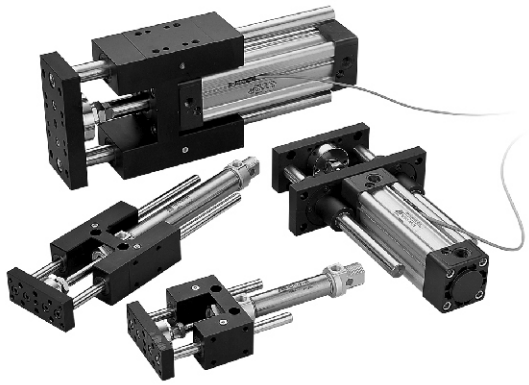
MGT* series

TWIN-GUIDE CYLINDERS

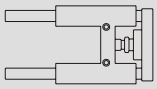


MGTK Light duty type

MGTX Ligth duty flange type

MGTB Heavy duty (bush) type

MGTU Heavy duty (linear bearing) type



Order example:

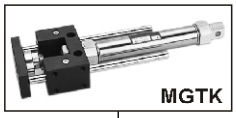
MGTB – 40 – 100 – RP

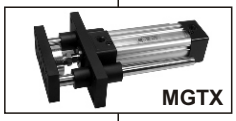
MODEL

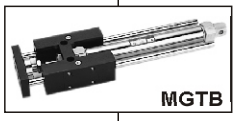
TUBE I.D.

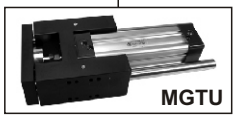
STROKE

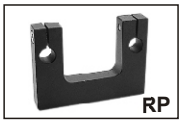
REAR FLANGE COUPLING











RP: With rear flange coupling

Features:

- MGTK(X): Light duty type, MGTB(U): Heavy duty type
- The guiding units can be assembled to cylinders in conformity ISO 6431/6432 standard
- Antirotation is guaranteed by two steel guide stems, which moment is support by four oilless bush in MGTK(X) series by four linear bearing in MGTU series and four brass bush in MGTB series.
- Easy to install, also reducing machine design work and cost.
- ϕ 32~ϕ 63 with four grooves on the tube for sensor switch to be inserted into, position can be adjusted as needed.

Specification

Model	MGTB, MGTU					
	MGTK		MGTX			
Tube I.D. (mm)	20	25	32	40	50	63
Port size Rc(PT)	G 1/8		G 1/8	G 1/4		G 3/8
The range of stroke (mm)	Stroke by request					
Medium	Air					
Operating pressure range	2~7 kgf/cm^2					
Ambient temperature	−5~+60℃ (No freezing)					
Lubrication	Not required					
Sensor switch	RCA		RCI			
Sensor switch holder	BA20	BA25	—			
	BGS20	BGS25	—			

RCA sensor switch specification:

Model	RCA	RNA
Switch type	Reed switch	NPN current sinking
Voltage range	5~220V DC/AC	5 ~ 30V DC
Current range	100mA max.	200mA max.
Shock resistance	30G	50G

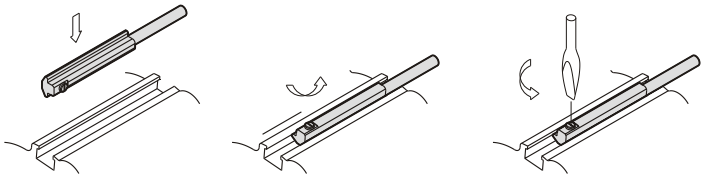
- Detail specification please refer to sensor switch RCA series.

RCI sensor switch specification:

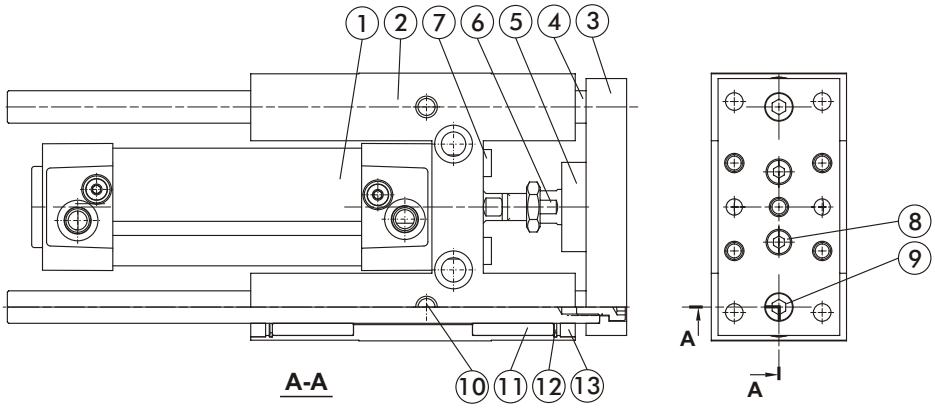
Model	RCI	RNI	RPI
Switch type	Reed switch	NPN current sinking	PNP current sourcing
Voltage range	5~220V DC/AC	10 ~ 30V DC	
Current range	100mA max.		
Shock resistance	30G	50G	
Voltage drop	3.0 V max.	2.0 V max.	

- Detail specification please refer to sensor switch RCI series.

