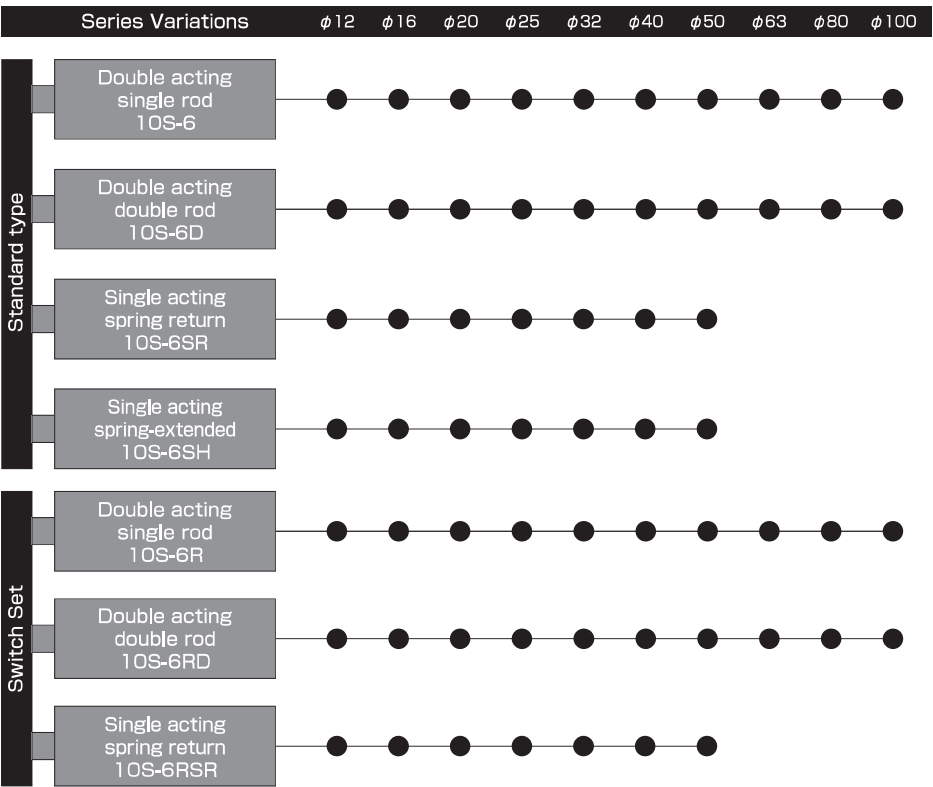


Compact design pneumatic cylinders applying the dimensions specified by JIS B 8368-4 (only basic style)

- The use of a magnetic proximity sensor embedded in the cylinder body reduces the cylinder body, saving space.
- Separable type convenient for maintenance
- Two types of rod end, female thread and male thread, are available.
- A variety of accessories including mounting accessories and rod end attachments makes the cylinder applicable to a wide range of purposes.
- Custom made cylinders with special shape of rod end, of dual stroke type, and with adjustable stroke can be supplied.



Product Lineup



Cylinder Specifications/standard type

Series variations	Double acting single rod	Double acting double rod	Single acting (spring return)	Single acting (spring-extended)
Series	10S-6	10S-6D	10S-6SR	10S-6SH
Cylinder bore (mm)	φ 12 · φ 16 · φ 20 · φ 25 · φ 32 · φ 40 · φ 50 · φ 63 · φ 80 · φ 100		φ 12 · φ 16 · φ 20 · φ 25 · φ 32 · φ 40 · φ 50	
Working fluid	Air			
Lubrication	Unnecessary			
Working pressure range	φ 12 to φ 32 : 0.1 to 1 MPa φ 40 to φ 100: 0.05 to 1 MPa		φ 12 · φ 16 : 0.2 to 1 MPa φ 20 · φ 25 : 0.18 to 1 MPa φ 32 to φ 50: 0.12 to 1 MPa	
Working speed range	φ 12 to φ 40 : 30 to 500mm/s φ 50 to φ 100: 30 to 300mm/s		φ 12 to φ 40: 100 to 500mm/s φ 50 : 100 to 300mm/s	
Proof test pressure	1.5 MPa			
Working temperature range	－10 to +70℃ (No freezing)			
Structure of cushioning	With cushion pads on both ends (φ 12 and φ 16: None)		Note 1) With cushion pads (φ 12 and φ 16: None)	
Tolerance for thread	JIS 6H/6g			
Tolerance of stroke	+1.0 0 mm			
Note 2) Mounting style	SD (basic style), ST (tapped on both sides), LA, LB, FA, (FB), (CA), (CB)		SD (basic style), ST (tapped on both sides), LA, LB, FA, FB, CA, CB	
Rod end threads	Female thread, male thread			
Accessory	Bracket for CB (bore φ32 to φ100)	—	Bracket for CB (bore φ 32 to φ 50)	

- Note 1) ●The spring return type cylinders do not have a cushion pad on the rod side. The spring-extended type cylinders with bores of 20, 25 and 32 mm do not have a cushion pad on the cap side.
- Note 2) ●SD style (basic style) cylinders are not tapped, so mounting accessories cannot be mounted to them. When requiring only the cylinder body with mounting accessories, place an order for ST style (tapped on both sides).
- The mounting accessories are applicable to double acting and double rod cylinders with bores from 32 to 100 mm and to single acting cylinders with bores from 32 to 50 mm.
 - Double rod type cylinders with the parenthesized mounting styles are not available.
 - To cylinders with bores of 12 and 16 mm, only SD style is applicable.

Cylinder Specifications: Switch Set

Series variations	Double acting single rod	Double acting double rod	Single acting (spring return)
Series	10S-6R	10S-6RD	10S-6RSR
Cylinder bore (mm)	φ 12 · φ 16 · φ 20 · φ 25 · φ 32 · φ 40 · φ 50 · φ 63 · φ 80 · φ 100		φ 12 · φ 16 · φ 20 · φ 25 · φ 32 · φ 40 · φ 50
Working fluid	Air		
Lubrication	Unnecessary		
Working pressure range	φ 12 to φ 32 : 0.1 to 1 MPa φ 40 to φ 100: 0.05 to 1 MPa		φ 12 · φ 16 : 0.2 to 1 MPa φ 20 · φ 25 : 0.18 to 1 MPa φ 32 to φ 50: 0.12 to 1 MPa
Working speed range	φ 12 to φ 40 : 30 to 500mm/s φ 50 to φ 100: 30 to 300mm/s		φ 12 to φ 40: 100 to 500mm/s φ 50 : 100 to 300mm/s
Proof test pressure	1.5 MPa		
Working temperature range	0 to +60℃ (No freezing)		
Structure of cushioning	With cushion pads on both ends (φ 12 and φ 16: None)		Note 1) With cushion pads (φ 12 and φ 16: None)
Tolerance for thread	JIS 6H/6g		
Tolerance of stroke	+1.0 0 mm		
Note 2) Mounting style	SD (basic style), ST (tapped on both sides), LA, LB, FA, (FB), (CA), (CB) SD (basic style), ST (tapped on both sides), LA, LB, FA, FB, CA, CB		
Rod end threads	Female thread, male thread		
Accessory	Bracket for CB (bore φ32 to φ100)	—	Bracket for CB (bore φ 32 to φ 50)

- Note 1) ●The spring return type cylinders do not have a cushion pad on the rod side. The spring-extended type cylinders with bores of 20, 25 and 32 mm do not have a cushion pad on the cap side.
- Note 2) ●SD style (basic style) cylinders are not tapped, so mounting accessories cannot be mounted to them. When requiring only the cylinder body with mounting accessories, place an order for ST style (tapped on both sides).
- The mounting accessories are applicable to double acting and double rod cylinders with bores from 32 to 100 mm and to single acting cylinders with bores from 32 to 50 mm.
 - Double rod type cylinders with the parenthesized mounting styles are not available.
 - To cylinders with bores of 12 and 16 mm, only SD style is applicable.

Table of Spring Force of Single Acting Cylinders: Spring return

Unit: N

Bore (mm)	Load	Cylinder stroke (mm)									
		5	10	15	20	25	30	35	40	45	50
φ 12	Initial load	8.1	6.5	10.2	6.4	—	—	—	—	—	—
	End load	9.8		11.4		—	—	—	—	—	—
φ 16	Initial load	11.1	9.0	10.3	9.3	—	—	—	—	—	—
	End load	13.1		13.2		—	—	—	—	—	—
φ 20	Initial load	18.3	15.6	17.9	16.8	15.7	14.5	—	—	—	—
	End load	21.2		21.4			—	—	—	—	—
φ 25	Initial load	24.0	19.9	24.9	22.9	20.0	18.9	—	—	—	—
	End load	28.4		30.7			—	—	—	—	—
φ 32	Initial load	33.7	28.5	34.7	33.0	31.3	29.3	—	—	—	—
	End load	39.4		39.2			—	—	—	—	—
φ 40	Initial load	44.1	34.7	44.7	45.6	43.5	41.4	39.3	37.2	35.1	33.0
	End load	47.5		54.5							
φ 50	Initial load	—	48.0	41.9	35.8	50.5	48.5	46.5	44.5	42.5	40.4
	End load	—	60.0			60.6					

Table of Spring Force of Single Acting Cylinders: Spring-extended

Unit: N

Bore (mm)	Load	Cylinder stroke (mm)		
		5	10	20
φ 12	Initial load	2.9		—
	End load	9.8		—
φ 16	Initial load	6.2		—
	End load	13.0		—
φ 20	Initial load	5.9		—
	End load	26.5		—
φ 25	Initial load	5.9		—
	End load	26.5		—
φ 32	Initial load	22.6		—
	End load	42.2		—
φ 40	Initial load	22.6		—
	End load	42.2		—
φ 50	Initial load	—		23.5
	End load	—		84.2

Standard Stroke Range

Series variations	Type	Bore	Cylinder stroke (mm)																	Male thread type
			5	10	15	20	25	30	35	40	45	50	60	70	75	80	90	100		
Double acting single rod	Standard type 10S-6 Switch Set 10S-6R	φ 12	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	○	
		φ 16	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	○	
		φ 20	○	○	○	○	○	○	○	○	○	○	○	○	—	—	—	—	○	
		φ 25	○	○	○	○	○	○	○	○	○	○	○	○	—	—	—	—	○	
		φ 32	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		φ 40	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		φ 50	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		φ 63	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
		φ 80	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	
φ 100	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○			
Double acting double rod	Standard type 10S-6D Switch Set 10S-6RD	φ 12	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	○	
		φ 16	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	○	
		φ 20	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	○	
		φ 25	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	○	
		φ 32	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	—	○	
		φ 40	○	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	○	
		φ 50	—	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	○	
		φ 63	—	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	○	
		φ 80	—	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	○	
φ 100	—	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	○			
Single acting spring return	Standard type 10S-6SR Switch Set 10S-6RSR	φ 12	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—	○	
		φ 16	○	○	○	○	—	—	—	—	—	—	—	—	—	—	—	—	○	
		φ 20	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	○	
		φ 25	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	○	
		φ 32	○	○	○	○	○	○	—	—	—	—	—	—	—	—	—	—	○	
		φ 40	○	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	○	
		φ 50	—	○	○	○	○	○	○	○	○	○	—	—	—	—	—	—	○	
Single acting spring-extended	Standard type 10S-6SH	φ 12	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	○	
		φ 16	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	○	
		φ 20	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	○	
		φ 25	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	○	
		φ 32	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	○	
		φ 40	○	○	—	—	—	—	—	—	—	—	—	—	—	—	—	—	○	
φ 50	—	○	—	○	—	—	—	—	—	—	—	—	—	—	—	—	○			

Notes)

1. Single acting cylinders are available only with the standard strokes.

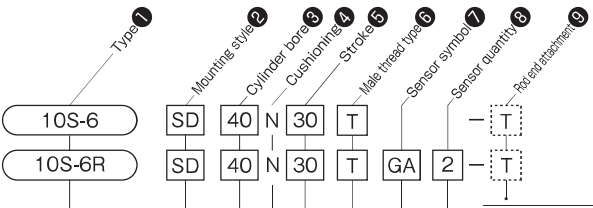
2. For fractional strokes in the standard stroke range of any double acting cylinder, consult us.
* For the leadtime, consult us.

3. For strokes more than the standard, consult us.

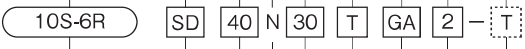
4. Do not use the cylinder in an unevenly loaded state. Particularly, when rotating mounting accessories are used, consult us without fail.

How to order

Standard type



Switch Set



Standard type	
10S-6	Double acting single rod
10S-6D	Double acting double rod
10S-6SR	Single acting spring return
10S-6SH	Single acting spring-extended
Switch Set	
10S-6R	Double acting single rod
10S-6RD	Double acting double rod
10S-6RSR	Single acting spring return

Without mounting accessory	SD (basic style)
	ST (Basic style/tapped on both sides)
	LA (Side lugs)
For mounting accessory mounting	LB (End angle)
	FA (Rod flange)
	FB (Cap flange)
	CA (Cap eye)
	CB (Cap clevis) with pin

Notes) For the mounting styles ST, LA, LB, FA, FB, CA and CB, the cylinder bore is 32 to 100 mm.

- SD style (basic style) cylinders are not tapped, so mounting accessories cannot be mounted to them. When requiring only the cylinder body with mounting accessories, place an order for ST style (tapped on both sides).

When purchasing ST style cylinder body (tapped on both sides) of mounting style FA, change dimension WF to the following value.

Female thread	φ32	15
	φ40	17
	φ50 · φ63	18
	φ80	26
	φ100	28
Male thread	φ32	13
	φ40 to φ63	15
	φ80 · φ100	24

Notes) ●No sensor can be mounted to the standard type.

- Standard type 32 mm bore, 5 mm stroke cylinders and 80 mm bore, 10 mm stroke cylinders of LA style are not available.
- If mounting bolts are necessary, place an order for the bolts specified in the mounting bolt list.

T	Rod eye (T-end)
S	Rod eye with spherical bearing (S-end)
Y	Rod clevis (Y-end)
F	Floating joint (F-end)

Notes) ●The rod end attachments are designed for male thread types. Do not use the floating joint together with CA or CB.

- 12- and 16-mm bore cylinders with S-end and those with F-end are not available.

Sensor quantity (1 or 2)

Sensor symbol

Note) Select applicable sensors out of the Sensor List.

Notes on ordering sensors

- When no sensor is required, specify 000 for the sensor symbol 7 and the sensor quantity 8.
- In the case of Switch Set, sensors are not mounted on cylinders at delivery.

Female thread type (No entry for standard type)
Male thread type

Cylinder stroke (mm)

With cushion pads (φ12 and φ16: None)

Cylinder bore (mm)

10S-6, 10S-6D 10S-6R, 10S-6RD	φ12, φ16, φ20, φ25, φ32, φ40, φ50, φ63, φ80, φ100
10S-6SR, 10S-6SH 10S-6RSR	φ12, φ16, φ20, φ25, φ32, φ40, φ50

Sensor List

Type	Sensor symbol	Load voltage range	Load current range	Protective circuit	Indicating lamp	Wiring method	Cord length	Classification
Reed sensor	 PD12L1	24 V DC 110 V AC	DC: 2.5 to 40mA AC: 2.5 to 20mA	None	None	0.2 mm ² , 2-core, outer dia. φ 2.6 mm, rear wiring	1 m	General purpose
	 PD12L3		0.2 mm ² , 2-core, outer dia. φ 2.6 mm, rear wiring			3 m		
	 PD11L1		DC: 5 to 40mA AC: 5 to 20mA		LED (Lights when sensing)	0.2 mm ² , 2-core, outer dia. φ 2.6 mm, rear wiring	1 m	
	 PD11L3		0.2 mm ² , 2-core, outer dia. φ 2.6 mm, rear wiring			3 m		
	 PD32L1		DC: 2.5 to 40mA AC: 2.5 to 20mA		None	0.2 mm ² , 2-core, outer dia. φ 2.6 mm, upper wiring	1 m	
	 PD32L3		0.2 mm ² , 2-core, outer dia. φ 2.6 mm, upper wiring			3 m		
	 PD31L1		DC: 5 to 40mA AC: 5 to 20mA		LED (Lights when sensing)	0.2 mm ² , 2-core, outer dia. φ 2.6 mm, upper wiring	1 m	
	 PD31L3		0.2 mm ² , 2-core, outer dia. φ 2.6 mm, upper wiring			3 m		
Solid state sensor	 PD14L1	DC10 to 28V	5 to 20mA	Provided	LED (Lights when sensing)	0.2 mm ² , 2-core, outer dia. φ 2.6 mm, rear wiring	1 m	General purpose
	 PD14L3	28 V DC or less	0.1 to 40mA	Provided	LED (Lights when sensing)	0.15 mm ² , 3-core, outer dia. φ 2.6 mm, rear wiring	3 m	
	 PD13L1					0.15 mm ² , 3-core, outer dia. φ 2.6 mm, rear wiring	1 m	
	 PD13L3					0.2 mm ² , 2-core, outer dia. φ 2.6 mm, upper wiring	3 m	
	 PE34L1	DC10 to 28V	5 to 20mA	Provided	LED (Lights when sensing)	0.2 mm ² , 2-core, outer dia. φ 2.6 mm, upper wiring	1 m	
	 PE34L3	28 V DC or less	0.1 to 40mA	Provided	LED (Lights when sensing)	0.15 mm ² , 3-core, outer dia. φ 2.6 mm, upper wiring	3 m	
	 PE33L1					0.15 mm ² , 3-core, outer dia. φ 2.6 mm, upper wiring	1 m	
	 PE33L3					0.15 mm ² , 3-core, outer dia. φ 2.6 mm, upper wiring	3 m	
		 ZD136C-T	DC: 10 to 28V	5 to 50mA	Provided	LED (2-LED type in red/green)	0.5 mm ² , 2-core, outer dia. φ 6 mm, rear wiring	

Notes) ●For the sensors without a protective circuit, be sure to provide a protective circuit (SK-100) with the load when using any induction load (relay, etc.).

