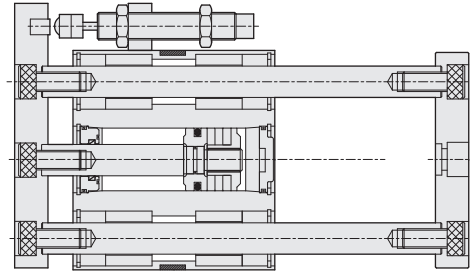
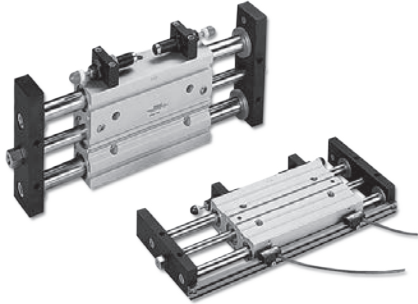


T series - TWIN - GUIDE CYLINDER

Operating specification and Ordering expression

CHELIC PNEUMATIC

Internal instruction (TSB type)



Specification

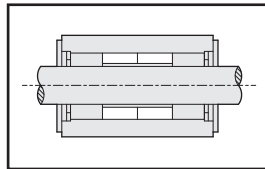
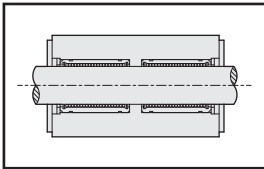
Item	Bore size (mm)	10	16	20	25	32	40	50	63
Operation		Double acting							
Fluid		Air							
Pressure range	kgf/cm ² (kpa)	1.5 ~ 7 (150 ~ 700)							
Max. service pressure	kgf/cm ² (kpa)	9 (900)							
Operating ambient temperature range	°C	0 ~ 60							
Range of service speed	mm/sec	50 ~ 500						50 ~ 350	
Lubrication		Lubrication free							
Port size		M5 x 0.8			Rc 1/8			Rc 1/4	

TB(U)
Twin-Guide
Cylinder

TB(U)2
Twin-Guide
Cylinder

TSB(U)
Twin-Guide
Cylinder

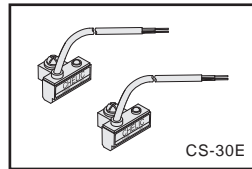
Guide type



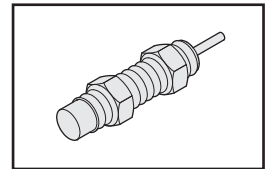
● Linear bearing guide (-U)

● Bush guide (-B)

Sensor switch (Option)



CS-30E



● Sensor switch type CS-30E

● Shock absorber (Option)

TXB(U)
Twin-Guide
Cylinder

TMB(U)
Twin-Guide
Cylinder

GCB(U)
Twin-Guide
Cylinder

Standard stroke

TSB(U) series

Unit : mm

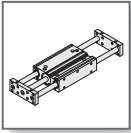
Bore size	Stroke
Ø10	25、50、75、100
Ø16	25、50、75、100、125、150、175、200
Ø20	25、50、75、100、125、150、175、200
Ø25	25、50、75、100、125、150、175、200
Ø32	30、50、75、100、125、150、175、200、250
Ø40	30、50、75、100、125、150、175、200、250
Ø50	30、50、75、100、125、150
Ø63	30、50、75、100、125、150

TXB(U) series

Unit : mm

Bore size	Stroke
Ø16	50、75、100、125、150
Ø20	50、75、100、125、150
Ø25	50、75、100、125、150
Ø32	50、75、100、125、150、175、200、250
Ø40	50、75、100、125、150、175、200、250
Ø50	50、75、100、125、150
Ø63	50、75、100、125、150

GH(B)U
Twin-Guide
Cylinder

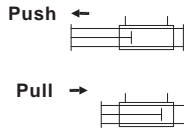


T series - TWIN - GUIDE CYLINDER

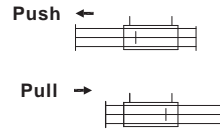
Operating specification and Ordering expression

CHELIC PNEUMATIC

Theoretical force



● TSB(U) Type



● TXB(U) Type

Unit : kgf

Bore size (mm)	Piston rod dia (mm)	Action	Piston area (cm ²)	Air pressure (kgf/cm ²)						
				1	2	3	4	5	6	7
10	6	Push	0.79	—	1.6	2.4	3.2	4.0	4.7	5.5
		Pull	0.32	—	0.6	1	1.3	1.6	1.9	2.2
16	8	Push	2.01	—	4	6	8	10.1	12.1	14.1
		Pull	1.51	—	3	4.5	6	7.6	9.1	10.6
20	10	Push	3.14	—	6	9	12	15	18	21
		Pull	2.35	—	4.7	7.1	9.4	11.8	14.1	16.5
25	12	Push	4.90	—	9	14	19	24	29	34
		Pull	3.77	—	7.5	11.3	15.1	18.9	22.6	26.3
32	16	Push	8.04	—	16	24	32	40	48	55
		Pull	6.03	—	12.1	18.1	24.1	30.2	36.2	42.2
40	16	Push	12.56	12	25	37	50	62	75	87
		Pull	10.55	10	21	31	42	52	63	73
50	20	Push	19.63	19	39	58	78	98	117	137
		Pull	16.49	16	32	49	65	82	98	115
63	20	Push	31.17	31	62	93	124	155	187	218
		Pull	28.03	28	56	84	112	140	168	196

Note : 1. The force applied to TXB(U) series is pulling force.

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

How to order

TS	B	32	×	100	-	SE 2	-	A.M 2
Model	Guide type	Bore size		Stroke		Sensor switch		Shock absorber
		10 - Ø10 mm 16 - Ø16 mm 20 - Ø20 mm 25 - Ø25 mm 32 - Ø32 mm 40 - Ø40 mm 50 - Ø50 mm 63 - Ø63 mm		Ø10 25 - 100 mm Ø16 25 - 200 mm Ø20 25 - 200 mm Ø25 25 - 200 mm Ø32 30 - 250 mm Ø40 30 - 250 mm Ø50 50 - 150 mm Ø63 50 - 150 mm		 SE 2		 A : Shock absorber M : Shock absorber base 1 = 1 set 2 = 2 sets
						Note : TXB(U) use for CS-30F SD 2		

Shock absorber list (Option)

Bore size	Model	Max. absorber
10	SAC - 1008N	0.4 Kgf.m
16	SAC - 1008N	0.4 Kgf.m
20	SAC - 1008 / SAC - 1210	0.4 / 0.5 Kgf.m
25	SAC - 1008 / SAC - 1210	0.4 / 0.5 Kgf.m
32	SAC - 1408 / SAC - 1416	1.5 / 2 Kgf.m
40	SAC - 1408 / SAC - 1416	1.5 / 2 Kgf.m
50	SAT - 1412 / SAT - 2015	1.5 / 5.9 Kgf.m
63	SAT - 1412 / SAT - 2015	1.5 / 5.9 Kgf.m

Expression :

Shock absorber is mounted on the side of body so as to absorb the impact force. (Please indicate AM □ code number)

▶ TSB(U),TXB(U) Ø32, Ø40 and the stroke over 125 is used for SAC-1416

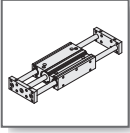
SD : Sensor code (CS-9D)

SB : Sensor code (CS-9B)

2 : Number of sensor
1 = 1 PCS
2 = 2 PCS

Note : TSB(U),TXB(U)

Ø10, Ø16, Ø20, Ø25 use for CS-9D

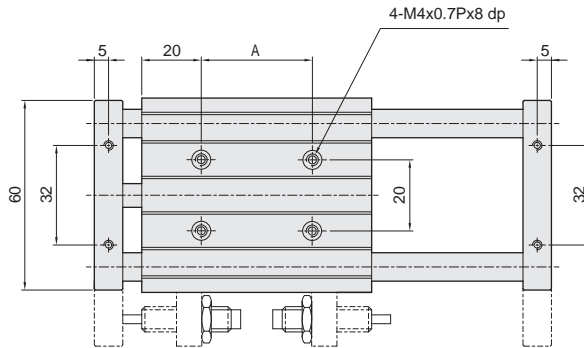
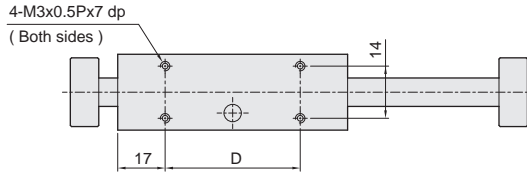
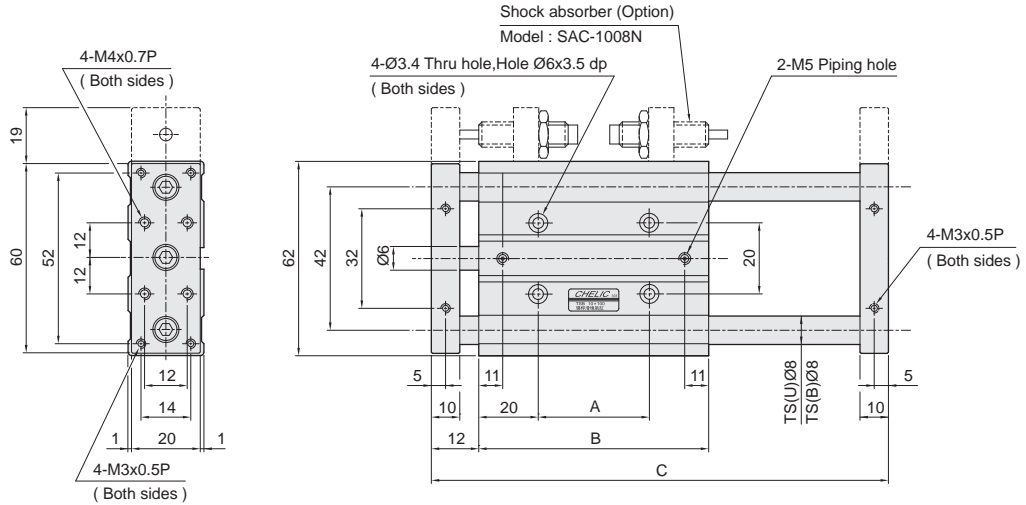
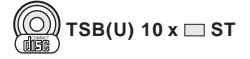


