b>Weight</b>	21g	13g	
<b>Electrical wiring</b>	AWG22		
<b>Electric contact</b>	15Pin (2A)		
<b>Attached screw</b>	Bolt with Hexagon Socket M3×8		

D-SUB & probe connector (for OX-A/B)		Robot side	Tool side
 Robot side  Tool side	<b>Order code No.</b>	<b>140324</b>	<b>140325</b>
	<b>TYPE</b>	<b>OX-DPS09A</b>	<b>OX-DPS09A-I</b>
<b>Weight</b>	24g		
<b>Electrical wiring</b>	AWG22		
<b>Electric contact</b>	9Pin (2A)		
<b>Attached screw</b>	Screw with cross recessed head M3×6 [123446]		



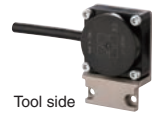

• Connector drawing → See (1-33)

Probe connector (OX-SSB/A/B type) solder-fix type		Robot side	Tool side
 Robot side  Tool side	<b>Order code No.</b>	<b>140286</b>	<b>140285</b>
	<b>TYPE</b>	<b>OX-PLA-07</b>	<b>OX-PLA-07-I</b>
<b>Weight</b>	6g		
<b>Electrical wiring</b>	AWG22		
<b>Electric contact</b>	7Pin (1A)		
<b>Attached screw</b>	Screw with cross recessed head M3×6 [123446]		

• Connector drawing → See (1-33)

**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
 Robot side  Robot side  Tool side  Tool side	<b>Order code No.</b>	<b>140306</b>	<b>140307</b>	<b>140308</b>	<b>140378</b>
	<b>TYPE</b>	<b>OX-RS04R-SB</b>	<b>OX-RS04T-SBI</b>	<b>OX-RS12R-LB</b>	<b>OX-RS12T1-LBI</b>
<b>Weight</b>	195g	140g	417g	290g	
<b>Drive voltage</b>	12V ± 1.5VDC		—	12V ± 1.5VDC	—
<b>Input and output points</b>	4 points + 1 point	4 points	12 points + 1 point	12 points	
<b>Attached screw</b>	Screw with cross recessed head M3×8	Screw with cross recessed head M3×8	Screw with cross recessed head M3×8	Screw with cross recessed head M3×8	

\*Check the specification and precautions concerning handling. → (1-38) \*Check the drawing. → (1-35)  
 \*OX-RS12 is basically for the tool changer with load capacity 35kg or more. \*For protection structure IP67  
 \*The output type is NPN type. \*Power supply voltage DC24V \*Cable Length: robot side 2m tool side 1m  
 \*To avoid interference between wireless connectors, no more than 1 wireless connector should be installed per tool changer.

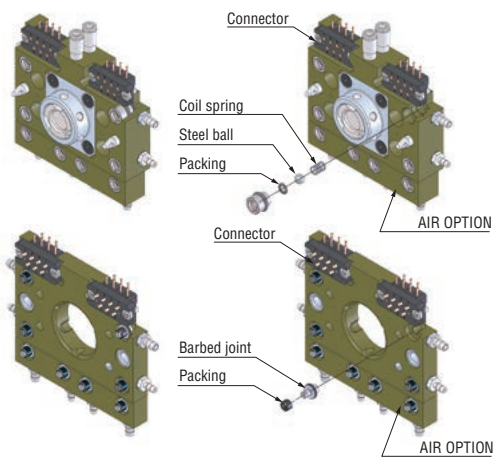




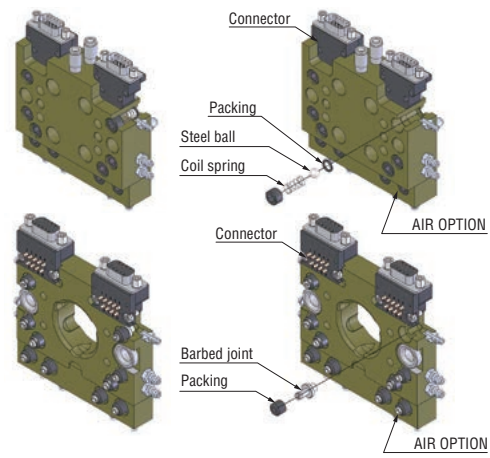
			Air option													
			Robot side	Tool side	Robot side	Tool side	Robot side	Tool side	Robot side	Tool side	Robot side	Tool side	Robot side	Tool side		
Order code No.			140294	140295	140193	140194	140251	140252	140195	140196	140253	140254	140287	140288		
Order code No.			TYPE	OX-SSBA	OX-SSBIA	OX-SBA	OX-SBIA	OX-SBA1	OX-SBIA1	OX-LBA	OX-LBIA	OX-LBA1	OX-LBIA1	OX-LBA3	OX-LBIA3 ※	
Maintenance parts	Barbed joint		110623 LX0004-101	—	—	—	○	—	—	—	○	—	—	—	○	
		230116 XL0054-106A	—	○	—	—	—	—	—	—	—	—	—	—	—	
		110686 LX0120-202	—	—	—	—	—	○	—	—	—	—	○	—	○	
	Steel ball		323000 φ6.35	—	—	○	—	—	—	—	○	—	—	—	○	—
		310607 φ5.5	○	—	—	—	—	—	—	—	—	—	—	—	—	
	Coil spring		110649 L00999-420	—	—	—	—	—	—	—	—	—	—	—	—	—
		185221 SAWANE5115	○	—	—	—	—	—	—	—	—	—	—	—	—	
		110619 L00999-316	—	—	○	—	—	—	—	○	—	—	—	○	—	
		200223 UR5-10	○	—	—	—	—	—	—	—	—	—	—	—	—	
	Packing (Robot side)		184474 S6 (C00503-A00X8)	—	—	—	—	—	—	—	○	—	—	—	○	—
		271742 1ASS-5	○	—	—	—	—	—	—	—	—	—	—	—	—	
	Packing (Tool side)		110551 L00999-313	—	—	—	○	—	—	—	—	○	—	—	—	○
		230077 XL0054-204	—	○	—	—	—	—	—	—	—	—	—	—	—	
		110687 LX0120-203	—	—	—	—	—	○	—	—	—	—	○	—	○	

※ (140288) OX-LBIA3 [for M5 port: (110623) LX0004-101+(110551) L00999-313, for M6 port: (110686) LX0120-202+(110687) LX0120-203]

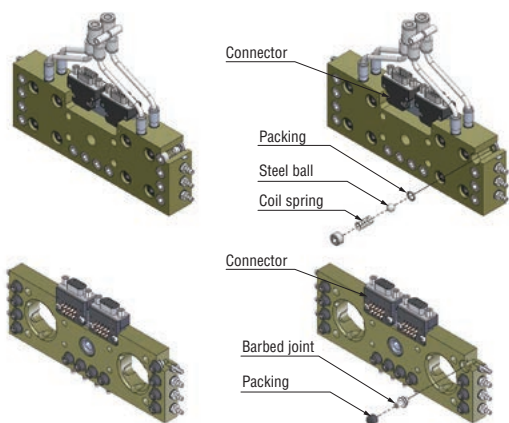
### OX-SSB/SSBI



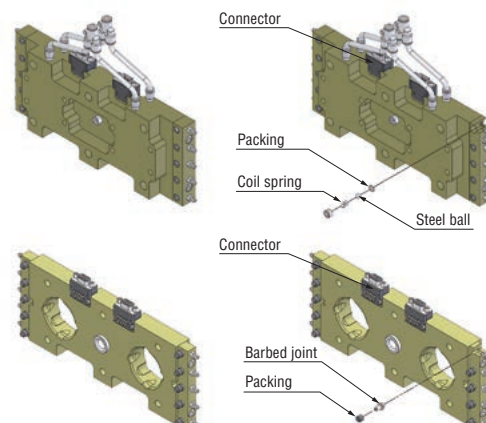
### OX-SB/SBI



### OX-WSB/WSBI



### OX-WLB/WLBI



#### Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

#### Tool Changer

Automated Hand Exchange System

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Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

#### Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

#### Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

#### Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

#### Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

#### Lightweight Parts Series

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

#### By Industry

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#### Assembling Tools

Tool / Jig


#### Information

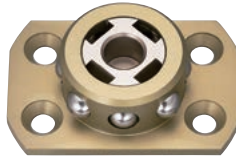
Various Products Information

# 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.	<b>140249</b>
	TYPE	<b>OX-SAP</b>
	Weight	94g
	Attachments PARTS	Piston set, Spring, Steel ball, Steel ball holder

Piston	For OX-LA	
	Order code No.	<b>140250</b>
	TYPE	<b>OX-LAP</b>
	Weight	336g
	Attachments PARTS	Piston set, Spring, Steel ball, Steel ball holder

## Substitute product of tool changer (A type)

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

Production stopped	
Order code No.	TYPE
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.	TYPE	Thickness (mm)
<b>140225</b>	<b>OX-SBN</b>	+5
<b>140226</b>	<b>OX-SBNI</b>	0
<b>140231</b>	<b>OX-LBN</b>	+9
<b>140232</b>	<b>OX-LBNI</b>	0
<b>140300</b>	<b>OX-WSBN</b>	+4.5
<b>140302</b>	<b>OX-WSBNI</b>	0
<b>140277</b>	<b>OX-WLBN</b>	+8
<b>140278</b>	<b>OX-WLBNI</b>	0
<b>140345</b>	<b>OX-SBN-30</b>	+5
<b>140279</b>	<b>OX-LBN-30</b>	+8
<b>140267</b>	<b>OX-WLBN-30</b>	+7.5

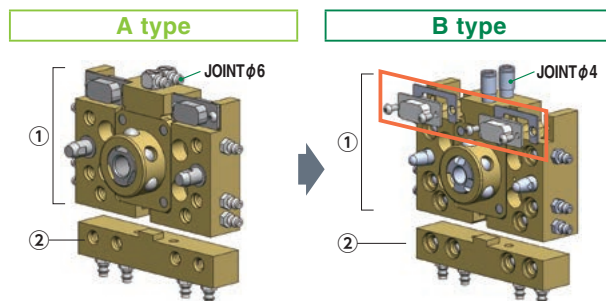
## Subroutine product of additional air expansion for A type

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

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

Substitute	
Order code No.	TYPE
<b>140193</b>	<b>OX-SBA</b>
<b>140194</b>	<b>OX-SBIA</b>
<b>140195</b>	<b>OX-LBA</b>
<b>140196</b>	<b>OX-LBIA</b>

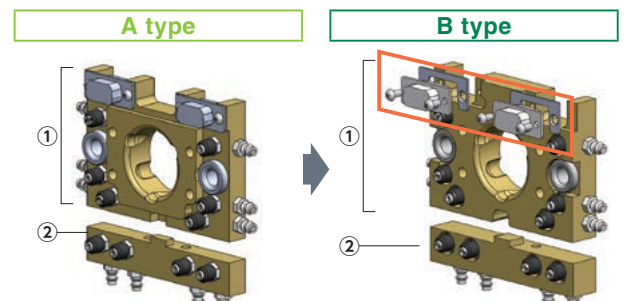
### OX-SA (ROBOT SIDE)



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

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

### OX-SAI (TOOL SIDE)



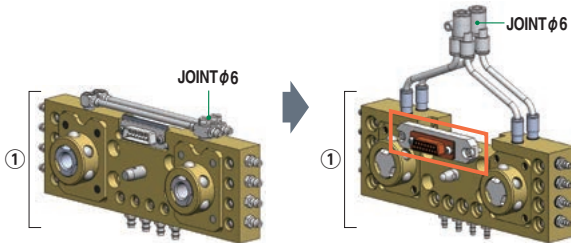
	Order code No.	TYPE	Remarks	Qty
	<b>140226</b>	OX-SBNI	Tool changer	1
①	<b>140289</b>	OX-DS09CNP	Connector plate	2
	<b>140171</b>	OX-DS09-I	D-SUB connector	2
	<b>123446</b>	BKJ 3-6 (M3*6)	Screw with cross recessed head	4
②	<b>140194</b>	OX-SBIA	Additional air expansion	1

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

## OX-WSA (ROBOT SIDE)

A type

B type

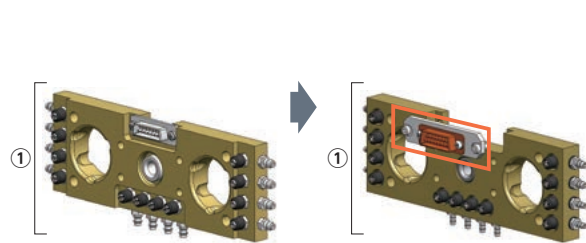


	Order code No.	TYPE	Remarks	Qty
①	140300	OX-WSBN	Tool changer	1
	140304	OX-DS15-WS	D-SUB connector	1

## OX-WSAI (TOOL SIDE)

A type

B type

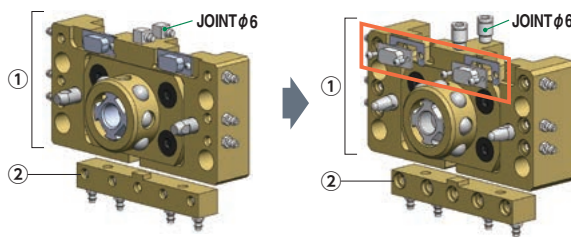


	Order code No.	TYPE	Remarks	Qty
①	140302	OX-WSBNI	Tool changer	1
	140305	OX-DS15-I-WS	D-SUB connector	1

## OX-LA (ROBOT SIDE)

A type

B type



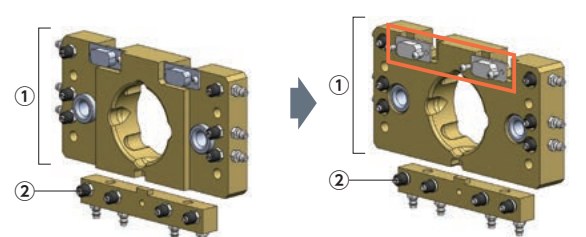
	Order code No.	TYPE	Remarks	Qty
①	140231	OX-LBN	Tool changer	1
	140289	OX-DS09CNP	Connector plate	2
	140172	OX-DS09	D-SUB connector	2
	123446	BKJ 3-6 (M3*6)	Screw with cross recessed head	4
	140195	OX-LBA	Additional air expansion	1