- For handling of sensors, be sure to see the sensor specifications at the end of this catalog.
- We recommend AND Unit (AU series) for multiple sensors connected in series. For details, refer to AND Unit at the end of this catalog.
- ZD136C-T can be mounted to cylinders with bores of 32, 40, 50, 63, 80 and 100 mm. It cannot be mounted to cylinders with bores of 12 to 25 mm.
- For ZE type sensors, see the sensor specifications at the end of this catalog.

General purpose type

PD/PE type sensor

ZD type sensor

For strong magnetic field resistance

Mounting Style

SD (Basic style)	LA (Side lugs) φ32 to φ100	FB (Cap flange) φ32 to φ100
ST (Basic style/tapped on both sides) φ32 to φ100	LB (End angle) φ32 to φ100	CA (Cap eye) φ32 to φ100
	FA (Rod flange) φ32 to φ100	CB (Cap clevis) φ32 to φ100

Weight Table

Double acting single rod/double rod/standard type and Switch Set (standard) Unit: g

Bore (mm)	Basic weight (SD/ST)				Additional weight		Male threaded rod end
	Standard type		Switch Set		Additional weight per mm of stroke		
	Double acting single rod	Double acting double rod	Double acting single rod	Double acting double rod	Double acting single rod	Double acting double rod	
ϕ 12	22	30	28.6	36.6	1.3	1.6	2
ϕ 16	30	42	40	52	1.7	2.1	2
ϕ 20	58	76	86	106	2.5	3.1	10
ϕ 25	78	104	116	142	3.2	4.1	20
ϕ 32	100	169	151	220	4.1	5.7	43
ϕ 40	176	229	248	301	4.9	6.4	43
ϕ 50	276	362	385	471	7.4	9.8	74
ϕ 63	437	550	593	706	8.6	11.1	74
ϕ 80	875	1151	1122	1398	13.8	17.6	162
ϕ 100	1154	1973	1845	2333	18.9	24.4	291

●For the double rod type, double the weight of the relevant male threaded rod end.

Single acting spring return/standard type and Switch Set Unit: g

Bore (mm)	Basic weight (SD/ST)																				Male threaded rod end
	Standard type										Switch Set										
	5	10	15	20	25	30	35	40	45	50	5	10	15	20	25	30	35	40	45	50	
φ 12	28.5	35	49	55.5	—	—	—	—	—	—	35.1	41.6	55.6	62.1	—	—	—	—	—	—	2
φ 16	39	47.5	66	74.5	—	—	—	—	—	—	49	57.5	76	84.5	—	—	—	—	—	—	2
φ 20	73	85	112	125	137	149	—	—	—	—	101	113	141	153	165	177	—	—	—	—	10
φ 25	101	117	156	172	186	204	—	—	—	—	139	155	194	218	226	242	—	—	—	—	20
φ 32	135	156	214	234	255	275	—	—	—	—	186	207	265	285	306	362	—	—	—	—	43
φ 40	221	245	343	367	391	415	440	464	488	512	293	317	415	439	463	487	512	536	560	584	43
φ 50	—	369	512	549	585	622	658	695	731	768	—	479	621	658	694	731	768	804	841	877	74

●For the double rod type, double the weight of the relevant male threaded rod end.

Single acting spring-extended/standard type Unit: g

Bore (mm)	Basic weight (SD/ST)			Male threaded rod end
	Standard type			
	5	10	20	
φ 12	29	35.5	—	2
φ 16	39	47.5	—	2
φ 20	77	88	—	10
φ 25	107	121	—	20
φ 32	139	154	—	43
φ 40	225	243	—	43
φ 50	—	386	443	74

Additional Weight Table Unit: g

Bore (mm)	Mounting accessory additional weight					Rod end attachment additional weight			
	LA	LB	FA FB	CA	CB	Rod eye (T-end)	Rod eye with spherical bearing (S-end)	Rod clevis (Y-end) with pin	Floating joint (F-end)
φ 20	—	—	—	—	—	—	55	—	60
φ 25	—	—	—	—	—	—	100	—	60
φ 32	96	84	210	145	165	160	—	270	110
φ 40	110	100	275	205	220	160	—	270	110
φ 50	160	150	415	275	380	210	—	340	380
φ 63	260	240	560	375	505	210	—	340	380
φ 80	520	500	1515	890	1100	620	—	870	
φ 100	590	580	1950	1090	1360	1240	—	1470	

Sensor Additional Weight Unit: g

Bore (mm)	Sensor additional weight	
	PD/PF type	ZD136C-T
φ 12	1: 15 3: 35	—
φ 16		
φ 20		
φ 25		
φ 32		
φ 40		254
φ 50		
φ 63		
φ 80		
φ 100		

- "1" and "3" shown in the sensor additional weight column are cord lengths. (1: 1m 3: 3 m)
For additional weights other than the basic weights, see the above table.
- | | |
|---------------------|---|
| Calculation formula | Cylinder weight (g)=basic weight+(cylinder stroke (mm)×additional weight per mm of stroke)+
mounting accessory weight+male threaded rod end+(sensor additional weight×sensor quantity) |
| Calculation example | Double acting type/single rod, cylinder bore 40 mm, stroke 50 mm, LB, male thread type,
2 pcs of PD12L1
248+ (4,9×50) +100+43+ (15×2) =666 (g) |

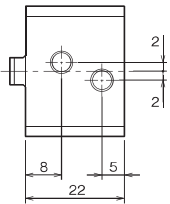
SD

Double acting single rod/standard type and Switch Set/basic style

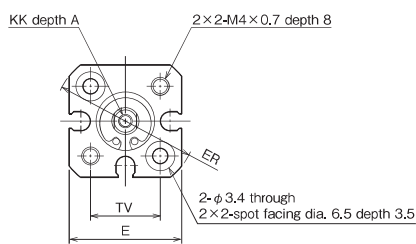
10S-6 SD Bore N Standard stroke
10S-6R SD Bore N Standard stroke — Sensor symbol Sensor quantity

- Bore $\phi 12 \cdot \phi 16$

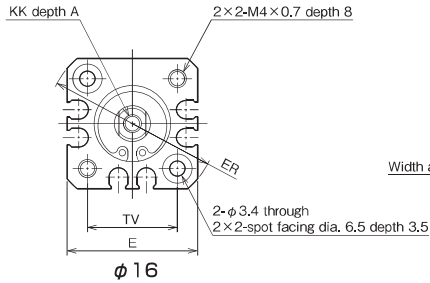
CAD/DATA
10S-6/TAS6 Bore A, B is available.



10S-6 Stroke 5



10S-6 Stroke 10 to 30
10S-6R



Dimensional Table

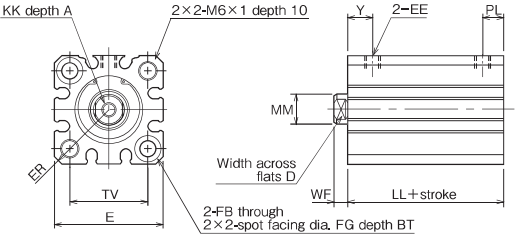
Symbol Bore	A	D	E	ER	KK	LL		MM	TV
						10S-6	10S-6R		
$\phi 12$	6	5	$\square 25$	$\phi 32$	M3×0.5	17	22	$\phi 6$	$\square 15.5$
$\phi 16$	8	6	$\square 29$	$\phi 38$	M4×0.7	17	22	$\phi 8$	$\square 20$

SD

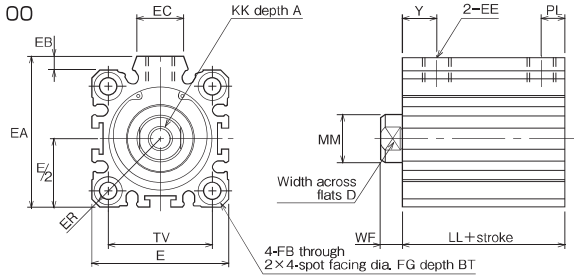
Double acting single rod/standard type and Switch Set/basic style

10S-6 SD Bore N Standard stroke
10S-6R SD Bore N Standard stroke — Sensor symbol Sensor quantity

- Bore $\phi 20 \cdot \phi 25$



- Bore $\phi 32$ to $\phi 100$



Dimensional Table

Symbol	A	BT	D	E	EA	EB	EC	EE	ER	FB	FG	KK
Bore												
$\phi 20$	7	5.4	8	$\square 36$	—	—	—	M5×0.8	R23.5	$\phi 5.5$	$\phi 9$	M5×0.8
$\phi 25$	12	5.4	10	$\square 40$	—	—	—	M5×0.8	R26	$\phi 5.5$	$\phi 9$	M6×1
$\phi 32$	13	5.4	14	$\square 45$	49.5	4.5	15	Rc1/8	R30	$\phi 5.5$	$\phi 9$	M8×1.25
$\phi 40$	13	5.4	14	$\square 52$	57	5	17.5	Rc1/8	R34.5	$\phi 5.5$	$\phi 9$	M8×1.25
$\phi 50$	15	8	17	$\square 64$	71	7	19	Rc1/4	R42.5	$\phi 6.6$	$\phi 11$	M10×1.5
$\phi 63$	15	10.5	17	$\square 77$	84	7	19	Rc1/4	R51	$\phi 9$	$\phi 14$	M10×1.5
$\phi 80$	21	13.5	22	$\square 98$	104	6	25	Rc3/8	R65	$\phi 11$	$\phi 17.5$	M16×2
$\phi 100$	27	13.5	27	$\square 117$	123.5	6.5	25	Rc3/8	R78	$\phi 11$	$\phi 17.5$	M20×2.5

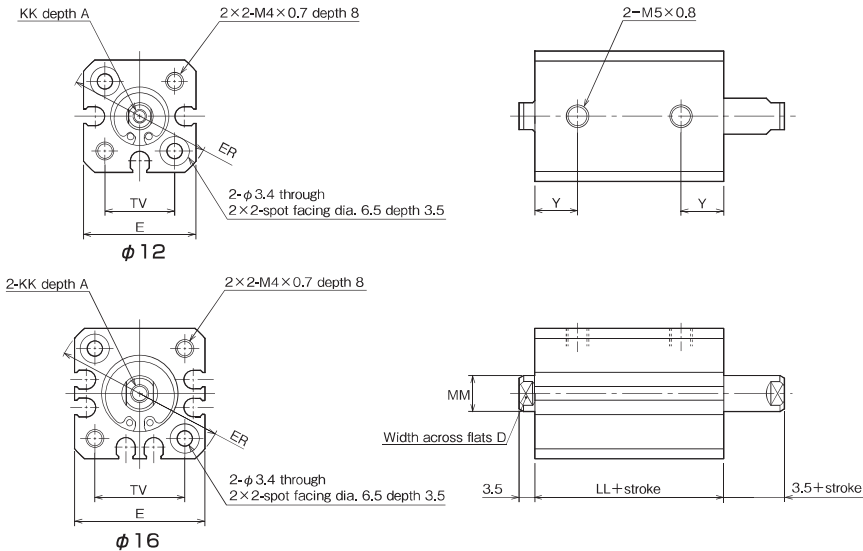
Symbol Bore Stroke	LL		MM	PL			TV	WF	Y		
	10S-6	10S-6R		10S-6		10S-6R			10S-6		10S-6R
				5	10 or more				5	10 or more	
φ 20	21.5	31.5	φ 10	6	7	7	□ 25.5	4.5	9	10	10
φ 25	22.5	32.5	φ 12	6	7	7	□ 28	5	9	10	10
φ 32	23	33	φ 16	6	8	8	□ 34	7	10	11	11
φ 40	29.5	39.5	φ 16	10	11.5	11.5	□ 40	7	10	11.5	11.5
φ 50	30.5	40.5	φ 20	—	12	12	□ 50	8	—	12	12
φ 63	36	46	φ 20	—	14.5	14.5	□ 60	8	—	14.5	14.5
φ 80	43.5	53.5	φ 25	—	16.5	16.5	□ 77	10	—	16.5	16.5
φ 100	53	63	φ 30	—	21	21	□ 94	12	—	21	21

SD

Double acting single rod/standard type and Switch Set/basic style

10S-6D SD Bore N Standard stroke
10S-6RD SD Bore N Standard stroke — Sensor symbol Sensor quantity

- Bore $\phi 12 \cdot \phi 16$



Dimensional Table

Symbol Bore \ Stroke	A	D	E	ER	KK	LL		MM	TV	Y		
										10S-6D		10S-6RD
						10S-6D	10S-6RD			5	10 or more	
$\phi 12$	6	5	$\square 25$	$\phi 32$	$M3 \times 0.5$	23	28	$\phi 6$	$\square 15.5$	8	9.5	9.5
$\phi 16$	8	6	$\square 29$	$\phi 38$	$M4 \times 0.7$	23	28	$\phi 8$	$\square 20$	8	9.5	9.5

10S-6/TAS6 Bore C, D is available. CAD/DATA is available.

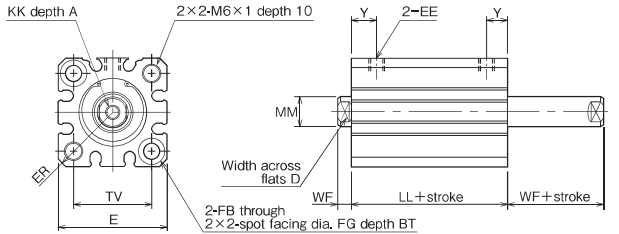


SD

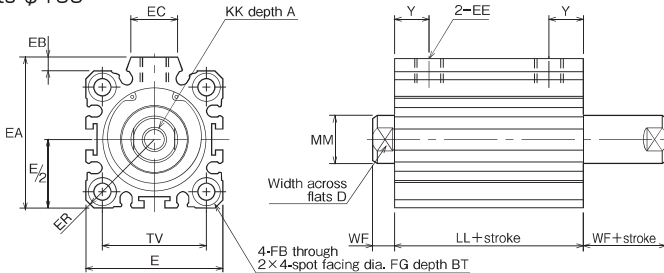
Double acting double rod/standard type and Switch Set/basic style

10S-6D SD Bore N Standard stroke
10S-6RD SD Bore N Standard stroke — Sensor symbol Sensor quantity

- Bore $\phi 20 \cdot \phi 25$



- Bore $\phi 32$ to $\phi 100$



Dimensional Table

Symbol Bore	A	BT	D	E	EA	EB	EC	EE	ER
$\phi 20$	7	5.4	8	$\square 36$	—	—	—	$M5 \times 0.8$	R23.5
$\phi 25$	12	5.4	10	$\square 40$	—	—	—	$M5 \times 0.8$	R26
$\phi 32$	13	5.4	14	$\square 45$	49.5	4.5	15	Rc1/8	R30
$\phi 40$	13	5.4	14	$\square 52$	57	5	17.5	Rc1/8	R34.5
$\phi 50$	15	8	17	$\square 64$	71	7	19	Rc1/4	R42.5
$\phi 63$	15	10.5	17	$\square 77$	84	7	19	Rc1/4	R51
$\phi 80$	21	13.5	22	$\square 98$	104	6	25	Rc3/8	R65
$\phi 100$	27	13.5	27	$\square 117$	123.5	6.5	25	Rc3/8	R78

Symbol Bore	FB	FG	KK	LL		MM	TV	WF	Y
				10S-6D	10S-6RD				
$\phi 20$	$\phi 5.5$	$\phi 9$	$M5 \times 0.8$	26.5	36.5	$\phi 10$	$\square 25.5$	4.5	10
$\phi 25$	$\phi 5.5$	$\phi 9$	$M6 \times 1$	27.5	37.5	$\phi 12$	$\square 28$	5	10
$\phi 32$	$\phi 5.5$	$\phi 9$	$M8 \times 1.25$	33	43	$\phi 16$	$\square 34$	7	11
$\phi 40$	$\phi 5.5$	$\phi 9$	$M8 \times 1.25$	34.5	44.5	$\phi 16$	$\square 40$	7	11.5
$\phi 50$	$\phi 6.6$	$\phi 11$	$M10 \times 1.5$	35.5	45.5	$\phi 20$	$\square 50$	8	12
$\phi 63$	$\phi 9$	$\phi 14$	$M10 \times 1.5$	41	51	$\phi 20$	$\square 60$	8	14.5
$\phi 80$	$\phi 11$	$\phi 17.5$	$M16 \times 2$	53.5	63.5	$\phi 25$	$\square 77$	10	16.5
$\phi 100$	$\phi 11$	$\phi 17.5$	$M20 \times 2.5$	63	73	$\phi 30$	$\square 94$	12	21

SD

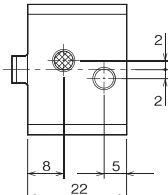
Single acting spring return/standard type and Switch Set/basic style

10S-6SR SD Bore N Standard stroke

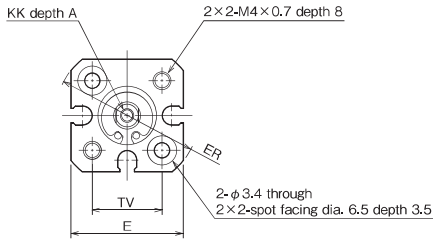
10S-6RSR SD Bore N Standard stroke – Sensor symbol Sensor quantity

- Bore $\phi 12 \cdot \phi 16$

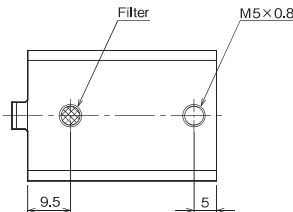
10S-6/TAS6 Bore E, F CAD/DATA is available.