TSB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø10

CHELIC PNEUMATIC

TSB(U) Ø10 x



TB(U)
Twin-Guide
Cylinder

TB(U)2
Twin-Guide
Cylinder

TSB(U)
Twin-Guide
Cylinder

TXB(U)
Twin-Guide
Cylinder

TMB(U)
Twin-Guide
Cylinder

GCB(U)
Twin-Guide
Cylinder

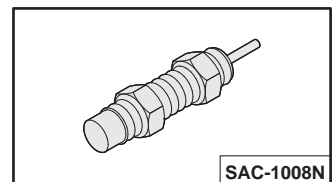
GHB(U)
Twin-Guide
Cylinder

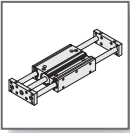
Dimension

Unit : mm

Stroke Code	25	50	75	100
A	30	55	80	105
B	70	95	120	145
C	119	169	219	269
D	36	61	86	111

Shock absorber / Option





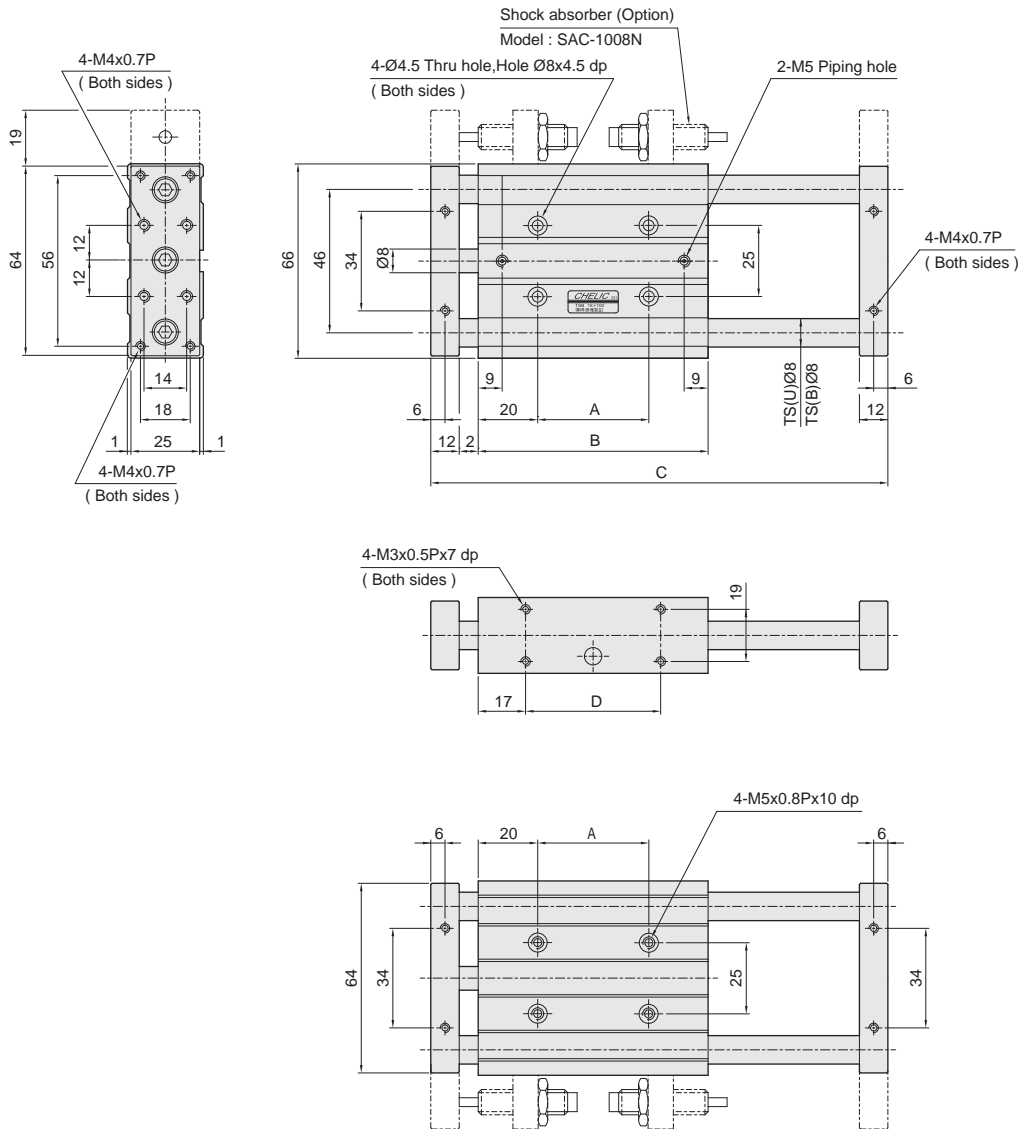
TSB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø16

CHELIC PNEUMATIC

TSB(U) Ø16 x

TSB(U) 16 x ST

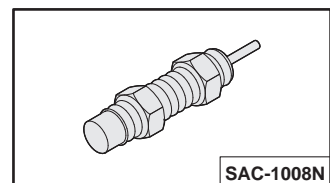


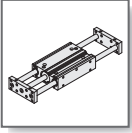
Dimension

Unit : mm

Stroke Code	25	50	75	100	125	150	175	200
A	30	55	80	105	130	155	180	205
B	70	95	120	145	170	195	220	245
C	123	173	223	273	323	373	423	473
D	36	61	86	111	136	161	186	211

Shock absorber / Option






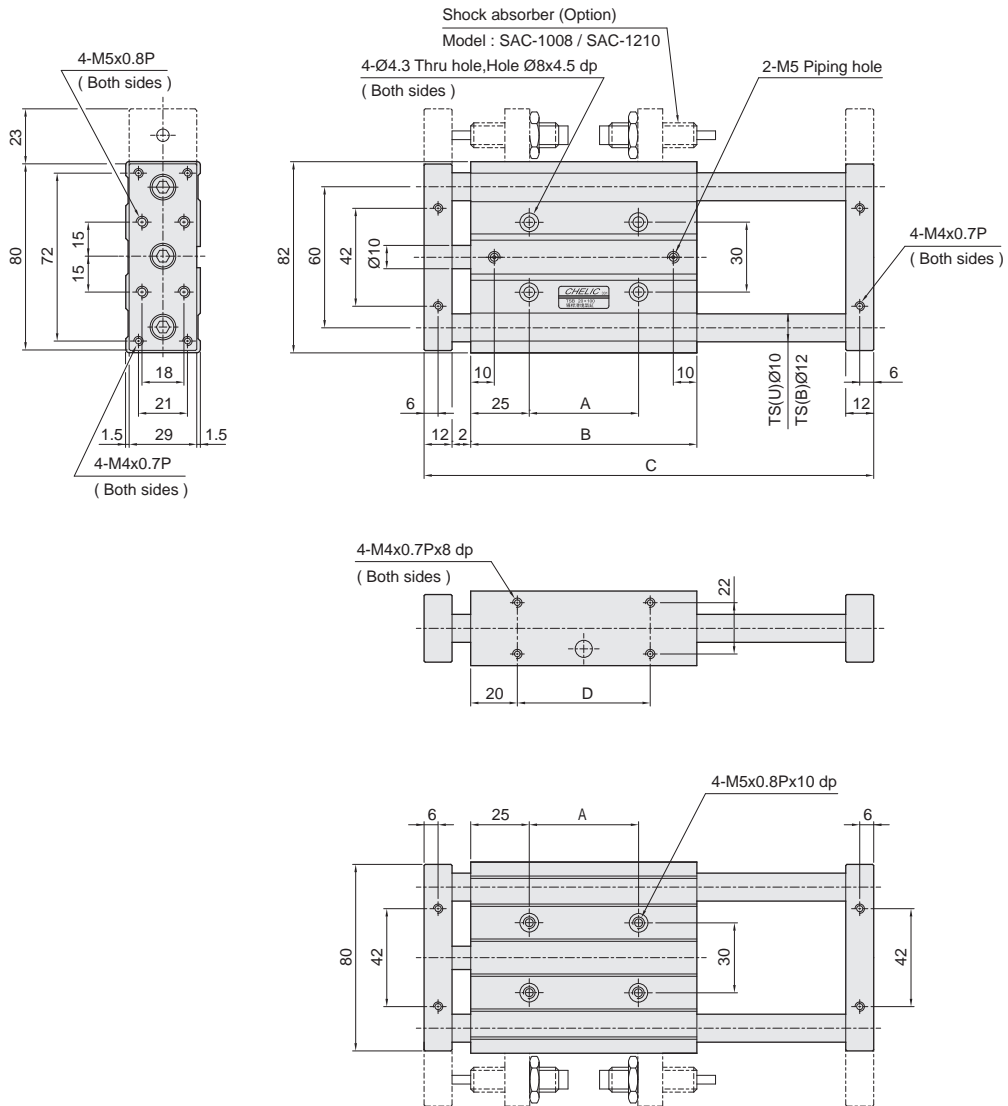
TSB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø20

