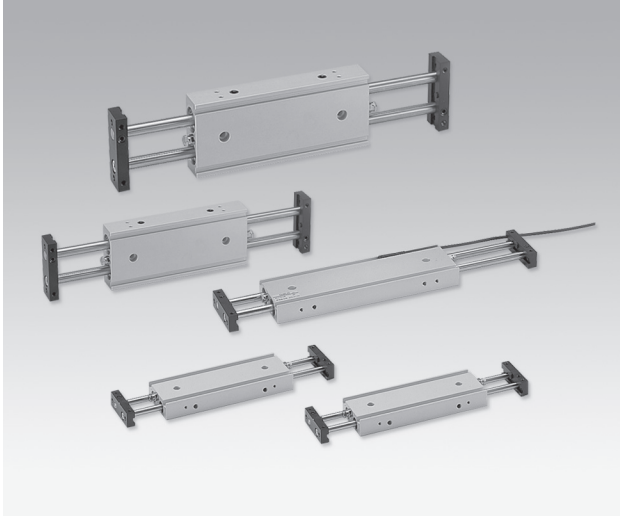


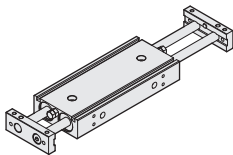
Actuator Unit – STX series

Dual rod slide unit

CHELIC



STX series
Provide CAD external dimension.



STX Series --- Dual rod slide unit --- $\varnothing 10 \sim \varnothing 25$ ----- P.6-10.47

Applicable to the working requires front and back stroke with minor adjustment.

STX series Dual Rod Slide Unit

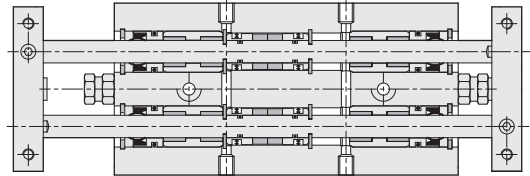
Product features

CHELIC

Internal structure



Bore size mm Piston rod dia mm Piston area cm²



Air pressure (kgf/cm²)

TD

TDX

TDXU

Theoretical force

Unit: kgf

Bore size (mm)	Piston rod dia (mm)	Piston area (cm ²)	Air pressure (kgf/cm ²)						
			1	2	3	4	5	6	7
Ø10	Ø6	1.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0
Ø16	Ø8	3.0	3.0	6.0	9.0	12.0	15.0	18.0	21.0
Ø20	Ø10	4.72	4.71	9.42	14.1	18.8	23.6	28.3	33.0
Ø25	Ø12	7.54	7.56	15.1	22.7	30.2	37.8	45.4	52.9

Note: Above are theoretical data- please take into consideration the frictional resistance and the mechanical efficiency of value should be added calculation before using. (About 70%~80%)

STU

STM

STX

Specification

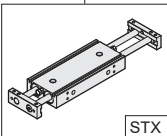
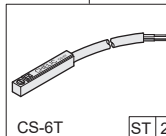
Item	Bore size (mm)	Ø10	Ø16	Ø20	Ø25
Action		Double acting			
Fluid		Air			
Pressure range	kgf/cm ² (kPa)	1 ~ 7 (100 ~ 700)			
Max. operating pressure	kgf/cm ² (kPa)	9 (900)			
Ambient and fluid temperature	°C	-10 ~ 60			
Piston speed	mm/s	50 ~ 500			
Stroke adjusting range		-5 ~ 0			
Port size		M5×0.8		PT 1/8	
Sensing device		With magnet			

Standard stroke

Unit: mm

Bore size	Stroke
Ø10	10, 20, 30, 40, 50, 75, 100
Ø16	10, 20, 30, 40, 50, 75, 100, 125, 150
Ø20	10, 20, 30, 40, 50, 75, 100, 125, 150
Ø25	10, 20, 30, 40, 50, 75, 100, 125, 150

Code of order

STX	20	×	50	-	ST	2
Model	Bore size		Stroke		Sensor switch	
	10 - Ø10 16 - Ø16 20 - Ø20 25 - Ø25		Ø10 - 10 ~ 100 Ø16 - 10 ~ 150 Ø20 - 10 ~ 150 Ø25 - 10 ~ 150			CS-6T ST 2

STX:
Dual rod cylinder

None: Without sensor switch

ST: Sensor switch mark (CS-6T)