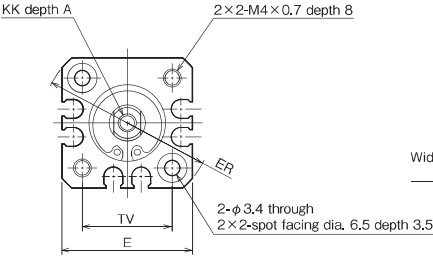
10S-6SR Stroke 5



$\phi 12$



10S-6SR Stroke 10 to 20
10S-6RSR



$\phi 16$

Dimensional Table

Symbol Bore Stroke	A	D	E	ER	KK	LL				MM	TV
						10S-6SR		10S-6RSR			
						10	15, 20	5, 10	15, 20		
φ 12	6	5	□25	φ 32	M3×0.5	17	22	22	27	φ 6	□15.5
φ 16	8	6	□29	φ 38	M4×0.7	17	22	22	27	φ 8	□20

SD

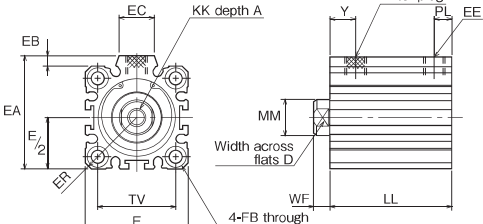
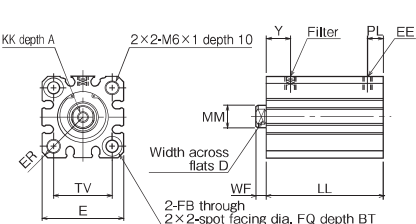
Single acting spring return/standard type and Switch Set/basic style

10S-6SR SD Bore N Standard stroke

10S-6RSR SD Bore N Standard stroke – Sensor symbol Sensor quantity

- Bore $\phi 20 \cdot \phi 25$

- Bore $\phi 32$ to $\phi 50$



Dimensional Table

Symbol	A	BT	D	E	EA	EB	EC	EE	ER	FB	FG	KK
Bore												
$\phi 20$	7	5.4	8	$\square 36$	—	—	—	M5x0.8	R23.5	$\phi 5.5$	$\phi 9$	M5x0.8
$\phi 25$	12	5.4	10	$\square 40$	—	—	—	M5x0.8	R26	$\phi 5.5$	$\phi 9$	M6x1
$\phi 32$	13	5.4	14	$\square 45$	49.5	4.5	15	Rc1/8	R30	$\phi 5.5$	$\phi 9$	M8x1.25
$\phi 40$	13	5.4	14	$\square 52$	57	5	17.5	Rc1/8	R34.5	$\phi 5.5$	$\phi 9$	M8x1.25
$\phi 50$	15	8	17	$\square 64$	71	7	19	Rc1/4	R42.5	$\phi 6.6$	$\phi 11$	M10x1.5

Symbol Bore Stroke	LL																			
	10S-6SR										10S-6RSR									
	5	10	15	20	25	30	35	40	45	50	5	10	15	20	25	30	35	40	45	50
$\phi 20$	26.5	31.5	41.5	46.5	51.5	56.5	—	—	—	—	36.5	41.5	51.5	56.5	61.5	66.5	—	—	—	—
$\phi 25$	27.5	32.5	42.5	47.5	52.5	57.5	—	—	—	—	37.5	42.5	52.5	57.5	62.5	67.5	—	—	—	—
$\phi 32$	28	33	48	53	58	63	—	—	—	—	38	43	58	63	68	73	—	—	—	—
$\phi 40$	34.5	39.5	54.5	59.5	64.5	69.5	74.5	79.5	84.5	89.5	44.5	49.5	64.5	69.5	74.5	79.5	84.5	89.5	94.5	99.5
$\phi 50$	—	40.5	45.5	50.5	65.5	70.5	75.5	80.5	85.5	90.5	—	50.5	55.5	60.5	75.5	80.5	85.5	90.5	95.5	100.5

Symbol Bore Stroke	MM	PL			TV	WF	Y		
		10S-6SR		10S-6RSR			10S-6SR		10S-6RSR
		5	10 or more				5	10 or more	
φ 20	φ 10	6	7	7	□ 25.5	4.5	9	10	10
φ 25	φ 12	6	7	7	□ 28	5	9	10	10
φ 32	φ 16	6	8	8	□ 34	7	10	11	11
φ 40	φ 16	10	11.5	11.5	□ 40	7	10	11.5	11.5
φ 50	φ 20	—	12	12	□ 50	8	—	12	12

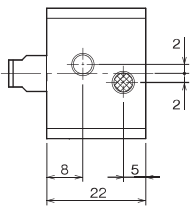
SD

Single acting spring-extended/standard type/basic style

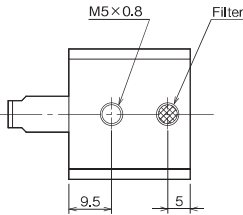
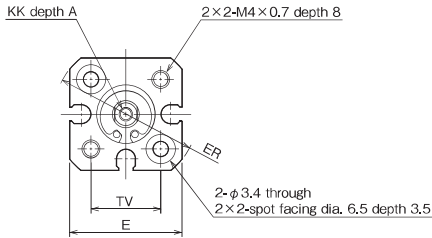
10S-6SH SD Bore N Standard stroke

- Bore $\phi 12 \cdot \phi 16$

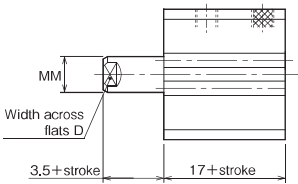
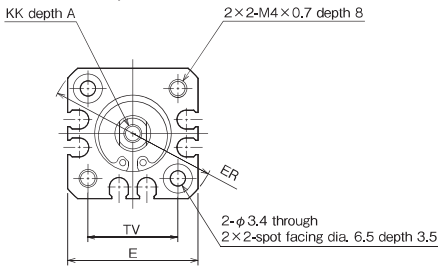
CAD/DATA
10S-6/TAS6 Bore G is available.



Stroke 5



Stroke 10



Dimensional Table

Symbol	A	D	E	ER	KK	MM	TV
Bore							
$\phi 12$	6	5	$\square 25$	$\phi 32$	M3 $\times$ 0.5	$\phi 6$	$\square 15.5$
$\phi 16$	8	6	$\square 29$	$\phi 38$	M4 $\times$ 0.7	$\phi 8$	$\square 20$

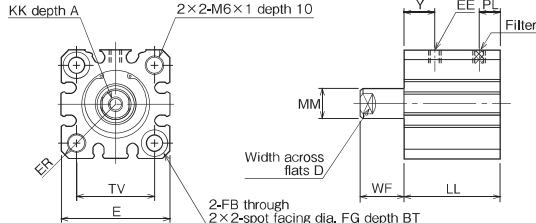
SD

Single acting spring-extended/standard type/basic style

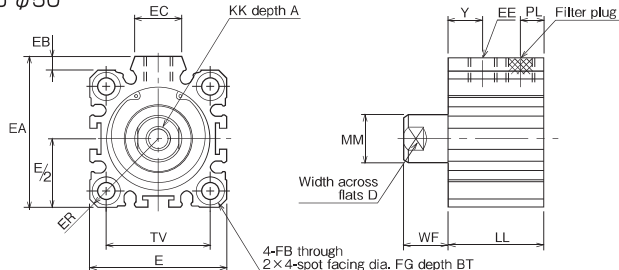
10S-6SH SD Bore N Standard stroke

- Bore $\phi 20 \cdot \phi 25$

CAD/DATA
10S-6/TAS6 Bore G is available.



- Bore $\phi 32$ to $\phi 50$



Dimensional Table

Symbol	A	BT	D	E	EA	EB	EC	EE	ER	FB	FG	KK
Bore												
$\phi 20$	7	5.4	8	$\square 36$	—	—	—	M5 $\times$ 0.8	R23.5	$\phi 5.5$	$\phi 9$	M5 $\times$ 0.8
$\phi 25$	12	5.4	10	$\square 40$	—	—	—	M5 $\times$ 0.8	R26	$\phi 5.5$	$\phi 9$	M6 $\times$ 1
$\phi 32$	13	5.4	14	$\square 45$	49.5	4.5	15	Rc1/8	R30	$\phi 5.5$	$\phi 9$	M8 $\times$ 1.25
$\phi 40$	13	5.4	14	$\square 52$	57	5	17.5	Rc1/8	R34.5	$\phi 5.5$	$\phi 9$	M8 $\times$ 1.25
$\phi 50$	15	8	17	$\square 64$	71	7	19	Rc1/4	R42.5	$\phi 6.6$	$\phi 11$	M10 $\times$ 1.5

Symbol	LL			MM	PL		TV	WF			Y	
Bore	5	10	20		5	10 or more		5	10	20	5	10 or more
$\phi 20$	26.5	31.5	—	$\phi 10$	6	7	$\square 25.5$	9.5	14.5	—	9	10
$\phi 25$	27.5	32.5	—	$\phi 12$	6	7	$\square 28$	10	15	—	9	10
$\phi 32$	28	33	—	$\phi 16$	6	8	$\square 34$	12	17	—	10	11
$\phi 40$	34.5	39.5	—	$\phi 16$	10	11.5	$\square 40$	12	17	—	10	11.5
$\phi 50$	—	40.5	50.5	$\phi 20$	—	12	$\square 50$	—	18	28	—	12

ST

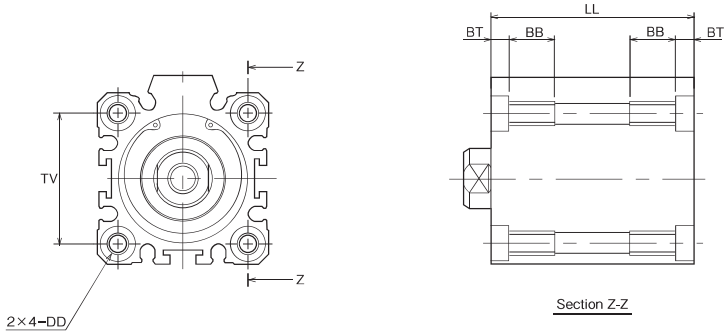
Basic style/tapped on both sides

10S-6 * * ST Bore N Standard stroke

10S-6R * * ST Bore N Standard stroke — Sensor symbol Sensor quantity

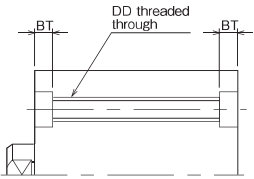
●Bore ϕ 32 to ϕ 100

CAD/DATA
10S-6/TAS6 Bore A, B is available.



Note) When dimension LL is less than the value shown in the following table, a tapped through hole is made in place of the holes BB as shown below.

Symbol Bore	ϕ 32	ϕ 40	ϕ 50	ϕ 63	ϕ 80	ϕ 100
LL	38	39.5	45.5	61	73.5	73



- For dimensions not shown in this figure, refer to SD (basic style).
- The bores of the single acting cylinders are up to 50 mm. For dimensions not shown in this figure, refer to SD (basic style).

Dimensional Table

Symbol Bore	BB Note)	BT	DD	TV
ϕ 32	12	5.4	M6×1	□34
ϕ 40	12	5.4	M6×1	□40
ϕ 50	14	8	M8×1.25	□50
ϕ 63	18	10.5	M10×1.5	□60
ϕ 80	22	13.5	M12×1.75	□77
ϕ 100	22	13.5	M12×1.75	□94

LA

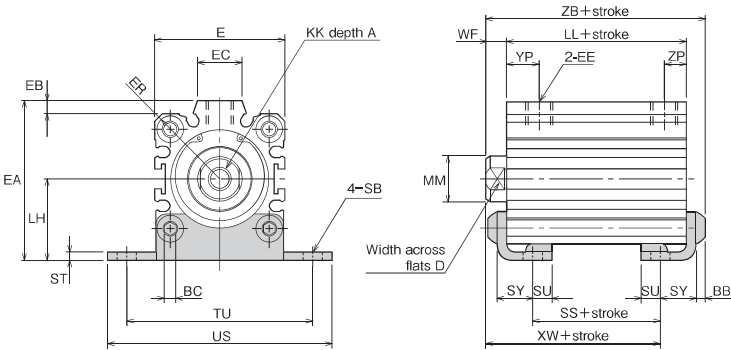
Double acting single rod/standard type and Switch Set/side lugs

10S-6 LA Bore N Standard stroke

10S-6R LA Bore N Standard stroke — Sensor symbol Sensor quantity

●Bore ϕ 32 to ϕ 100

CAD/DATA
10S-6/TAS6 Bore A, B is available.



Note) ● 10S-6LA32N5 and 10S-6LA80N10 are not available.
(The mounting accessories will interfere if the stroke is less than 10 mm in the case of 32-mm bore cylinder or less than 15 mm in the case of 80-mm bore cylinder.)

Dimensional Table

Symbol Bore	A	BB	BC	D	E	EA	EB	EC	EE	ER	KK	LH	LL		MM	SB
													10S-6	10S-6R		
ϕ 32	13	4	4	14	45	55.5	4.5	15	Rc1/8	R30	M8×1.25	28.5	23	33	ϕ 16	ϕ 6.6
ϕ 40	13	4	4	14	52	63.5	5	17.5	Rc1/8	R34.5	M8×1.25	32.5	29.5	39.5	ϕ 16	ϕ 6.6
ϕ 50	15	5	5	17	64	77	7	19	Rc1/4	R42.5	M10×1.5	38	30.5	40.5	ϕ 20	ϕ 9
ϕ 63	15	6	6	17	77	90	7	19	Rc1/4	R51	M10×1.5	44.5	36	46	ϕ 20	ϕ 11
ϕ 80	21	7	8	22	98	113.5	6	25	Rc3/8	R65	M16×2	58.5	43.5	53.5	ϕ 25	ϕ 14
ϕ 100	27	7	8	27	117	132	6.5	25	Rc3/8	R78	M20×2.5	67	53	63	ϕ 30	ϕ 14

Symbol Stroke Bore	SS		ST	SU	SY	TU	US	WF	XW		YP			ZB		ZP		
											10S-6		10S-6R			10S-6		10S-6R
	10S-6	10S-6R							5	10 or more	5	10 or more						
φ 32	4.4	14.4	3.2	6.5	12.5	65	78	7	20.7	30.7	—	11	11	37.2	47.2	—	8	8
φ 40	10.9	20.9	3.2	6.5	12.5	73	87	7	27.2	37.2	10	11.5	11.5	43.7	53.7	10	11.5	11.5
φ 50	8.9	18.9	3.2	8	14	87	103	8	27.7	37.7	—	12	12	46.7	56.7	—	12	12
φ 63	11.4	21.4	3.2	9.5	15.5	109	127	8	31.7	41.7	—	14.5	14.5	53.2	63.2	—	14.5	14.5
φ 80	10.5	20.5	4.5	11	21	123	145	10	37	47	—	16.5	16.5	65	75	—	16.5	16.5
φ 100	20	30	4.5	11	21	137	159	12	48.5	58.5	—	21	21	76.5	86.5	—	21	21

CAD/DATA
10S-6/TAS6[Bore]A, B is available.