CHELIC PNEUMATIC

TSB(U) Ø20 x

 TSB(U) 20 x ST



TB(U)
Twin-Guide
Cylinder

TB(U)2
Twin-Guide
Cylinder

TSB(U)
Twin-Guide
Cylinder

TXB(U)
Twin-Guide
Cylinder

TMB(U)
Twin-Guide
Cylinder

GCB(U)
Twin-Guide
Cylinder

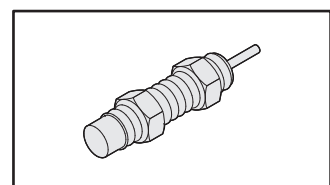
GHB(U)
Twin-Guide
Cylinder

Dimension

Unit : mm

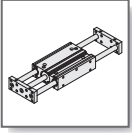
Stroke Code \ Stroke	25	50	75	100	125	150	175	200
A	22	47	72	97	122	147	172	197
B	72	97	122	147	172	197	222	247
C	125	175	225	275	325	375	425	475
D	32	57	82	107	132	157	182	207

Shock absorber / Option



● SAC-1008 Use for stroke : 25,50

● SAC-1210 Use for stroke : 75,100,125,150,175,200




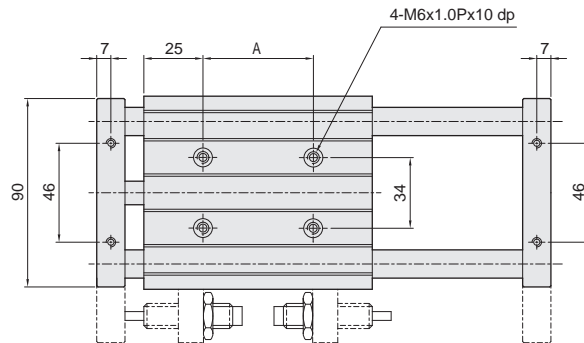
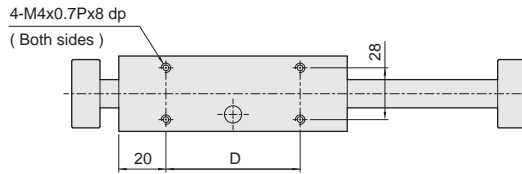
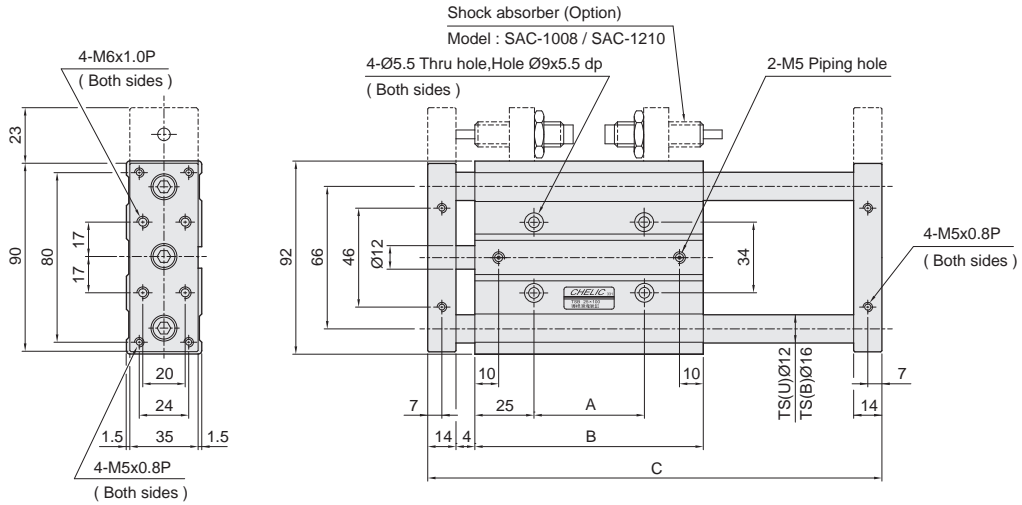
TSB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø25

CHELIC PNEUMATIC

TSB(U) Ø25 x

 TSB(U) 25 x ST

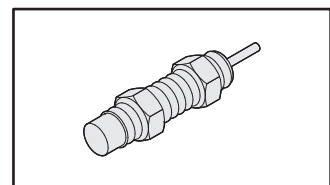


Dimension

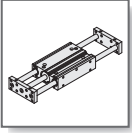
Unit : mm

Stroke Code \ Stroke	25	50	75	100	125	150	175	200
A	23	48	73	98	123	148	173	198
B	73	98	123	148	173	198	223	248
C	134	184	234	284	334	384	434	484
D	33	58	83	108	133	158	183	208

Shock absorber / Option



- SAC-1008 Use for stroke : 25,50
- SAC-1210 Use for stroke : 75,100,125,150,175,200

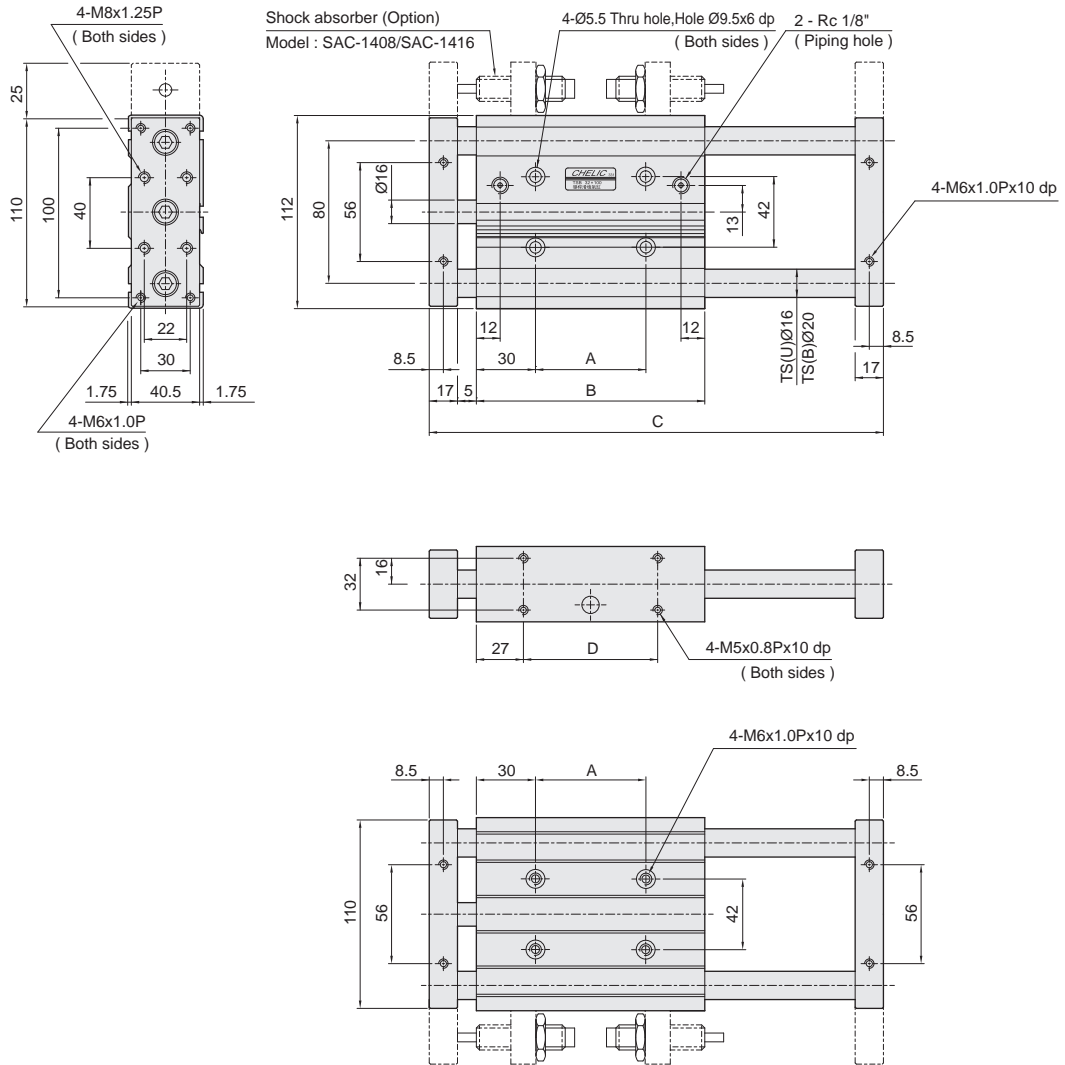
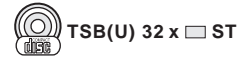


TSB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø32

CHELIC PNEUMATIC

TSB(U) Ø32 x



TB(U)
Twin-Guide
Cylinder

TB(U)2
Twin-Guide
Cylinder

TSB(U)
Twin-Guide
Cylinder

TXB(U)
Twin-Guide
Cylinder

TMB(U)
Twin-Guide
Cylinder

GCB(U)
Twin-Guide
Cylinder

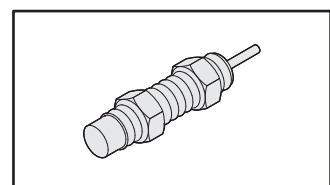
GHB(U)
Twin-Guide
Cylinder

Dimension

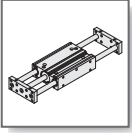
Unit : mm

Stroke Code \ Stroke	30	50	75	100	125	150	175	200	250
A	23	43	68	93	118	143	168	193	243
B	83	103	128	153	178	203	228	253	303
C	157	197	247	297	347	397	447	497	597
D	29	49	74	99	124	149	174	199	249

Shock absorber / Option



- SAC-1408 Use for stroke : 30,50,75,100
- SAC-1416 Use for stroke : 125,150,175, 200,250