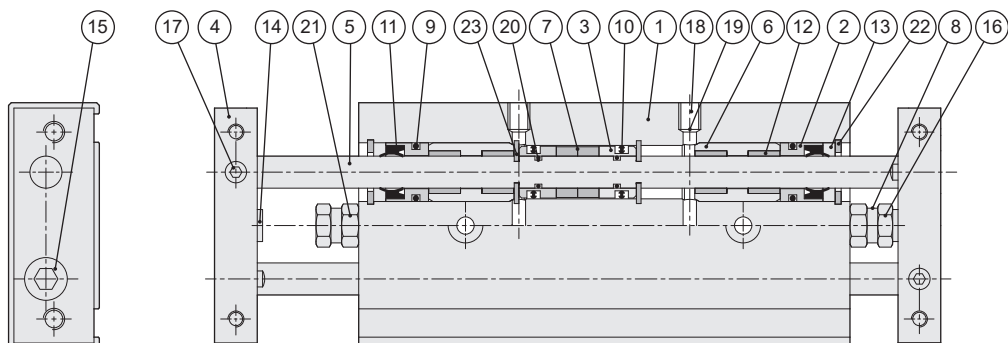
2: Quantity of sensor switch
1 = 1 PCS
2 = 2 PCS (Option)

STX series Dual Rod Slide Unit

Product features

CHELIC

Internal structure



Components and material list

No.	Item	Material	No.	Item	Material
01	Body	Aluminum alloy	13	Packing cover	Aluminum alloy
02	Front cover	Aluminum alloy	14	Cushioning rubber	Rubber
03	Piston	Copper alloy	15	Hexagon screw	Alloy steel
04	Slider	Aluminum alloy	16	Hexagon screw	Alloy steel
05	Shaft	Carbon steel	17	Set screw (use for shaft)	Alloy steel
06	Rod mounting cover	Aluminum alloy	18	Set screw (use for hole)	Alloy steel
07	Magnet	Plastic magnet	19	O-ring (use for hole)	NBR
08	Collar	Iron	20	O-ring (use for shaft)	NBR
09	Front/ Rear cover O-Ring	NBR	21	Nut	Alloy steel
10	Piston packing	NBR	22	C clip	Alloy steel
11	Shaft packing	NBR	23	S clip	Alloy steel
12	Bearing	Teflon			

Note: The surface of body be treated with hard anodizing.

Packing and O-ring part list

Unit: mm

Item	Front cover O-ring	Piston packing	Shaft packing	Plug (use for hole)	Plug (use for rod)
Quantity	8	2	4	2	4
Bore size					
Ø10	Ø8 × Ø1.5	DYP-10 (4 pcs)	PDU-6	Ø2 × Ø1.5	Ø4 × Ø1
Ø16	Ø14.5 × Ø1.5	COP-16	PDU-8	Ø2 × Ø1.5	Ø6.3 × Ø0.8
Ø20	Ø18 × Ø1.5	COP-20	PDU-10	Ø2 × Ø1.5	Ø8 × Ø1
Ø25	Ø21.8 × Ø2.4	COP-25	PDU-12	Ø4.4 × Ø1.8	Ø10 × Ø1

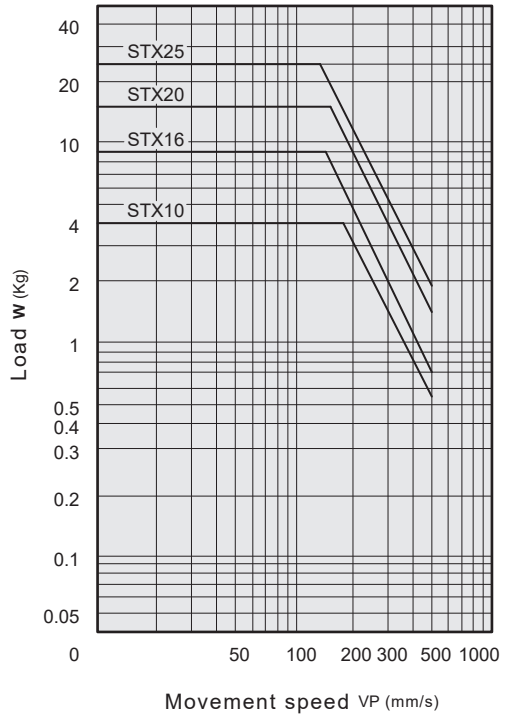
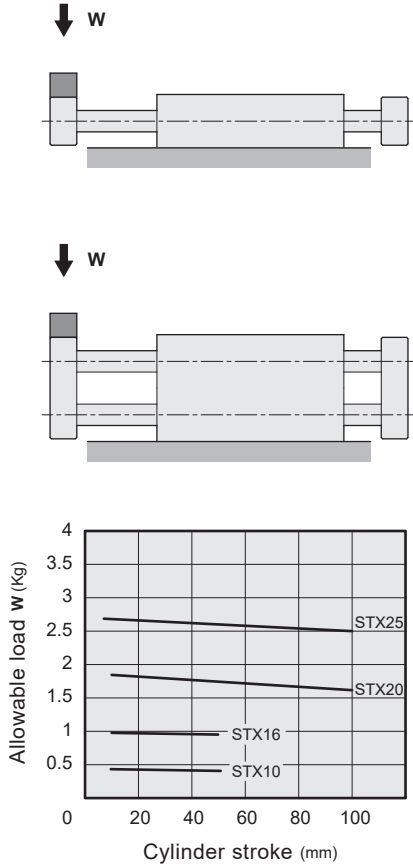
Note: The piston packing and shaft packing are from MITSUBISHI, SAKAGAMI or the same good level of quality material.