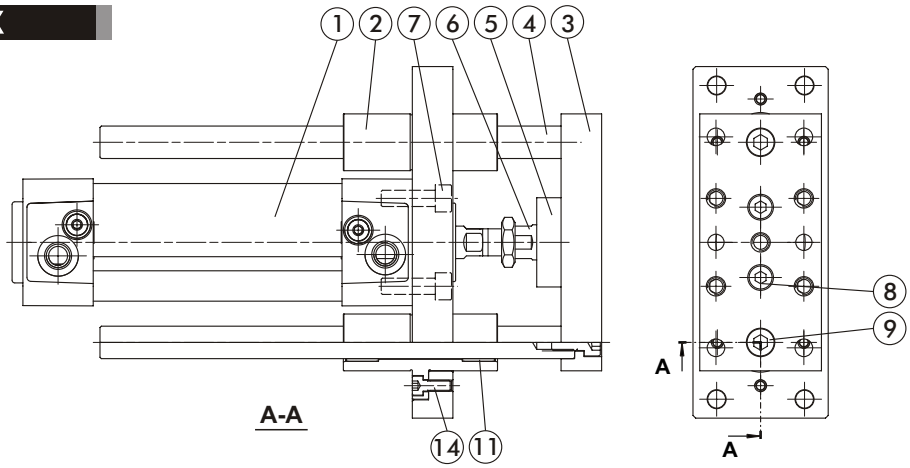
Mounting :



MGTB,MGTU,MGTK



MGTX

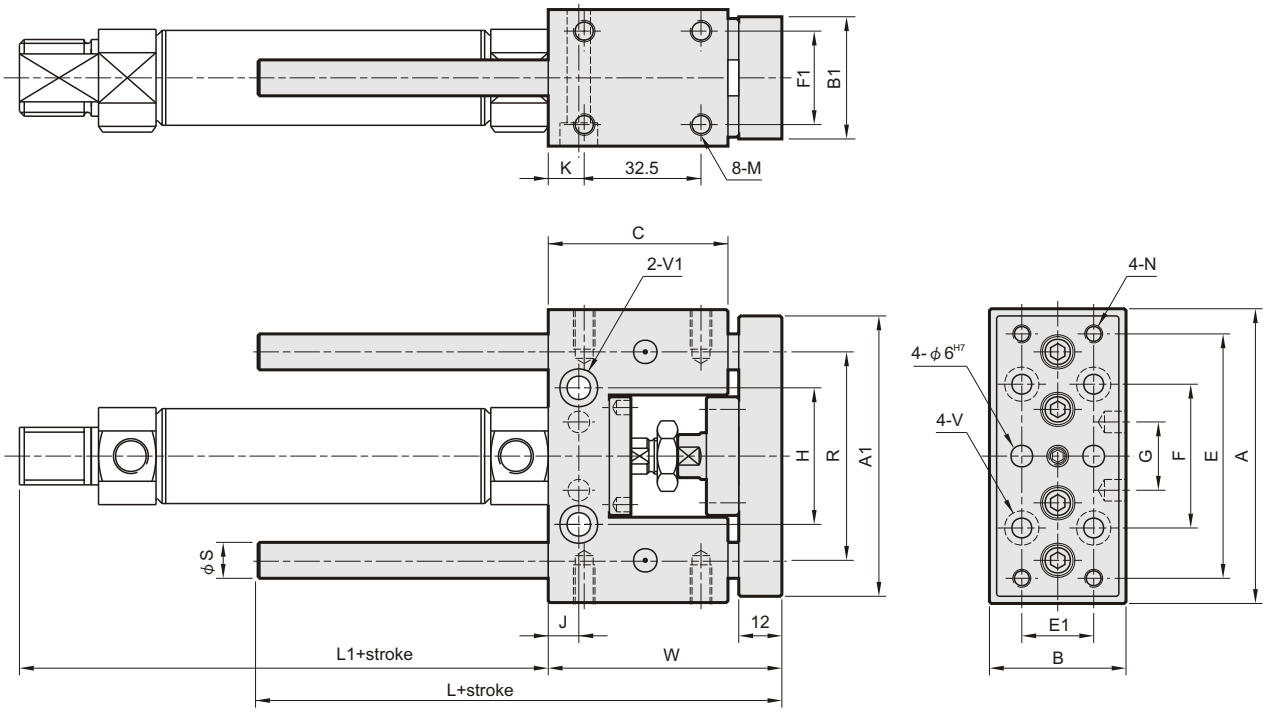


Material

No.	Part name	Material	Note
1	Cylinder	—	ϕ20, ϕ25 : MCMI series
			ϕ32~ϕ63 : MCQI series
2	Guide holder	Head cover	
3	Plate	Tube	
4	Guide rod	Carbon steel	for MGTB, MGTK, MGTX series
		Bearing steel	for MGTU series
5	Piston rod holder	Rolled steel	
6	Floating connector	Rolled steel	
7	Bolt	SCM	
8	Bolt	SCM	
9	Bolt	SCM	
10	Oiler	Copper	
11	Rod bush	Copper	
12	Snap ring	Spring steel	
13	Wiper seal	NBR	
14	Bolt	SCM	

MGTK (Oilless bush guide)