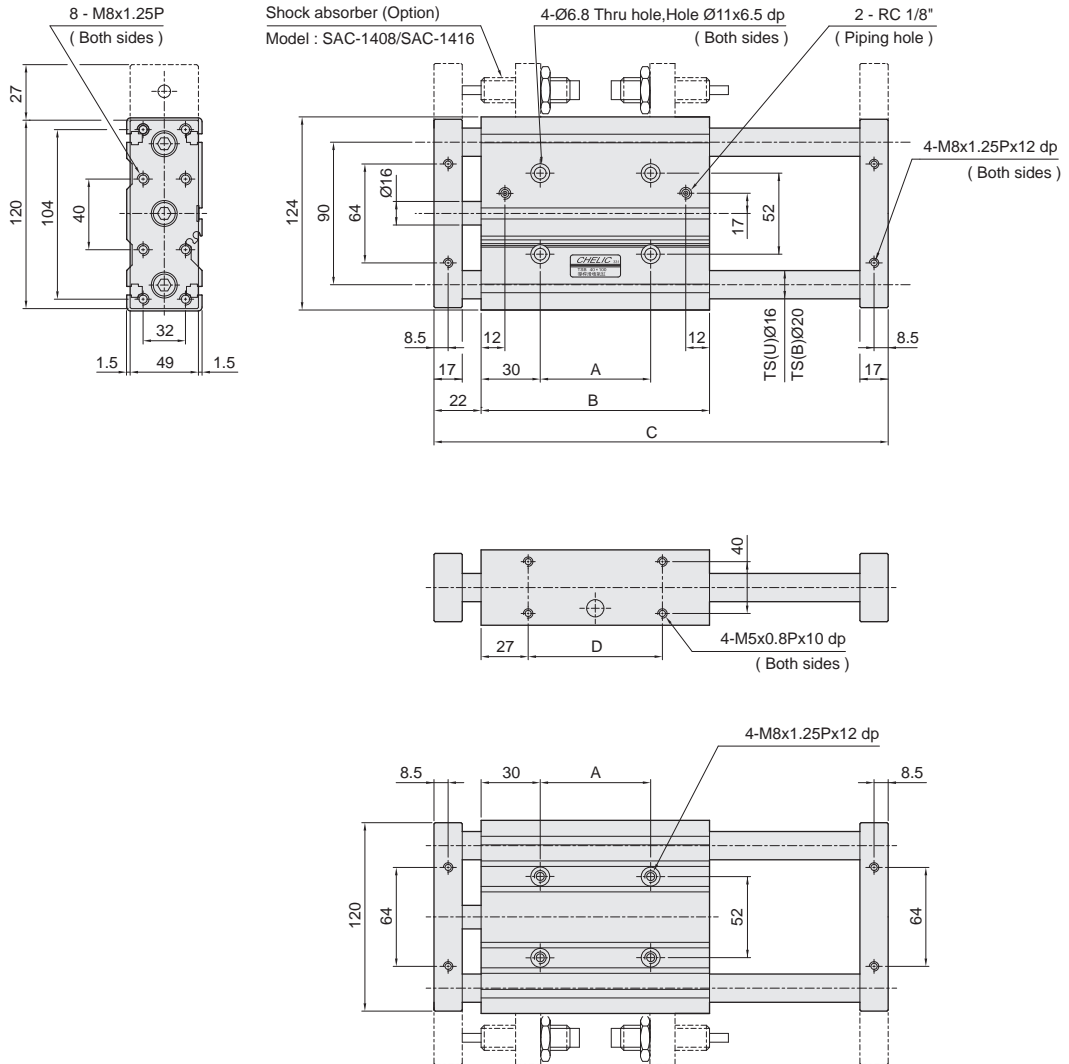
TSB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø40

CHELIC PNEUMATIC

● TSB(U) Ø40 x

 TSB(U) 40 x ST

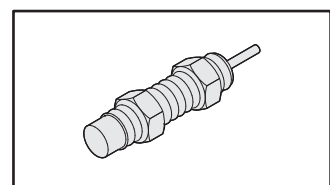


● Dimension

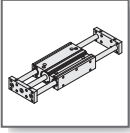
Unit : mm

Stroke Code \ Stroke	30	50	75	100	125	150	175	200	250
A	23	43	68	93	118	143	168	193	243
B	83	103	128	153	178	203	228	253	303
C	157	197	247	297	347	397	447	497	597
D	29	49	74	99	124	149	174	199	249

▼ Shock absorber / Option



- SAC-1408 Use for stroke : 30,50,75,100
- SAC-1416 Use for stroke : 125,150,175, 200,250



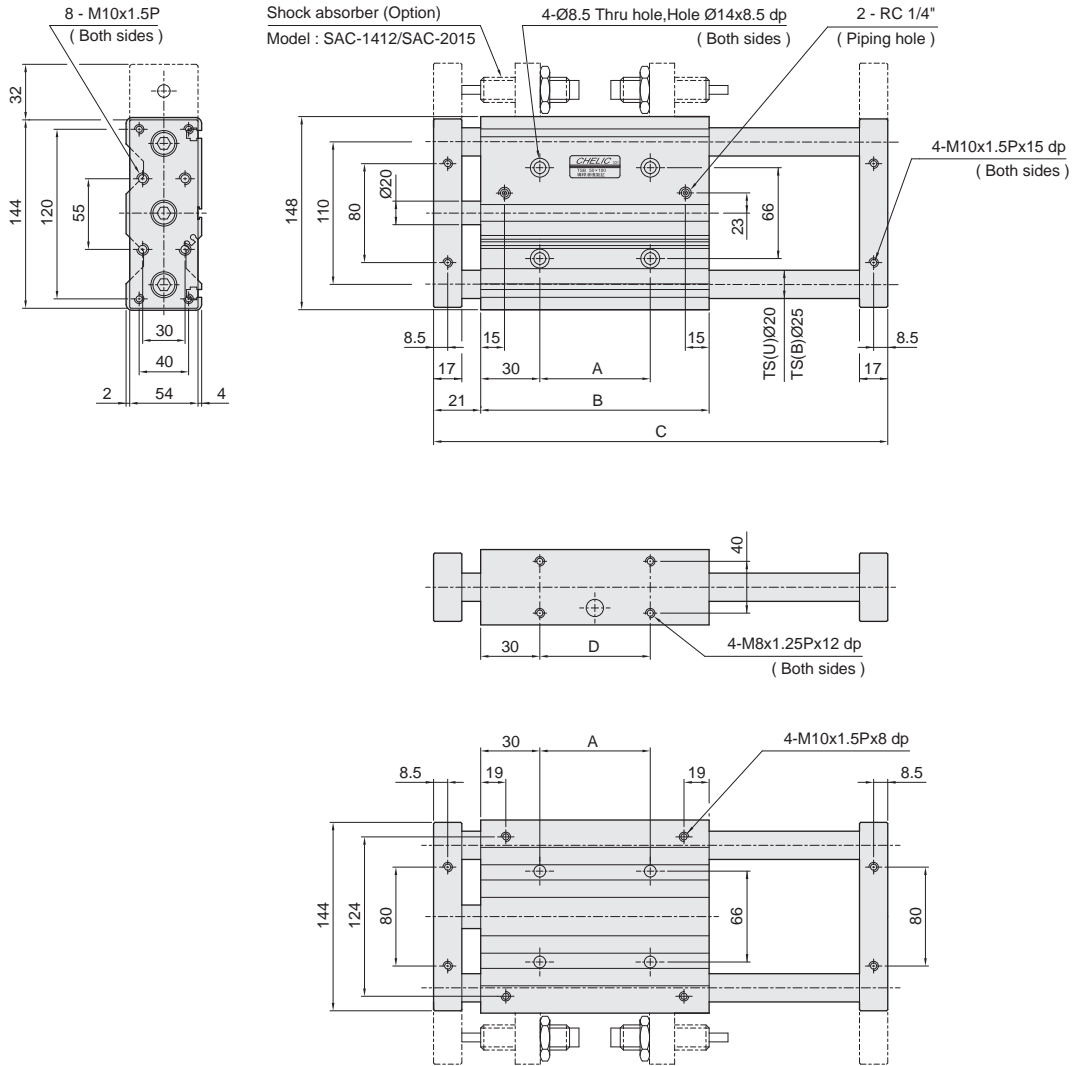
TSB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø50

CHELIC PNEUMATIC

TSB(U) Ø50 x

 TSB(U) 50 x ST



TB(U)
Twin-Guide
Cylinder

TB(U)2
Twin-Guide
Cylinder

TSB(U)
Twin-Guide
Cylinder

TXB(U)
Twin-Guide
Cylinder

TMB(U)
Twin-Guide
Cylinder

GCB(U)
Twin-Guide
Cylinder

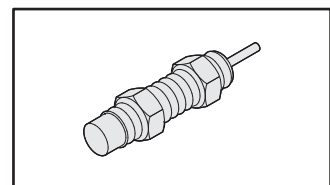
GHB(U)
Twin-Guide
Cylinder

Dimension

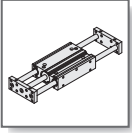
Unit : mm

Stroke Code \ Stroke	50	75	100	125	150
A	38	63	88	113	138
B	98	123	148	173	198
C	194	244	294	344	394
D	38	63	88	113	138