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

## OX-LAI (TOOL SIDE)

A type

B type



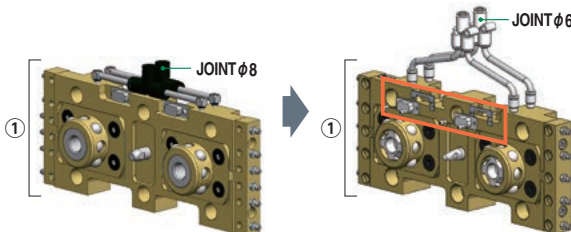
	Order code No.	TYPE	Remarks	Qty
①	140232	OX-LBNI	Tool changer	1
	140171	OX-DS09-I	D-SUB connector	2
	123446	BKJ 3-6 (M3*6)	Screw with cross recessed head	4
	140196	OX-LBIA	Additional air expansion	1

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

## OX-WLA (ROBOT SIDE)

A type

B type

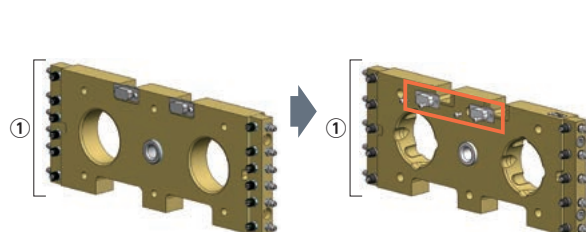


	Order code No.	TYPE	Remarks	Qty
①	140277	OX-WLBN	Tool changer	1
	140289	OX-DS09CNP	Connector plate	2
	140172	OX-DS09	D-SUB connector	2
	123446	BKJ 3-6 (M3*6)	Screw with cross recessed head	4

## OX-WLAI (TOOL SIDE)

A type

B type



	Order code No.	TYPE	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

Quick Chuck Change Manual (OM Type)

### Tool Changer

Automated Hand Exchange System

### Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

### Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

### Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

### Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

### Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

### Lightweight Parts Series

Frame / Suction / Resin Cylinders / Pads / Resin Manifolds

### By Industry

Logistics - Palletizing / Sheet Metal - Stamping - Metal Fabrication

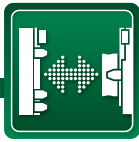
### Assembling Tools

Tool / Jig

### Information

Various Products Information





# For Articulated Robots

Essential tool for high performance of robot.



Please check the performance table on the web site.

Tool changer  
(for articulated robots)



You can see moving images of products by using QR code reader of your smartphone.

## Specification

Product name	Order code No.	TYPE	Weight (g)	Weight capacity (kg)	Power to draw (N)		Allowable bending moment (Nm)	Allowable torsional moment (Nm)	Electric contact Connector shape	Piping connect	Page of details
						Power to force (N)					
Tool changer	140310	OX-005A	38	~ 0.5	60/50	1.7	0.9	6Pin 2A DC24V Max Connector(option)	2port (M3)	1-25	
	140315	OX-005AI	17								
	140235	OX-03A	125	~ 3	600/160	5.2	1.0	9Pin 2A DC24V Max Connector(option)	6port (M5)		
	140236	OX-03AI	45								
	140237	OX-05A	250	~ 5	1,350/400	17.5	12.8	11Pin 2A DC24V Max Connector(option)			
	140238	OX-05AI	115								
	140262	OX-10B	199	~ 10	2,200/420	28.0	20.0	16Pin 2A DC24V Max Connector(option)		1-26	
	140263	OX-10BI	115								
	140292	OX-20B	507	~ 20	4,000/750	91.8	55.5	9Pin 2A DC24V Max Connector(option)	6port (Rc1/8)		
	140293	OX-20BI	226								
	140398	OX-35B	1225	~ 35	6,000(180)*2	185.0	225.0	11Pin 2A DC24V Max Connector(option)	8port (Rc1/8)		
	140316	OX-35AI	545								
	140313	OX-60A*1	1440	~ 60	14,000(2,350)	750.0	750.0	16Pin 2A DC24V Max Connector(option)	8port (PT1/4)		
	140318	OX-60AI	734								
	140373	OX-120A	3671	~ 120	20,000(3,500)	15,000	15,000	8Pin 5A AC/DC200V Max Connector(option)	10port (Rc3/8)		
	140374	OX-120AI	1770								
	140314	OX-230A	6240	~ 230	4,000/750	91.8	55.5	4Pin 13A AC/DC200V Max Connector(option)	6port (Rc1/8)		
	140319	OX-230AI	3360								
140399	OX-35BT	1445	~ 35								
140317	OX-35ATI	535									

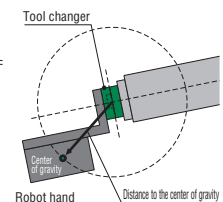
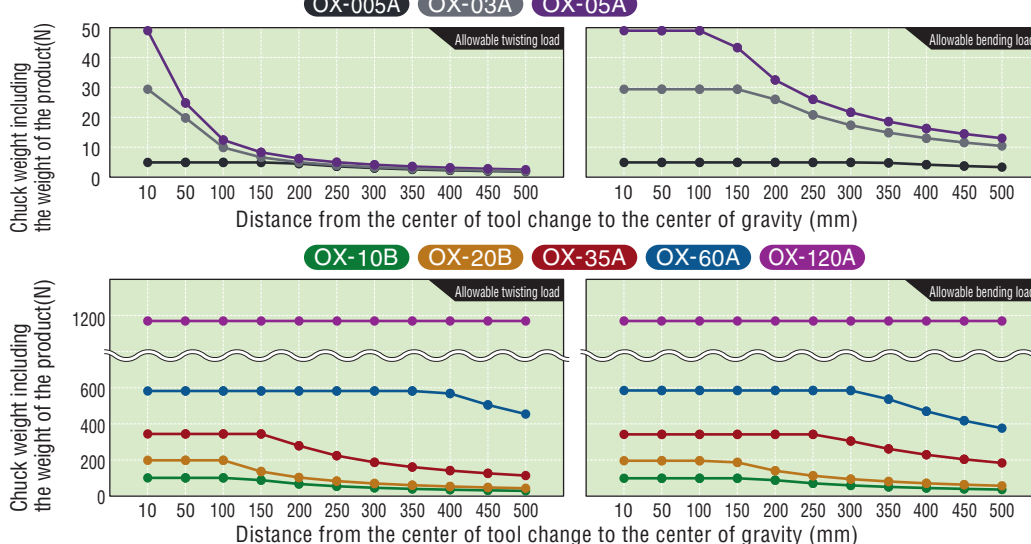
\*Please use manual push button "PB1-E(152308), PBW1-E(152306)" for manual exchange. → 1-30 6-11  
 ※1 There is no detachable mechanism for the OX-60A. ※2 The power to force (n) is the reaction value of the packing.

## Common specification

Positional reproduction Accuracy	Used Air pressure	Drive piping	Acceptable electric wiring	Allowable temperature/humidity range
±0.02mm*1	0.5~0.7MPa	Clean air, piping of φ6(φ4*2), double action type	AWG20 Max.	0°C-55°C, 0%-95%(w/o condensation)

\*1 Based on our measurement  
 \*2 φ6 : OX-35A, OX-35AT, OX-60A, OX-120A, OX-230A

## Allowable-load curve



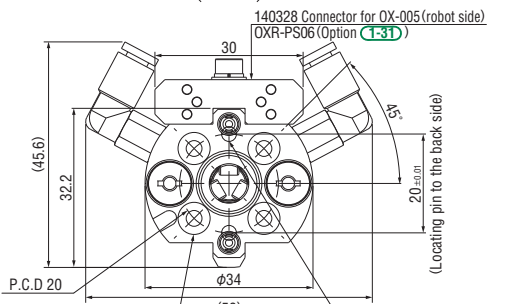
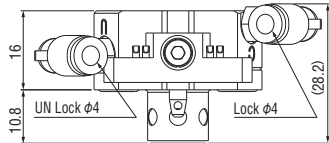


► Supports high-speed operation of parallel link robots. (Weight capacity 500g)

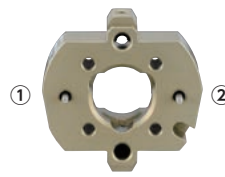
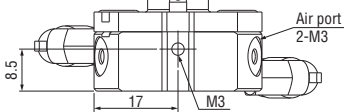


Robot Side	
Order code No.	140310
TYPE	OX-005A

- Superduralumin
- Weight : 38g
- Mounting position : robot side
- Weight capacity : ~ 500g
- Thickness after connection : 27mm

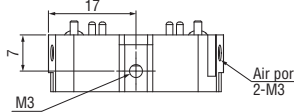
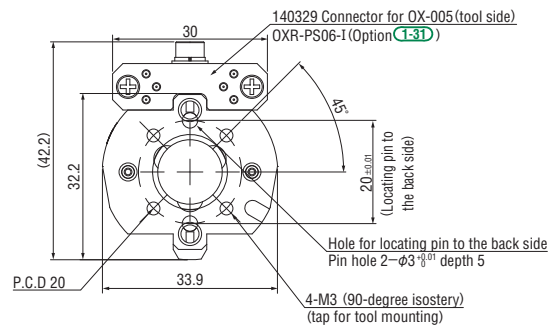
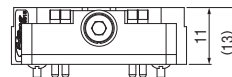


4-φ3.2, φ6.5 C bore depth 3.3 (90-degree isostery) (robot mounting hole)

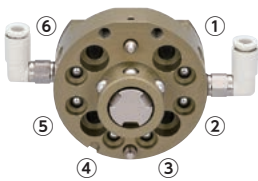


Tool Side	
Order code No.	140315
TYPE	OX-005AI

- Superduralumin
- Weight : 17g
- Mounting position : tool side
- Weight capacity : ~ 500g
- Thickness after connection : 27mm

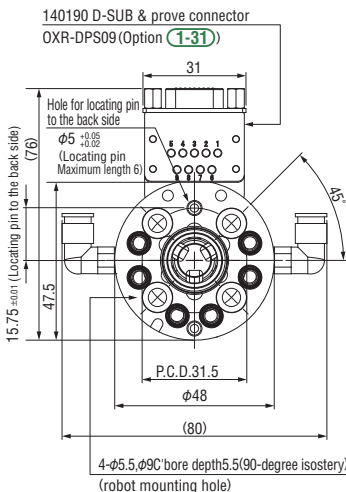
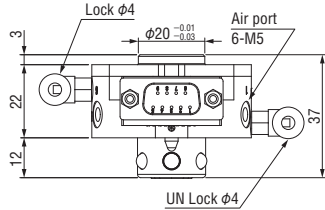


► For small-size robots. (Weight capacity 3kg, 5kg)



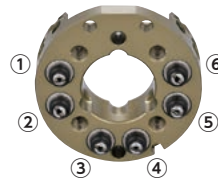
Robot Side	
Order code No.	140235
TYPE	OX-03A

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



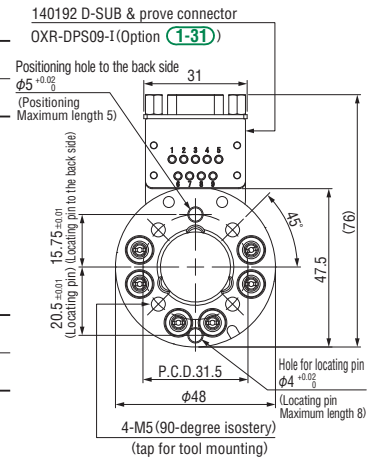
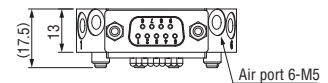
Robot Side	
Order code No.	140237
TYPE	OX-05A

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



Tool Side	
Order code No.	140236
TYPE	OX-03AI

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



Tool Side	
Order code No.	140238
TYPE	OX-05AI

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

Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

Tool Changer

Automated Hand Exchange System

Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

Lightweight Parts Series

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

By Industry

Logistics - Palletizing / Sheet Metal - Stamping - Metal Fabrication

Assembling Tools

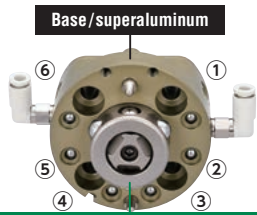
Tool / Jig

Information

Various Products Information

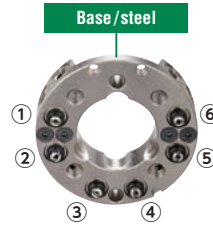
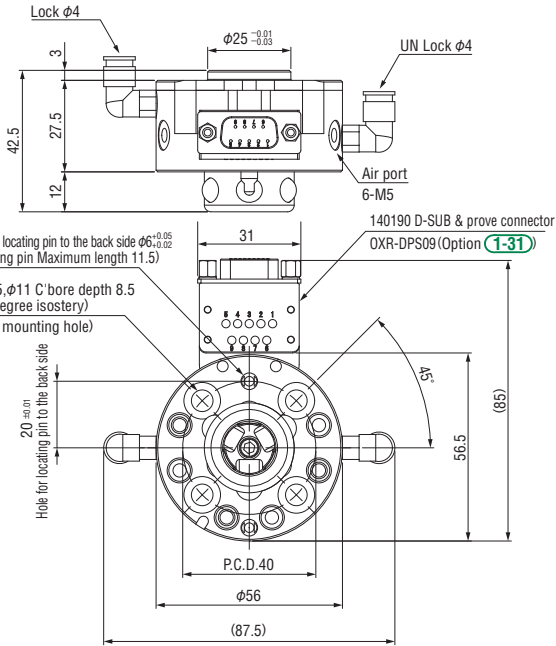
# For Articulated Robots