STX series Dual Rod Slide Unit

Installation

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⦿ Allowable horizontal load



TD

TDX

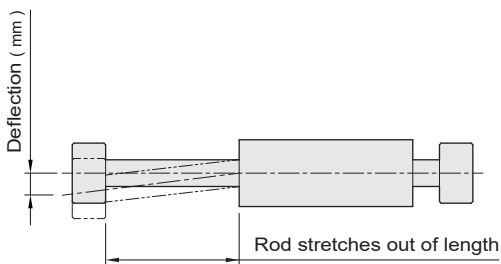
TDXU

STU

STM

STX

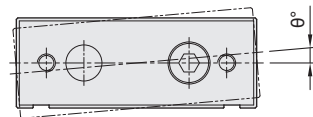
⦿ Allowable deflection



Unit: mm

Bore size	Ø10 ~ Ø25
Allowable deflection	± 0.03 mm

⦿ No rotary precision



Unit: mm

Bore size	Ø10 ~ Ø25
No rotary precision θ°	± 0.1 ° mm

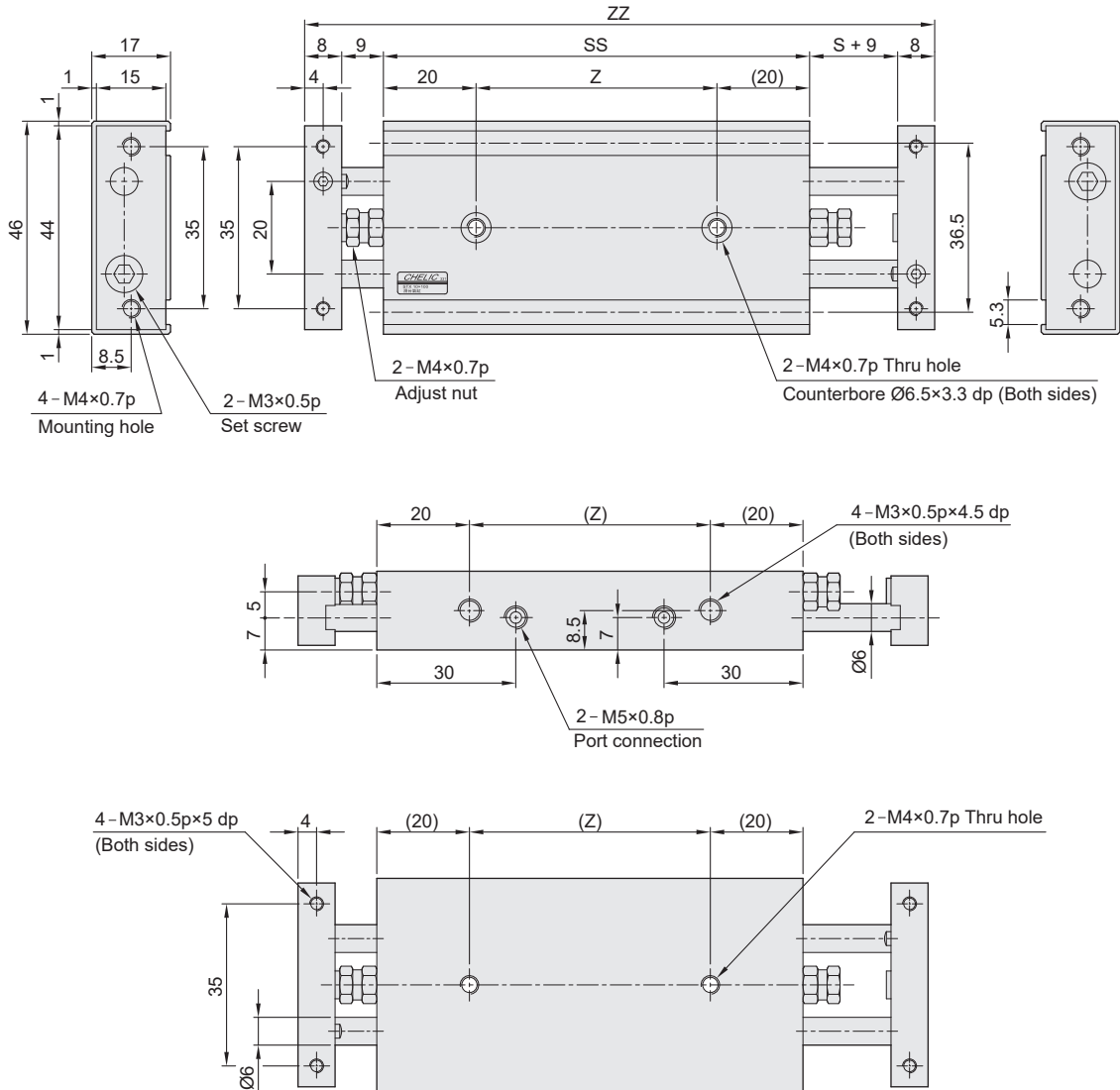
STX series Dual Rod Slide Unit

Dimensions

CHELIC

STX Ø10 ×

 STX 10 × ST



Dimension

Unit: mm

Stroke Mark	10	20	30	40	50	75	100
S	10	20	30	40	50	75	100
SS	92	102	112	122	132	157	182
ZZ	136	156	176	196	216	266	316
Z	52	62	72	82	92	117	142