Shock absorber / Option



- SAC-1412 Use for stroke : 50
- SAC-2015 Use for stroke : 75, 100, 125, 150



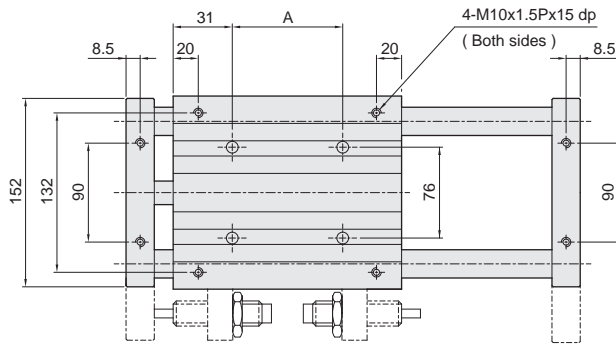
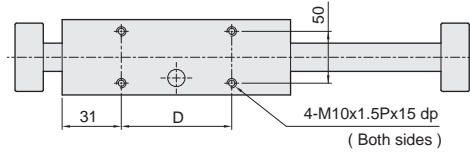
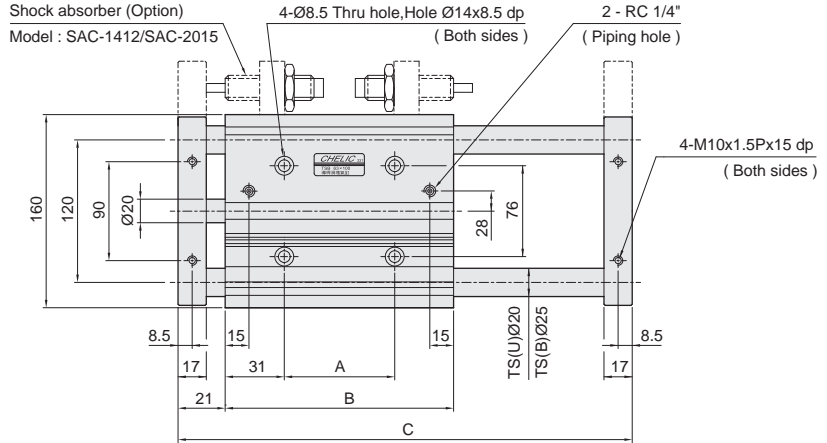
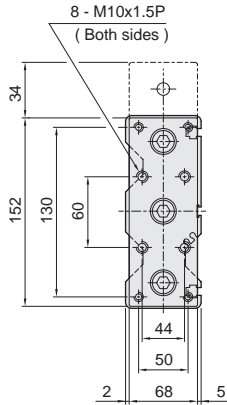
TSB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø63

CHELIC PNEUMATIC

TSB(U) Ø63 x

TSB(U) 63 x ST

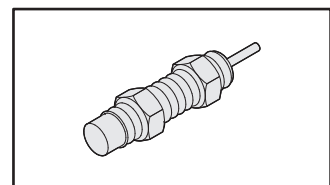


Dimension

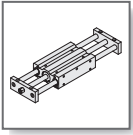
Unit : mm

Stroke Code \ Stroke	50	75	100	125	150
A	38	63	88	113	138
B	100	125	150	175	200
C	194	244	294	344	394
D	38	63	88	113	138

Shock absorber / Option



- SAC-1412 Use for stroke : 50
- SAC-2015 Use for stroke : 75, 100, 125, 150



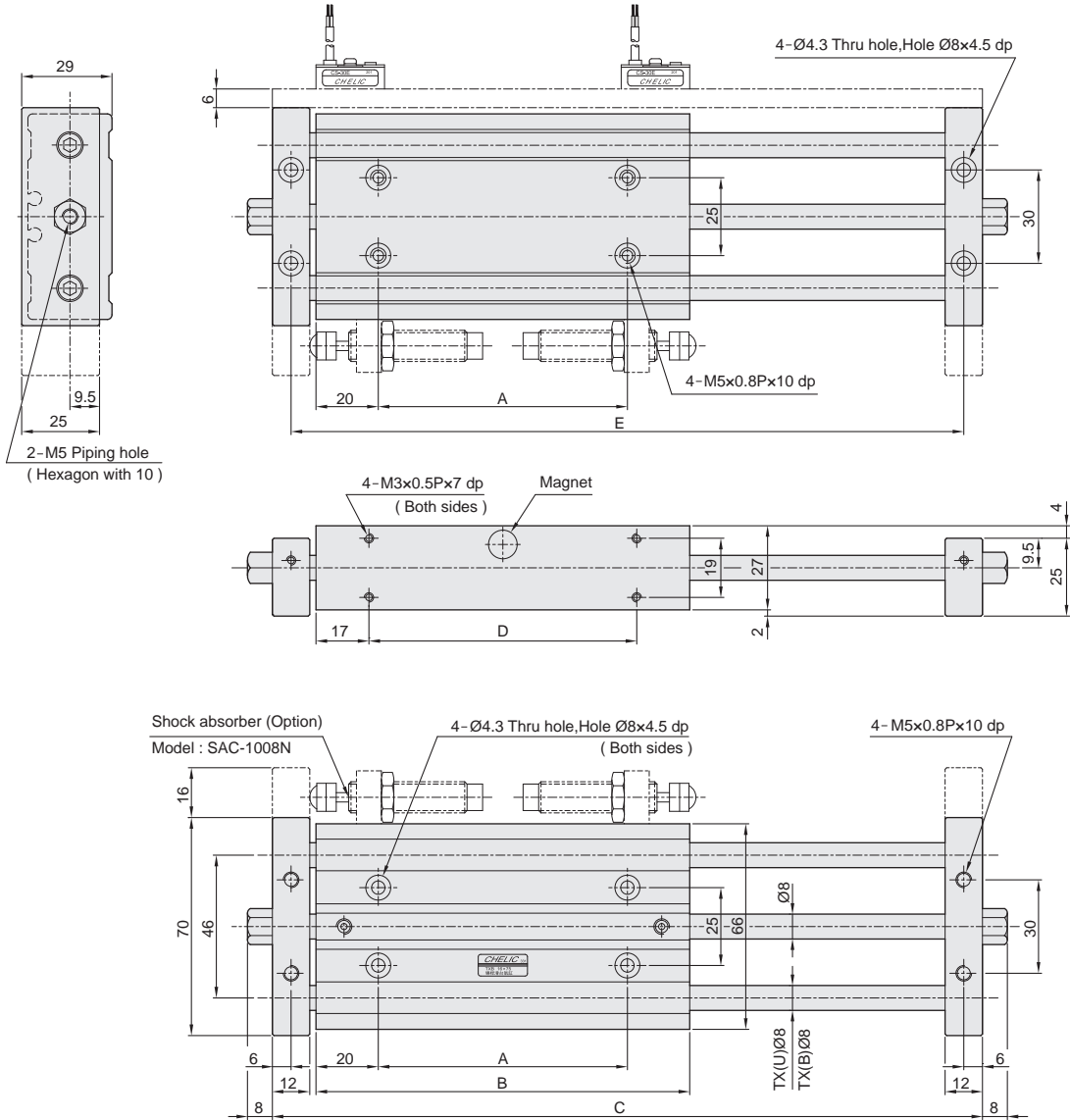
TXB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø16

CHELIC PNEUMATIC

TXB(U) Ø16 x

TXB(U) 16 x ST



TB(U)
Twin-Guide
Cylinder

TB(U)2
Twin-Guide
Cylinder

TSB(U)
Twin-Guide
Cylinder

TXB(U)
Twin-Guide
Cylinder

TMB(U)
Twin-Guide
Cylinder

GCB(U)
Twin-Guide
Cylinder

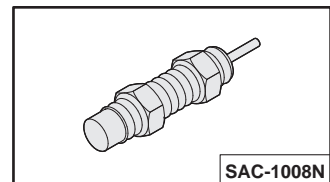
GHB(U)
Twin-Guide
Cylinder

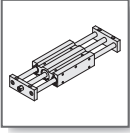
Dimension

Unit : mm

Stroke Code	50	75	100	125	150
A	55	80	105	130	155
B	95	120	145	170	195
C	173	223	273	323	373
D	61	86	111	136	161
E	161	211	261	311	361

▼ Shock absorber / Option





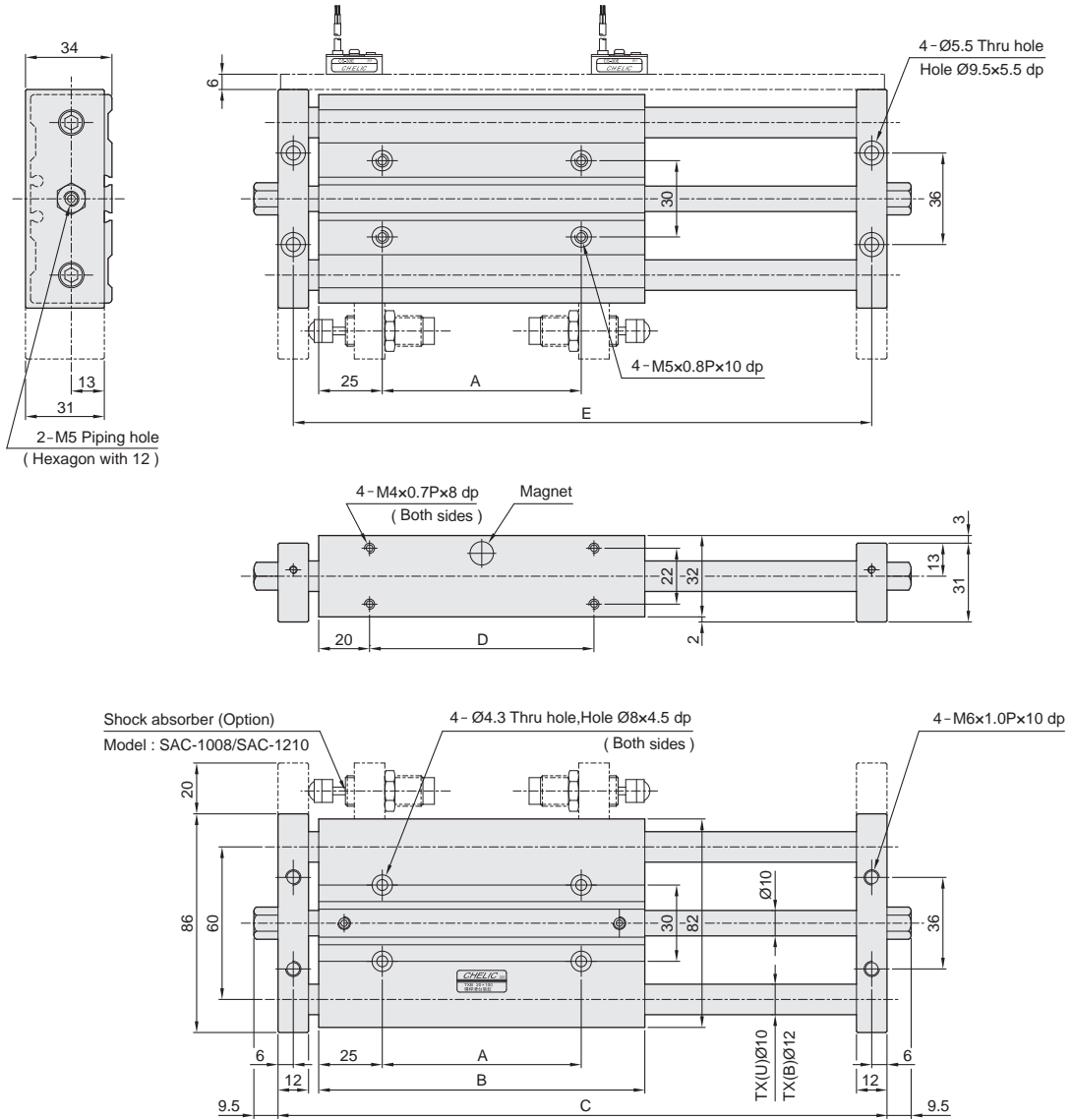
TXB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø20