## ► For small-size robots. (Weight capacity 10kg)

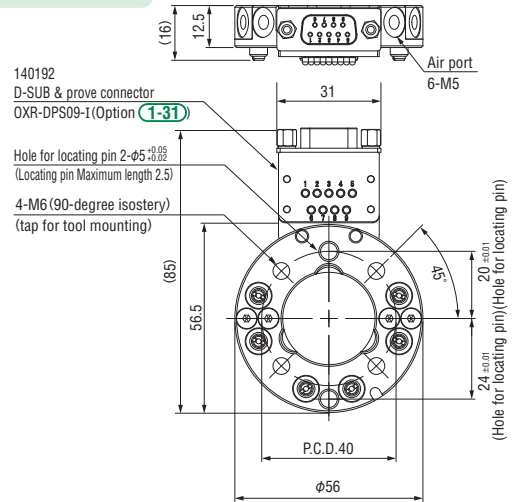
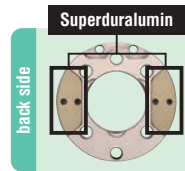


Detachable and attachable section / Made of steel

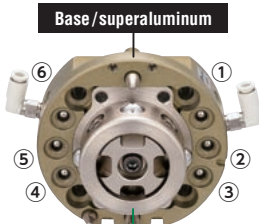
Robot Side	
Order code No.	<b>140262</b>
TYPE	<b>OX-10B</b>
● Weight : 199g	
● Mounting position : robot side	
● Weight capacity : ~ 10kg	
● Thickness after connection : 43mm	



Tool Side	
Order code No.	<b>140263</b>
TYPE	<b>OX-10BI</b>
● Weight : 115g	
● Mounting position : tool side	
● Weight capacity : ~ 10kg	
● Thickness after connection : 43mm	

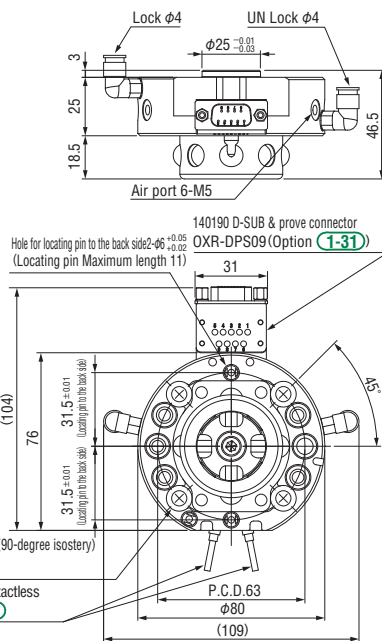


## ► For small-size robots. (Weight capacity 20kg)

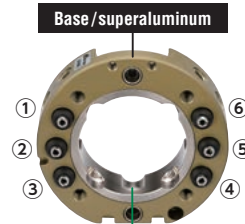
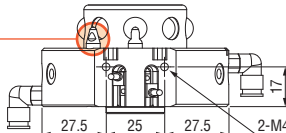


Detachable and attachable section / Made of steel

Robot Side	
Order code No.	<b>140292</b>
TYPE	<b>OX-20B</b>
● Weight : 507g	
● Mounting position : robot side	
● Weight capacity : ~ 20kg	
● Thickness after connection : 47mm	
● Compatibility with A type	
● Confirmation sensor of piston operation can be attached (OP).	

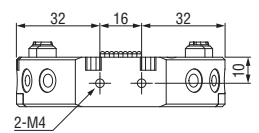
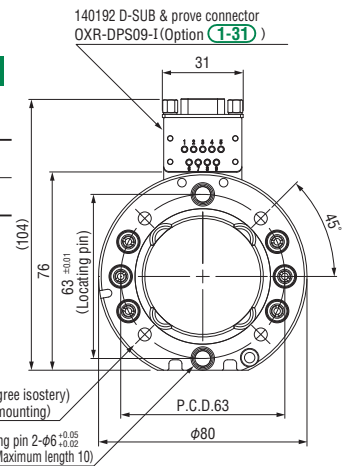
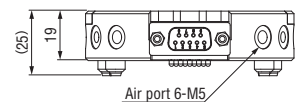


Positioning pin should be removed to connect with 20A1.



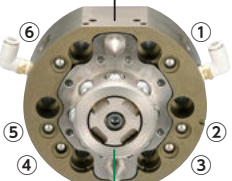
Detachable and attachable section / Made of steel

Tool Side	
Order code No.	<b>140293</b>
TYPE	<b>OX-20BI</b>
● Weight : 226g	
● Mounting position : tool side	
● Weight capacity : ~ 20kg	
● Thickness after connection : 47mm	
● Compatibility with A type	



► For middle-size robot. (Weight capacity 35kg)

**Base/superaluminum**



① ② ③ ④ ⑤ ⑥

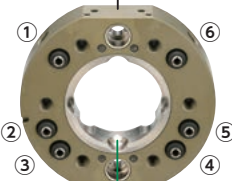
**Robot Side**

Order code No.	<b>140398</b>
TYPE	<b>OX-35B</b>

- Weight : 1225g
- Mounting position : robot side
- Weight capacity : ~ 35kg
- Thickness after connection : 60mm

Detachable and attachable section / Made of steel

**Base/superaluminum**



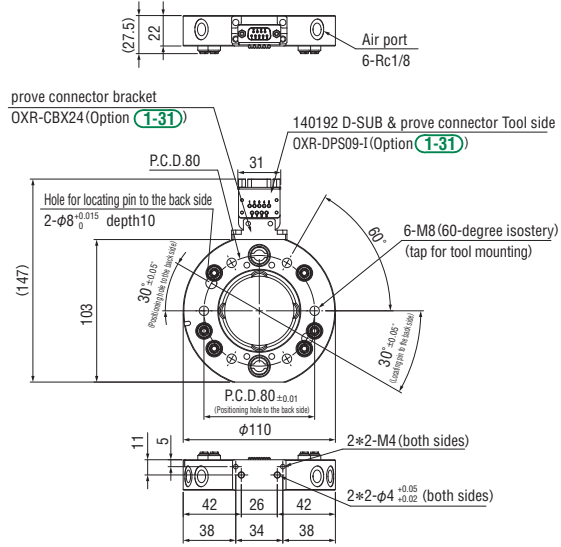
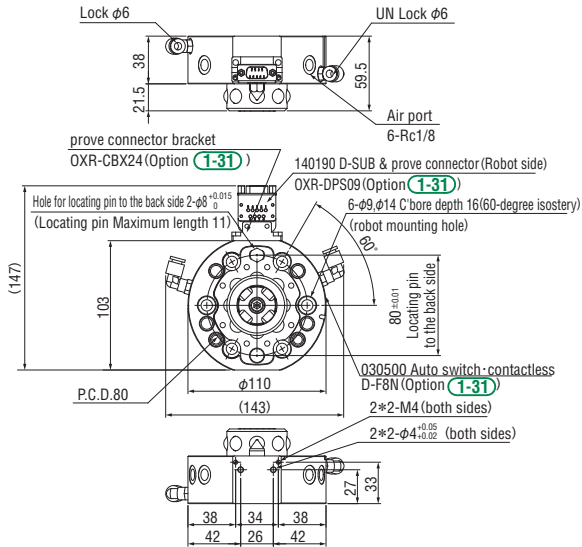
① ② ③ ④ ⑤ ⑥

**Tool Side**

Order code No.	<b>140316</b>
TYPE	<b>OX-35AI</b>

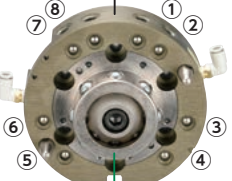
- Weight : 545g
- Mounting position : tool side
- Weight capacity : ~ 35kg
- Thickness after connection : 60mm

Detachable and attachable section / Made of steel



► For middle-size robot. (Weight capacity 60kg)

**Base/superaluminum**



① ② ③ ④ ⑤ ⑥ ⑦ ⑧

**Robot Side**

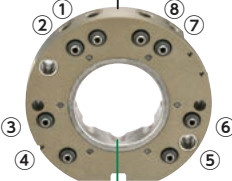
Order code No.	<b>140313</b>
TYPE	<b>OX-60A</b>

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

Note: without detachable mechanism

Detachable and attachable section / Made of steel

**Base/superaluminum**



① ② ③ ④ ⑤ ⑥ ⑦ ⑧

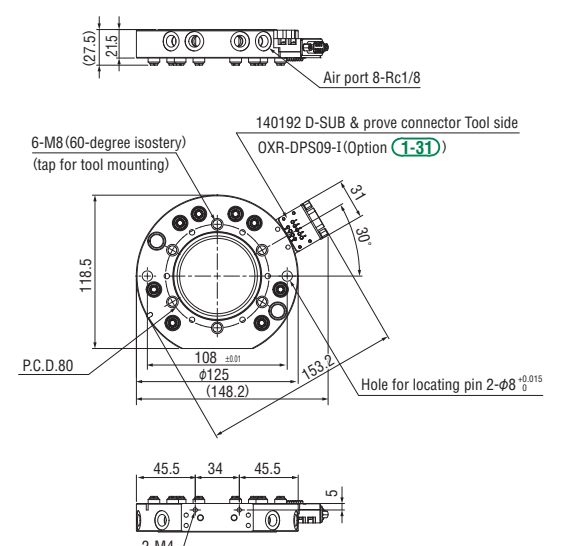
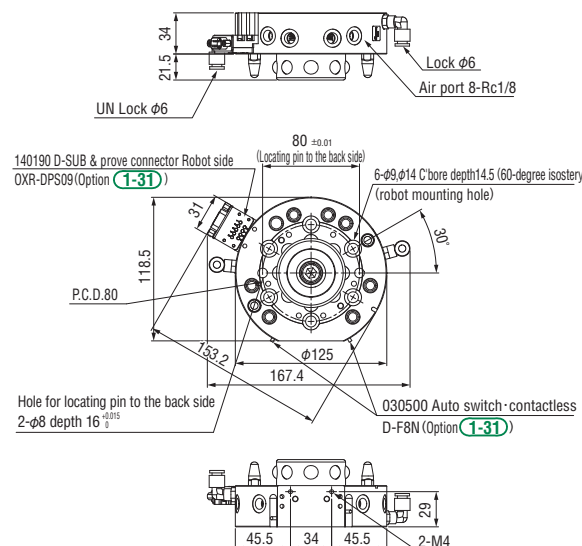
**Tool Side**

Order code No.	<b>140318</b>
TYPE	<b>OX-60AI</b>

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

Note: without detachable mechanism

Detachable and attachable section / Made of steel



Quick Chuck Change
Quick Chuck Change Manual
Quick Chuck Change Manual (OM Type)
Tool Changer
Automated Hand Exchange System
Grip
Mini Cylinder
Accessories for Mini Cylinder
Container Cylinders
Accessories for Container Cylinder
Grippers
Rubber Material / Grip Pad
Section
Suction Cups
Suction Stems
Pad in Pad
Vacuum Gripper
Air Ejector / Filter / Check Valve
Ultra Small Part Take Out
Vacuum Generator Unit
Cut
Air Nipper (Small-Medium)
Air Nipper (Large)
Frame / Module
Jungle Gym
Let's Joint
Rectangular Tube
Base Aluminum Material
Sliding Chuck
Pneumatic Components / Sensors
Pneumatic Components
Sensors / Multi AND Board
PCIO Communication Unit
Lightweight Parts Series
Frame / Section / Resin Cylinders / Pads / Resin Manifolds
By Industry
Logistics-Palletizing/Sheet Metal-Stamping-Metal Fabrication
Assembling Tools
Tool / Jig
Information
Various Products Information

# Quick Chuck Change Automatic for Articulated Robots

## ► For large robot. (Weight capacity 120kg)

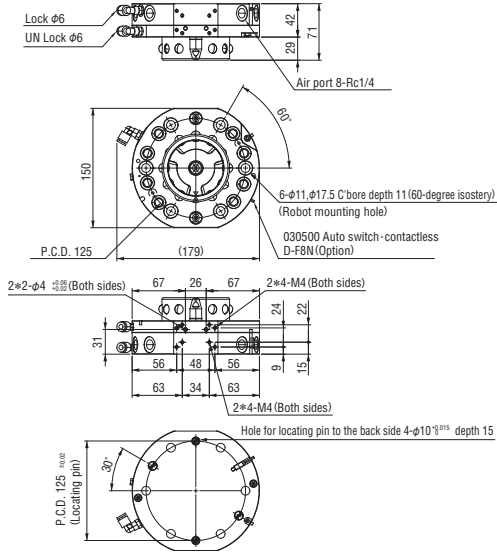
**NEW** Base/superaluminum

**Robot Side**

Order code No.	<b>140373</b>
TYPE	<b>OX-120A</b>

- Weight : 3,671g
- Mounting position : robot side
- Weight capacity : ~ 120kg
- Thickness after connection : 75mm

Detachable and attachable section / Made of steel



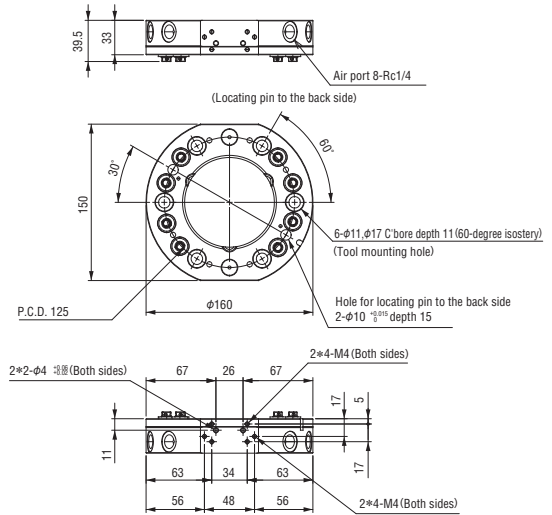
**NEW** Base/superaluminum

**Tool Side**

Order code No.	<b>140374</b>
TYPE	<b>OX-120AI</b>

- Weight : 1,770g
- Mounting position : tool side
- Weight capacity : ~ 120kg
- Thickness after connection : 75mm

Detachable and attachable section / Made of steel



## ► For large robot. (Weight capacity 230kg)

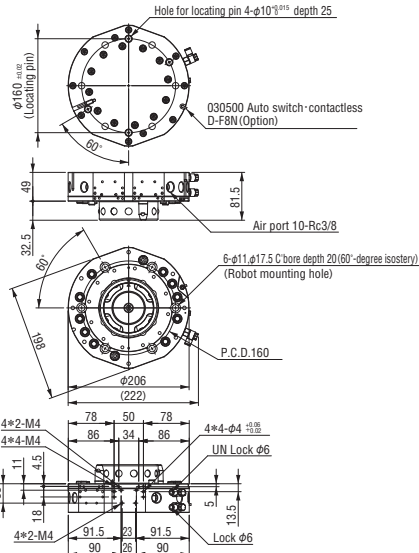
**NEW** Base/superaluminum

**Robot Side**

Order code No.	<b>140314</b>
TYPE	<b>OX-230A</b>

- Weight : 6,240g
- Mounting position : robot side
- Weight capacity : ~ 230kg
- Thickness after connection : 83mm

Detachable and attachable section / Made of steel



Will be on sale soon. Please contact us about the availability of the product.