ϕ20, ϕ25



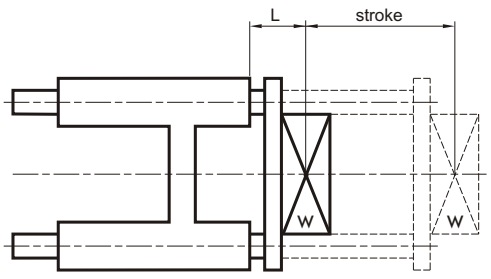
Dimensional table

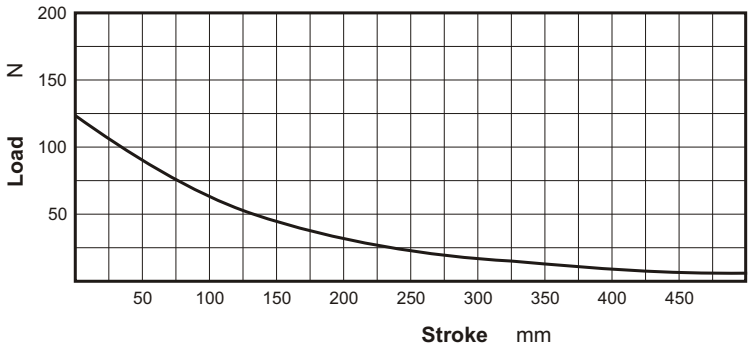
Code / Tube I.D.	A	A1	B	B1	C	E	E1	F	F1	G	H	J	K	L	L1	M	N	R	S	V	V1	W
20	82	78	38	34	50	68	20	40	26	19	38	8.5	5	85	88	M6,(D)11	M5	58	10	ϕ5.5, ϕ9.5(D)5.4	ϕ6.5, ϕ10.5(D)6.5	65
25	82	78	38	34	50	68	20	40	26	19	38	8.5	5	85	89	M6,(D)11	M5	58	10	ϕ5.5, ϕ9.5(D)5.4	ϕ6.5, ϕ10.5(D)6.5	65

Maximum allowable torque moment

Max. allowable load

MGTK ϕ20, ϕ25

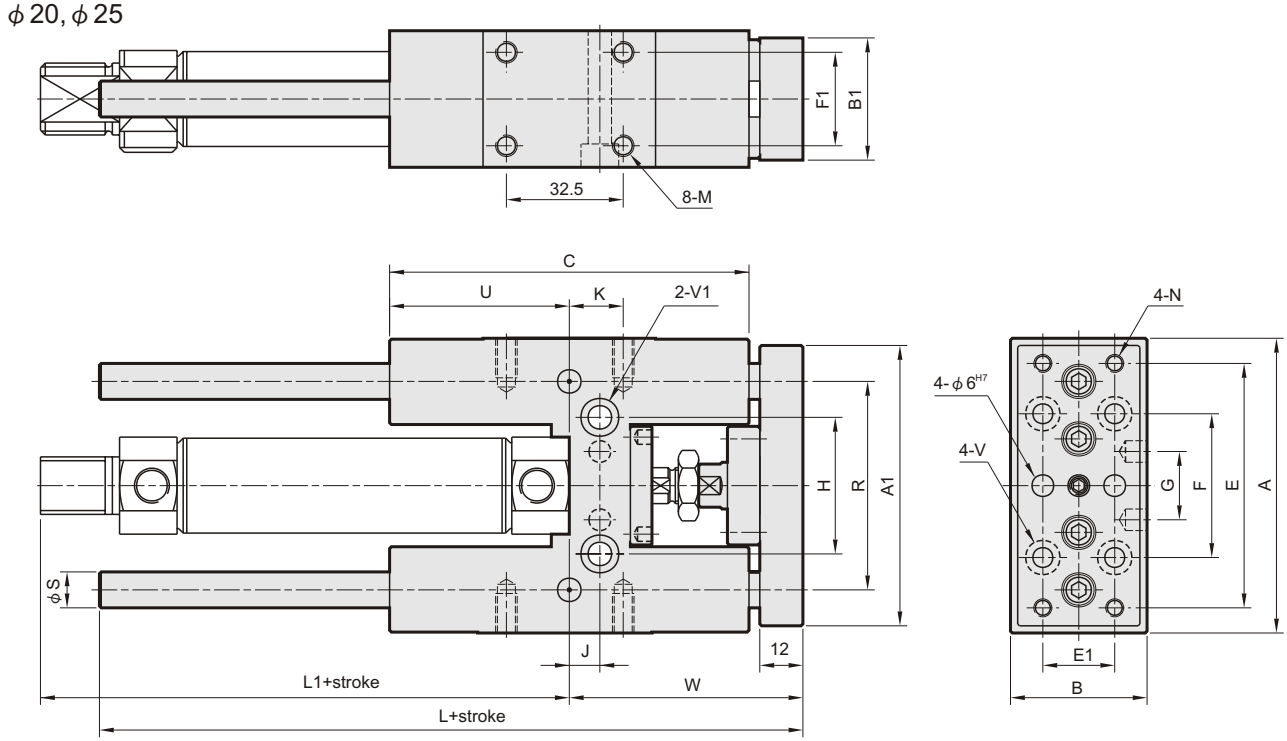




MGTB (Brass bush guide)

MGTU (Linear bearing guide)