CHELIC PNEUMATIC

TXB(U) Ø20 x

TXB(U) 20 x ST

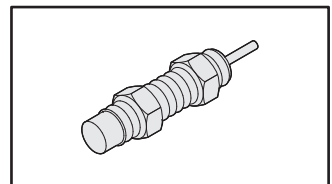


Dimension

Unit : mm

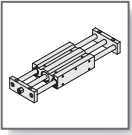
Stroke Code	50	75	100	125	150
A	47	72	97	122	147
B	97	122	147	172	197
C	175	225	275	325	375
D	57	82	107	132	157
E	163	213	263	313	363

▼ Shock absorber / Option



● SAC-1008 Use for stroke : 50

● SAC-1210 Use for stroke : 75,100, 125,150



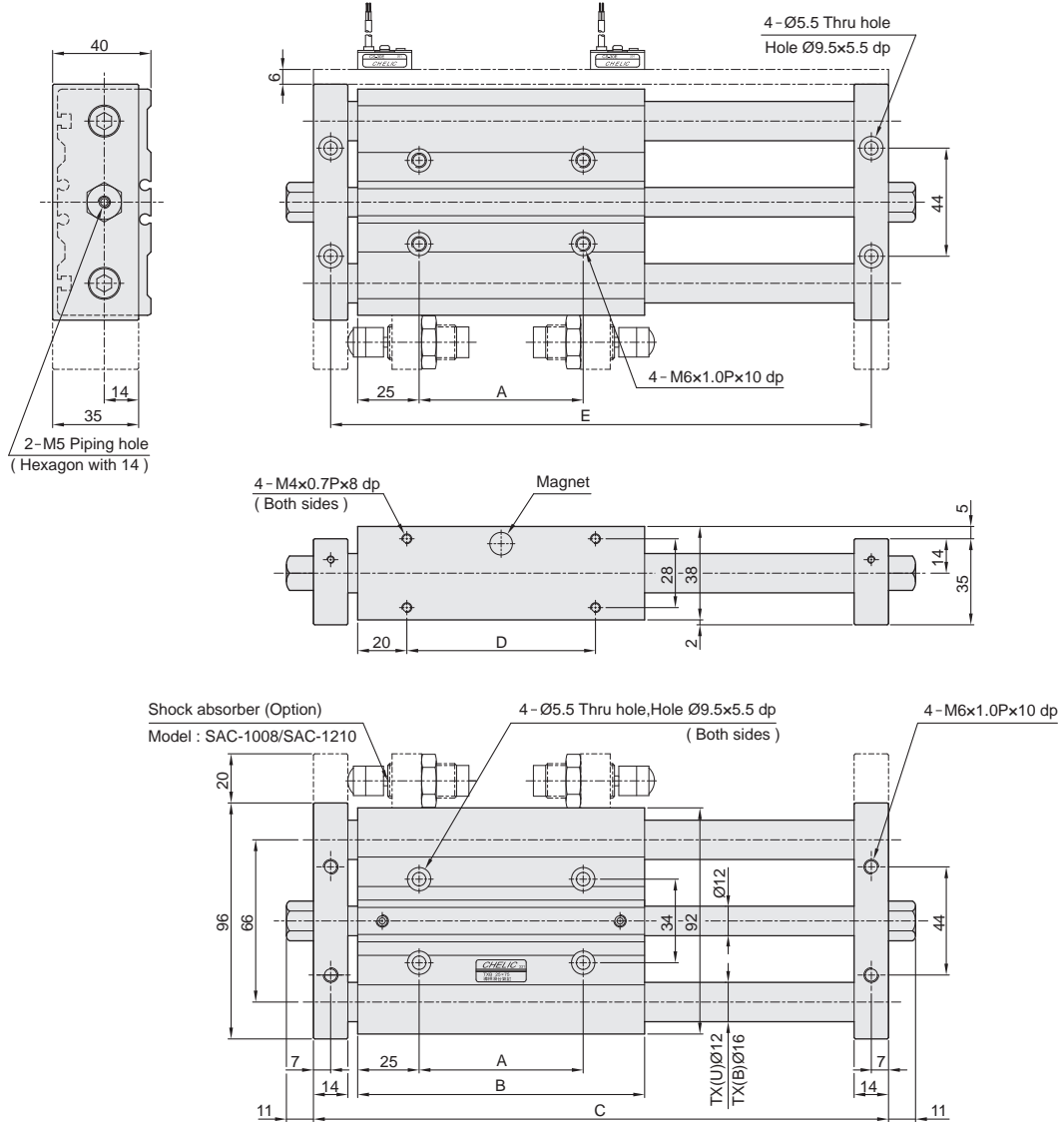
TXB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø25

CHELIC PNEUMATIC

TXB(U) Ø25 x

TXB(U) 25 x ST



TB(U)
Twin-Guide
Cylinder

TB(U)2
Twin-Guide
Cylinder

TSB(U)
Twin-Guide
Cylinder

TXB(U)
Twin-Guide
Cylinder

TMB(U)
Twin-Guide
Cylinder

GCB(U)
Twin-Guide
Cylinder

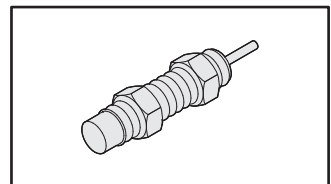
GHB(U)
Twin-Guide
Cylinder

Dimension

Unit : mm

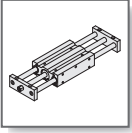
Stroke Code	50	75	100	125	150
A	48	73	98	123	148
B	98	123	148	173	198
C	184	234	284	334	384
D	58	83	108	133	158
E	170	220	270	320	370

▼ Shock absorber / Option



● SAC-1008 Use for stroke : 50

● SAC-1210 Use for stroke : 75,100,
125,150




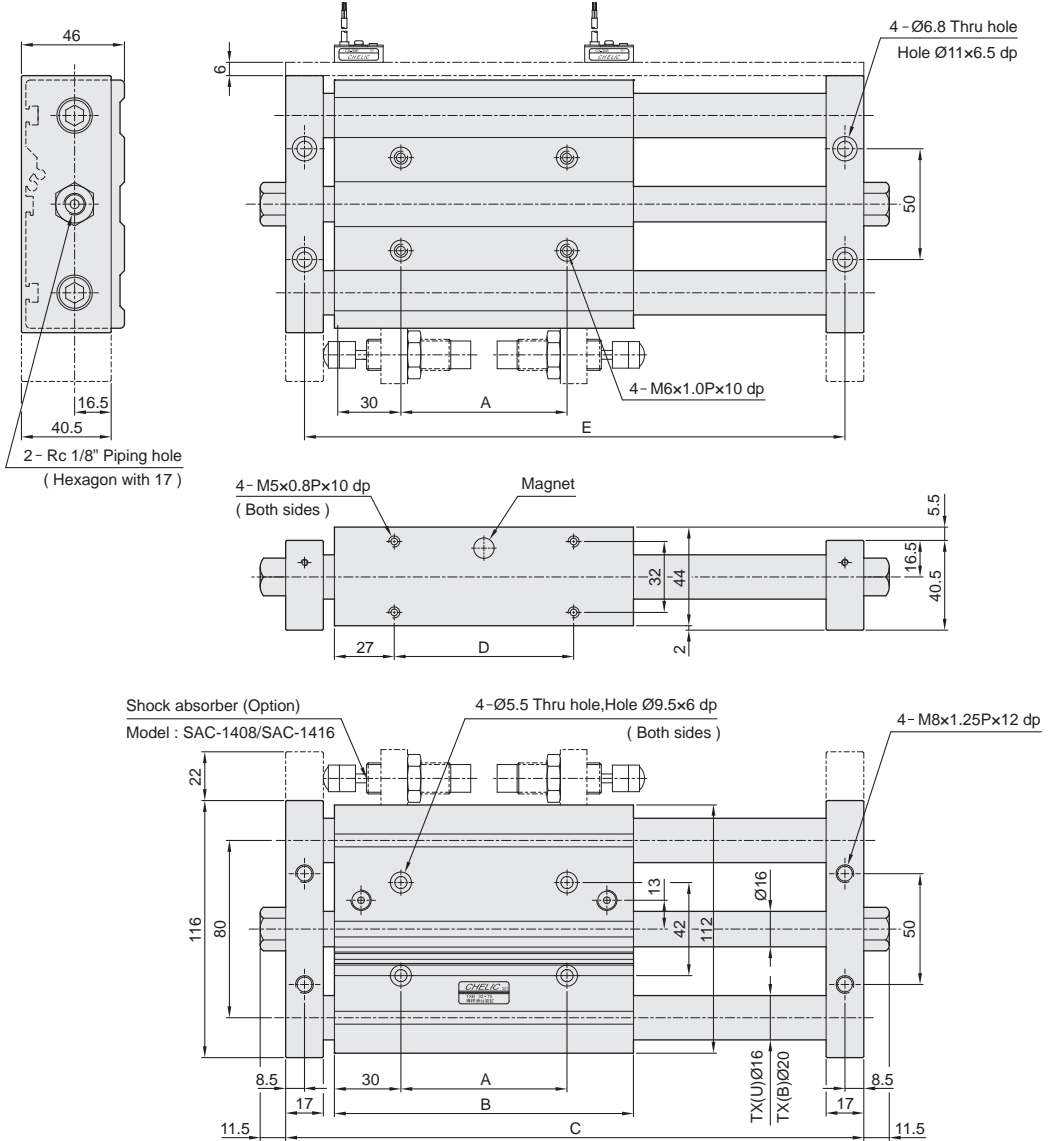
TXB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø32