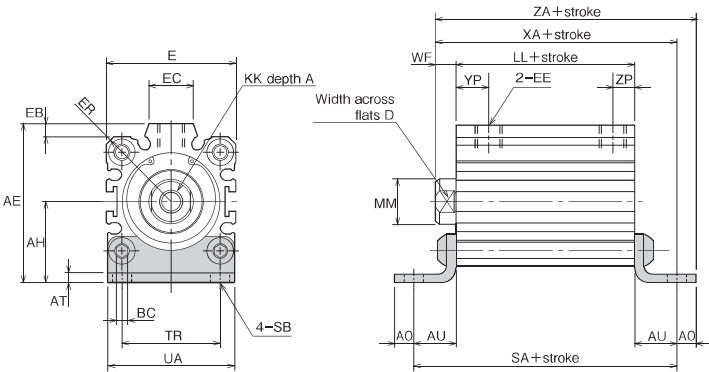


LB

Double acting single rod/standard type and Switch Set/end angle

10S-6 LB [Bore] N [Standard stroke]
10S-6R LB [Bore] N [Standard stroke] – [Sensor symbol] [Sensor quantity]

● Bore ϕ 32 to ϕ 100



Dimensional Table

Symbol Bore	A	AE	AH	AO	AT	AU	BC	D	E	EB	EC	EE	ER	KK	LL	
															10S-6	10S-6R
φ 32	13	55.5	28.5	7	3.2	15	4	14	45	4.5	15	Rc1/8	R30	M8×1.25	23	33
φ 40	13	63.5	32.5	7	3.2	15	4	14	52	5	17.5	Rc1/8	R34.5	M8×1.25	29.5	39.5
φ 50	15	77	38	9	3.2	18	5	17	64	7	19	Rc1/4	R42.5	M10×1.5	30.5	40.5
φ 63	15	90	44.5	11	3.2	20	6	17	77	7	19	Rc1/4	R51	M10×1.5	36	46
φ 80	21	113.5	58.5	14	4.5	25	8	22	98	6	25	Rc3/8	R65	M16×2	43.5	53.5
φ 100	27	132	67	14	4.5	25	8	27	117	6.5	25	Rc3/8	R78	M20×2.5	53	63

Symbol Bore	Stroke MM	SA		SB	TR	UA	WF	XA		YP			ZA		ZP		
		10S-6	10S-6R					10S-6	10S-6R	10S-6R	10S-6	10S-6R	10S-6	10S-6R			
															5	10 or more	5
φ 32	φ 16	53	63	φ 6.6	34	45	7	45	55	10	11	11	52	62	6	8	8
φ 40	φ 16	59.5	69.5	φ 6.6	40	53	7	51.5	61.5	10	11.5	11.5	58.5	68.5	10	11.5	11.5
φ 50	φ 20	66.5	76.5	φ 9	50	64	8	56.5	66.5	—	12	12	65.5	75.5	—	12	12
φ 63	φ 20	76	86	φ 11	60	77	8	64	74	—	14.5	14.5	75	85	—	14.5	14.5
φ 80	φ 25	93.5	103.5	φ 14	77	100	10	78.5	88.5	—	16.5	16.5	92.5	102.5	—	16.5	16.5
φ 100	φ 30	103	113	φ 14	94	117	12	90	100	—	21	21	104	114	—	21	21

CAD/DATA
10S-6/TAS6[Bore]A, B is available.

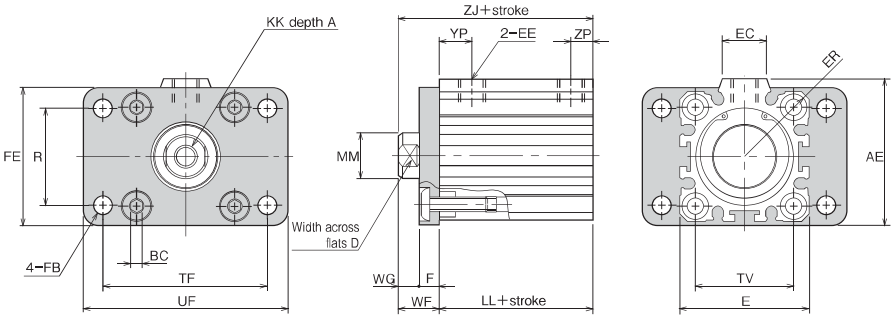


FA

Double acting single rod/standard type and Switch Set/rod flange

10S-6 FA [Bore] N [Standard stroke]
10S-6R FA [Bore] N [Standard stroke] – [Sensor symbol] [Sensor quantity]

● Bore ϕ 32 to ϕ 100



Note) ● A flange cannot be fitted on the cap side because a tapped hole is not made on the side.

Dimensional Table

Symbol Bore	A	AE	BC	D	E	EC	EE	ER	F	FB	FE	KK	LL	
													10S-6	10S-6R
ϕ 32	13	51	4	14	$\square$ 45	15	Rc1/8	R30	8	ϕ 7	48	M8×1.25	23	33
ϕ 40	13	59	4	14	$\square$ 52	17.5	Rc1/8	R34.5	10	ϕ 7	56	M8×1.25	29.5	39.5
ϕ 50	15	74	5	17	$\square$ 64	19	Rc1/4	R42.5	10	ϕ 9	70	M10×1.5	30.5	40.5
ϕ 63	15	87.5	6	17	$\square$ 77	19	Rc1/4	R51	10	ϕ 9	84	M10×1.5	36	46
ϕ 80	21	107.5	8	22	$\square$ 98	25	Rc3/8	R65	16	ϕ 12	105	M16×2	43.5	53.5
ϕ 100	27	125.5	8	27	$\square$ 117	25	Rc3/8	R78	16	ϕ 12	121	M20×2.5	53	63

Symbol Bore	Stroke MM	R	TV	TF	UF	WF	WG	YP			ZJ		ZP		
								10S-6		10S-6R	10S-6	10S-6R	10S-6	10S-6R	10S-6R
								5	10 or more				5	10 or more	
ϕ 32	ϕ 16	33	$\square$ 34	58	72	15	7	10	11	11	38	48	6	8	8
ϕ 40	ϕ 16	36	$\square$ 40	70	84	17	7	10	11.5	11.5	46.5	56.5	10	11.5	11.5
ϕ 50	ϕ 20	47	$\square$ 50	86	104	18	8	—	12	12	48.5	58.5	—	12	12
ϕ 63	ϕ 20	56	$\square$ 60	98	116	18	8	—	14.5	14.5	54	64	—	14.5	14.5
ϕ 80	ϕ 25	70	$\square$ 77	126	150	26	10	—	16.5	16.5	69.5	79.5	—	16.5	16.5
ϕ 100	ϕ 30	84	$\square$ 94	143	165	28	12	—	21	21	81	91	—	21	21

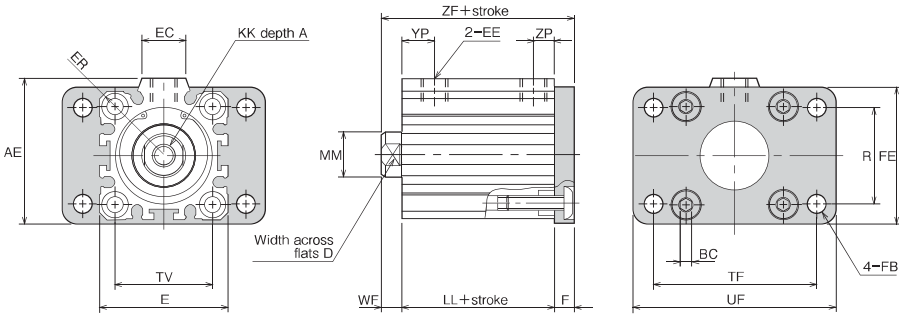
CAD/DATA
10S-6/TAS6 □Bore A, B is available.

FB

Double acting single rod/standard type and Switch Set/cap flange

10S-6 FB □Bore N □Standard stroke
10S-6R FB □Bore N □Standard stroke – □Sensor symbol □Sensor quantity

● Bore $\phi 32$ to $\phi 100$



Note) ● A flange cannot be fitted on the rod side because a tapped hole is not made on the side.

Dimensional Table

Symbol Bore	A	AE	BC	D	E	EC	EE	ER	F	FB	FE	KK	LL	
													10S-6	10S-6R
φ 32	13	51	4	14	□45	15	Rc1/8	R30	8	φ 7	48	M8×1.25	23	33
φ 40	13	59	4	14	□52	17.5	Rc1/8	R34.5	10	φ 7	56	M8×1.25	29.5	39.5
φ 50	15	74	5	17	□64	19	Rc1/4	R42.5	10	φ 9	70	M10×1.5	30.5	40.5
φ 63	15	87.5	6	17	□77	19	Rc1/4	R51	10	φ 9	84	M10×1.5	36	46
φ 80	21	107.5	8	22	□98	25	Rc3/8	R65	16	φ 12	105	M16×2	43.5	53.5
φ 100	27	125.5	8	27	□117	25	Rc3/8	R78	16	φ 12	121	M20×2.5	53	63

Symbol Bore	Stroke	MM	R	TV	TF	UF	WF	YP			ZF		ZP				
								10S-6		10S-6R	10S-6		10S-6		10S-6R		
								5	10 or more		5	10 or more	5	10 or more			
φ 32	φ 16	33	□34	58	72	7	10	11	11	38	48	6	8	8			
φ 40	φ 16	36	□40	70	84	7	10	11.5	11.5	46.5	56.5	10	11.5	11.5			
φ 50	φ 20	47	□50	86	104	8	—	12	12	48.5	58.5	—	12	12			
φ 63	φ 20	56	□60	98	116	8	—	14.5	14.5	54	64	—	14.5	14.5			
φ 80	φ 25	70	□77	126	150	10	—	16.5	16.5	69.5	79.5	—	16.5	16.5			
φ 100	φ 30	84	□94	143	165	12	—	21	21	81	91	—	21	21			

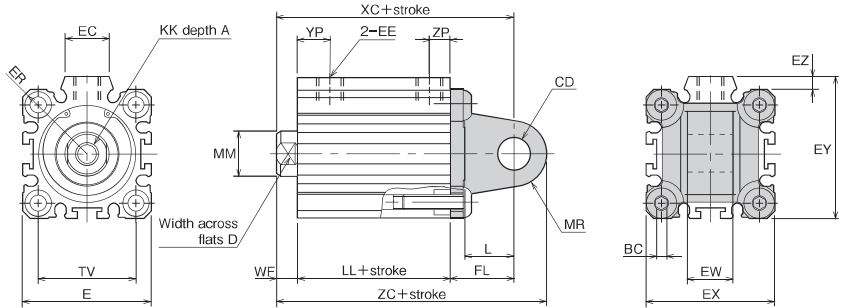
CAD/DATA
10S-6/TAS6 □Bore A, B is available.

CA

Double acting single rod/standard type and Switch Set/cap eye

10S-6 CA □Bore N □Standard stroke
10S-6R CA □Bore N □Standard stroke – □Sensor symbol □Sensor quantity

● Bore $\phi 32$ to $\phi 100$



Dimensional Table

Symbol Bore	A	BC	CD	D	E	EC	EE	ER	EX	EY	EZ	EW	FL	KK
$\phi 32$	13	4	$\phi 12H9$	14	$\square 45$	15	Rc1/8	R30	$\square 45$	49.5	4.5	$16^{+0.070}_{-0.070}$	24	M8×1.25
$\phi 40$	13	4	$\phi 14H9$	14	$\square 52$	17.5	Rc1/8	R34.5	$\square 53$	57.5	4.5	$20^{+0.084}_{-0.084}$	24	M8×1.25
$\phi 50$	15	5	$\phi 14H9$	17	$\square 64$	19	Rc1/4	R42.5	$\square 64$	71	7	$20^{+0.084}_{-0.084}$	24	M10×1.5
$\phi 63$	15	6	$\phi 14H9$	17	$\square 77$	19	Rc1/4	R51	$\square 77$	84	7	$20^{+0.084}_{-0.084}$	24	M10×1.5
$\phi 80$	21	8	$\phi 20H9$	22	$\square 98$	25	Rc3/8	R65	$\square 100$	105	5	$32^{+0.100}_{-0.100}$	32	M16×2
$\phi 100$	27	8	$\phi 20H9$	27	$\square 117$	25	Rc3/8	R78	$\square 117$	123.5	6.5	$32^{+0.100}_{-0.100}$	32	M20×2.5

Symbol Bore	Stroke	L	LL		MM	MR	TV	WF	XC		YP			ZC		ZP		
			10S-6	10S-6R					10S-6	10S-6R	10S-6		10S-6	10S-6R	10S-6		10S-6R	
											5	10 or more			5	10 or more		
$\phi 32$	16.5	23	33	$\phi 16$	R12	$\square 34$	7	54	64	10	11	11	66	76	6	8	8	
$\phi 40$	16	29.5	39.5	$\phi 16$	R14	$\square 40$	7	60.5	70.5	10	11.5	11.5	74.5	84.5	10	11.5	11.5	
$\phi 50$	16	30.5	40.5	$\phi 20$	R14	$\square 50$	8	62.5	72.5	—	12	12	76.5	86.5	—	12	12	
$\phi 63$	16	36	46	$\phi 20$	R14	$\square 60$	8	68	78	—	14.5	14.5	82	92	—	14.5	14.5	
$\phi 80$	21	43.5	53.5	$\phi 25$	R19	$\square 77$	10	85.5	95.5	—	16.5	16.5	104.5	114.5	—	16.5	16.5	
$\phi 100$	21	53	63	$\phi 30$	R19	$\square 94$	12	97	107	—	21	21	116	126	—	21	21	

CAD/DATA
10S-6/TAS6[Bore]A, B is available.

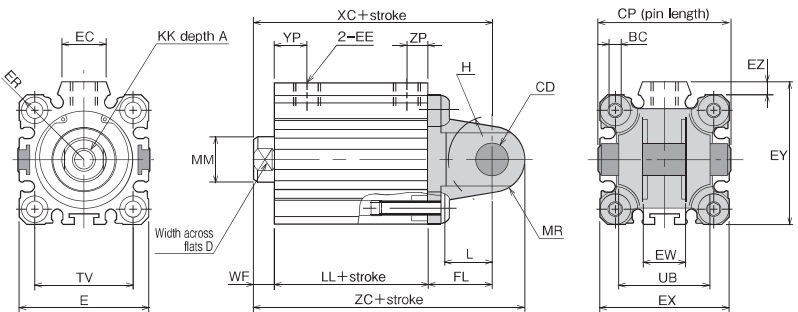


CB

Double acting single rod/standard type and Switch Set/cap clevis

10S-6 CB[Bore]N[Standard stroke]
10S-6R CB[Bore]N[Standard stroke] – [Sensor symbol] [Sensor quantity]

●Bore ϕ 32 to ϕ 100



Dimensional Table

Symbol Bore	A	BC	CD	CP	D	E	EC	EE	ER	EX	EY	EZ	EW	FL	H	KK
ϕ 32	13	4	ϕ 12H9/f8	45	14	$\square$ 45	15	Rc1/8	R30	$\square$ 45	49.5	4.5	$16^{+0.7}_{-0.5}$	24	R16.5	M8×1.25
ϕ 40	13	4	ϕ 14H9/f8	52	14	$\square$ 52	17.5	Rc1/8	R34.5	$\square$ 53	57.5	4.5	$20^{+0.7}_{-0.5}$	24	R18	M8×1.25
ϕ 50	15	5	ϕ 14H9/f8	63	17	$\square$ 64	19	Rc1/4	R42.5	$\square$ 64	71	7	$20^{+0.7}_{-0.5}$	24	R21	M10×1.5
ϕ 63	15	6	ϕ 14H9/f8	66	17	$\square$ 77	19	Rc1/4	R51	$\square$ 77	84	7	$20^{+0.7}_{-0.5}$	24	R22	M10×1.5
ϕ 80	21	8	ϕ 20H9/f8	78	22	$\square$ 98	25	Rc3/8	R65	$\square$ 100	105	5	$32^{+0.7}_{-0.5}$	32	R30	M16×2
ϕ 100	27	8	ϕ 20H9/f8	78	27	$\square$ 117	25	Rc3/8	R78	$\square$ 117	123.5	6.5	$32^{+0.7}_{-0.5}$	32	R30	M20×2.5

Symbol Stroke Bore	L	LL		MM	MR	TV	UB	WF	XC		YP			ZC		ZP		
		10S-6	10S-6R						10S-6		10S-6R	10S-6	10S-6R	10S-6		10S-6R		
									5	10 or more				5	10 or more			
φ 32	16.5	23	33	φ 16	R12	□34	31	7	54	64	10	11	11	66	76	6	8	8
φ 40	16	29.5	39.5	φ 16	R14	□40	38	7	60.5	70.5	10	11.5	11.5	74.5	84.5	10	11.5	11.5
φ 50	16	30.5	40.5	φ 20	R14	□50	49	8	62.5	72.5	—	12	12	76.5	86.5	—	12	12
φ 63	16	36	46	φ 20	R14	□60	52	8	68	78	—	14.5	14.5	82	92	—	14.5	14.5
φ 80	21	43.5	53.5	φ 25	R19	□77	64	10	85.5	95.5	—	16.5	16.5	104.5	114.5	—	16.5	16.5
φ 100	21	53	63	φ 30	R19	□94	64	12	97	107	—	21	21	116	126	—	21	21

CAD/DATA
10S-6/TAS6[Bore]A, B is available.