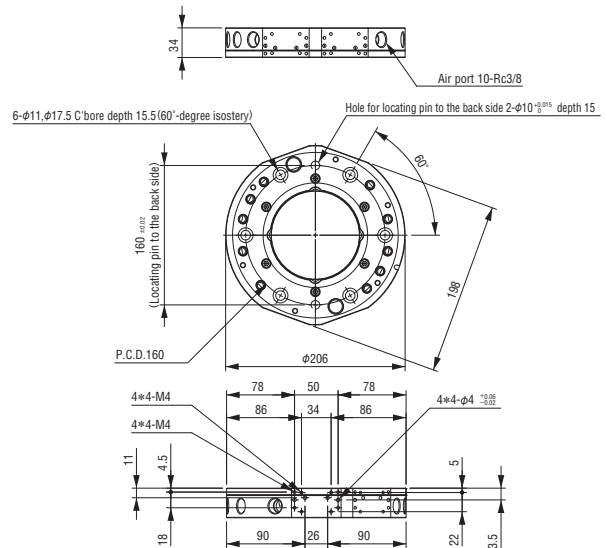
**NEW** Base/superaluminum

**Tool Side**

Order code No.	<b>140319</b>
TYPE	<b>OX-230AI</b>

- Weight : 3,360g
- Mounting position : tool side
- Weight capacity : ~ 230kg
- Thickness after connection : 83mm

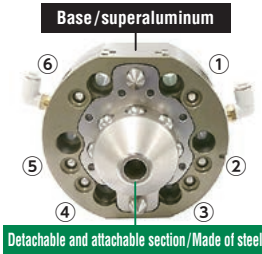
Detachable and attachable section / Made of steel





## ▶ Junction error absorbing type in high speed operation (Weight capacity 35kg)

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



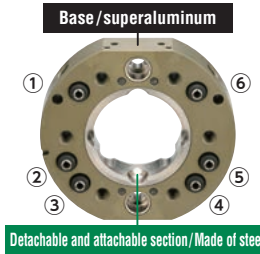
Base/superaluminum

Robot Side

Order code No.	<b>140399</b>
TYPE	<b>OX-35BT</b>

- Weight : 1445g
- Mounting position : robot side
- Weight capacity : ~ 35kg
- Thickness after connection : 60mm (max 74.5mm)
- Accommodates for errors up to ± 10mm.

Detachable and attachable section/ Made of steel



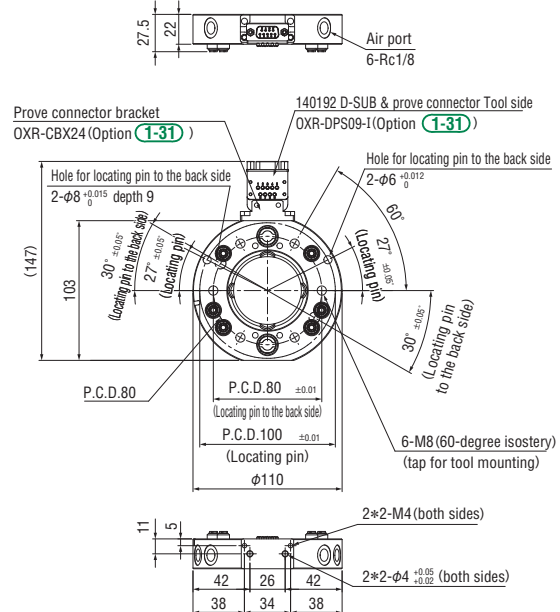
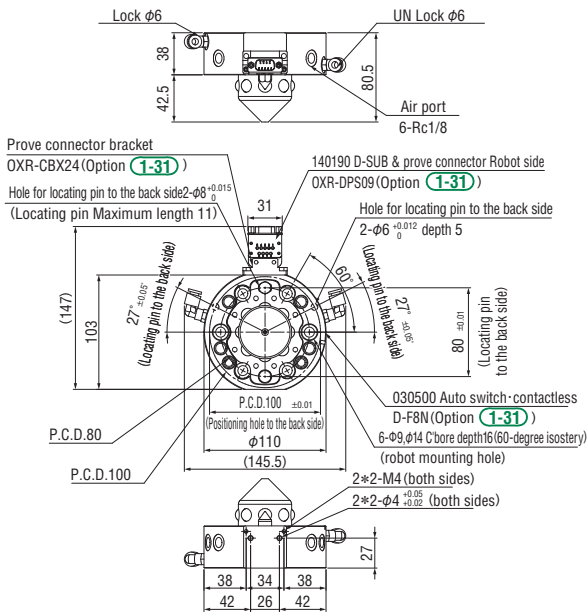
Base/superaluminum

Tool Side

Order code No.	<b>140317</b>
TYPE	<b>OX-35ATI</b>

- Weight : 535g
- Mounting position : tool side
- Weight capacity : ~ 35kg
- Thickness after connection : 60mm (max 74.5mm)

Detachable and attachable section/ Made of steel



### Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

### Tool Changer

Automated Hand Exchange System

### Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

### Section

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

### Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

### Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

### Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

### Lightweight Parts Series

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

### By Industry

Logistics - Palletizing / Sheet Metal - Stamping - Metal Fabrication

### Assembling Tools

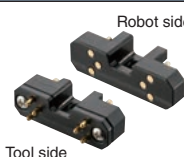
Tool / Jig

### Information

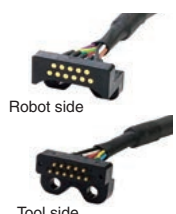
Various Products Information




## ▶ Connector Accessories

Connector for OX-005		Robot side	Tool side
 <p>Robot side</p> <p>Tool side</p>	Order code No.	<b>140328</b>	<b>140329</b>
	TYPE	<b>OXR-PS06</b>	<b>OXR-PS06-I</b>
	Weight	3g	
	Electric contact	6Pin (2A)	

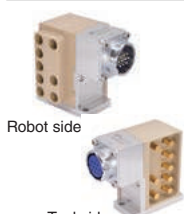
● Connector drawing → [1-33](#)

Probe connector		Robot side	Tool side
 <p>Robot side</p> <p>Tool side</p>	Order code No.	<b>140362</b>	<b>140363</b>
	TYPE	<b>OXR-PSH11</b>	<b>OXR-PSH11-I</b>
	Weight	53g	
	Wiring specification	solder-fix type (AWG23) 500mm	
	Electric contact	11Pin (2A)	
Attached screw	Flat head screw with cross recessed M4×10 [123515]		


● Connector drawing → [1-33](#)

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

● Screws are not included.

NEW Probe connector 05A		Robot side	Tool side
 <p>Robot side</p> <p>Tool side</p>	Order code No.	<b>140393</b>	<b>140395</b>
	TYPE	<b>OXR-MPS0508</b>	<b>OXR-MPS0508-I</b>
	Weight	225g	195g
	Electric contact	8Pin (5A)	
	Electrical connector	NJC-2410-RM	NJC-2410-RF
Subject	OX-35 or higher		


● Connector drawings and aviation connector standards in cable side → Please refer to [1-34](#)

NEW Probe connector mounting spacer		Order code No.	<b>140397</b>
	TYPE	<b>OXR-PCS</b>	
	Weight	35g	
	Subject	OX-35	

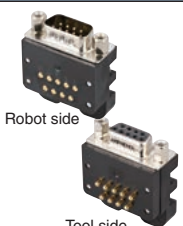
● Connector drawing → [1-34](#)

Required when attaching the probe connectors 05A, 13A to the OX-35B, OX-35AI.


## ▶ Auto switch · contactless

Auto switch		Order code No.	<b>030500</b>
	TYPE	<b>D-F8N</b>	
	Weight	7g	

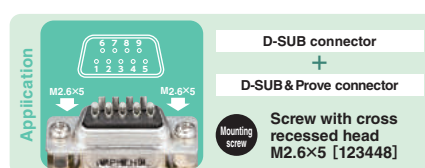
- Applied load : relay PLC
- Load voltage : DC24V
- Load electric current : 5 ~ 40mA
- W/ indicator lamp
- Cable Length : 0.5m
- Wiring : → [6-20](#)

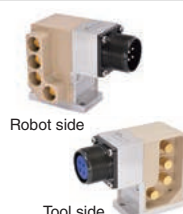
D-SUB & Probe connector		Robot side	Tool side
 <p>Robot side</p> <p>Tool side</p>	Order code No.	<b>140190</b>	<b>140192</b>
	TYPE	<b>OXR-DPS09</b>	<b>OXR-DPS09-I</b>
	Weight	25g	
	Wiring specification	AWG22	
	Electric contact	9Pin (2A)	
Attached screw	Flat head screw with cross recessed M4×10 [123515]		

● Connector drawing → [1-33](#)


Probe connector (solder)		Robot side	Tool side
 <p>Robot side</p> <p>Tool side</p>	Order code No.	<b>140264</b>	<b>140265</b>
	TYPE	<b>OXR-PS16</b>	<b>OXR-PS16-I</b>
	Weight	8g	11g
	Wiring specification	AWG22	
	Electric contact	16Pin (2A)	
Attached screw	Flat head screw with cross recessed M4×10 [123515]		

● Connector drawing → [1-33](#)



NEW Probe connector 13A		Robot side	Tool side
 <p>Robot side</p> <p>Tool side</p>	Order code No.	<b>140394</b>	<b>140396</b>
	TYPE	<b>OXR-MPS1304</b>	<b>OXR-MPS1304-I</b>
	Weight	240g	215g
	Electric contact	4Pin (13A)	
	Electrical connector	D/MS3102A-18-10-P	D/MS3102A-18-10-S
Subject	OX-35 or higher		

● Connector drawings and aviation connector standards in cable side → Please refer to [1-34](#)

Probe connector mounting bracket		Order code No.	<b>140344</b>
	TYPE	<b>OXR-CBX24</b>	
	Weight	33g	

● Accessories : positioning pin, mounting bolt ● Connector drawing → [1-33](#)

Required when attaching D-sub & probe connector to the OX-35B, OX-35AI, OX-35BT, OX-35ATI, OX-120A and OX-120AI.

### Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

### Tool Changer

Automated Hand Exchange System

### Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

### Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

### Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

### Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

### Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

### Lightweight Parts Series

Frame / Suction / Resin Cylinders / Pads / Resin Manifolds

### By Industry

Logistics - Palletizing / Sheet Metal - Stamping - Metal Fabrication

### Assembling Tools

Tool / Jig

### Information

Various Products Information

# Accessories

## Wireless connector

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

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.	<b>140320</b>	<b>140322</b>	<b>140321</b>	<b>140323</b>
	TYPE	<b>OXR-RS04R-03</b>	<b>OXR-RS04T-03I</b>	<b>OXR-RS04R-10</b>	<b>OXR-RS04T-10I</b>
	Weight	176g	122g	180g	115g
	Drive voltage	12V ± 1.5VDC	—	12V ± 1.5VDC	—
	Input and output points	4points + 1point	4points	4points + 1point	4points
	Attached screw	Flat head screw with cross recessed M4 × 14		Flat head screw with cross recessed M4 × 20	
<p>*Check the specification and precautions concerning handling. → <a href="#">1-38</a>    *Check the drawing. → <a href="#">1-35</a>    *For protection structure IP67            *The output type is NPN type.    *Power supply voltage DC24V    *Cable Length : robot side 2m tool side 1m            *To avoid interference between wireless connectors, no more than 1 wireless connector should be installed per tool changer.</p>					

Wireless connector		For 20 Robot side	For 20 Tool side
	Order code No.	<b>140330</b>	<b>140379</b>
	TYPE	<b>OXR-RS12R-20</b>	<b>OXR-RS12T1-20I</b>
	Weight	366g	260g
	Drive voltage	12V ± 1.5VDC	—
	Input and output points	12points + 1point	12points
	Attached screw	Flat head screw with cross recessed M4 × 10	
<p>*Please be sure to check the specifications and handling precautions. → <a href="#">1-38</a>    *Please refer to the drawing. → <a href="#">1-35</a>            *For protection structure IP67            *OXR-RS12 is basically for the tool changer with load capacity 20kg or more.    *Power supply voltage DC24V            *Cable Length : robot side 2m tool side 1m    *The output type is NPN type.            *To avoid interference between wireless connectors, no more than 1 wireless connector should be installed per tool changer.</p>			