ϕ20, ϕ25



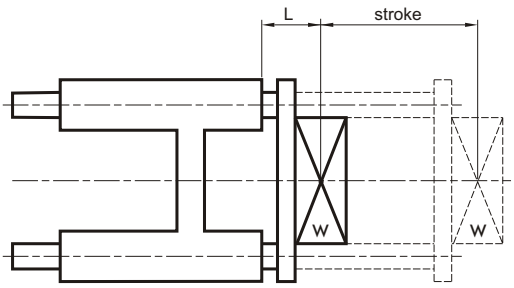
Dimensional table

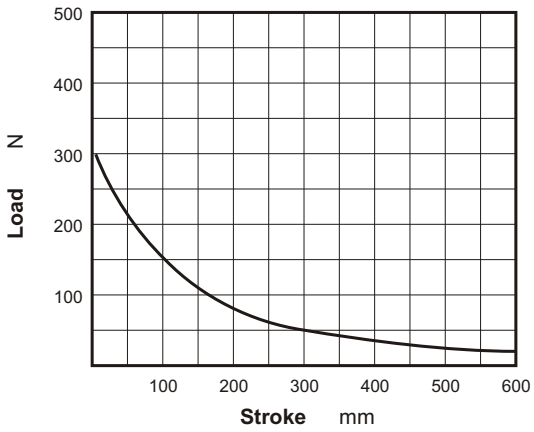
Code / Tube I.D.	A	A1	B	B1	C	E	E1	F	F1	G	H	J	K	L	L1	M	N	R	S	U	V	V1	W
20	82	78	38	34	100	68	20	40	26	19	38	8.5	15	135	88	M6,(D)11	M5	58	10	50	ϕ5.5, ϕ9.5(D)5.4	ϕ6.5, ϕ10.5(D)6.5	65
25	82	78	38	34	100	68	20	40	26	19	38	8.5	15	135	89	M6,(D)11	M5	58	10	50	ϕ5.5, ϕ9.5(D)5.4	ϕ6.5, ϕ10.5(D)6.5	65

Maximum allowable torque moment

Max. allowable load

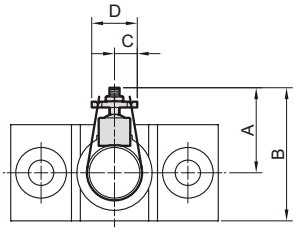
MGTB.MGTU ϕ20, ϕ25

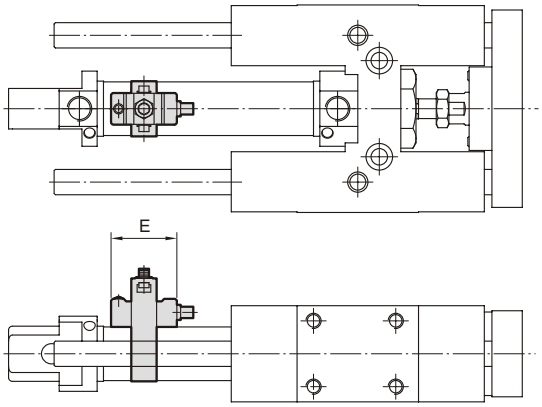




Sensor switch: RCA
Sensor switch band: BA**

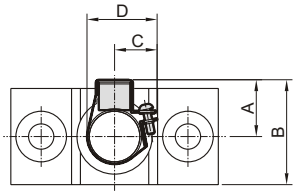
Code / Tube I.D.	A	B	C	D	E
20	33	52	9	18	26
25	35.5	54.5	9	18	26

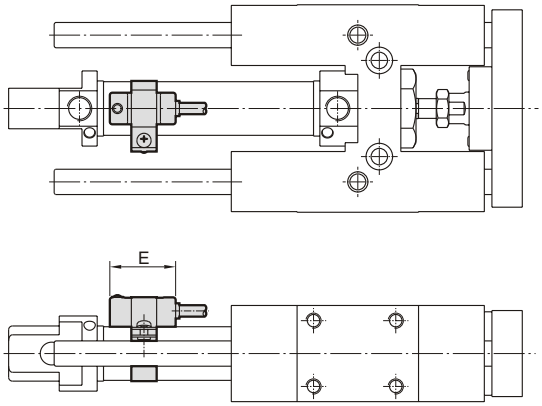




Sensor switch: RCA
Sensor switch band: BGS**

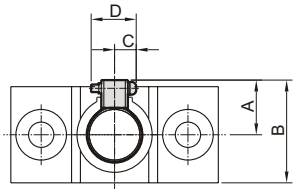
Code / Tube I.D.	A	B	C	D	E
20	25	44	18	33	26
25	25.5	44.5	18.5	33.5	26

