## **Smart Hand Adapter (SHA)**

Accessories SHA: HRXII-100~850 i/b series

10kg Smart Hand Adapter, without ports







## To shorten EOAT changing time in multi-product, small- and medium-volume production

#### Problems related to EOAT replacement.

- It takes time (at least 10 min.) as all the wiring, pipework and mounting bolts have to be redone.
- 2The positioning is unclear, so the positioning needs to be taught again during the grip trial.
- 3 Sometimes the wrong EOAT is installed.
- 4 Wrong installation of wiring or tubing happens.

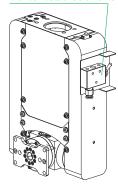


#### Smart Hand Adapter can solve the problems above.

- One-touch installation. No wiring and piping required with electric and pneumatic ports. Changeable in 15 seconds.
- 2 High repeatability with positioning pin of Smart Hand Adapter.
- No mistakes with automatic EOATchange. When different EOAT is installed on the attachment plate, the robot recognizes it as an error.
- 4 Electric and pneumatic ports are available, so no wiring or plumbing mistakes.

# Expansion example of manual detachable valve

Manual detachable valve



When adding to an existing machine, an additional manual detachable valve is required for the machine body.

#### Ordering code



10···10Kg 35···35Kg

### 2 Mounting type

R···Robot side
A···Attachment side

#### 3Pneumatic port

E ······ Pneumatic port: 6 circuits

\*E specification is

connector (15Pin is

standard)

EC ····· Pneumatic port: 6 circuits

Eectrode connector 15P×1,

with 1m cable

Blank ··· None

\*Without connector and pneumatic port

Part code	品目名称	Specification			
*SHA-10R	Smart Hand Adapter (robot)	Low cost type (Expansion pneumatic port can be installed)			
*SHA-10R+B	Extension pneumatic port (robot)	OP expansion pneumatic port for SHA-10R(-E)			
*SHA-10R-E	Smart Hand Adapter (robot)	Typical type (6 pneumatic port circuits / electrode 15P 1 pc)			
*SHA-10A	Smart Hand Adapter (attachment)	Low cost type (Expansion pneumatic port can be installed)			
*SHA-10A+B	Extension pneumatic port (attachment)	OP expansion pneumatic port for SHA-10A(-E)			
*SHA-10A-E	Smart Hand Adapter (attachment)	Typical type (6 pneumatic port circuits / electrode 15P 1 pc)			
*SHA-35R+B	Extension pneumatic port (robot)	OP expansion pneumatic port for SHA-35R-E			
*SHA-35R-E	Smart Hand Adapter (robot)	Typical type (6 pneumatic port circuits / electrode 15P 1 pc)			
*SHA-35A+B	Extension pneumatic port (attachment)	OP expansion pneumatic port for SHA-35A-E			
*SHA-35A-E	Smart Hand Adapter (attachment)	Typical type (6 pneumatic port circuits / electrode 15P 1 pc)			
*SHA-DCR+15P	Extension electrode connector (robot)	OP electrode connector expansion for SHA-10(35)R-E			
*SHA-DCA+15P	Extension electrode connector (attachment)	OP electrode connector expansion for SHA-10(35)A-E			
SHA-10A-EC	SHA electrode Assy with 1m cable (A, outside)	Standard type (6 pneumatic port circuits / electrode connector 15P 1 pc / with 1m cable)			
SHA-10R-EC	SHA electrode Assy with 1m cable (R, outside)	Standard type (6 pneumatic port circuits / electrode connector 15P 1 pc / with 1m cable)			
SHA-35A-EC	SHA electrode Assy with 1m cable (A, outside)	Standard type (6 pneumatic port circuits / electrode connector 15P 1 pc / with 1m cable)			
SHA-35R-EC	SHA electrode Assy with 1m cable (R, outside)	Standard type (6 pneumatic port circuits / electrode connector 15P 1 pc / with 1m cable)			
SHA-DCA+15PC	Extension electrode connector Assy with 1m cable (A, outside)	OP electrode connector extension for SHA-10(35)A-E (attachment side) with 1m cable			
SHA-DCR+15PC	Extension electrode connector Assy with 1m cable (R, outside)	OP electrode connector extension for SHA-10(35)R-E (robot side) with 1m cable			

#### **Example of automatic EOAT change**

With automatic EOAT change, EOAT change becomes much easier

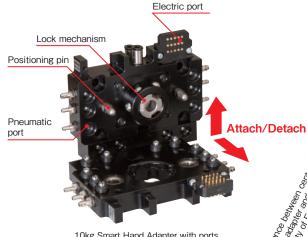




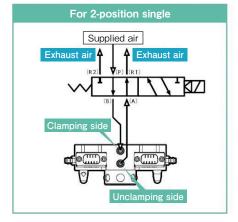


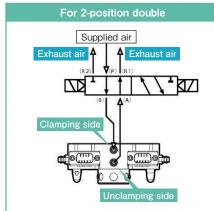
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**Easy attachment** and detachment! **Certain replacement! Onestep attachment** and detachment for pneumatic and electrical ports!