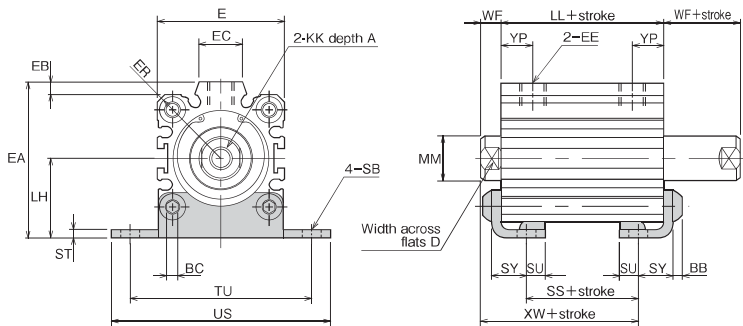


LA

Double acting double rod/standard type and Switch Set/side lugs

10S-6D LA[Bore]N[Standard stroke]
10S-6RD LA[Bore]N[Standard stroke] – [Sensor symbol] [Sensor quantity]

●Bore ϕ 32 to ϕ 100



Dimensional Table

Symbol Bore	A	BB	BC	D	E	EA	EB	EC	EE	ER	KK	LH
ϕ 32	13	4	4	14	45	55.5	4.5	15	Rc1/8	R30	M8×1.25	28.5
ϕ 40	13	4	4	14	52	63.5	5	17.5	Rc1/8	R34.5	M8×1.25	32.5
ϕ 50	15	5	5	17	64	77	7	19	Rc1/4	R42.5	M10×1.5	38
ϕ 63	15	6	6	17	77	90	7	19	Rc1/4	R51	M10×1.5	44.5
ϕ 80	21	7	8	22	98	113.5	6	25	Rc3/8	R65	M16×2	58.5
ϕ 100	27	7	8	27	117	132	6.5	25	Rc3/8	R78	M20×2.5	67

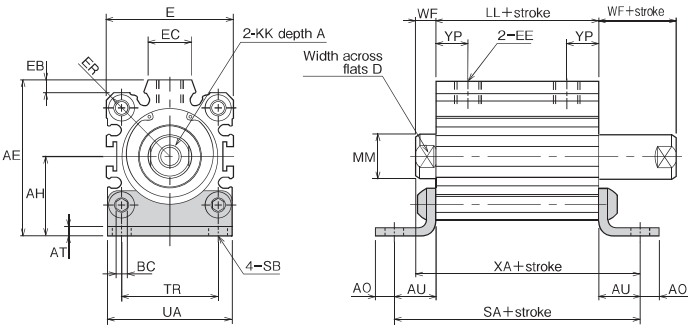
Symbol Bore	LL		MM	SB	SS		ST	SU	SY	TU	US	WF	XW		YP
	10S-6D	10S-6RD			10S-6D	10S-6RD							10S-6D	10S-6RD	
ϕ 32	33	43	ϕ 16	ϕ 6.6	14.4	24.4	3.2	6.5	12.5	65	78	7	30.7	40.7	11
ϕ 40	34.5	44.5	ϕ 16	ϕ 6.6	15.9	25.9	3.2	6.5	12.5	73	87	7	32.2	42.2	11.5
ϕ 50	35.5	45.5	ϕ 20	ϕ 9	13.9	23.9	3.2	8	14	87	103	8	32.7	42.7	12
ϕ 63	41	51	ϕ 20	ϕ 11	16.4	26.4	3.2	9.5	15.5	109	127	8	36.7	46.7	14.5
ϕ 80	53.5	63.5	ϕ 25	ϕ 14	20.5	30.5	4.5	11	21	123	145	10	47	57	16.5
ϕ 100	63	73	ϕ 30	ϕ 14	30	40	4.5	11	21	137	159	12	58.5	68.5	21

10S-6/TAS6 [Bore] C, D is available. 

LB
Double acting double rod/standard type and Switch Set/side lugs

10S-6D LB [Bore] N [Standard stroke]
10S-6RD LB [Bore] N [Standard stroke] – [Sensor symbol] [Sensor quantity]

● Bore $\phi 32$ to $\phi 100$



Dimensional Table

Symbol Bore	A	AE	AH	AO	AT	AU	BC	D	E	EB	EC	EE
$\phi 32$	13	55.5	28.5	7	3.2	15	4	14	45	4.5	15	Rc1/8
$\phi 40$	13	63.5	32.5	7	3.2	15	4	14	52	5	17.5	Rc1/8
$\phi 50$	15	77	38	9	3.2	18	5	17	64	7	19	Rc1/4
$\phi 63$	15	90	44.5	11	3.2	20	6	17	77	7	19	Rc1/4
$\phi 80$	21	113.5	58.5	14	4.5	25	8	22	98	6	25	Rc3/8
$\phi 100$	27	132	67	14	4.5	25	8	27	117	6.5	25	Rc3/8

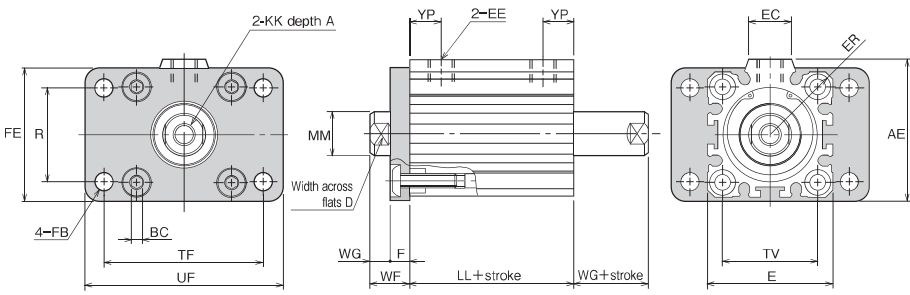
Symbol Bore	ER	KK	LL		MM	SA		SB	TR	UA	WF	XA		YP
			10S-6D	10S-6RD		10S-6D	10S-6RD					10S-6D	10S-6RD	
$\phi 32$	R30	M8×1.25	33	43	$\phi 16$	63	73	$\phi 6.6$	34	45	7	55	65	11
$\phi 40$	R34.5	M8×1.25	34.5	44.5	$\phi 16$	64.5	74.5	$\phi 6.6$	40	53	7	56.5	66.5	11.5
$\phi 50$	R42.5	M10×1.5	35.5	45.5	$\phi 20$	71.5	81.5	$\phi 9$	50	64	8	61.5	71.5	12
$\phi 63$	R51	M10×1.5	41	51	$\phi 20$	81	91	$\phi 11$	60	77	8	69	79	14.5
$\phi 80$	R65	M16×2	53.5	63.5	$\phi 25$	103.5	113.5	$\phi 14$	77	100	10	88.5	98.5	16.5
$\phi 100$	R78	M20×2.5	63	73	$\phi 30$	113	123	$\phi 14$	94	117	12	100	110	21

10S-6/TAS6 [Bore] C, D is available. 

FA
Double acting double rod/standard type and Switch Set/rod flange

10S-6D FA [Bore] N [Standard stroke]
10S-6RD FA [Bore] N [Standard stroke] – [Sensor symbol] [Sensor quantity]

● Bore $\phi 32$ to $\phi 100$



Dimensional Table

Symbol Bore	A	AE	BC	D	E	EC	EE	ER	F	FB	FE
$\phi 32$	13	51	4	14	$\square 45$	15	Rc1/8	R30	8	$\phi 7$	48
$\phi 40$	13	59	4	14	$\square 52$	17.5	Rc1/8	R34.5	10	$\phi 7$	56
$\phi 50$	15	74	5	17	$\square 64$	19	Rc1/4	R42.5	10	$\phi 9$	70
$\phi 63$	15	87.5	6	17	$\square 77$	19	Rc1/4	R51	10	$\phi 9$	84
$\phi 80$	21	107.5	8	22	$\square 98$	25	Rc3/8	R65	16	$\phi 12$	105
$\phi 100$	27	125.5	8	27	$\square 117$	25	Rc3/8	R78	16	$\phi 12$	121

Symbol Bore	KK	LL		MM	R	TV	TF	UF	WF	WG	YP
		10S-6D	10S-6RD								
$\phi 32$	M8×1.25	33	43	$\phi 16$	33	$\square 34$	58	72	15	7	11
$\phi 40$	M8×1.25	34.5	44.5	$\phi 16$	36	$\square 40$	70	84	17	7	11.5
$\phi 50$	M10×1.5	35.5	45.5	$\phi 20$	47	$\square 50$	86	104	18	8	12
$\phi 63$	M10×1.5	41	51	$\phi 20$	56	$\square 60$	98	116	18	8	14.5
$\phi 80$	M16×2	53.5	63.5	$\phi 25$	70	$\square 77$	126	150	26	10	16.5
$\phi 100$	M20×2.5	63	73	$\phi 30$	84	$\square 94$	143	165	28	12	21

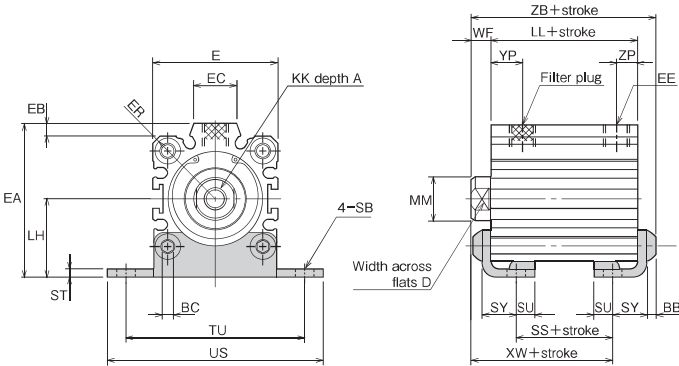
LA

Single acting spring return/standard type and Switch Set/end angle

10S-6SR LA Bore N Standard stroke

10S-6RSR LA Bore N Standard stroke – Sensor symbol Sensor quantity

- Bore $\phi 32$ to $\phi 50$



Note) ● 10S-6SR LA32N5 is not available, (The mounting accessories will interfere if the stroke is less than 10 mm.)

Dimensional Table

Symbol Stroke Bore	LL											
	A	BT	BC	D	E	EA	EB	EC	EE	ER	KK	LH
	10S-6SR						10S-6RSR					
$\phi 32$	13	4	4	14	45	55.5	4.5	15	Rc1/8	R30	M8 $\times$ 1.25	28.5
$\phi 40$	13	4	4	14	52	63.5	5	17.5	Rc1/8	R34.5	M8 $\times$ 1.25	32.5
$\phi 50$	15	5	5	17	64	77	7	19	Rc1/4	R42.5	M10 $\times$ 1.5	38

Symbol Stroke Bore	SS		ST		SU		SY		TU		US		WF	
	MM	SB	10S-6SR		10S-6RSR		10S-6SR		10S-6RSR		10S-6SR		10S-6RSR	
	5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)	
$\phi 32$	$\phi 16$	$\phi 6.6$	—	14.4	14.4	24.4	3.2	6.5	12.5	65	78	7	—	—
$\phi 40$	$\phi 16$	$\phi 6.6$	10.9	20.9	20.9	30.9	3.2	6.5	12.5	73	87	7	—	—
$\phi 50$	$\phi 20$	$\phi 9$	8.9	18.9	18.9	28.9	3.2	8	14	87	103	8	—	—

Symbol Stroke Bore	XW				YP				ZB				ZP			
	10S-6SR		10S-6RSR		10S-6SR		10S-6RSR		10S-6SR		10S-6RSR		10S-6SR		10S-6RSR	
	5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)	
$\phi 32$	20.7	30.7	30.7	40.7	—	11	11	37.2	47.2	47.2	57.2	—	8	8	—	—
$\phi 40$	27.2	37.2	37.2	47.2	10	11.5	11.5	43.7	53.7	53.7	63.7	10	11.5	11.5	—	—
$\phi 50$	27.7	37.7	37.7	47.7	—	12	12	46.7	56.7	56.7	66.7	—	12	12	—	—

Note 1) 10 to 20 for $\phi 50$
Note 2) 15 to 50 for $\phi 40$, and 25 to 50 for $\phi 50$

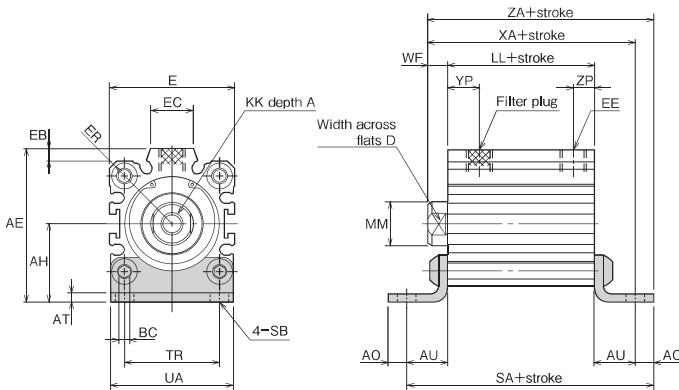
LB

Single acting spring return/standard type and Switch Set/end angle

10S-6SR LB Bore N Standard stroke

10S-6RSR LB Bore N Standard stroke – Sensor symbol Sensor quantity

- Bore $\phi 32$ to $\phi 50$



Dimensional Table

Symbol Stroke Bore	LL											
	A	AE	AH	AO	AT	AU	BC	D	E	EB	EC	EE
	10S-6SR						10S-6RSR					
$\phi 32$	13	55.5	28.5	7	3.2	15	4	14	45	4.5	15	Rc1/8
$\phi 40$	13	63.5	32.5	7	3.2	15	4	14	52	5	17.5	Rc1/8
$\phi 50$	15	77	38	9	3.2	18	5	17	64	7	19	Rc1/4

Symbol Stroke Bore	SS		ST		SU		SY		TU		US		WF	
	MM	SB	10S-6SR		10S-6RSR		10S-6SR		10S-6RSR		10S-6SR		10S-6RSR	
	5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)	
$\phi 32$	23	33	33	43	$\phi 16$	53	63	63	73	$\phi 6.6$	34	45	7	—
$\phi 40$	29.5	39.5	39.5	49.5	$\phi 16$	59.5	69.5	69.5	79.5	$\phi 6.6$	40	53	7	—
$\phi 50$	30.5	40.5	40.5	50.5	$\phi 20$	66.5	76.5	76.5	86.5	$\phi 9$	50	64	8	—

Symbol Stroke Bore	XA				YP				ZA				ZP			
	10S-6SR		10S-6RSR		10S-6SR		10S-6RSR		10S-6SR		10S-6RSR		10S-6SR		10S-6RSR	
	5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)		5 to 10 Note 1)		15 to 30 Note 2)	
$\phi 32$	45	55	55	65	10	11	11	52	62	62	72	6	8	8	—	—
$\phi 40$	51.5	61.5	61.5	71.5	10	11.5	11.5	58.5	68.5	68.5	78.5	10	11.5	11.5	—	—
$\phi 50$	56.5	66.5	66.5	76.5	—	12	12	65.5	75.5	75.5	85.5	—	12	12	—	—

Note 1) 10 to 20 for $\phi 50$
Note 2) 15 to 50 for $\phi 40$, and 25 to 50 for $\phi 50$

CAD/DATA
10S-6/TAS6[Bore]E, F is available.

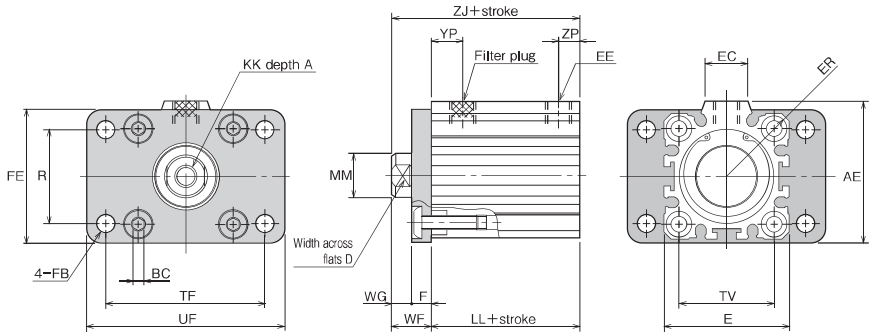


FA

Single acting spring return/standard type and Switch Set/rod flange

- 10S-6SR FA [Bore] N [Standard stroke]
10S-6RSR FA [Bore] N [Standard stroke] – [Sensor symbol] [Sensor quantity]

● Bore $\phi 32$ to $\phi 50$



Note) ● A flange cannot be fitted on the cap side because a tapped hole is not made on the side.