## Cable Accessories

D-SUB cable (OX-A type)	Robot side		Tool side	
<p>● Bending radius (mm) : R46</p>	Order code No.	<b>140168</b>	<b>140167</b>	
	TYPE	<b>OX-DS09-H</b>	<b>OX-DS09-I-H</b>	
	Weight	40g		
	Cable length	0.5m		
	Electric contact	9Pin		
	Wiring specification	Movable cable (AWG22), for UL		

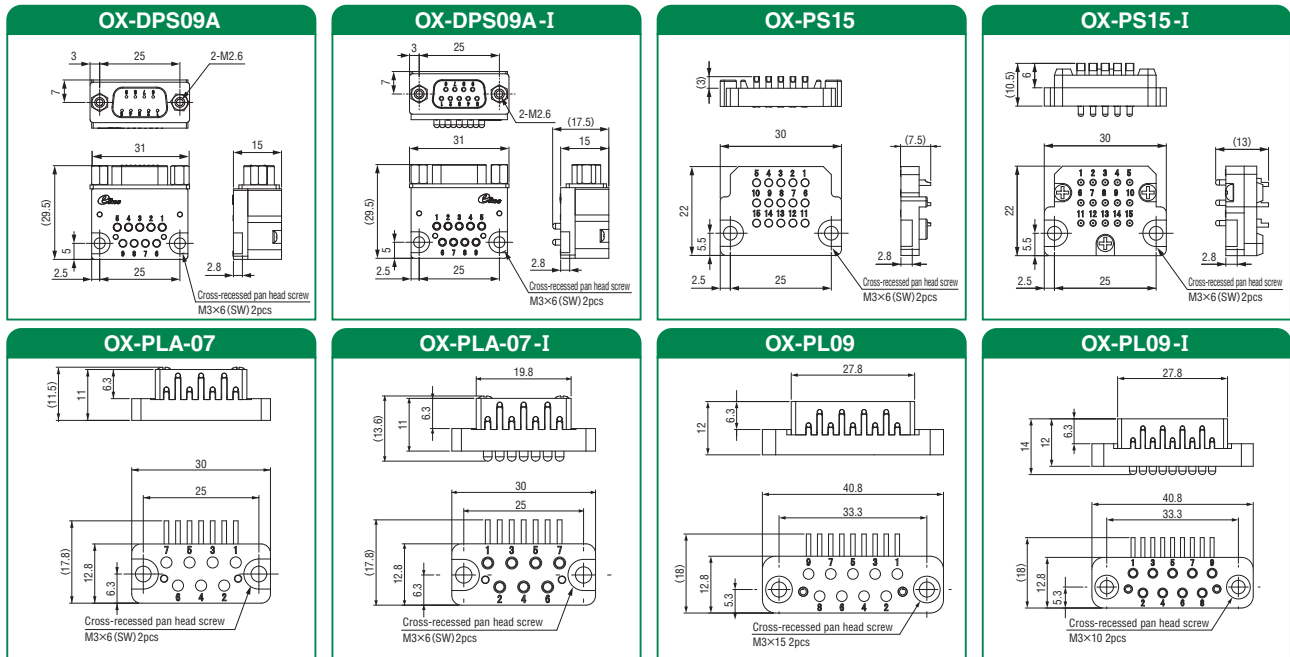
D-SUB cable for OX (for OX-B)	Robot side		Tool side		
<p>● Bending radius (mm) : R46</p>	Order code No.	<b>140197</b>	<b>140247</b>	<b>140202</b>	<b>140364</b>
	TYPE	<b>OX-DS09S-H</b>	<b>OX-DS09S-H (1.5M)</b>	<b>OX-DS09P-I-H</b>	<b>OX-DS09P-I-H (1.5M)</b>
	Weight	60g	138g	60g	140g
	Cable length	0.5m	1.5m	0.5m	1.5m
	Electric contact	9Pin			
	Wiring specification	Movable cable (AWG22), for UL			

D-SUB cable for OX (for OX-B)	Robot side (L)		Tool side (L)		
<p>● Bending radius (mm) : R46</p>	Order code No.	<b>140203</b>	<b>140248</b>	<b>140204</b>	<b>140365</b>
	TYPE	<b>OX-DS09SL-H</b>	<b>OX-DS09SL-H (1.5M)</b>	<b>OX-DS09PL-I-H</b>	<b>OX-DS09PL-I-H (1.5M)</b>
	Weight	60g	138g	60g	140g
	Cable length	0.5m	1.5m	0.5m	1.5m
	Electric contact	9Pin			
	Wiring specification	Movable cable (AWG22), for UL			

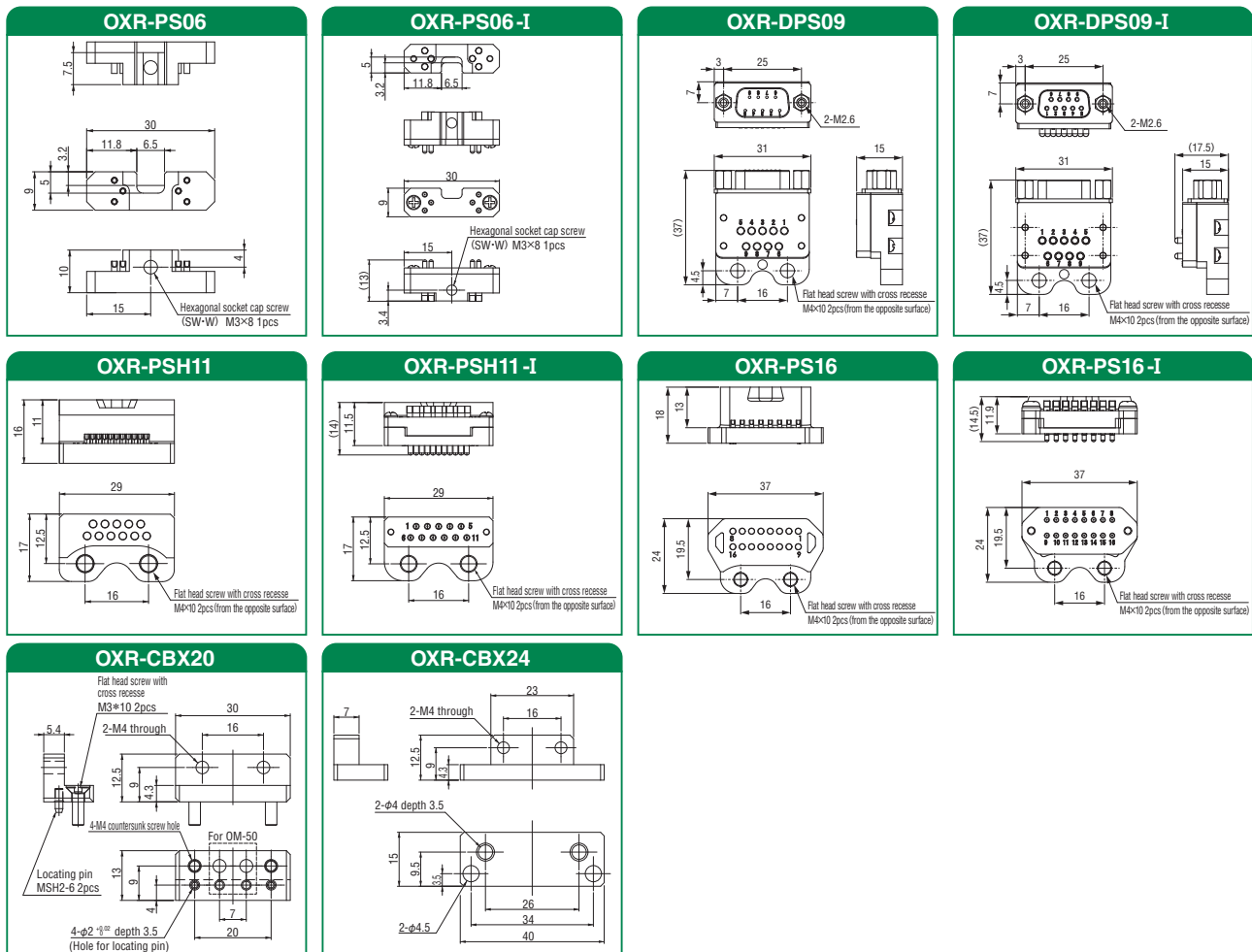


# Drawing of Probe connector

► A Type / B Type / BN Type (Take-out Robot) → 1-19



► Quick Chuck Change Manual (OM Type) → 1-7 / For Articulated Robots → 1-31



## Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

## Tool Changer

Automated Hand Exchange System

## Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

## Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

## Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

## Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

Lightweight Parts Series

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

By Industry

Logistics / Palletizing / Sheet Metal / Stamping / Metal Fabrication

Assembling Tools

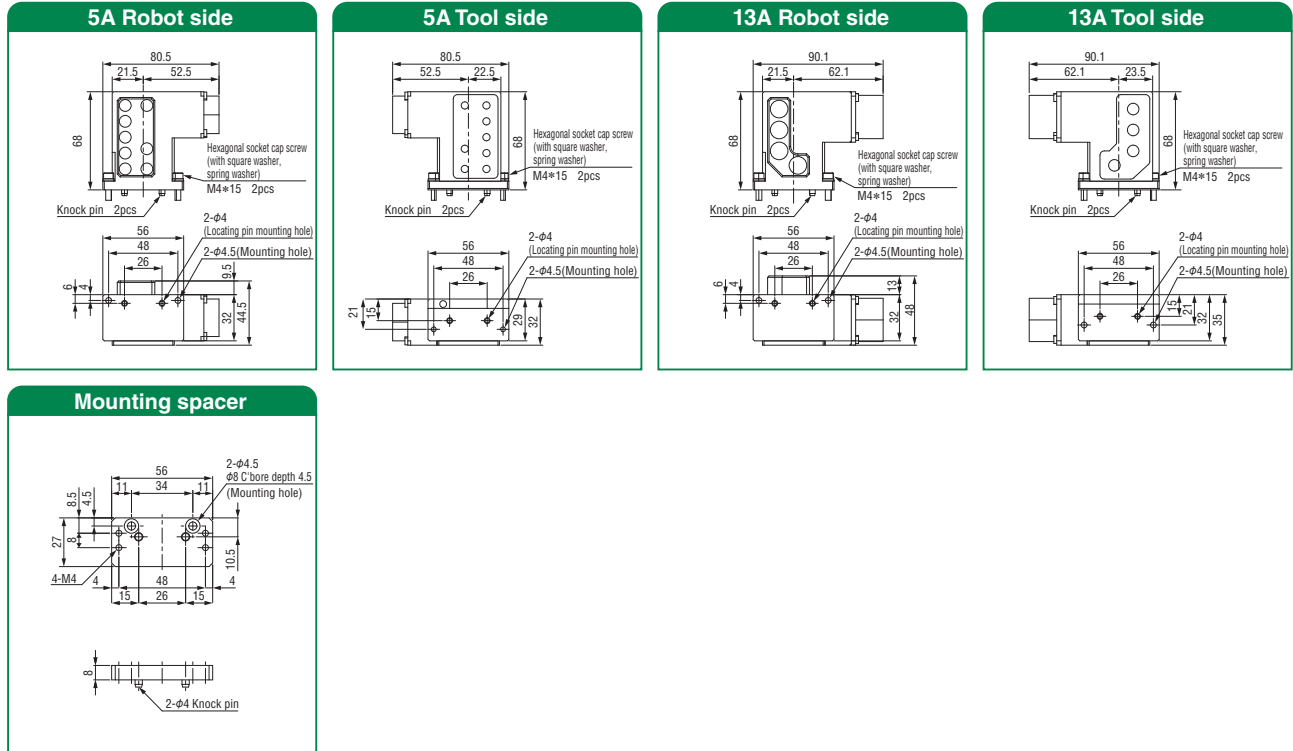
Tool / Jig

Information

Various Products Information

## Drawing of Probe connector

► For Articulated Robots ▶ 1-31



### List of high capacity connectors

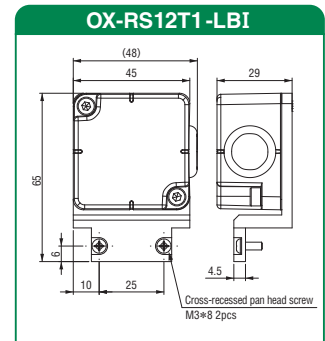
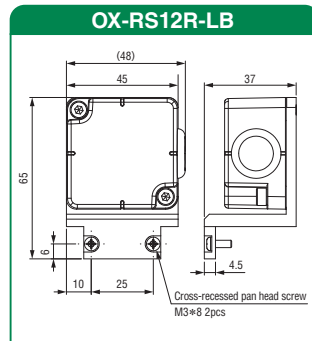
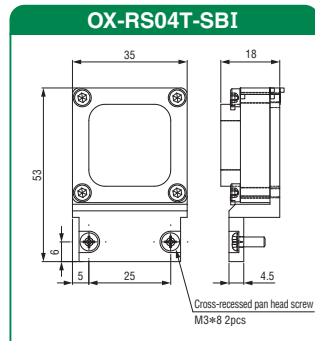
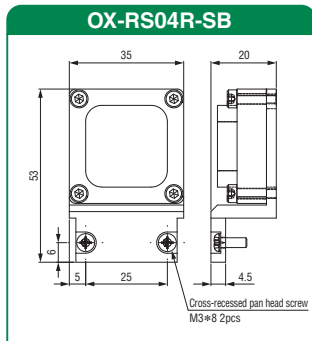
Order code No.	140393	140395	140394	140396
TYPE	OXR-MPS0508	OXR-MPS0508-I	OXR-MPS1304	OXR-MPS1304-I
Rating	5A AC200V/DC200V		13A AC200V/DC200V	
Electric contact	8Pin		4Pin	
Wiring specifications ※ 1	AWG19		AWG15	
Connector shape	Elecelectrical connector NJC-2410-RM (NANABOSHI)	Elecelectrical connector NJC-2410-RM (NANABOSHI)	Elecelectrical connector D/MS3102A-18-10-P (DDK)	Elecelectrical connector D/MS3102A-18-10-S (DDK)
Recommended electrical connector on cable side	NJC-2410-PM (NANABOSHI)	NJC-2410-PF (NANABOSHI)	D/MS3106A-18-10-S (DDK)	D/MS3106A-18-10-P (DDK)
Wiring precautions (check the pin number from combined surface )				
	The electrical connector is 10 pin, but the 9,10 pin are blank, and the power won't be on even if connected.			
Subject tool changer ※ 2	OX-35B (with OXR-PCS) OX-60A OX-120A	OX-35AI (with OXR-PCS) OX-60AI OX-120AI	OX-35B (with OXR-PCS) OX-60A OX-120A	OX-35AI (with OXR-PCS) OX-60AI OX-120AI
Maintenance	Repeated use causes wear powder on the contact surface of the probe pin. The wear powder will cause the temperature rise, so please clean the surface regularly.			