10kg Smart Hand Adapter with ports





#### **Note**

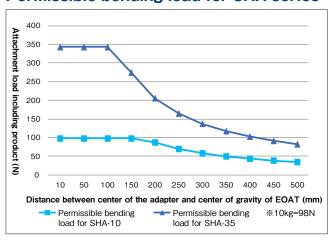
Center of gravity

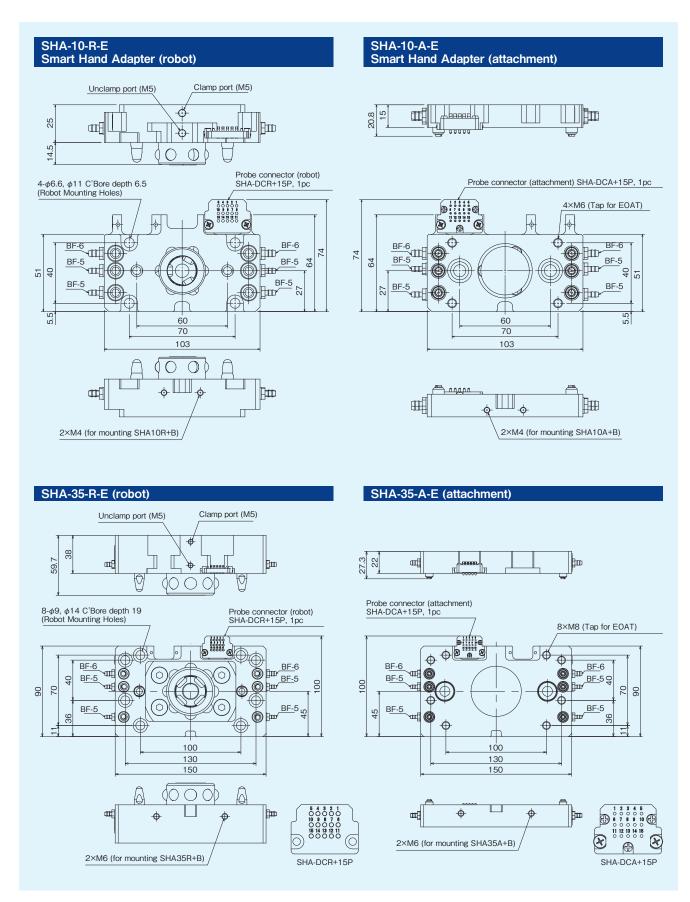
Center of the adapter

For the selection and use of the product, check the payload and distance to the centre of gravity in the graph below.

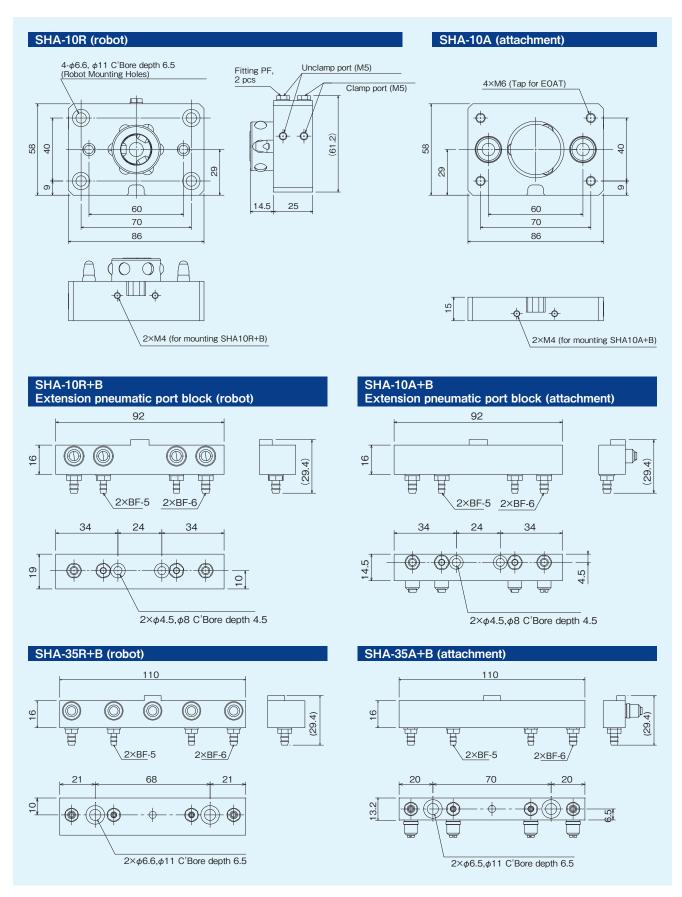
#### 400 Attachment 350 300 load 250 including product (N) 200 150 100 250 Distance between center of the adapter and center of gravity of EOAT (mm) Permissible torsional Permissible torsional \*10kg=98N load for SHA-10 load for SHA-35

#### Permissible torsional load for SHA series Permissible bending load for SHA series





	SHA10-R-E(C)	SHA10-A-E(C)	SHA35-R-E(C)	SHA35-A-E(C)	
Pneumatic port	6 circuits		6 circuits		
Electrode	Probe conn	ector (15P)	Probe connector (15P)		
Material	Super du	uralumin	Super duralumin		
Payload (Kg)	~	10	~35		
Thickness when connected (mm)	40		60		
Weight (g)	600	400	1550	780	
Additional connector	SHA-DCR+15P	SHA-DCA+15P	SHA-DCR+15P	SHA-DCA+15P	



		SHA-10R	SHA-10A	SHA10-R+B	SHA10-A+B	SHA35-R+B	SHA35-A+B
Pneumatic port		None		4 circuits		4 circuits	
Electrode		None		_		_	
Material		Super duralumin		Super duralumin		Super duralumin	
Payload	(Kg)	~10		_		_	
Thickness when connected	(mm)	40		_		_	
Weight	(g)	520	300	90	70	115	82
Accessories		_		Mounting bolt (M4), 2pcs		Mounting bolt (M6), 2pcs	