Dimensional Table

Symbol Stroke Bore	A	AE	BC	D	E	EC	EE	ER	F	FB	FE	KK	LL			
													10S-6SR		10S-6RSR	
													5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)
$\phi 32$	13	51	4	14	$\square 45$	15	Rc1/8	R30	8	$\phi 7$	48	M8 $\times$ 1.25	23	33	33	43
$\phi 40$	13	59	4	14	$\square 52$	17.5	Rc1/8	R34.5	10	$\phi 7$	56	M8 $\times$ 1.25	29.5	39.5	39.5	49.5
$\phi 50$	15	74	5	17	$\square 64$	19	Rc1/4	R42.5	10	$\phi 9$	70	M10 $\times$ 1.5	30.5	40.5	40.5	50.5

Symbol Stroke Bore	MM	R	TV	TF	UF	WF	WG	YP		ZJ				ZP	
								10S-6SR	10S-6RSR	10S-6SR		10S-6RSR		10S-6SR	
								5	10 or more	5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)	5	10 or more
$\phi 32$	$\phi 16$	33	$\square 34$	58	72	15	7	10	11	11	38	48	48	58	6
$\phi 40$	$\phi 16$	36	$\square 40$	70	84	17	7	10	11.5	11.5	46.5	56.5	56.5	66.5	10
$\phi 50$	$\phi 20$	47	$\square 50$	86	104	18	8	—	12	12	48.5	58.5	58.5	68.5	—

Note 1) 10 to 20 for $\phi 50$
Note 2) 15 to 50 for $\phi 40$, and 25 to 50 for $\phi 50$

CAD/DATA
10S-6/TAS6[Bore]E, F is available.

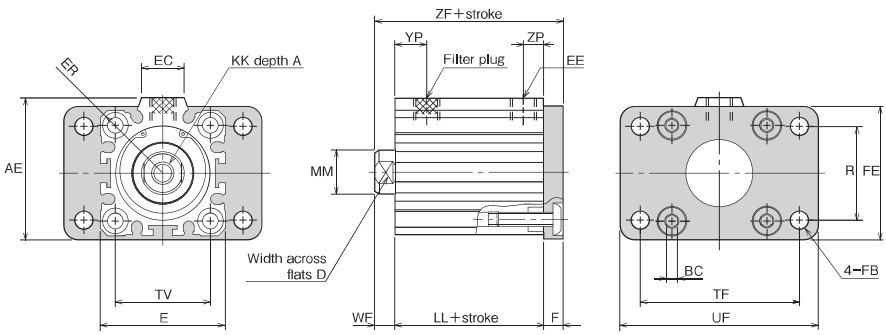


FB

Single acting spring return/standard type and Switch Set/cap flange

- 10S-6SR FB [Bore] N [Standard stroke]
10S-6RSR FB [Bore] N [Standard stroke] – [Sensor symbol] [Sensor quantity]

● Bore $\phi 32$ to $\phi 50$



Note) ● A flange cannot be fitted on the rod side because a tapped hole is not made on the side.

Dimensional Table

Symbol Stroke Bore	A	AE	BC	D	E	EC	EE	ER	F	FB	FE	KK	LL			
													10S-6SR		10S-6RSR	
													5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)
$\phi 32$	13	51	4	14	$\square 45$	15	Rc1/8	R30	8	$\phi 7$	48	M8 $\times$ 1.25	23	33	33	43
$\phi 40$	13	59	4	14	$\square 52$	17.5	Rc1/8	R34.5	10	$\phi 7$	56	M8 $\times$ 1.25	29.5	39.5	39.5	49.5
$\phi 50$	15	74	5	17	$\square 64$	19	Rc1/4	R42.5	10	$\phi 9$	70	M10 $\times$ 1.5	30.5	40.5	40.5	50.5

Symbol Stroke Bore	MM	R	TV	TF	UF	WF	WG	YP		ZF				ZP	
								10S-6SR	10S-6RSR	10S-6SR		10S-6RSR		10S-6SR	
								5	10 or more	5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)	5	10 or more
$\phi 32$	$\phi 16$	33	$\square 34$	58	72	7	10	11	11	38	48	48	58	6	8
$\phi 40$	$\phi 16$	36	$\square 40$	70	84	7	10	11.5	11.5	46.5	56.5	56.5	66.5	10	11.5
$\phi 50$	$\phi 20$	47	$\square 50$	86	104	8	—	12	12	48.5	58.5	58.5	68.5	—	12

Note 1) 10 to 20 for $\phi 50$
Note 2) 15 to 50 for $\phi 40$, and 25 to 50 for $\phi 50$

10S-6/TAS6 □ Bore □ E, F CAD/DATA is available. □

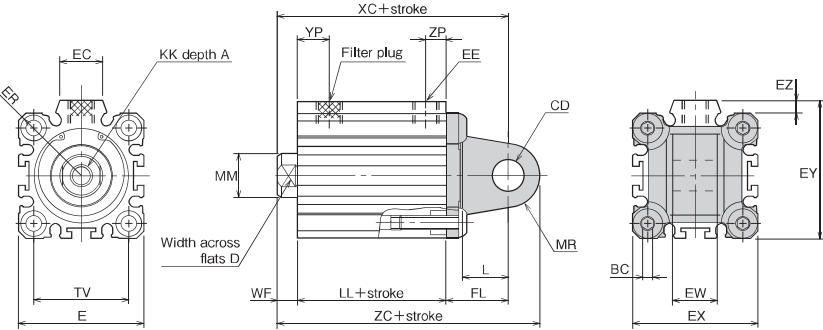
CA

Single acting spring return/standard type and Switch Set/cap eye

10S-6SR CA □ Bore □ N □ Standard stroke

10S-6RSR CA □ Bore □ N □ Standard stroke – □ Sensor symbol □ Sensor quantity

- Bore ϕ 32 to ϕ 50



Dimensional Table

Symbol	A	BC	CD	D	E	EC	EE	ER	EX	EY	EZ	EW	FL	KK
Bore														
ϕ 32	13	4	ϕ 12H9	14	$\square$ 45	15	Rc1/8	R30	$\square$ 45	49.5	4.5	$16_{-0.070}^{+0.070}$	24	M8 $\times$ 1.25
ϕ 40	13	4	ϕ 14H9	14	$\square$ 52	17.5	Rc1/8	R34.5	$\square$ 53	57.5	4.5	$20_{-0.084}^{+0.084}$	24	M8 $\times$ 1.25
ϕ 50	15	5	ϕ 14H9	17	$\square$ 64	19	Rc1/4	R42.5	$\square$ 64	71	7	$20_{-0.084}^{+0.084}$	24	M10 $\times$ 1.5

Symbol	L	LL				MM	MR	TV	WF
Stroke		10S-6SR	10S-6RSR	10S-6SR	10S-6RSR				
Bore		5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)				
ϕ 32	16.5	23	33	33	43	ϕ 16	R12	$\square$ 34	7
ϕ 40	16	29.5	39.5	39.5	49.5	ϕ 16	R14	$\square$ 40	7
ϕ 50	16	30.5	40.5	40.5	50.5	ϕ 20	R14	$\square$ 50	8

Symbol	XC				YP			ZC				ZP	
Stroke	10S-6SR	10S-6RSR	10S-6SR	10S-6RSR	10S-6SR	10S-6RSR	10S-6SR	10S-6SR	10S-6RSR	10S-6SR	10S-6RSR	10S-6SR	10S-6RSR
Bore	5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)	5	10 or more	5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)	5	10 or more	10S-6RSR
ϕ 32	54	64	64	74	10	11	11	66	76	76	86	6	8
ϕ 40	60.5	70.5	70.5	80.5	10	11.5	11.5	74.5	84.5	84.5	94.5	10	11.5
ϕ 50	62.5	72.5	72.5	82.5	—	12	12	76.5	86.5	86.5	96.5	—	12

Note 1) 10 to 20 for ϕ 50

Note 2) 15 to 50 for ϕ 40, and 25 to 50 for ϕ 50

10S-6/TAS6 □ Bore □ E, F CAD/DATA is available. □

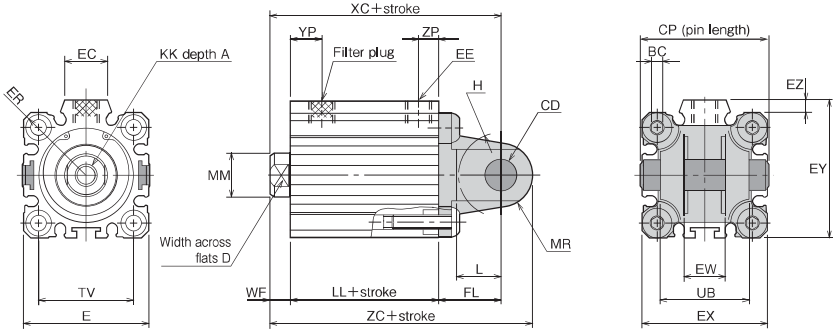
CB

Single acting spring return/standard type and Switch Set/cap clevis

10S-6SR CB □ Bore □ N □ Standard stroke

10S-6RSR CB □ Bore □ N □ Standard stroke – □ Sensor symbol □ Sensor quantity

- Bore ϕ 32 to ϕ 50



Dimensional Table

Symbol	A	BC	CD	CP	D	E	EC	EE	ER	EX	EY	EZ	EW	FL	H	KK
Bore																
ϕ 32	13	4	ϕ 12H9/8	45	14	$\square$ 45	15	Rc1/8	R30	$\square$ 45	49.5	4.5	$16_{+0.5}^{+0.7}$	24	R16.5	M8 $\times$ 1.25
ϕ 40	13	4	ϕ 14H9/8	52	14	$\square$ 52	17.5	Rc1/8	R34.5	$\square$ 53	57.5	4.5	$20_{+0.5}^{+0.7}$	24	R18	M8 $\times$ 1.25
ϕ 50	15	5	ϕ 14H9/8	63	17	$\square$ 64	19	Rc1/4	R42.5	$\square$ 64	71	7	$20_{+0.5}^{+0.7}$	24	R21	M10 $\times$ 1.5

Symbol	L	LL				MM	MR	TV	UB	WF
Stroke		10S-6SR	10S-6RSR	10S-6SR	10S-6RSR					
Bore		5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)					
ϕ 32	16.5	23	33	33	43	ϕ 16	R12	$\square$ 34	31	7
ϕ 40	16	29.5	39.5	39.5	49.5	ϕ 16	R14	$\square$ 40	38	7
ϕ 50	16	30.5	40.5	40.5	50.5	ϕ 20	R14	$\square$ 50	49	8

Symbol	XC				YP			ZC				ZP	
Stroke	10S-6SR	10S-6RSR	10S-6SR	10S-6RSR	10S-6SR	10S-6RSR	10S-6SR	10S-6SR	10S-6RSR	10S-6SR	10S-6RSR	10S-6SR	10S-6RSR
Bore	5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)	5	10 or more	5 to 10 Note 1)	15 to 30 Note 2)	5 to 10 Note 1)	15 to 30 Note 2)	5	10 or more	10S-6RSR
ϕ 32	54	64	64	74	10	11	11	66	76	76	86	6	8
ϕ 40	60.5	70.5	70.5	80.5	10	11.5	11.5	74.5	84.5	84.5	94.4	8	11.5
ϕ 50	62.5	72.5	72.5	82.5	—	12	12	76.5	86.5	86.5	96.5	—	12

Note 1) 10 to 20 for ϕ 50

Note 2) 15 to 50 for ϕ 40, and 25 to 50 for ϕ 50

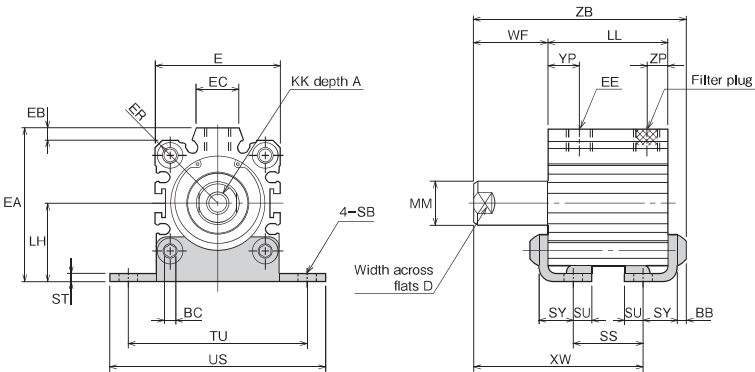
CAD/DATA
10S-6/TAS6 Bore G is available. 

LA

Single acting spring-extended/standard type/side lugs

10S-6SH LA Bore N Standard stroke

- Bore $\phi 32$ to $\phi 50$



Note) ● 10S-6SH LA32N5 is not available. (The mounting accessories will interfere if the stroke is less than 10 mm.)

Dimensional Table

Symbol Stroke Bore	A	BB	BC	D	E	EA	EB	EC	EE	ER	KK		LH	LL			MM	SB
														5	10	20		
ϕ 32	13	4	4	14	45	55.5	4.5	15	Rc1/8	R30	M8×1.25		28.5	—	33	—	ϕ 16	ϕ 6.6
ϕ 40	13	4	4	14	52	63.5	5	17.5	Rc1/8	R34.5	M8×1.25		32.5	34.5	39.5	—	ϕ 16	ϕ 6.6
ϕ 50	15	5	5	17	64	77	7	19	Rc1/4	R42.5	M10×1.5		38	—	40.5	50.5	ϕ 20	ϕ 9

Symbol Stroke Bore	SS			ST	SU	SY	TU	US	WF			XW			YP		ZB			ZP	
	5	10	20						5	10	20	5	10	20	5	10 or more	5	10	20	5	10 or more
ϕ 32	—	14.4	—	3.2	6.5	12.5	65	78	—	17	—	—	40.7	—	—	11	—	57.2	—	—	8
ϕ 40	15.9	20.9	—	3.2	6.5	12.5	73	87	12	17	—	37.2	47.2	—	10	11.5	53.7	63.7	—	10	11.5
ϕ 50	—	18.9	28.9	3.2	8	14	87	103	—	18	28	—	47.7	67.7	—	12	—	66.7	86.7	—	12

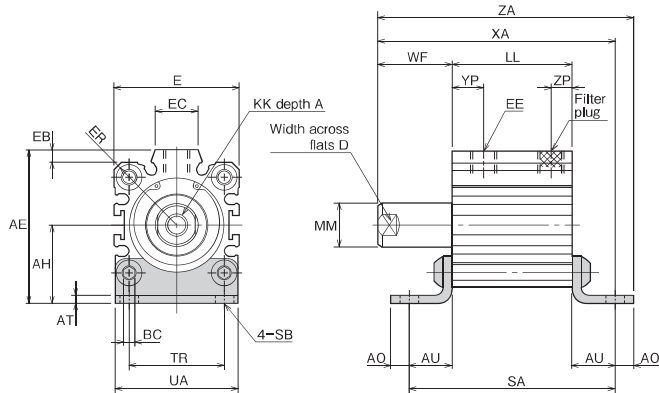
CAD/DATA
10S-6/TAS6 Bore G is available. 