※1 Wiring information in connectors

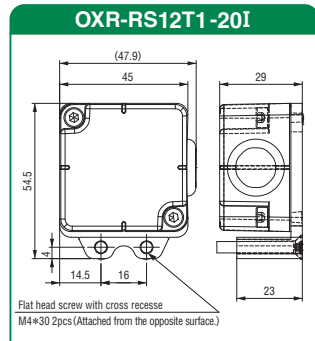
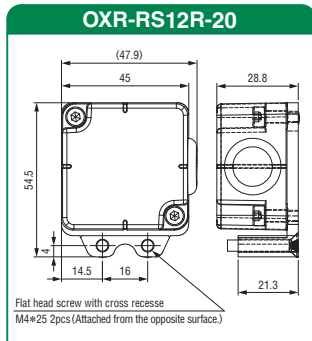
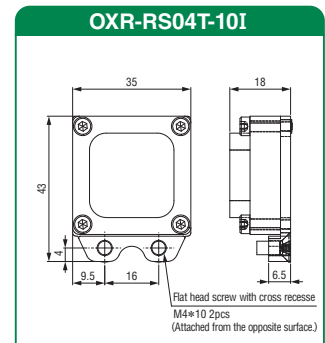
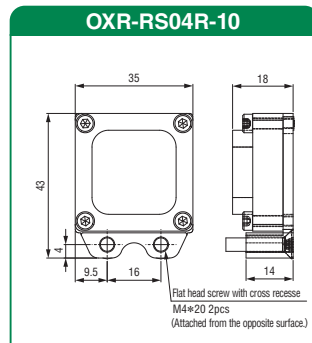
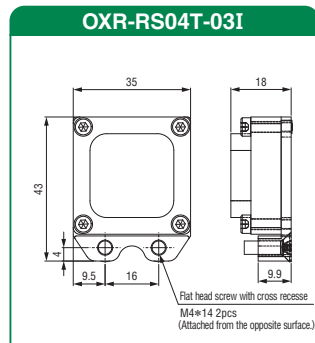
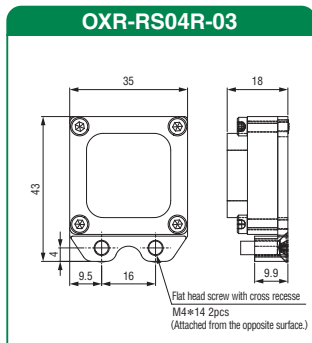
※2 OXR-PCS (140397) is needed when using large capacity connectors on OX-35B, 35AI.

# Drawing of Wireless connector

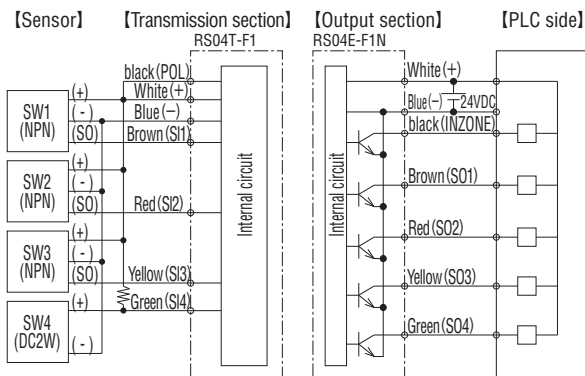
► A Type / B Type / BN Type (Take-out Robot) → 1-19



► For Articulated Robots → 1-32

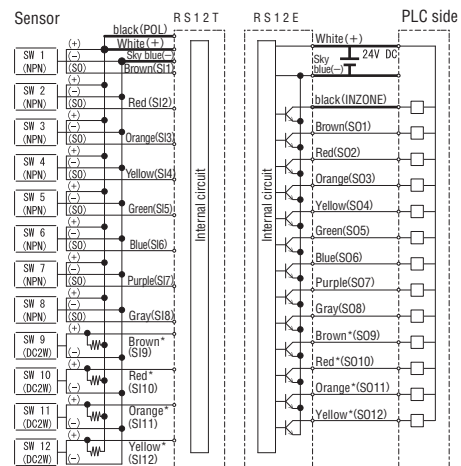


## ■ OXR-RS04 series Wiring diagram (NPN)



\* SW4 in the above figure is a wiring example of a DC 2-wire sensor (wire a resistor of about 1 to 2 KΩ).  
A DC 3-wire sensor can also be used.

## ■ OXR-RS12 series Wiring diagram (NPN)



\* SW9 to 12 in the above figure are wiring examples of the DC 2-wire sensor (wire the resistance to about 1 to 2 KΩ).  
\* The green\*, blue\*, and purple\* cables of RS12E and RS12T are unused

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Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

### Tool Changer

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Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

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Air Nipper (Small-Medium)

Air Nipper (Large)

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Rectangular Tube

Base Aluminum Material

Sliding Chuck

### Pneumatic Components / Sensors

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Frame / Section / Resin Cylinders / Pads / Resin Manifolds

### By Industry

Logistics-Palletizing/Sheet Metal-Stamping-Metal Fabrication

### Assembling Tools

Tool / Jig

### Information






Various Products Information

# Tool Changer for Articulated Robots Option & Replacement Parts

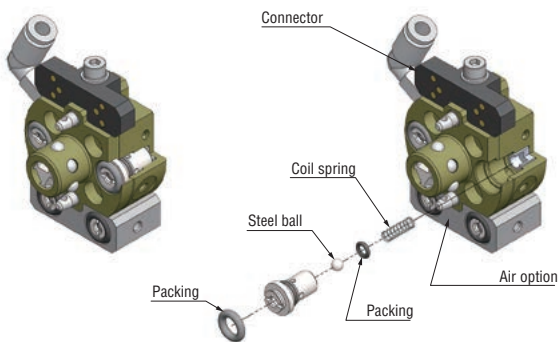
				Tool changer																				
		Order code No.		Robot side	Tool side	Robot side	Tool side	Robot side	Tool side	Robot side	Tool side	Robot side	Tool side	Robot side	Tool side	Robot side	Tool side	Robot side	Tool side					
		Order code No.	TYPE	OX-005A	OX-005AI	OX-03A	OX-03AI	OX-05A	OX-05AI	OX-10B	OX-10BI	OX-20B	OX-20BI	OX-35B	OX-35AI	OX-60A	OX-60AI	OX-35BT	OX-35ATI	OX-120A	OX-120AI	OX-230A	OX-230AI	
Air Option	Robot side	140326	OX-005AA	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Tool side	140327	OX-005AIA	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Robot side	140296	OX-20BA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	Tool side	140297	OX-20BIA	—	—	—	—	—	—	—	—	—	○	—	—	—	—	—	—	—	—	—	—	
	Robot side	140342	OX-60AA	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	—	
	Tool side	140343	OX-60AIA	—	—	—	—	—	—	—	—	—	—	—	—	○	—	○	—	—	—	—	—	
Maintenance parts	Barbed joint	230116	XL0054-106A	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		230117	XL0054-206A	—	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
		110623	LX0004-101	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		110686	LX0120-202	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Steel ball	110739	LX0219-203	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		382583	φ3	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		310607	φ5.5	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		323000	φ6.35	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		152561	φ10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Coil spring	152755	φ11	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		230115	XL0060-106-2	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		200223	UR5-10	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		110649	L00999-420	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
		200257	UR8-15	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	Packing (Robot side)	200320	UR10-10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
152547		P5(C000002-S7)	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
186738		SS3(C03700-A0)	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
271742		1ASS-5	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
184474		S6(C00503-A00X8)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Packing (Tool side)	152689	P8 NBR-70	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	131773	NPB10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	230077	XL0054-204	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	110551	L00999-313	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Cable Accessories	110687	LX0120-203	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	221487	WRBC15-8-3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140168	OX-DS09-H	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140167	OX-DS09-I-H	—	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
Connector Accessories	140197	OX-DS09S-H	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140247	OX-DS09S-H(1.5m)	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140202	OX-DS09P-I-H	—	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140364	OX-DS09P-I-H(1.5m)	—	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140203	OX-DS09SL-H	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140248	OX-DS09SL-H(1.5m)	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140204	OX-DS09PL-I-H	—	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140365	OX-DS09PL-I-H(1.5m)	—	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
High capacity connectors	140328	OXR-PS06	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140329	OXR-PS06-I	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140190	OXR-DPS09	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140192	OXR-DPS09-I	—	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140264	OXR-PS16	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140265	OXR-PS16-I	—	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140362	OXR-PSH11	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140363	OXR-PSH11-I	—	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140344	OXR-CBX24	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140172	OX-DS09	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
140171	OX-DS09-I	—	—	—	○*1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Auto switch	030500	D-F8N	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
Probe connector mounting spacer	140320	OXR-RS04R-03	—	—	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140322	OXR-RS04T-03I	—	—	—	○*3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140321	OXR-RS04R-10	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140323	OXR-RS04T-10I	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140330	OXR-RS12R-20	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140331	OXR-RS12T1-20I	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140393	OXR-MPS0508	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140395	OXR-MPS0508-I	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140394	OXR-MPS1304	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
	140396	OXR-MPS1304-I	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
140397	OXR-PCS	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		

\* 1 If you use a cable accessory with no connector, you will need the proper D-sub & probe connectors (★ mark).  
 \* 2 The probe connector mounting bracket (140344) is required for the installation of the electrical connector.  
 \* 3 Because of the thickness of the wireless connector, it will come out from the mounting surface of the tool changer, please confirm the dimension.  
 \* 4 Probe connector mounting spacer is needed when mounting the connector.

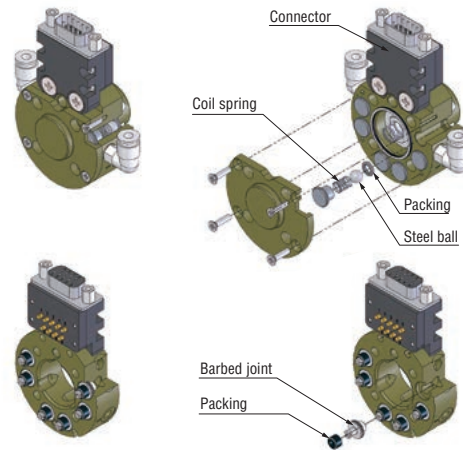


			Air option						
			Robot side	Robot side	Tool side	Robot side	Tool side		
			Order code No.	140326	140296	140297	140342	140343	
			Order code No.	TYPE	OX-005AA	OX-20BA	OX-20BIA	OX-60AA	OX-60AIA
Barbed joint		110623	LX0004-101	—	—	○	—	—	
		110686	LX0120-202	—	—	—	—	○	
Steel ball		382583	φ3	○	—	—	—	—	
		323000	φ6.35	—	○	—	—	—	
		152561	φ10	—	—	—	○	—	
Coil spring		230115	XL0060-106-2	○	—	—	—	—	
		110649	L00999-420	—	○	—	—	—	
		200257	UR8-15	—	—	—	○	—	
Packing (Robot side)		152547	P5 (C000002-S7)	○	—	—	—	—	
		186738	SS3 (C03700-A0)	○	—	—	—	—	
		184474	S6 (C00503-A00X8)	—	○	—	—	—	
		152689	P8 NBR-70	—	—	—	○	—	
Packing (Tool side)		110551	L00999-313	—	—	○	—	—	
		110687	LX0120-203	—	—	—	—	○	

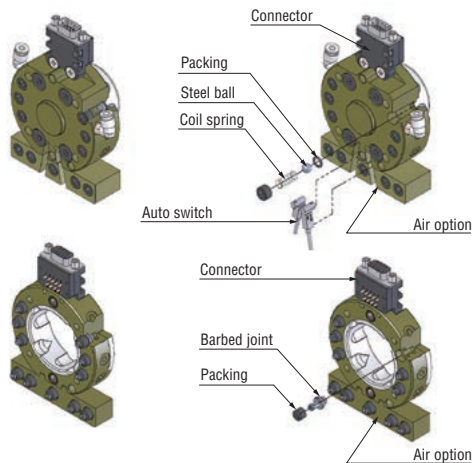
### OX-005A/005A I



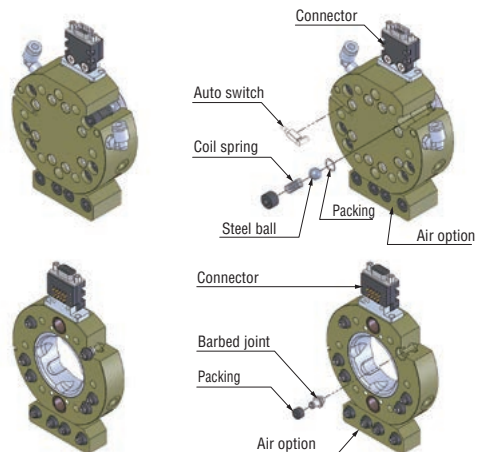
### OX-03A (05A, 10B) /03A (05A, 10B) I



### OX-20B/20B I



### OX-35B (60A) /35A (60A) I



#### Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

#### Tool Changer

Automated Hand Exchange System

#### Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

#### Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

#### Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

#### Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

#### Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

#### Lightweight Parts Series

Frame / Suction / Resin Cylinders / Pads / Resin Manifolds

#### By Industry

Logistics - Palletizing / Sheet Metal - Stamping - Metal Fabrication

#### Assembling Tools

Tool / Jig

#### Information

Various Products Information

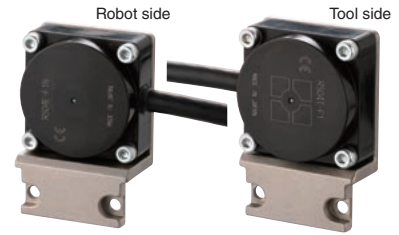
# Wireless connector specification and precautions concerning handling

● See (1-19) and (1-32) 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.
- To avoid interference between wireless connectors, no more than 1 wireless connector should be installed per tool changer.