CHELIC PNEUMATIC

TXB(U) Ø32 x

 TXB(U) 32 x ST

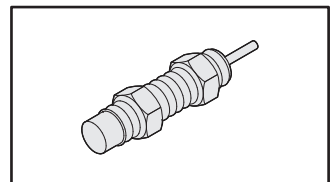


Dimension

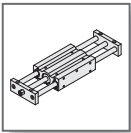
Unit : mm

Stroke Code	50	75	100	125	150	175	200	250
A	43	68	93	118	143	168	193	243
B	103	128	153	178	203	228	253	303
C	197	247	297	347	397	447	497	597
D	49	74	99	124	149	174	199	249
E	180	230	280	330	380	430	480	580

▼ Shock absorber / Option



- SAC-1408 Use for stroke : 50,75,100
- SAC-1416 Use for stroke : 125,150,175, 200,250



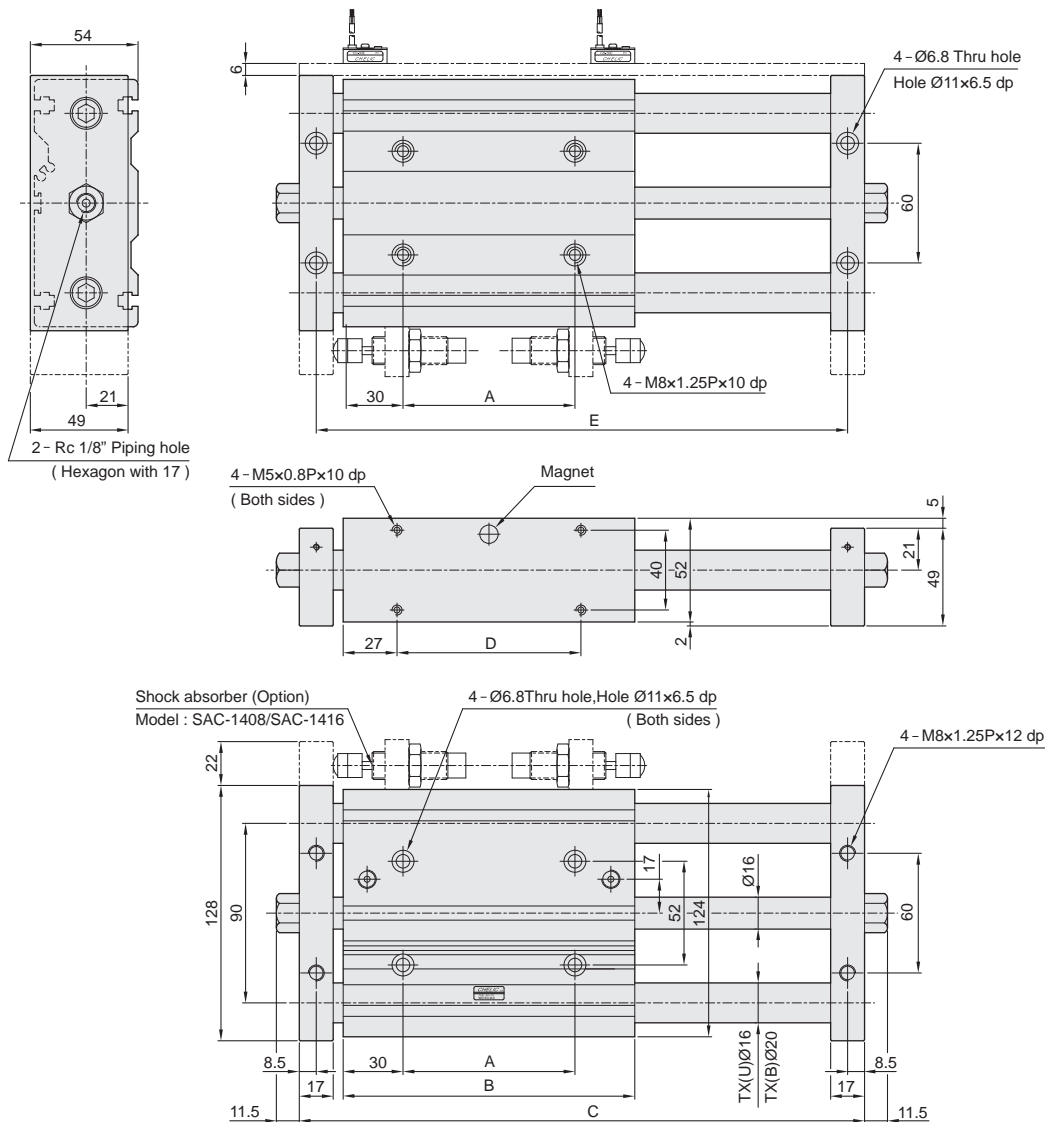
TXB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø40

CHELIC PNEUMATIC

TXB(U) Ø40 x

TXB(U) 40 x ST



TB(U)
Twin-Guide
Cylinder

TB(U)2
Twin-Guide
Cylinder

TSB(U)
Twin-Guide
Cylinder

TXB(U)
Twin-Guide
Cylinder

TMB(U)
Twin-Guide
Cylinder

GCB(U)
Twin-Guide
Cylinder

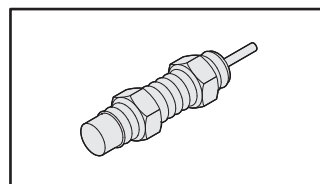
GHB(U)
Twin-Guide
Cylinder

Dimension

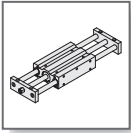
Unit : mm

Stroke Code	50	75	100	125	150	175	200	250
A	43	68	93	118	143	168	193	243
B	103	128	153	178	203	228	253	303
C	197	247	297	347	397	447	497	597
D	49	74	99	124	149	174	199	249
E	180	230	280	330	380	430	480	580

▼ Shock absorber / Option



- SAC-1408 Use for stroke : 50,75,100
- SAC-1416 Use for stroke : 125,150,175, 200,250



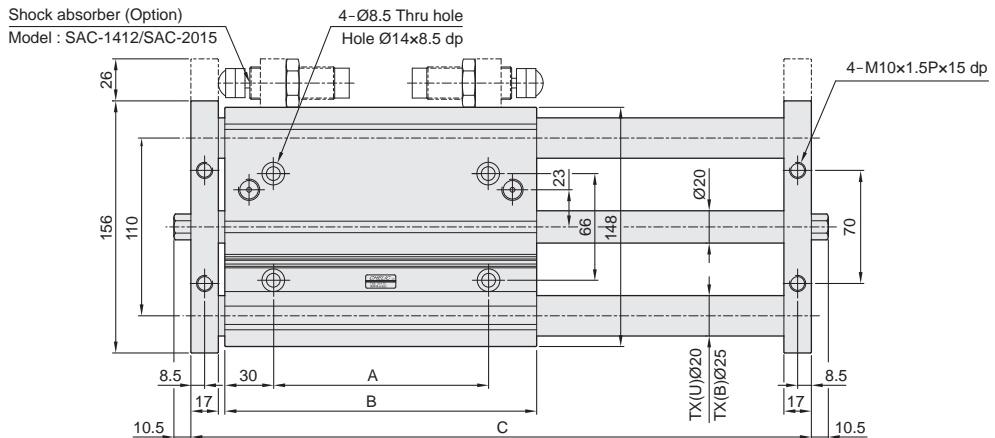
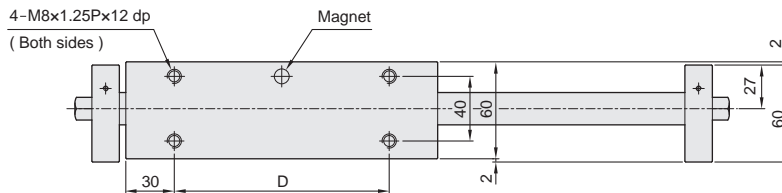
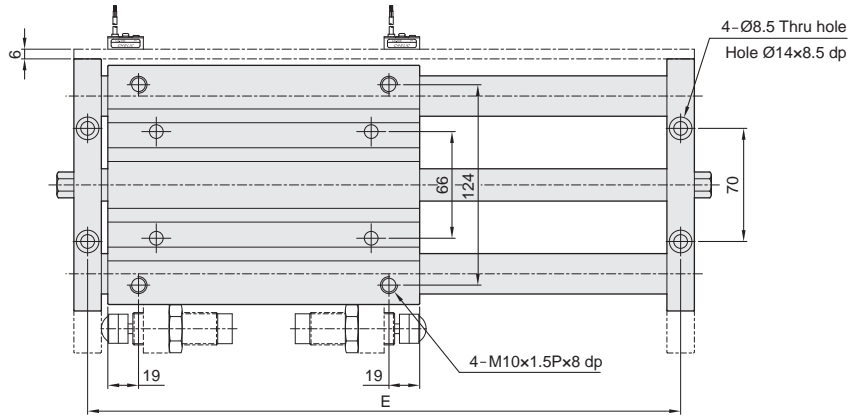
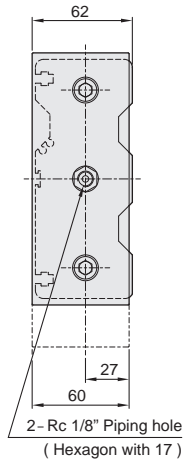
TXB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø50