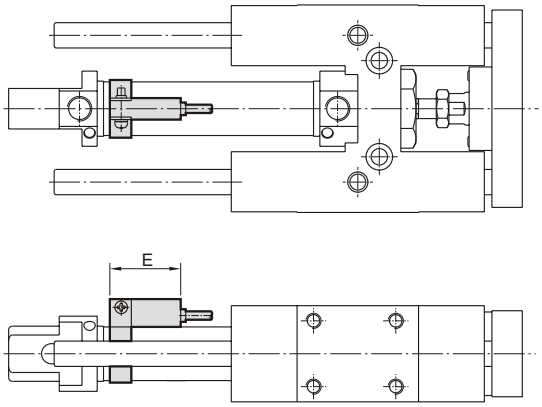




Sensor switch: RCM
Sensor switch band: BM**

Code / Tube I.D.	A	B	C	D	E
20	22	41	10	16	28
25	25	44	10	16	28

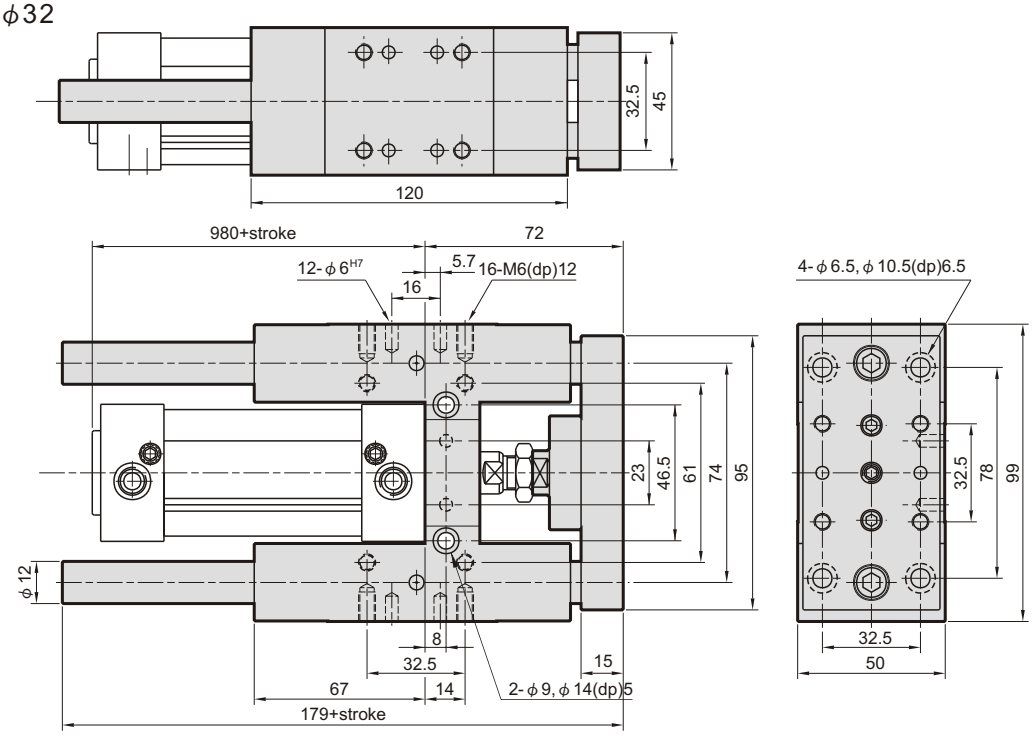




MGTB (Brass bush guide)

MGTU (Linear bearing guide)