## ► 4 contact specification

### ■ Specification

TYPE	Tool side	
	OXR-RS04T-__I	
Sensor	Direct current three-wire sensor	
Drive voltage	12V ± 1.5V DC	
No. of input signals	4 points	
Drive voltage	≤ 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 <sup>2</sup>	
Material	ABS	
Weight	Main body 25g + Cable 60g/m	

TYPE	NPN output	Robot side	
		OXR-RS04R-__	
Power supply voltage		24V DC ± 10% (ripple included)	
Current consumption		≤ 200mA	
No. of input signals		4 points + 1 point	
Load electric current		≤ 50mA/1 Output	
LED display		Status (green), in-zone (orange)	
Circuit protection		Short-circuit protection, reverse connection protection surge protection	
Ambient temperature		0...+50°C	
Protection structure		IP67	
Connection cable		PUR φ 6.3 7x0.259mm <sup>2</sup>	
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	Tool side	
	OXR-RS12T-__I	
Sensor	Direct current three-wire sensor	
Drive voltage	12V ± 1.5V DC	
No. of input signals	12 points	
Drive voltage	≤ 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 <sup>2</sup> + 13×0.18mm <sup>2</sup>	
Material	ABS	
Weight	Main body 75g + Cable 105g/m	

TYPE	NPN output	Robot side	
		OXR-RS12R-__	
Power supply voltage		24V DC ± 10% (ripple included)	
Current consumption		≤ 600mA	
No. of output signals		12+1 (status)	
Load electric current		≤ 50mA/1 出力	
LED display		Status (green), Output (orange)	
Allowable axis misalignment		Short-circuit protection, reverse connection protection surge protection	
Ambient temperature		0...+50°C	
Protection structure		IP67	
Connection cable		PUR φ 8.6 2×0.5mm <sup>2</sup> + 13×0.18mm <sup>2</sup>	
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

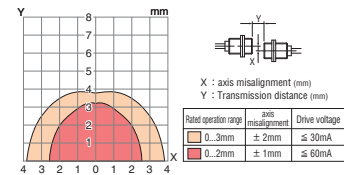
Power supply voltage	12V DC
Total consumption current	≤ 60mA
Residual voltage	≤ 3.5V
Load electric current	—

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

### ■ Transmission area drawing

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

OXR-RS04R-\_\_ / OXR-RS04T-\_\_I



### ■ Allowed sensors

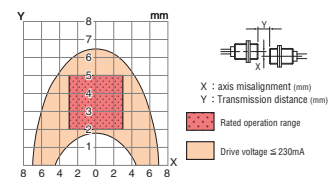
Power supply voltage	12V DC
Total consumption current	≤ 230mA
Residual voltage	≤ 3.5V
Load electric current	—

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

### ■ Transmission area drawing

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

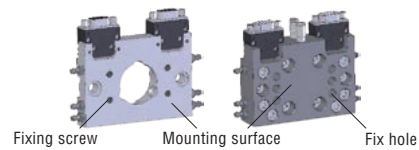
OXR-RS12R-\_\_ / OXR-RS12T-\_\_I



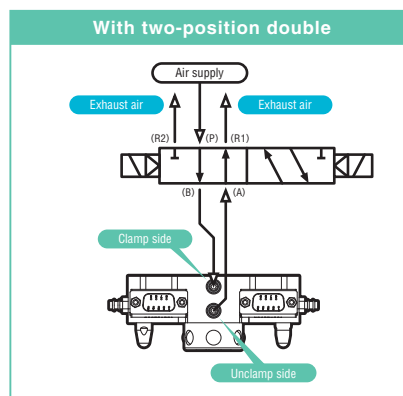
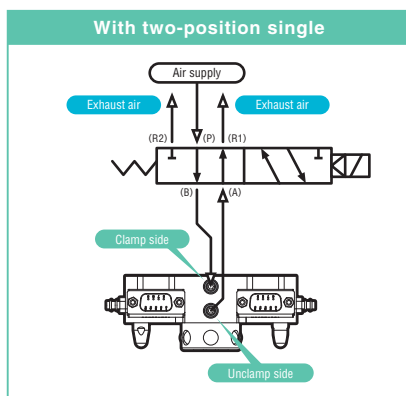


## Cautions when using tool changer

- Tool clamp / unclamp will cause tool pull and push. Please watch out for pinch point fingers / hands.
- To prevent equipment troubles, use clean air that has been dried through a dryer or mist separator and is free of oil. For the compressor, replace the hydraulic oil specified by each manufacturer at specified intervals. Inappropriate hydraulic oil may damage air equipment such as packing due to oil mixed in the air.
- Do not use the clamp / unclamp of tool changer rather than air supply of 0.5 to 0.7 MPa. There is a risk of damaging the tool changer mechanism and surrounding devices.
- When not using for prolong periods, please remove tool from robot.
- When restarting from the state that the air is not supplied, please make sure that the air is supplied to the clamp side , then start confirm air supply port.
- When assembling the tool changer to the robot or the hand, please fasten the surface so that there is no gap between the mounting surfaces where there are fixing holes and screw.
- We do not take any responsibility for any faults arising in the combination with improper product.
- If the robot side piston is repeatedly clamped / unclamped with the tool side of the tool changer disconnected, it may interfere with the clamping with the tool side, so please stop. If the piston is misaligned, align the  $\triangle$  mark.
- When using the air port for vacuum line, please remove the check valve on the robot side.
- If you would like restore the air port that is used for vacuum line, please assemble with the check valve parts coil spring, stainless ball and packing
- Please note that if the plug is tightened too much, it cannot be clamped normally and may come off.
- Before you start the operation of the assembled equipment, please do the safety-check to confirm the bolts and other parts are not loosen. Do not exceed the allowable value (moment torque) load of the product when using It may not only affects the function and life span of the product, but also causes an unexpected accident. Not only does it affect the function and life of the product, it can also cause unexpected accidents.
- As to the installment of the additional air option, please adjust the concave part of the main body and the convex part of the additional air option, and make it parallel to the connecting surface with the other side.
- If the electrical connector is installed, please make sure the electrical power is OFF during the tool changer clamp / unclamp process. If it is operated with power is on, the front of the probe pin will erode, and poor contact or melt may happen.
- Never connect the electrical power tool changer itself. It might cause electrical shock which lead to the product damage. There is a risk of electric shock and the product may be damaged due to a short circuit.
- It shall not be used in any of the following locations
  - Locations with ambient temperature lower than 0°C or higher than 55°C
  - Locations with liquid, dripping water, water vapor
  - Locations with humidity is more than 95% or condensation
  - Locations with corrosive gases
  - Locations with metal, carbon or spatter conductive dust
  - Locations with a strong electric field magnetic field



### Reference Piping connection diagram



#### Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

#### Tool Changer

Automated Hand Exchange System

#### Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

#### Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

#### Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

#### Frame / Module

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Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

#### Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

#### Lightweight Parts Series

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

#### By Industry

Logistics-Palletizing/Sheet Metal-Stamping-Metal Fabrication

#### Assembling Tools

Tool / Jig

#### Information

Various Products Information

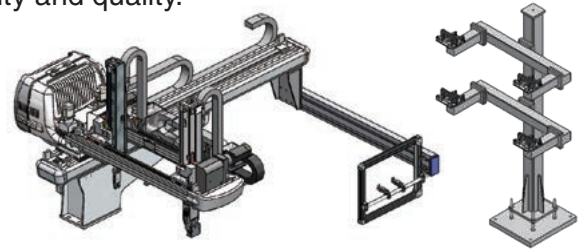


'Shorten the setup time', 'Reduce the burden of the worker', 'Reduce the connection mistake' by automated robot exchange, will improve the productivity and quality.

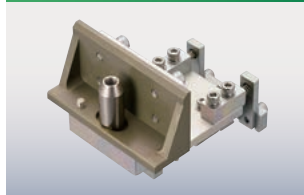
## ▶ Example of tool station

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.



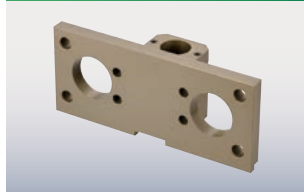
### Auto Quick Chuck Change Hanger



Hanger unit attached to tool station. (Station Side)

1-41

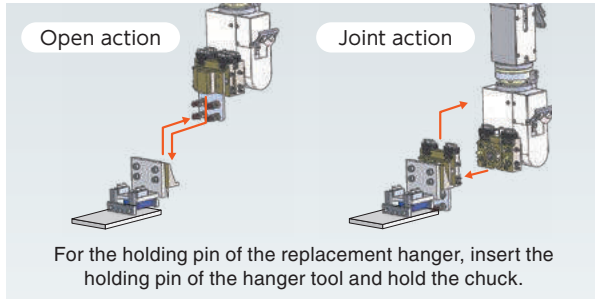
### Hanger Tool



Hold unit attached to the tool side.

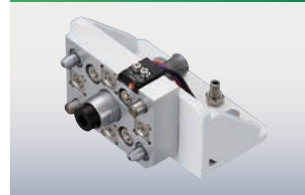
1-41

### Action example



For the holding pin of the replacement hanger, insert the holding pin of the hanger tool and hold the chuck.

### Magnet Chuck Hanger (Fix Side)



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

1-42

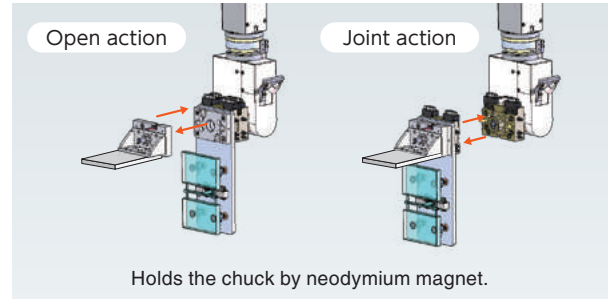
### Magnet Chuck Hanger (Tool Side)



Hold unit attached to the tool side.

1-42

### Action example



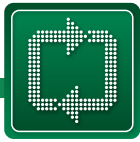
Holds the chuck by neodymium magnet.

## ■ Specification

	Product name	Order code No.	Weight (g)	Weight capacity (kg)	Page of details		
		TYPE					
Auto Quick Robot hand Change Hanger		072600	182	~ 3	1-41		
		HSL					
		072601					
Auto Quick Robot hand Change Hanger		HSAL	1,300	~ 10	1-41		
		072602	2,800	~ 35			
		HLAL					
Hanger tool		196532	43	~ 3	1-41		
		TS					
		196533				99	~ 10
		TSA					
Hanger tool		196656	356	~ 35	1-41		
		TLA1					

	Product name	Order code No.	Weight (g)	Weight capacity (kg)	Page of details			
		TYPE						
Magnet chuck Hanger (fix side)		072732	540	~ 1 (9.8N)	1-42			
		HNE-48						
		072733	680	~ 1 (9.8N)	1-43			
		HNE-S						
Magnet chuck Hanger (fix side)		072811	632	~ 1 (9.8N)	1-42			
		HNE-SL						
Magnet chuck Hanger (tool side)		196636	70	~ 1 (9.8N)	1-42			
		TNE-48I						
		196637				140	~ 1 (9.8N)	1-43
		TNE-SI						
Magnet chuck Hanger (tool side)		196727	115	~ 1 (9.8N)	1-43			
		TNE-SLI						





# Auto Quick Chuck Change Hanger / Hanger Tool

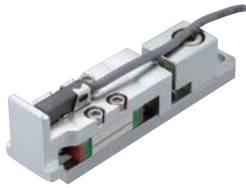
Auto quick robot hand change hanger attached to station side. And hanger tool attached to tool side.

Auto quick chuck change hanger (Hook Specification)



You can see moving images of products by using QR code reader of your smartphone.

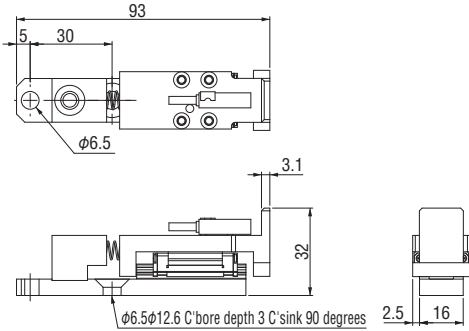
## ▶ Station side



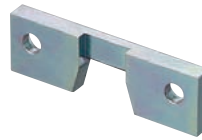
### Auto quick chuck change hanger

Order code No.	<b>072600</b>
TYPE	<b>HSL</b>

- Weight: 182g ● Weight capacity: ~ 3kg
- The chuck has a residual sensor (E2S-Q13)



## ▶ Tool side

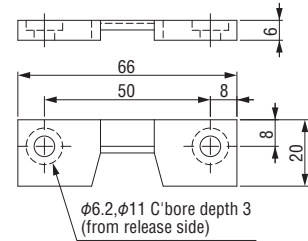
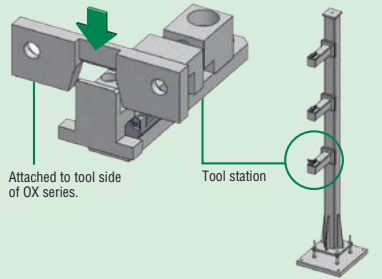


### Hanger tool

Order code No.	<b>196532</b>
TYPE	<b>TS</b>

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

### Example of combination: HSL and TS



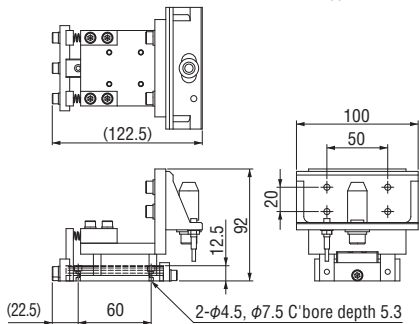
## ▶ Station side



### Auto quick chuck change hanger

Order code No.	<b>072601</b>
TYPE	<b>HSAL</b>

- Weight: 1,300g ● Weight capacity: ~ 10kg
- The chuck has a residual sensor (E2E-S05S12-WC-C1)
- Detects sensor with mounting bolt of hanger tool.