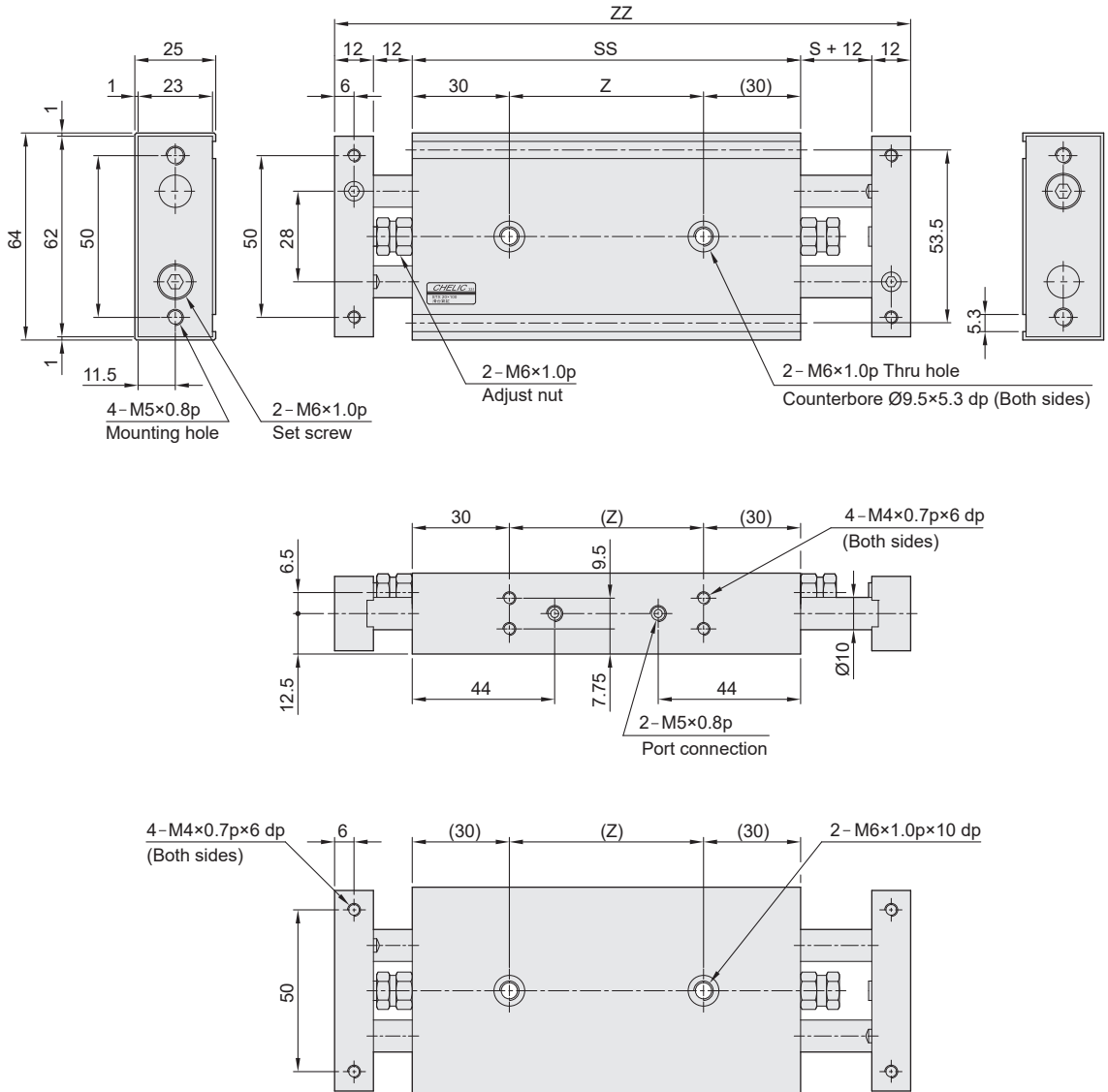
STX series Dual Rod Slide Unit

Dimensions

CHELIC

STX Ø20 ×

 STX 20 × ST



Dimension

Unit: mm

Stroke Mark	10	20	30	40	50	75	100	125	150
S	10	20	30	40	50	75	100	125	150
SS	120	130	140	150	160	185	210	235	260
ZZ	178	198	218	238	258	308	358	408	458
Z	60	70	80	90	100	125	150	175	200