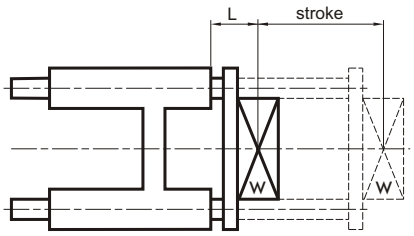
Tube I.D. : ϕ32

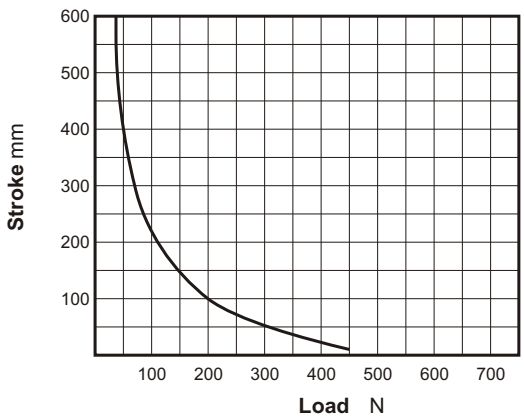


Maximum allowable torque moment

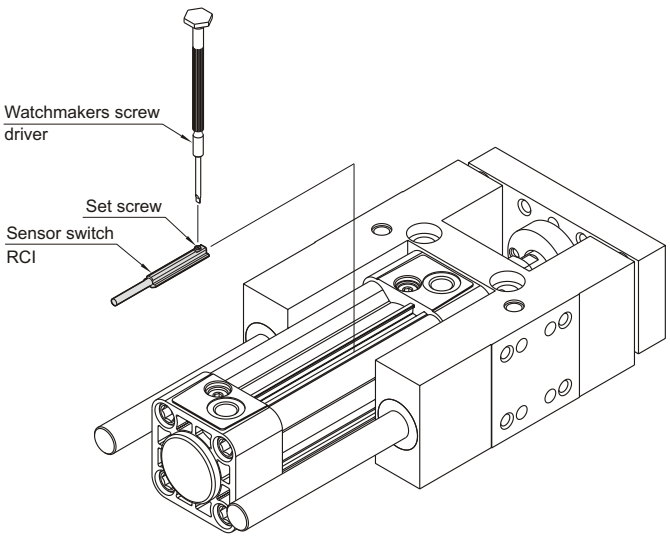
Max. allowable load

MGTB.MGTU ϕ32





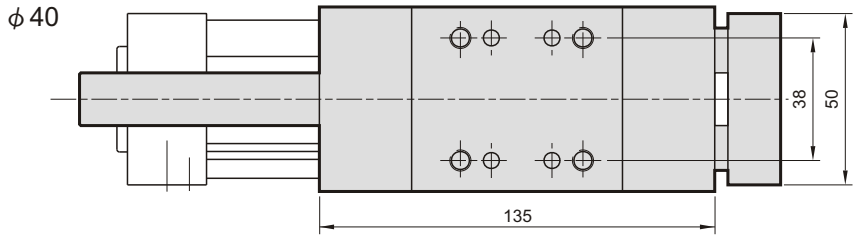
Installation of sensor switch ϕ32~ϕ63

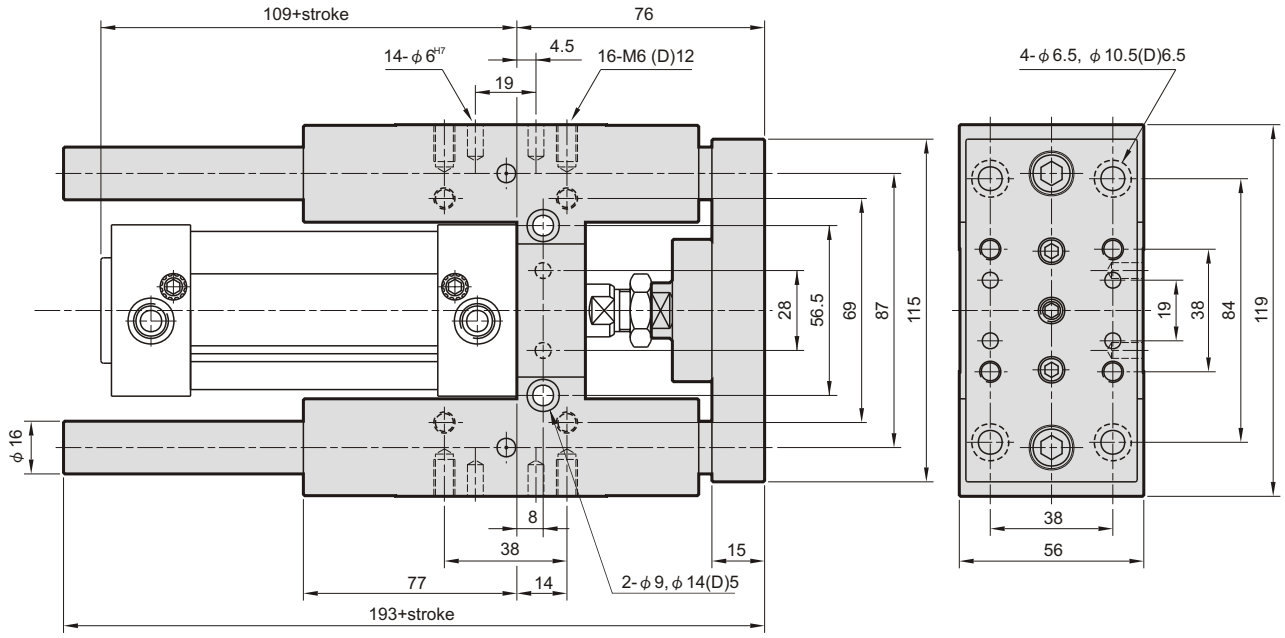


MGTB (Brass bush guide)

MGTU (Linear bearing guide)