CHELIC PNEUMATIC

TXB(U) Ø50 x

TXB(U) 50 x ST

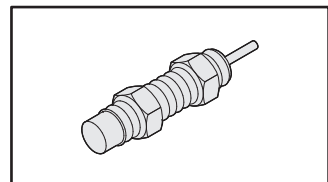


Dimension

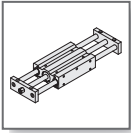
Unit : mm

Stroke Code	50	75	100	125	150
A	38	63	88	113	138
B	98	123	148	173	198
C	194	244	294	344	394
D	38	63	88	113	138
E	177	227	277	327	377

▼ Shock absorber / Option



- SAC-1412 Use for stroke : 50
- SAC-2015 Use for stroke : 75,100,125, 150



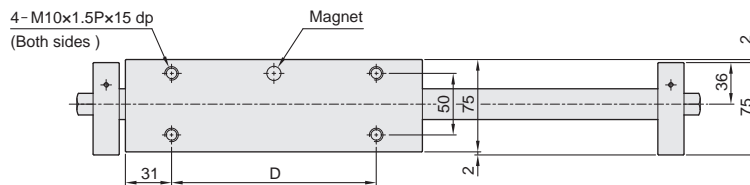
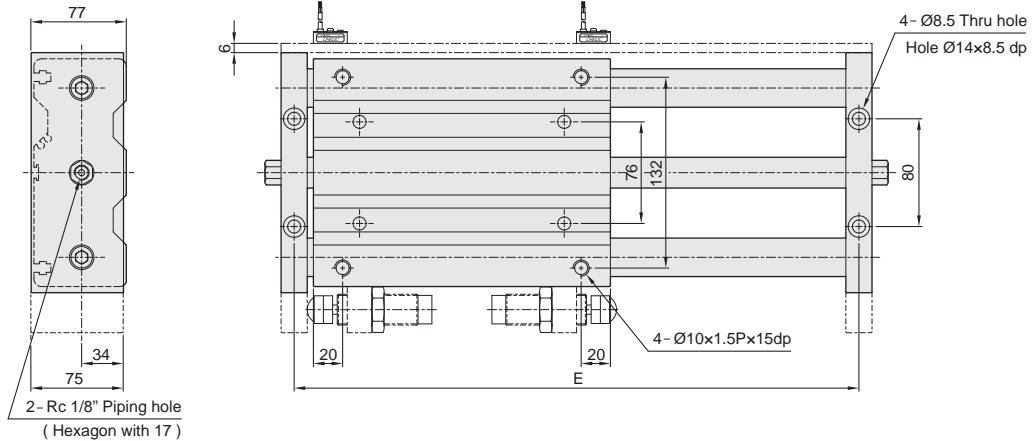
TXB(U) series - TWIN - GUIDE CYLINDER

External dimension - Ø63

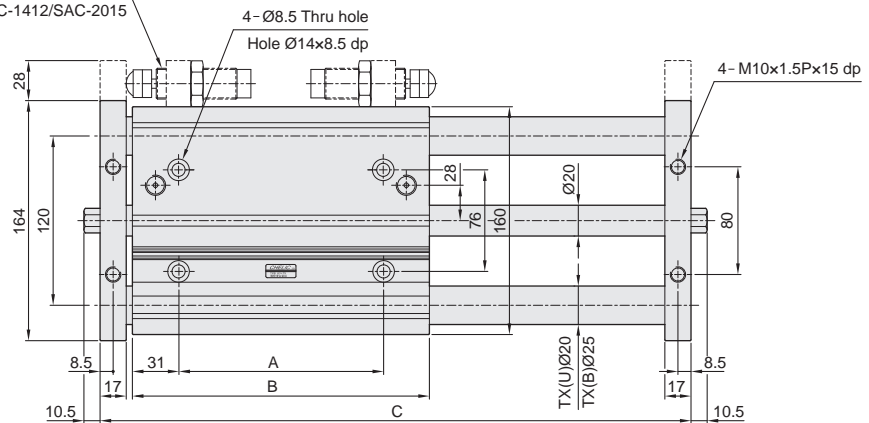
CHELIC PNEUMATIC

TXB(U) Ø63 x

TXB(U) 63 x ST



Shock absorber (Option)
Model : SAC-1412/SAC-2015



TXB(U)
Twin-Guide
Cylinder

TB(U)2
Twin-Guide
Cylinder

TSB(U)
Twin-Guide
Cylinder

TXB(U)
Twin-Guide
Cylinder

TMB(U)
Twin-Guide
Cylinder

GCB(U)
Twin-Guide
Cylinder

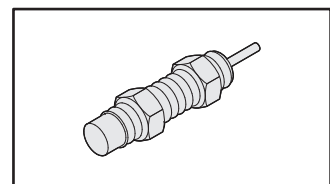
GHB(U)
Twin-Guide
Cylinder

Dimension

Unit : mm

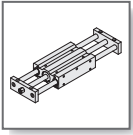
Stroke Code	50	75	100	125	150
A	38	63	88	113	138
B	100	125	150	175	200
C	194	244	294	344	394
D	38	63	88	113	138
E	177	227	277	327	377

▼ Shock absorber / Option



● SAC-1412 Use for stroke : 50

● SAC-2015 Use for stroke : 75,100,125, 150



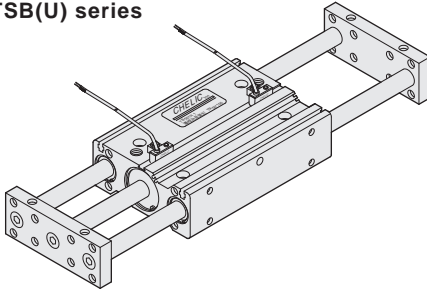
TSB(U),TXB(U) series TWIN - GUIDE CYLINDER - WITH SENSOR

Sensor switch installation and Sensing setting

CHELIC PNEUMATIC

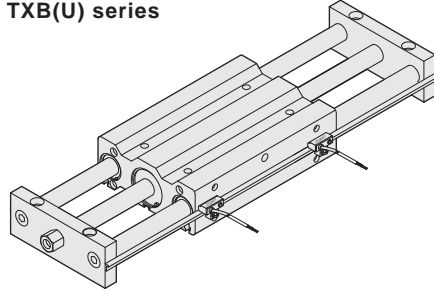
▶ Sensor switch mounting type

● TSB(U) series



Suitable for CS-30E,CS-9D,CS-9B.

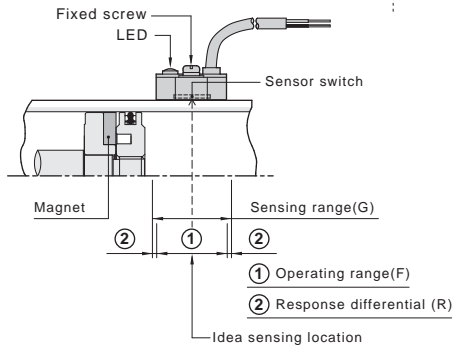
● TXB(U) series



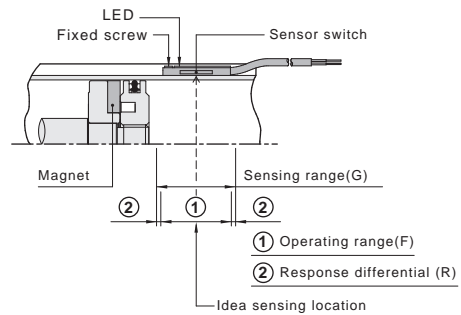
Note : Only suitable for CS-30F or CS-9D.

▶ Sensor switch setting and Operating range

● CS - 30E



● CS - 9D (B)



▶ 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.

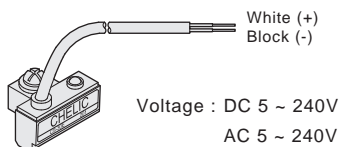
▶ Operating range

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)

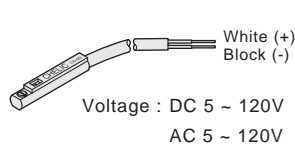
Unit : mm

Model	CS-30E		CS-9D(B)	
	Operating range (F)	Response differential (R)	Operating range (F)	Response differential (R)
Ø 10	10	1	10	1
Ø 16	7	1	7	1
Ø 20	8	1	8	1
Ø 25	12.5	1	12.5	1
Ø 32	11	1.2	11	1
Ø 40	13	1.2	13	1.2
Ø 50	12	1.4	10	1.3
Ø 63	13	1.4	13	1.4

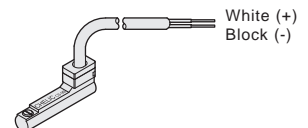
▶ Connection type



CS - 30E



CS - 9D



CS - 9B