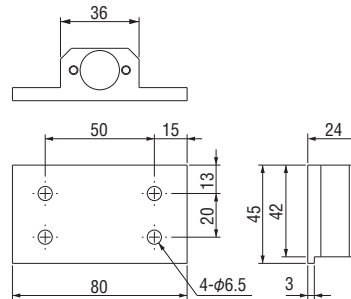
## ▶ Tool side



### Hanger tool

Order code No.	<b>196533</b>
TYPE	<b>TSA</b>

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



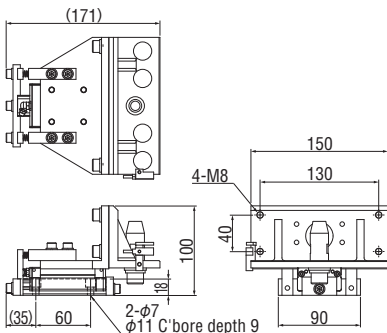
## ▶ Station side



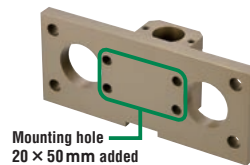
### Auto quick chuck change hanger

Order code No.	<b>072602</b>
TYPE	<b>HLAL</b>

- Weight: 2,800g ● Weight capacity: ~ 35kg
- The chuck has a residual sensor (E2S-W21)
- Detects sensor with mounting bolt of hanger tool.



## ▶ Tool side

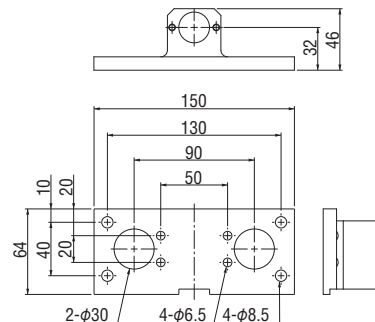


Mounting hole 20 × 50 mm added

### Hanger tool

Order code No.	<b>196656</b>
TYPE	<b>TLA1</b>

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



## Quick Chuck Change

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

Tool Changer

Automated Hand Exchange System

## Grip

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

## Suction

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

## Cut

Air Nipper (Small-Medium)

Air Nipper (Large)

## Frame / Module

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

Pneumatic Components / Sensors

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

Lightweight Parts Series

Frame / Section / Resin Cylinders / Pads / Resin Manifolds

By Industry

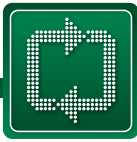
Logistics - Palletizing / Sheet Metal - Stamping - Metal Fabrication

Assembling Tools

Tool / Jig

Information

Various Products Information



# Magnet Chuck Hanger

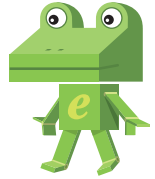
Perfect hanger unit for hand holding.

Auto quick chuck change hanger (Neodymium specification)

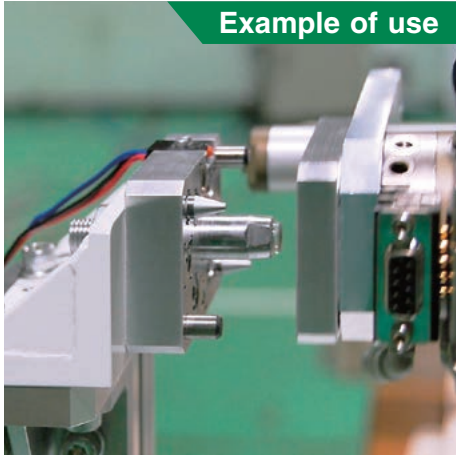


You can see moving images of products by using QR code reader of your smartphone.

Magnet chuck hanger doesn't use electricity or air, and holds the hand with neodymium magnet.



## Example of use



## Chuck open

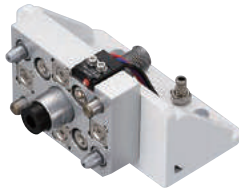
- Using the detachment mechanism of the tool changer, push the tool to the magnetic chuck hanger (fixed side), hold the chuck with the neodymium magnet.

## Chuck connection

- With the clamp operation of tool changer, pull the chuck from magnet hanger.

Quick Chuck Change ● Automated Chuck Exchange System

### ▶ Station side

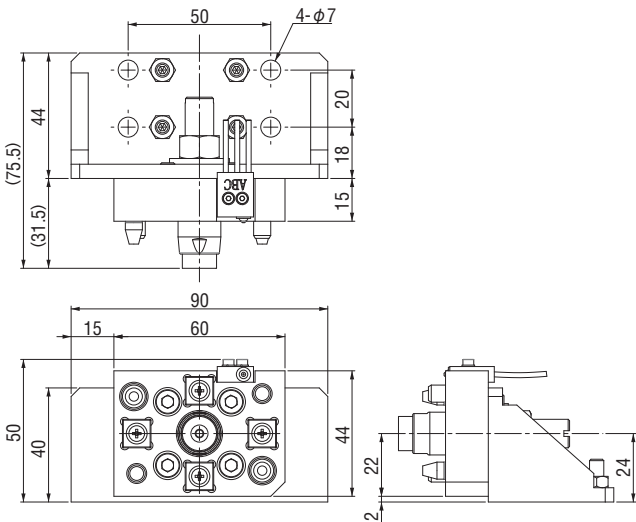


#### Magnet chuck hanger (fixed side)

Order code No. **072732**

TYPE **HNE-48**

- Weight: 540g
- Weight capacity: ~ 1kg (9.8N)
- The chuck has a residual sensor (030317 D2JW-011-MD)
- Wiring: black (COM) blue (NO) red (NC)



### ▶ Tool side

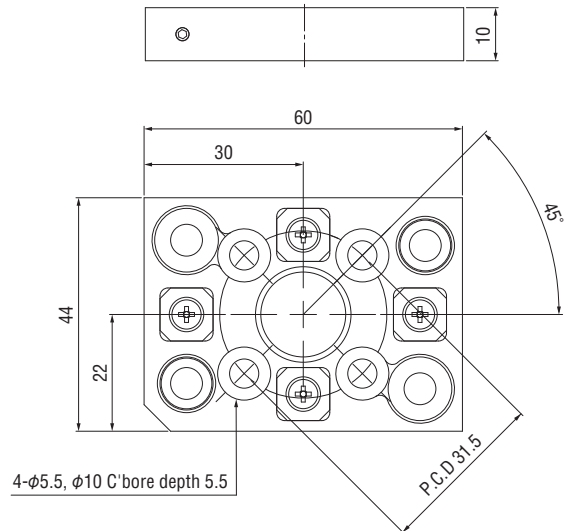


#### Magnet chuck hanger (tool side)

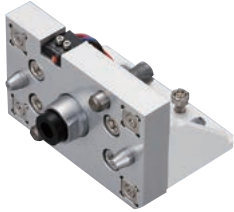
Order code No. **196636**

TYPE **TNE-48I**

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



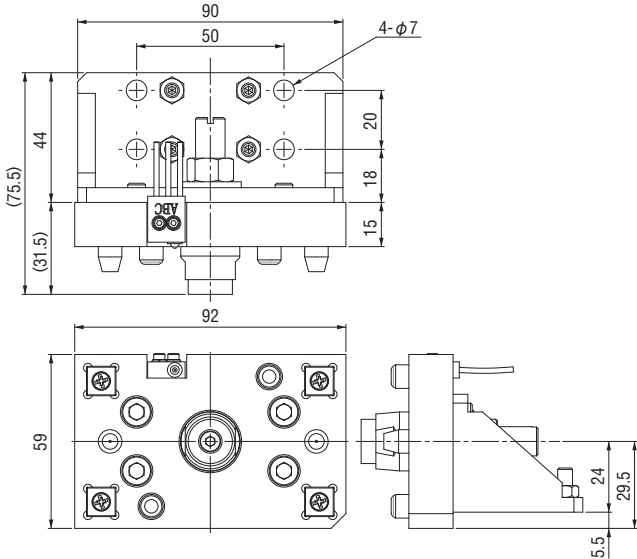
▶ Station side



**Magnet chuck hanger (fix side)**

Order code No.	<b>072733</b>
TYPE	<b>HNE-S</b>

- Weight: 680g ● Weight capacity: ~ 1kg (9.8N)
- The chuck has a risidual sensor (030317 D2JW-011-MD)
- Wiring: black (COM) blue (NO) red (NC)



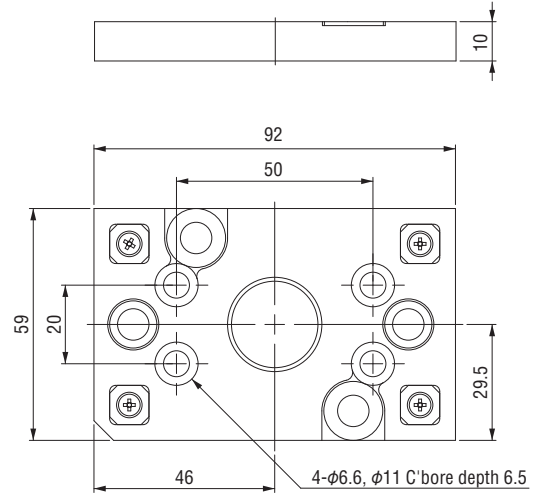
▶ Tool side



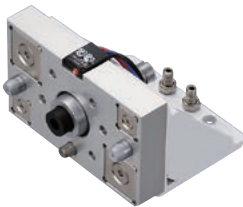
**Magnet chuck hanger (tool side)**

Order code No.	<b>196637</b>
TYPE	<b>TNE-SI</b>

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



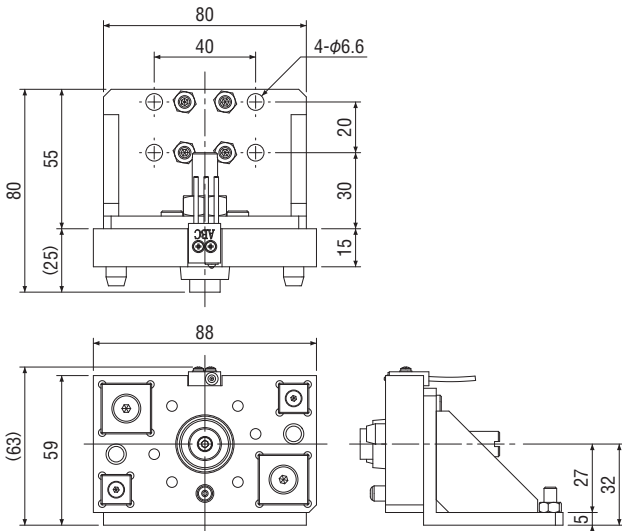
▶ Station side



**Magnet chuck hanger (fix side)**

Order code No.	<b>072811</b>
TYPE	<b>HNE-SL</b>

- Weight: 632g ● Weight capacity: ~ 1kg (9.8N)
- The chuck has a risidual sensor (030317 D2JW-011-MD)
- Wiring: black (COM) blue (NO) red (NC)



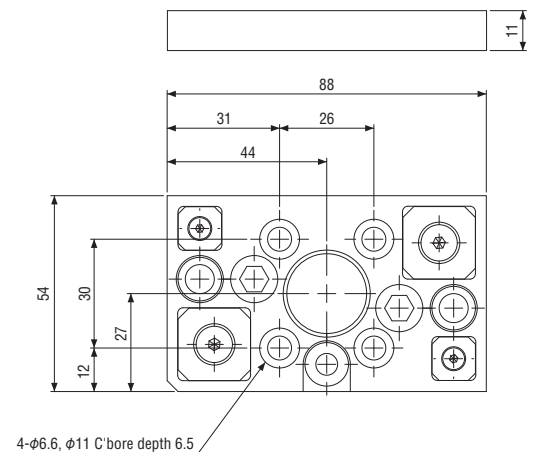
▶ Tool side



**Magnet chuck hanger (tool side)**

Order code No.	<b>196727</b>
TYPE	<b>TNE-SLI</b>

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



**Quick Chuck Change**

Quick Chuck Change Manual

Quick Chuck Change Manual (OM Type)

Tool Changer

Automated Hand Exchange System

**Grip**

Mini Cylinder

Accessories for Mini Cylinder

Container Cylinders

Accessories for Container Cylinder

Grippers

Rubber Material / Grip Pad

**Suction**

Suction Cups

Suction Stems

Pad in Pad

Vacuum Gripper

Air Ejector / Filter / Check Valve

Ultra Small Part Take Out

Vacuum Generator Unit

**Cut**

Air Nipper (Small-Medium)

Air Nipper (Large)

**Frame / Module**

Jungle Gym

Let's Joint

Rectangular Tube

Base Aluminum Material

Sliding Chuck

**Pneumatic Components / Sensors**

Pneumatic Components

Sensors / Multi AND Board

PCIO Communication Unit

**Lightweight Parts Series**

Frame / Suction / Resin Cylinders / Pads / Resin Manifolds

**By Industry**

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