ϕ40

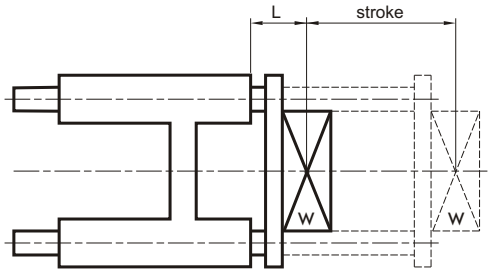


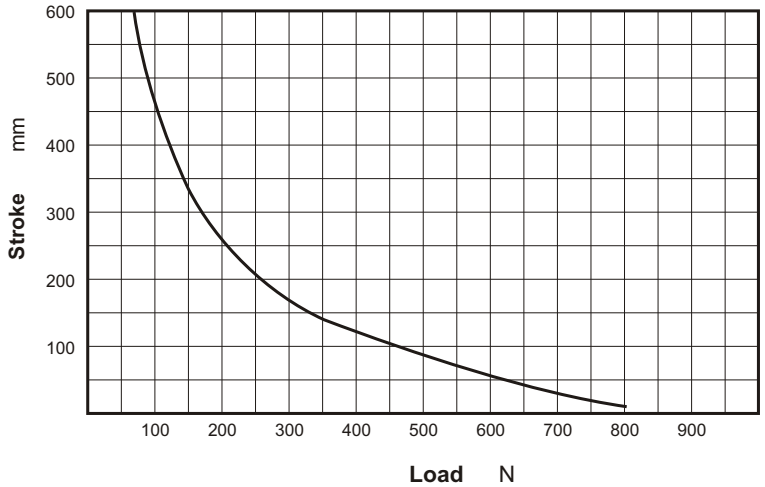


Maximum allowable torque moment

Max. allowable load

MGTB.MGTU ϕ40

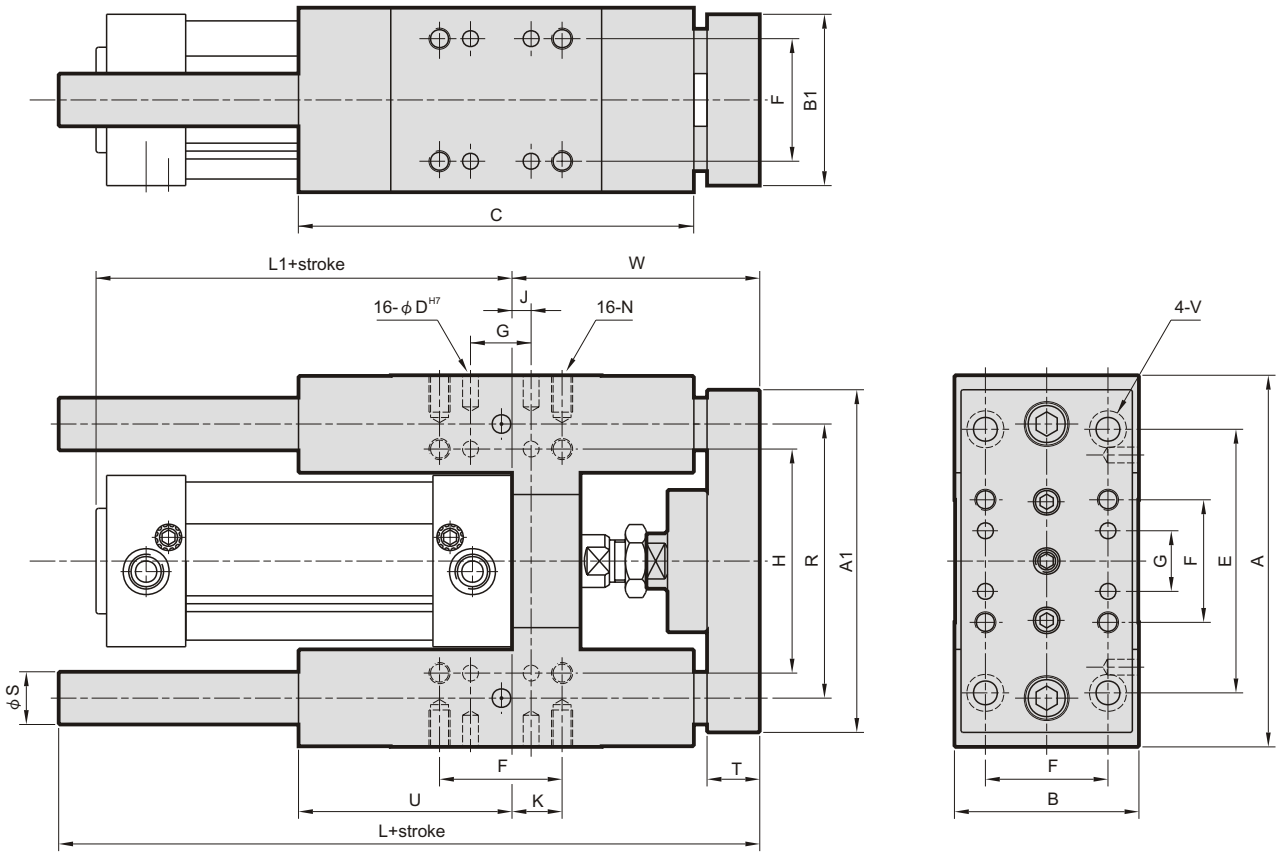




MGTB (Brass bush guide)

MGTU (Linear bearing guide)

ϕ50, ϕ63



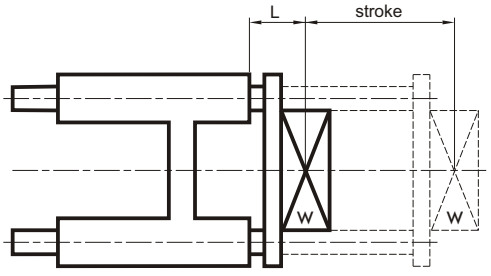
Dimensional table

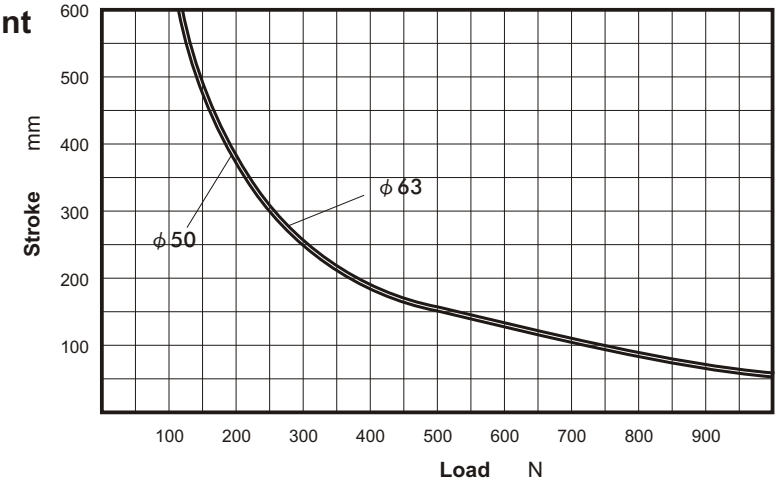
Code / Tube I.D.	A	A1	B	B1	C	D	E	F	G	H	J	K	L	L1	N	R	S	T	U	V	W
50	141	135	70	65	150	6	100	46.5	23	85	7.5	19	215	110	M8,(D)14	104	20	20	81	ϕ9, ϕ14(D)8.5	94
63	156	150	80	75	150	6	105	56.5	28	100	5	19	230	125	M8,(D)14	119	20	20	96	ϕ9, ϕ14(D)8.5	94

