

# BSA Series Ultra-Compact Cross Roller Parallel Hand

## Ultra-Compact Gripper with Efficient Mounting Options for Multiple Gripper System

### Key Features

#### ■ Ultra-compact parallel hand

The compact gripper, 50mm long, 25mm wide, and 10mm thick. Suitable for handling and assembling small workpieces.

#### ■ Easy mounting

The gripper can be mounted either from the side (tapped through hole) or the top (tapped hole), which allows multiple grippers to be mounted together in order to clamp multiple workpieces at the same time.

#### ■ High accuracy and smooth operation with cross roller guide

Cross roller guide used in the sliding material provides high accuracy and smooth motion without backlash.



BSA-006BS

### How To Order

Standard ----- **BSA-006BS**

Option ----- **BSA - 006BS - E18LS2 - NO** ----- BSA-006BS-NO (single-acting to open) with 2 of E18 non-contact reed switches

Size	
Symbol	
006BS	

Sensor, Quantity			
Symbol	Name	Symbol	Name
E18	Non-Contact 3-Lead	S2	2 Sensors
E18L	Non-Contact 3-Lead		
E19	Non-Contact 2-Lead		
E19L	Non-Contact 2-Lead		
S1	1 Sensor		

Option			
Symbol	Name	Symbol	Name
NO	Normally Open		
NC	Normally Closed		

For sensor detail ▶ 277P

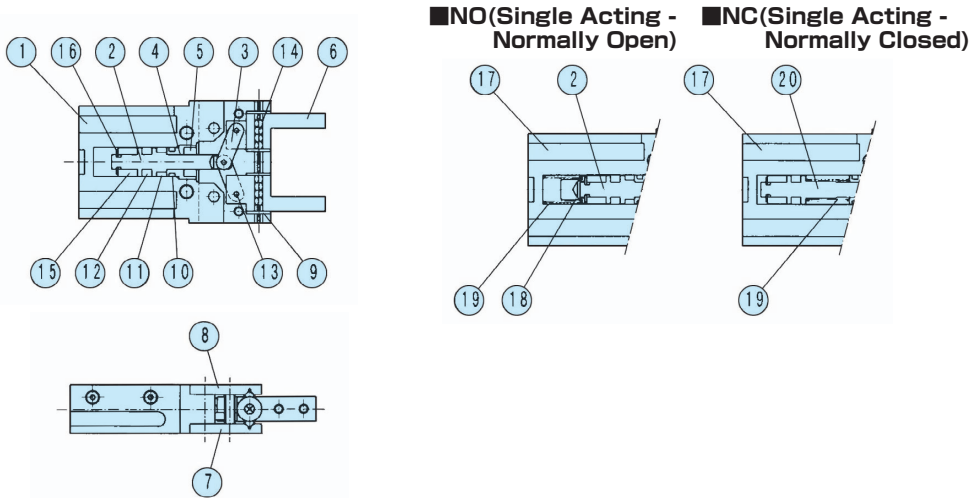
For option detail ▶ 36P

### Specification

Model	BSA-006BS	
	For Layout Drawing ▶ 47P	
Working Pressure	Pneumatic: 0.15 to 0.7MPa	
Lubrication	Not Required or Turbine Oil Class 1 (ISOVG32)	
Ambient Temperature (°C)	5 to 60	
Total Jaw Stroke (mm)	4	
Cylinder Diameter (mm)	dia.6	
Rod Diameter (mm)	dia.3	
Internal Volume [Reciprocation] (cm <sup>3</sup> /time)	0.10	
Repeatability (mm)	±0.01	
Weight (g)	34	

Hand (2-law)

Internal Structure / Parts & Seals



Parts List

No.	Name	Material	No.	Name	Material
1	Body	Aluminum	11	Cylinder Seal	
2	Piston	Stainless Steel	12	Piston Seal	
3	Arm	Carbon Steel	13	Operating Shaft	Stainless Steel
4	Piston Guide	Stainless Steel	14	Roller	
5	Piston Guide Holder	Stainless Steel	15	Magnet	
6	Master(Base) Jaw	Carbon Steel	16	Snap Ring	
7	Bearing Guide A	Carbon Steel	17	NO & NC Body	Aluminum
8	Bearing Guide B	Carbon Steel	18	Spring Guide	Stainless Steel
9	Bearing Holder	Stainless Steel	19	NO & NC Spring	Stainless Steel Wire
10	Rod Seal		20	NC Piston	Stainless Steel

Seals List

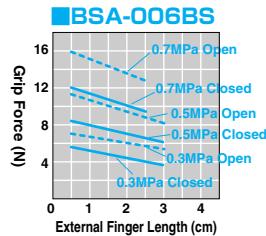
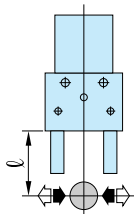
No.	BSA-006BS
10	MYA-3
11	dia.4×dia.1
12	PWP6

Performance Data

Grip Force

The graph shows grip force in opening and closing with effective external finger lengths  $l$  from gripper cover surface under different air pressure (MPa)

Open (⇐) ---  
 Closed (⇒) —



Hand (2-Jaw)

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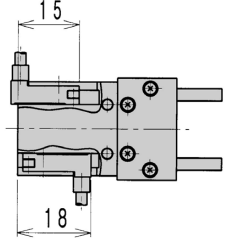
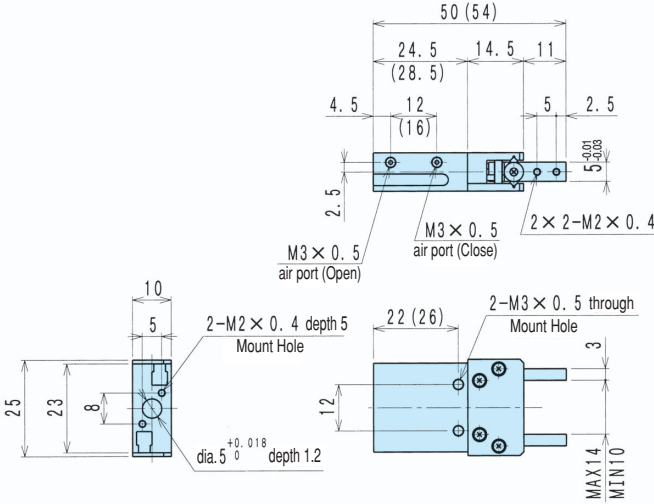
## Layout Drawing

### BSA-006BS (Optimal Grip Force 4N to 8N)


#### BSA-006BS Standard • NO • NC

\*Values inside ( ) are for NO (Normally Open) and NC (Normally Closed) type

#### BSA-006BS-E□S□



Hand  
(2-law)

 For CAD data, please go to **▶518P**