LB

Single acting spring-extended/standard type/end angle

10S-6SH LB Bore N Standard stroke

- Bore $\phi 32$ to $\phi 50$



Dimensional Table

Symbol Stroke Bore	A	AE	AH	AO	AT	AU	BC	D	E	EB	EC	EE	ER	KK	LL		
															5	10	20
ϕ 32	13	55.5	28.5	7	3.2	15	4	14	45	4.5	15	Rc1/8	R30	M8×1.25	28	33	—
ϕ 40	13	63.5	32.5	7	3.2	15	4	14	52	5	17.5	Rc1/8	R34.5	M8×1.25	34.5	39.5	—
ϕ 50	15	77	38	9	3.2	18	5	17	64	7	19	Rc1/4	R42.5	M10×1.5	—	40.5	50.5

Symbol Stroke Bore	MM	SA			SB	TR	UA	WF			XA			YP		ZA			ZP	
		5	10	20				5	10	20	5	10	20	5	10 or more	5	10	20	5	10 or more
ϕ 32	ϕ 16	58	63	—	ϕ 6.6	34	45	12	17	—	55	65	—	10	11	62	72	—	6	8
ϕ 40	ϕ 16	64.5	69.5	—	ϕ 6.6	40	53	12	17	—	61.5	71.5	—	10	11.5	68.5	78.5	—	10	11.5
ϕ 50	ϕ 20	—	76.5	86.5	ϕ 9	50	64	—	18	28	—	76.5	96.5	—	12	—	85.5	105.5	—	12

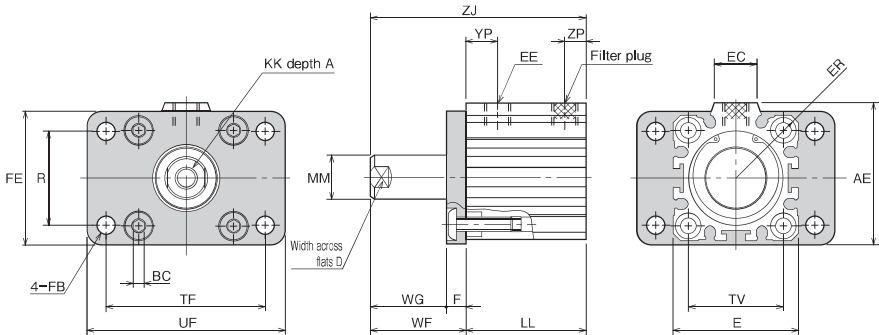
FA

Single acting spring-extended/standard type/rod flange

10S-6SH FA Bore N Standard stroke

- Bore $\phi 32$ to $\phi 50$

CAD/DATA
10S-6/TAS6 Bore G is available.



Note) • A flange cannot be fitted on the cap side because a tapped hole is not made on the side.

Dimensional Table

Symbol Stroke Bore	A	AE	BC	D	E	EC	EE	ER	F	FB	FE	KK	LL		
													5	10	20
$\phi 32$	13	51	4	14	$\square 45$	15	Rc1/8	R30	8	$\phi 7$	48	M8×1.25	28	33	—
$\phi 40$	13	59	4	14	$\square 52$	17.5	Rc1/8	R34.5	10	$\phi 7$	56	M8×1.25	34.5	39.5	—
$\phi 50$	15	74	5	17	$\square 64$	19	Rc1/4	R42.5	10	$\phi 9$	70	M10×1.5	—	40.5	50.5

Symbol Stroke Bore	MM	R	TV	TF	UF	WF			WG			YP		ZJ			ZP	
						5	10	20	5	10	20	5	10 or more	5	10	20	5	10 or more
$\phi 32$	$\phi 16$	33	$\square 34$	58	72	20	25	—	12	17	—	10	11	48	58	—	6	8
$\phi 40$	$\phi 16$	36	$\square 40$	70	84	22	27	—	12	17	—	10	11.5	56.5	66.5	—	10	11.5
$\phi 50$	$\phi 20$	47	$\square 50$	86	104	—	28	38	—	18	28	—	12	—	68.5	88.5	—	12

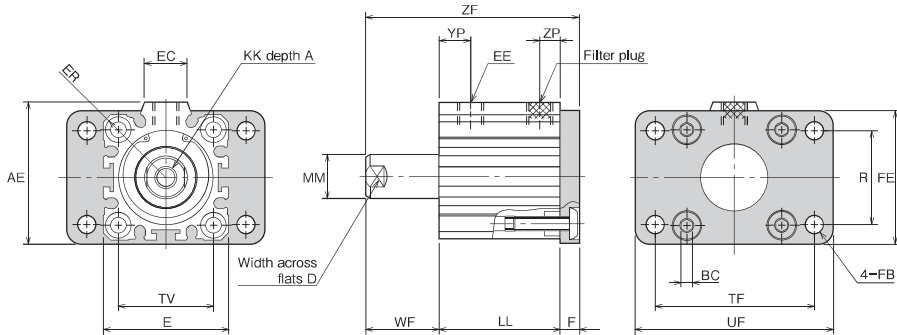
FB

Single acting spring-extended/standard type/cap flange

10S-6SH FB Bore N Standard stroke

- Bore $\phi 32$ to $\phi 50$

CAD/DATA
10S-6/TAS6 Bore G is available.



Note) • A flange cannot be fitted on the rod side because a tapped hole is not made on the side.

Dimensional Table

Symbol Stroke Bore	A	AE	BC	D	E	EC	EE	ER	F	FB	FE	KK	LL		
													5	10	20
$\phi 32$	13	51	4	14	$\square 45$	15	Rc1/8	R30	8	$\phi 7$	48	M8×1.25	28	33	—
$\phi 40$	13	59	4	14	$\square 52$	17.5	Rc1/8	R34.5	10	$\phi 7$	56	M8×1.25	34.5	39.5	—
$\phi 50$	15	74	5	17	$\square 64$	19	Rc1/4	R42.5	10	$\phi 9$	70	M10×1.5	—	40.5	50.5

Symbol Stroke Bore	MM	R	TV	TF	UF	WF			YP		ZF			ZP	
						5	10	20	5	10 or more	5	10	20	5	10 or more
$\phi 32$	$\phi 16$	33	$\square 34$	58	72	12	17	—	10	11	48	58	—	6	8
$\phi 40$	$\phi 16$	36	$\square 40$	70	84	12	17	—	10	11.5	56.5	66.5	—	10	11.5
$\phi 50$	$\phi 20$	47	$\square 50$	86	104	—	18	28	—	12	—	68.5	88.5	—	12

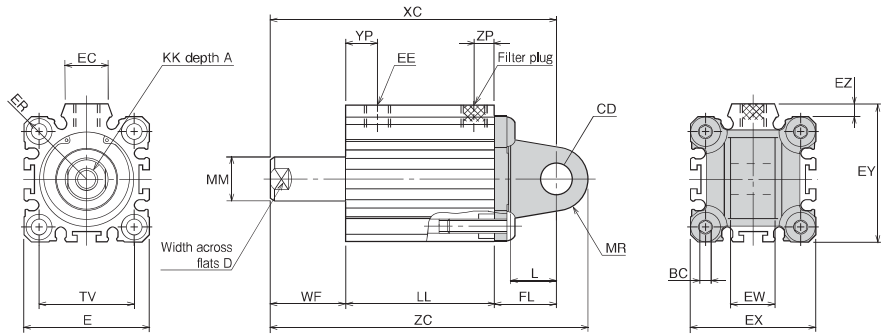
CA

Single acting spring-extended/standard type/cap eye

10S-6SH CA|Bore|N|Standard stroke

- Bore $\phi 32$ to $\phi 50$

CAD/DATA
10S-6/TAS6|Bore|G is available.



Dimensional Table

Symbol Bore	A	BC	CD	D	E	EC	EE	ER	EX	EY	EZ	EW	FL	KK	L
$\phi 32$	13	4	$\phi 12H9$	14	$\square 45$	15	Rc1/8	R30	$\square 45$	49.5	4.5	$16_{-0.070}^0$	24	M8×1.25	16.5
$\phi 40$	13	4	$\phi 14H9$	14	$\square 52$	17.5	Rc1/8	R34.5	$\square 53$	57.5	4.5	$20_{-0.084}^0$	24	M8×1.25	16
$\phi 50$	15	5	$\phi 14H9$	17	$\square 64$	19	Rc1/4	R42.5	$\square 64$	71	7	$20_{-0.084}^0$	24	M10×1.5	16

Symbol Stroke	LL			MM	MR	TV	WF			XC			YP		ZC			ZP	
Bore	5	10	20				5	10	20	5	10	20	5	10 or more	5	10	20	5	10 or more
$\phi 32$	28	33	—	$\phi 16$	R12	$\square 34$	12	17	—	64	74	—	10	11	76	86	—	6	8
$\phi 40$	34.5	39.5	—	$\phi 16$	R14	$\square 40$	12	17	—	70.5	80.5	—	10	11.5	84.5	94.5	—	10	11.5
$\phi 50$	—	40.5	50.5	$\phi 20$	R14	$\square 50$	—	18	28	—	82.5	102.5	—	12	—	96.5	116.5	—	12

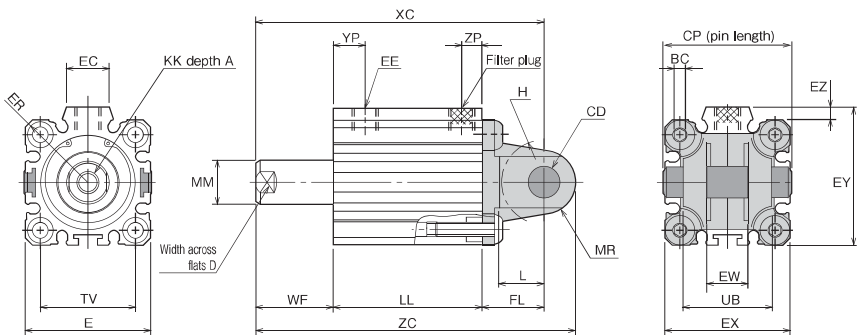
CB

Single acting spring-extended/standard type/cap clevis

10S-6SH CB|Bore|N|Standard stroke

- Bore $\phi 32$ to $\phi 50$

CAD/DATA
10S-6/TAS6|Bore|G is available.



Dimensional Table

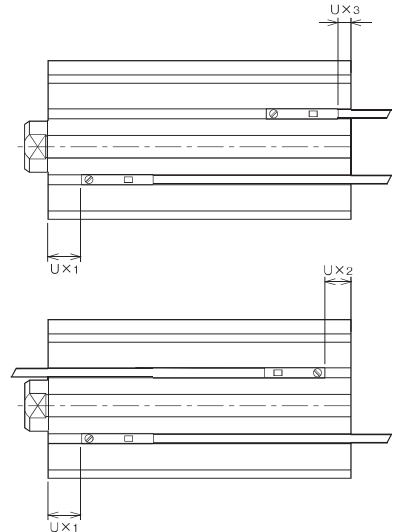
Symbol Bore	A	BC	CD	CP	D	E	EC	EE	ER	EX	EY	EZ	EW	FL	H	KK	L
$\phi 32$	13	4	$\phi 12H9/8$	45	14	$\square 45$	15	Rc1/8	R30	$\square 45$	49.5	4.5	$16_{+0.5}^{+0.7}$	24	R16.5	M8×1.25	16.5
$\phi 40$	13	4	$\phi 14H9/8$	52	14	$\square 52$	17.5	Rc1/8	R34.5	$\square 53$	57.5	4.5	$20_{+0.5}^{+0.7}$	24	R18	M8×1.25	16
$\phi 50$	15	5	$\phi 14H9/8$	63	17	$\square 64$	19	Rc1/4	R42.5	$\square 64$	71	7	$20_{+0.5}^{+0.7}$	24	R21	M10×1.5	16

Symbol Stroke	LL			MM	MR	TV	UB	WF			XC			YP		ZC			ZP	
Bore	5	10	20					5	10	20	5	10	20	5	10 or more	5	10	20	5	10 or more
$\phi 32$	28	33	—	$\phi 16$	R12	$\square 34$	31	12	17	—	64	74	—	10	11	76	86	—	6	8
$\phi 40$	34.5	39.5	—	$\phi 16$	R14	$\square 40$	38	12	17	—	70.5	80.5	—	10	11.5	84.5	94.5	—	10	11.5
$\phi 50$	—	40.5	50.5	$\phi 20$	R14	$\square 50$	49	—	18	28	—	82.5	102.5	—	12	—	96.5	116.5	—	12

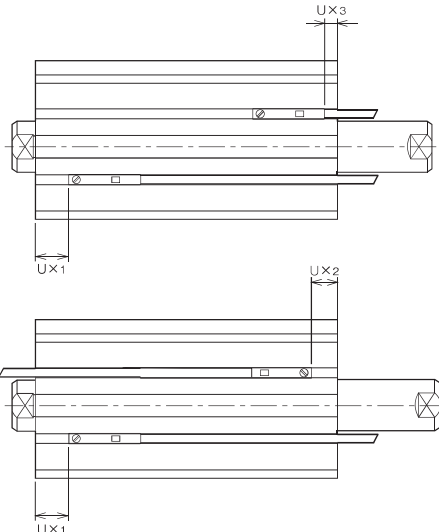
Switch Set

PD/PE type sensor

- Single rod type (double acting/single acting)



- Double acting double rod



Operating Range and Hysteresis

Bore	PD type (reed sensor)		PD type (solid state sensor)		PE type (solid state sensor)	
	Operating range	Hysteresis	Operating range	Hysteresis	Operating range	Hysteresis
φ12 (Note)	5.5 to 9	1.5 or less	1.5 to 4	1.0 or less	2.5 to 4	1.0 or less
φ16 (Note)	7 to 10.5		2 to 4.5		3 to 5	
φ20	10 to 13	2.0 or less	4 to 6.5	1.5 or less	4.5 to 7	
φ25	10.5 to 14.5		3.5 to 7		4.5 to 7	
φ32	9 to 13	1.5 or less	3.5 to 6	1.0 or less	4 to 7	1.5 or less
φ40	9.5 to 13		3.5 to 6		4 to 6	
φ50	10.5 to 14.5	2.0 or less	3 to 7.5	1.0 or less	4 to 8	1.0 or less
φ63	11.5 to 15.5		4 to 7.5		4.5 to 8	
φ80	10 to 16	2.5 or less	4.5 to 8	1.5 or less	6 to 8.5	
φ100	12 to 17	2.0 or less	4.5 to 8		5.5 to 8.5	

(Note)●When a reed sensor is mounted on the cap side of a double acting single rod or single acting spring return cylinder, the operating range in which the sensor does not protrude from the body is half of the above range.

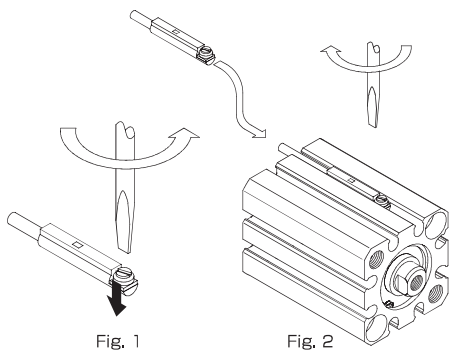
Sensor Mountable Minimum Stroke (PD/PE type)

Bore	Mounting of 2 sensors	With 1 sensor
	Mounting in 2 grooves	
φ12 · φ16	5	5
φ20 to φ100	10 (Note)	10

(Note)●It is possible to mount 2 sensors at a stroke of 5 mm. However, note that an overlap may occur.

Setting method of sensor detecting position

1. Turn the sensor fixing screw to bring it into contact with the nut.
(The sensor fixing screw has left-hand threads. Turn it counterclockwise as shown in Fig. 1.)
2. Insert the sensor in the sensor mounting groove in the cylinder body from the cap or rod side, and slide it.
3. Secure the sensor at the optimum setting position.
(Turn the sensor fixing screw clockwise as shown in Fig. 2, and the sensor fixing screw will be in contact with the sensor mounting groove in the cylinder body to secure the sensor.)
The tightening torque must be 0.1 to 0.2 N·m.
4. If the sensor has an indicating lamp, the lamp will light up when the sensor is turned on.