STX series Dual Rod Slide Unit

Dimensions

CHELIC

STX Ø25 ×

 STX 25 × ST

TD

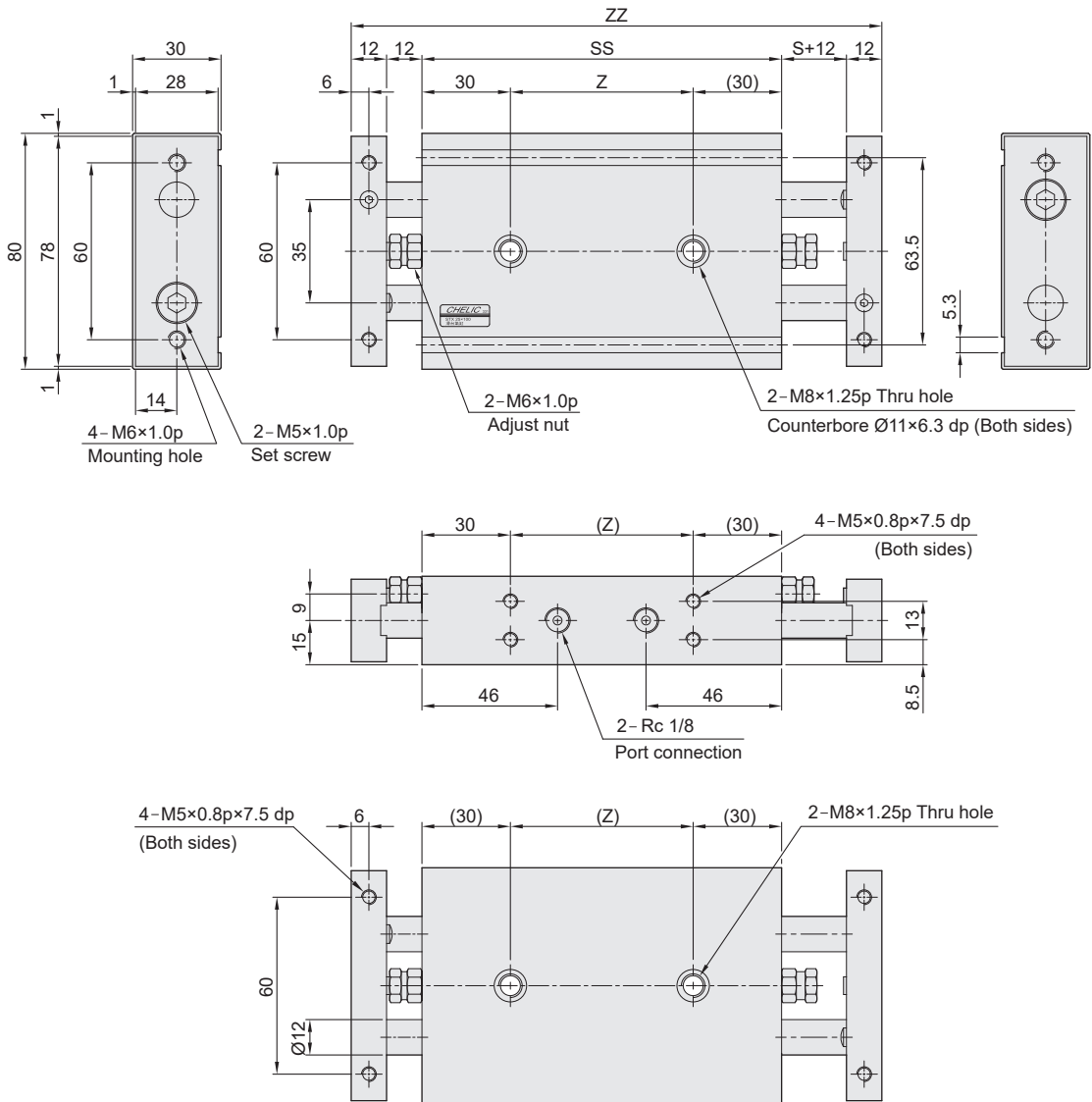
TDX

TDXU

STU

STM

STX



Dimension

Unit: mm

Stroke Mark	10	20	30	40	50	75	100	125	150
S	10	20	30	40	50	75	100	125	150
SS	122	132	142	152	162	187	212	237	262
ZZ	180	200	220	240	260	310	360	410	460
Z	62	72	82	92	102	127	152	177	202

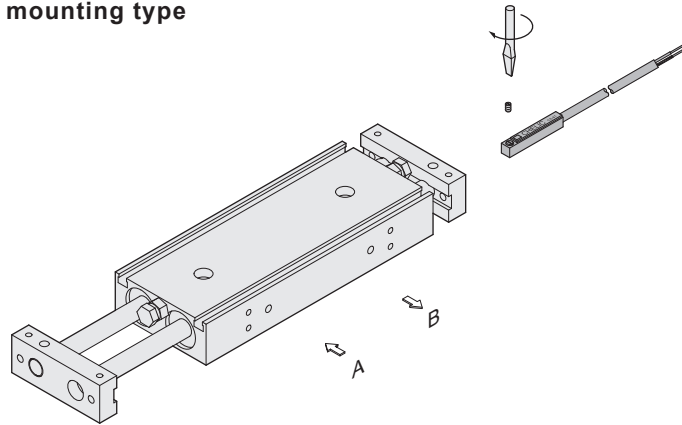
STX series Dual Rod Slide Unit

Mounting type and operation of sensor switch

CHELIC

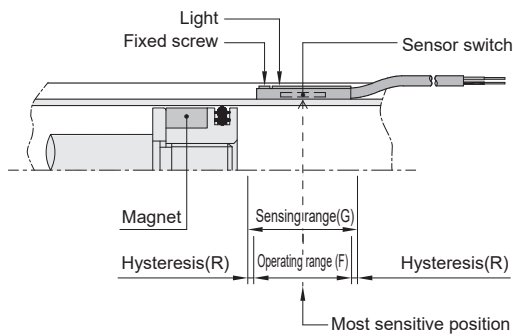
▶ Sensor switch mounting type

- CS - 6T



▶ Sensor switch setting and operating range

- CS - 6T



▶ Sensing range

Sensor switch is fixed on the cylinder body. The magnetic piston head will activate the sensor switch when it enters the operating range. It has 0.5mm differential.

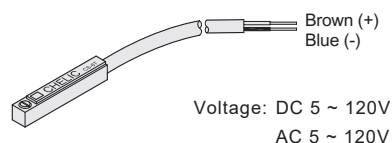
Unit: mm

Model	CS - 6T	
Bore size	Operating range (F)	Hysteresis(R)
STX Ø10	5	1.1
STX Ø16	5	1.1
STX Ø20	8.5	1
STX Ø25	10	1.8

▶ Operating range

When piston head moves the switch setting and adjustment will be based on the responding range generated by the magnetic field and the switch. (Please refer to the right table)

▶ Sensor switch introduction



CS-6T