■Dimensional Table (PD type/reed sensor)

- Double acting single rod

Bore	φ12	φ16	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
Symbol										
UX1	0	0	3.7	3.3	4.8	9.3	9	11.5	14.5	17.5
UX2	0	0	1.8	3.2	2.2	4.2	5.5	8.5	13	19.5
UX3	-1.5	-1.5	4.3	5.7	4.7	6.7	8	11	15.5	22

- Double acting double rod

Bore	φ12	φ16	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
Symbol										
UX1	0	0	3.7	3.3	4.8	9.3	9	11.5	14.5	17.5
UX2	2.5	2.5	6.8	8.2	12.2	9.2	10.5	13.5	23	29.5
UX3	4.5	4.5	9.3	10.5	14.7	11.7	13	16	25.5	32

- Single acting (spring return)

Bore	φ 12		φ 16		φ 20		φ 25		φ 32		φ 40		φ 50	
Stroke	5 to 10	15 to 20	5 to 10	15 to 20	5 to 10	15 to 30	5 to 10	15 to 30	5 to 10	15 to 30	5 to 10	15 to 50	10 to 20	25 to 50
Symbol														
UX1	0	4.5	0	4.5	3.7	8.7	3.3	8.3	4.8	9.8	9.3	19.3	9	19
UX2	0	0	0	0	1.8	1.8	3.2	3.2	2.2	2.2	4.2	4.2	5.5	5.5
UX3	−1.5	−1.5	−1.5	−1.5	4.3	4.3	5.7	5.7	4.7	4.7	6.7	6.7	8	8

■Dimensional Table (PD type/solid state sensor)

- Double acting single rod

Bore	φ12	φ16	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
Symbol										
UX1	6	6	9.7	9.3	10.8	15.3	15	17.5	20.5	23.5
UX2	3	3	7.8	9.2	8.2	10.2	11.5	14.5	19	25.5
UX3	-7.5	-7.5	-1.7	-0.3	-1.3	0.7	2	5	9.5	16

- Double acting double rod

Bore	φ12	φ16	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
Symbol										
UX1	6	6	9.7	9.3	10.8	15.3	15	17.5	20.5	23.5
UX2	9	9	12.8	14.2	18.2	15.2	16.5	19.5	29	35.5
UX3	-1.5	-1.5	3.3	4.7	8.7	5.7	7	10	19.5	26

- Single acting (spring return)

Bore Stroke Symbol	φ 12		φ 16		φ 20		φ 25		φ 32		φ 40		φ 50	
	5 to 10	15 to 20	5 to 10	15 to 20	5 to 10	15 to 30	5 to 10	15 to 30	5 to 10	15 to 30	5 to 10	15 to 50	10 to 20	25 to 50
UX1	6	11	6	11	9.7	14.7	9.3	14.3	10.8	15.8	15.3	25.3	15	25
UX2	3	3	3	3	7.8	7.8	9.2	9.2	8.2	8.2	10.2	10.2	11.5	11.5
UX3	−7.5	−7.5	−7.5	−7.5	−1.7	−1.7	−0.3	−0.3	−1.3	−1.3	0.7	0.7	2	2

■Dimensional Table (PE type/solid state sensor)

- Double acting single rod

Bore	φ12	φ16	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
Symbol										
UX1	5	5	8.7	8.3	9.8	14.3	14	16.5	19.5	22.5
UX2	2	2	6.8	8.2	7.2	9.2	10.5	13.5	18	24.5
UX3	-5	-5	0.8	2.2	1.2	3.2	4.5	7.5	12	18.5

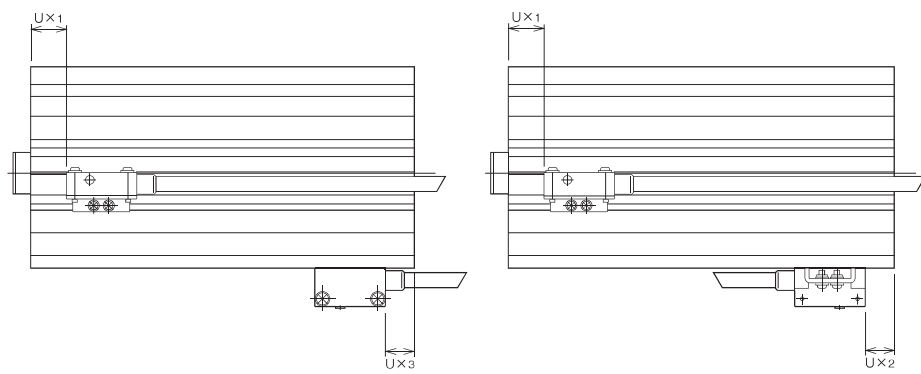
- Double acting double rod

Bore	φ12	φ16	φ20	φ25	φ32	φ40	φ50	φ63	φ80	φ100
Symbol										
UX1	5	5	8.7	8.3	9.8	14.3	14	16.5	19.5	22.5
UX2	8	8	11.8	13.2	17.2	14.2	15.5	18.5	28	34.5
UX3	1	1	5.8	7.2	11.2	8.2	9.5	12.5	22	28.5

- Single acting (spring return)

Bore Stroke Symbol	φ 12		φ 16		φ 20		φ 25		φ 32		φ 40		φ 50	
	5 to 10	15 to 20	5 to 10	15 to 20	5 to 10	15 to 30	5 to 10	15 to 30	5 to 10	15 to 30	5 to 10	15 to 50	10 to 20	25 to 50
UX1	5	10	5	10	8.7	13.7	8.3	13.3	9.8	14.8	14.3	24.3	14	24
UX2	2	2	2	2	6.8	6.8	8.2	8.2	7.2	7.2	9.2	9.2	10.5	10.5
UX3	—5	—5	—5	—5	0.8	0.8	2.2	2.2	1.2	1.2	3.2	3.2	4.5	4.5

Switch Set
ZD type sensor
● Bore $\phi 32$ to $\phi 100$



Operating Range and Hysteresis

Bore	ZD type (solid state sensor)	
	Operating range	Hysteresis
$\phi 32$	2.5 to 6 (1.5 to 4)	1 or less
$\phi 40$	3 to 6.5 (2 to 4.5)	
$\phi 50$	3.5 to 7 (2 to 4.5)	
$\phi 63$	4 to 7.5 (3 to 5.5)	
$\phi 80$	4.5 to 8 (3 to 6)	
$\phi 100$	4.5 to 8 (3 to 6)	

Note) Parenthesized are the optimum adjustment ranges (the green lamp is on).

Setting method of sensor detecting position

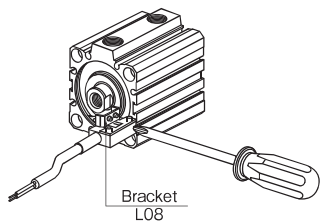
- Loosen the sensor fixing screw.
- Insert the sensor in the sensor mounting groove in the cylinder body from the cap or rod side, and slide it.
- Secure the sensor at the optimum setting position, and tighten the sensor fixing screw. The tightening torque must be 0.1 to 0.2 N·m.
- If the sensor has an indicating lamp, the lamp will light up when the sensor is turned on.

Sensor Mountable Minimum Stroke (ZD type)

Bore	Mounting of 2 sensors	Mounting of 1 sensor
	Mounting on 2 faces	
$\phi 32$ to $\phi 100$	10	5

Note) ● The above table shows the values in the case where part of the cord that cannot be folded is out of the cylinder body for reasons of the cord bending radius. For the minimum stroke in such a state that the cord is not out of the cylinder body, see the following table.

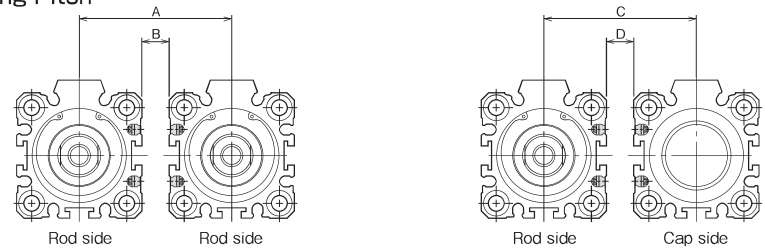
Bore	Cord protruding direction	
	Cap cover side	Rod cover side
$\phi 32$	55	55
$\phi 40$	55	50
$\phi 50$	55	50
$\phi 63$	50	50
$\phi 80$	45	45
$\phi 100$	40	40



Dimensional Table (ZD type/strong magnetic field resistance)

● Double acting single rod						
Bore	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 100$
Symbol						
UX1	10.8	15.3	15	17.5	20.5	23.5
UX2	8.2	10.2	11.5	14.5	19	25.5
UX3	—	—	—	—1.5	3	9.5
● Double acting double rod						
Bore	$\phi 32$	$\phi 40$	$\phi 50$	$\phi 63$	$\phi 80$	$\phi 100$
Symbol						
UX1	10.8	15.3	15	17.5	20.5	23.5
UX2	18.2	15.2	16.5	19.5	29	35.5
UX3	2.2	—0.8	0.5	3.5	13	19.5
● Single acting (spring return)						
Bore	$\phi 32$	$\phi 40$	$\phi 50$			
Stroke	5 to 10	15 to 30	5 to 10	15 to 30	5 to 10	15 to 30
Symbol						
UX1	10.8	15.8	15.3	20.3	15	20
UX2	8.2	8.2	10.2	10.2	11.5	11.5

Mounting Pitch



Dimensional Table

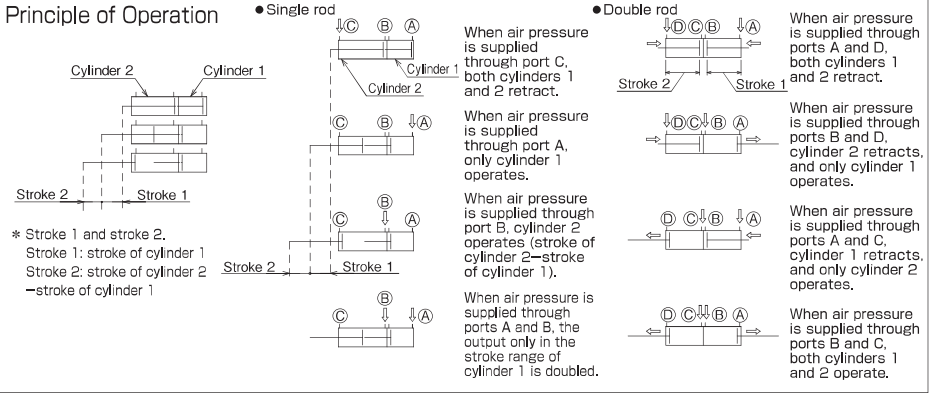
Bore	Solid state sensor type				Reed sensor type			
	A	B	C	D	A	B	C	D
$\phi 20$	36	0	41	5	36	0	42	6
$\phi 25$	40		45		40		46	
$\phi 32$	45		50		51		53	
$\phi 40$	52		57		58		60	
$\phi 50$	64	6	69	10	70	6	74	10
$\phi 63$	77		82		83		87	
$\phi 80$	98		103		104		108	
$\phi 100$	117		122		123		132	15

Custom Made Specifications

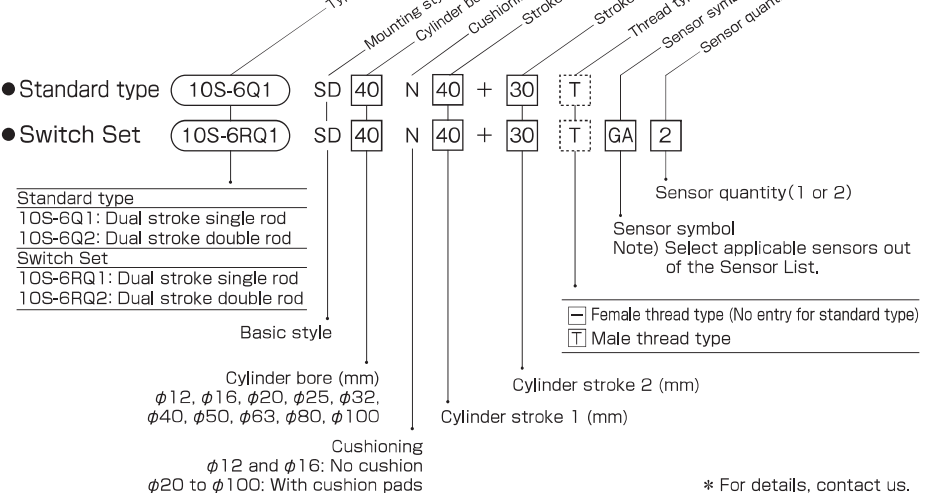
Specifications for Dual Stroke Cylinders

Series variations	Single rod		Double rod	
	Standard type	Switch Set	Standard type	Switch Set
Series	10S-6Q1	10S-6RQ1	10S-6Q2	10S-6RQ2
Cylinder bore (mm)	φ 12 · φ 16 · φ 20 · φ 25 · φ 32 · φ 40 · φ 50 · φ 63 · φ 80 · φ 100			
Working fluid	Air			
Lubrication	Unnecessary			
Working pressure range	φ12 to φ50: 0.1 to 0.7 MPa		φ63 to φ100: 0.05 to 0.7 MPa	
Working speed range	φ12 to φ40: 30 to 500 mm/s		φ50 to φ100: 30 to 300 mm/s	
Proof test pressure	1.05 MPa			
Working temperature range	+5 to +60°C			
Structure of cushioning	φ12 and φ16: None	φ20 to φ100: With cushion pads on both ends		
Tolerance for thread	JIS 6H/6g			
Rod end threads	Female thread, male thread			
Mounting style	Basic style (SD)			

Principle of Operation



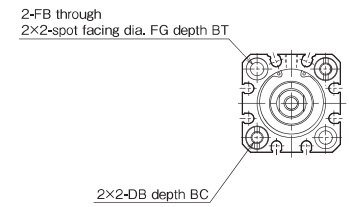
How to order



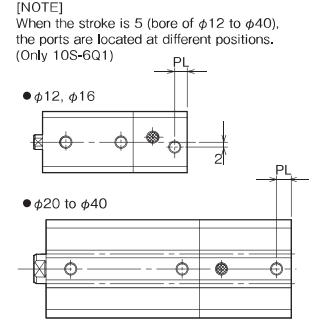
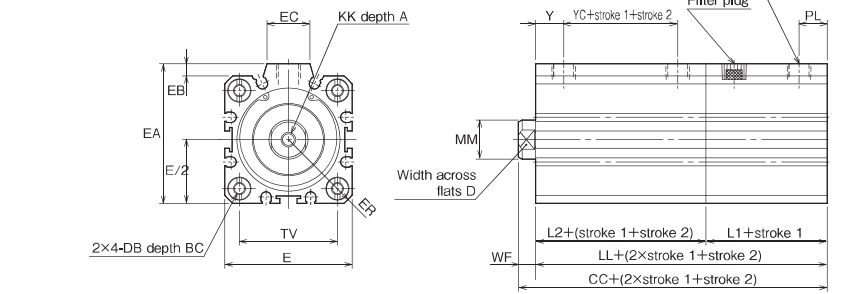
Dual stroke/single rod

10S-6Q1 SD Bore N Stroke 1 + Stroke 2

● Bore $\phi 12$ to $\phi 25$



● Bore $\phi 32$ to $\phi 100$



Dimensional Table

Symbol	A	BC	BT	CC		D	DB	E	EA	EB	EC	EE	ER	FB	FG	KK
Bore	10S-6	10S-6R	10S-6	10S-6	10S-6R	D	DB	E	EA	EB	EC	EE	ER	FB	FG	KK
$\phi 12$	6	7	3.5	43.5	53.5	5	M3×0.5	25	—	—	—	M5×0.8	R16	$\phi 3.4$	$\phi 6.5$	M3×0.5
$\phi 16$	8	7	3.5	43.5	53.5	6	M3×0.5	29	—	—	—	M5×0.8	R19	$\phi 3.4$	$\phi 6.5$	M4×0.7
$\phi 20$	7	10	5.4	57.5	77.5	8	M5×0.8	36	—	—	—	M5×0.8	R23.5	$\phi 5.5$	$\phi 9$	M5×0.8
$\phi 25$	12	10	5.4	60	80	10	M5×0.8	40	—	—	—	M5×0.8	R26	$\phi 5.5$	$\phi 9$	M6×1
$\phi 32$	13	10	—	63	83	14	M5×0.8	45	49.5	4.5	15	Rc1/8	R30	—	—	M8×1.25
$\phi 40$	13	10	—	76	96	14	M5×0.8	52	57	5	17.5	Rc1/8	R34.5	—	—	M8×1.25
$\phi 50$	15	14	—	79	99	17	M6×1	64	71	7	19	Rc1/4	R42.5	—	—	M10×1.5
$\phi 63$	15	14	—	90	110	17	M8×1.25	77	84	7	19	Rc1/4	R51	—	—	M10×1.5
$\phi 80$	21	15	—	107	127	22	M10×1.5	98	104	6	25	Rc3/8	R65	—	—	M16×2
$\phi 100$	27	15	—	128	148	27	M10×1.5	117	123.5	6.5	25	Rc3/8	R78	—	—	M20×2.5

Symbol	LL	L 1		L 2		MM	TV	WF	Y	YC		PL (10S-6)		PL
Bore	10S-6	10S-6R	10S-6	10S-6R	10S-6	10S-6R	MM	TV	WF	Y	10S-6	10S-6R	St1=5	St1=10 or more (10S-6R)
$\phi 12$	40	50	17	22	23	28	$\phi 6$	15.5	3.5	9.5	4	9	5	5
$\phi 16$	40	50	17	22	23	28	$\phi 8$	20	3.5	9.5	4	9	5	5
$\phi 20$	53	73	21.5	31.5	31.5	41.5	$\phi 10$	25.5	4.5	10	11.5	21.5	6	7
$\phi 25$	55	75	22.5	32.5	32.5	42.5	$\phi 12$	28	5	10	12.5	22.5	6	7
$\phi 32$	56	76	23	33	33	43	$\phi 16$	34	7	11	11	22	6	8
$\phi 40$	69	89	29.5	39.5	39.5	49.5	$\phi 16$	40	7	11.5	16.5	26.5	10	11.5
$\phi 50$	71	91	30.5	40.5	40.5	50.5	$\phi 20$	50	8	12	16.5	26.5	—	12
$\phi 63$	82	102	36	46	46	56	$\phi 20$	60	8	14.5	17	27	—	14.5
$\phi 80$	97	117	43.5	53.5	53.5	63.5	$\phi 25$	77	10	16.5	20.5	30.5	—	16.5
$\phi 100$	116	136	53	63	63	73	$\phi 30$	94	12	21	21	31	—	21