Maximum allowable torque moment

Max. allowable load

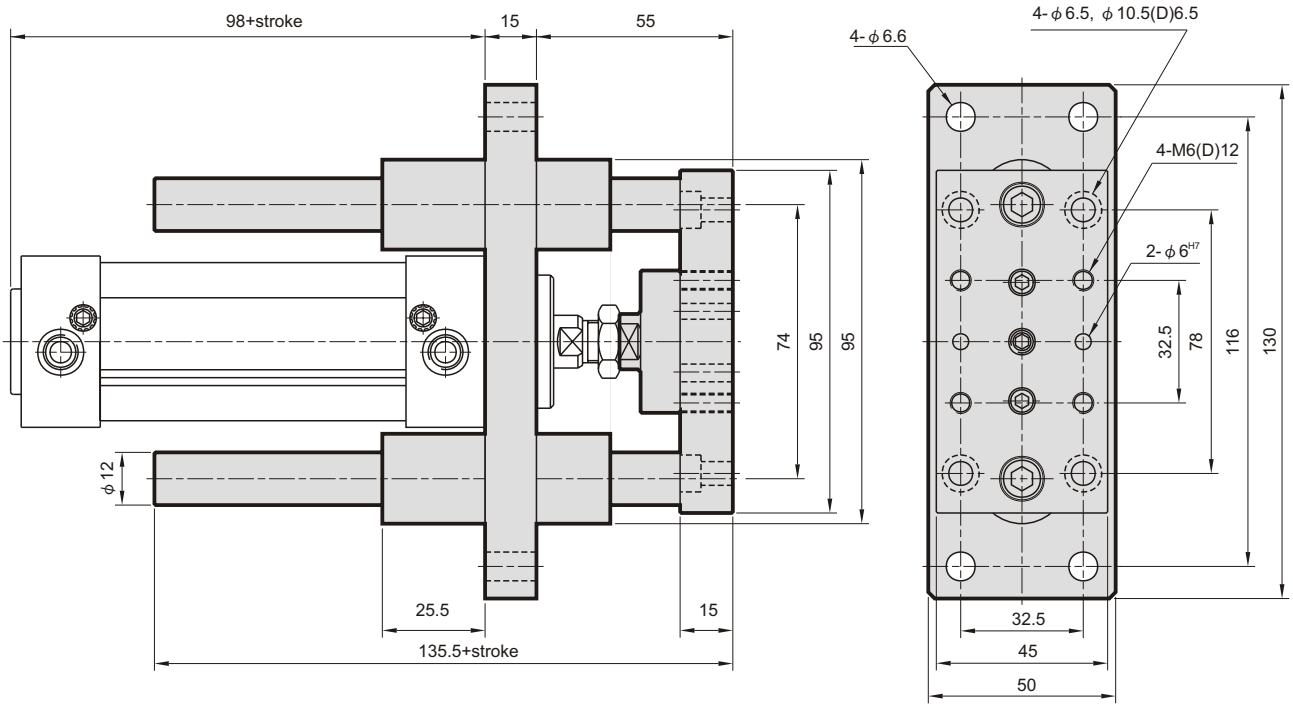
MGTB.MGTU ϕ50, ϕ63





MGTX (Flange type)

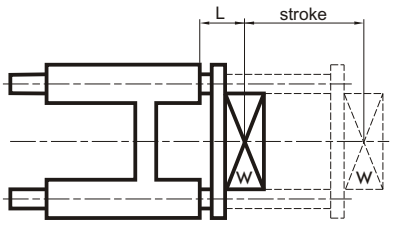
ϕ32

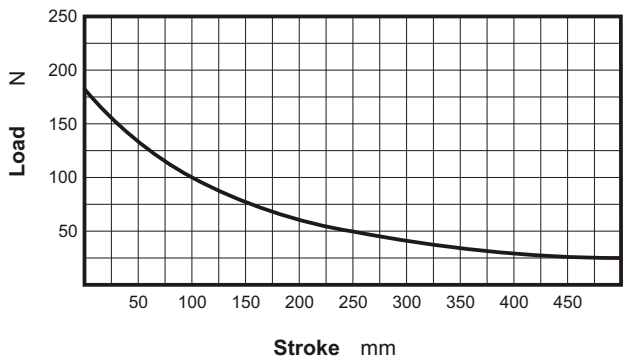


Maximum allowable torque moment

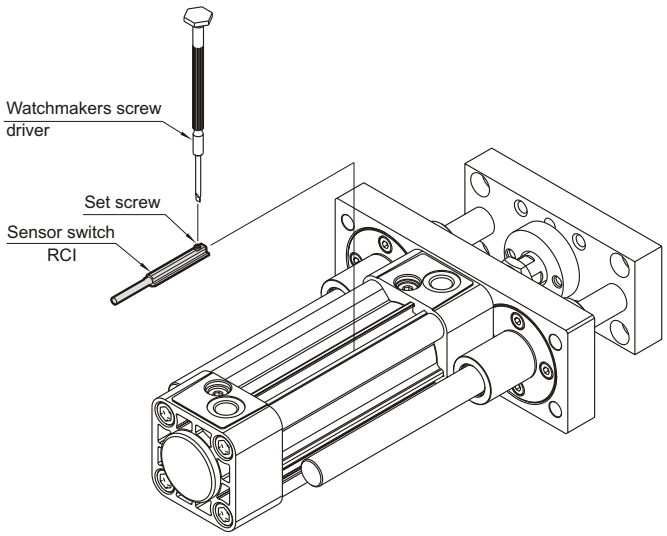
Max. allowable load

MGTX ϕ32



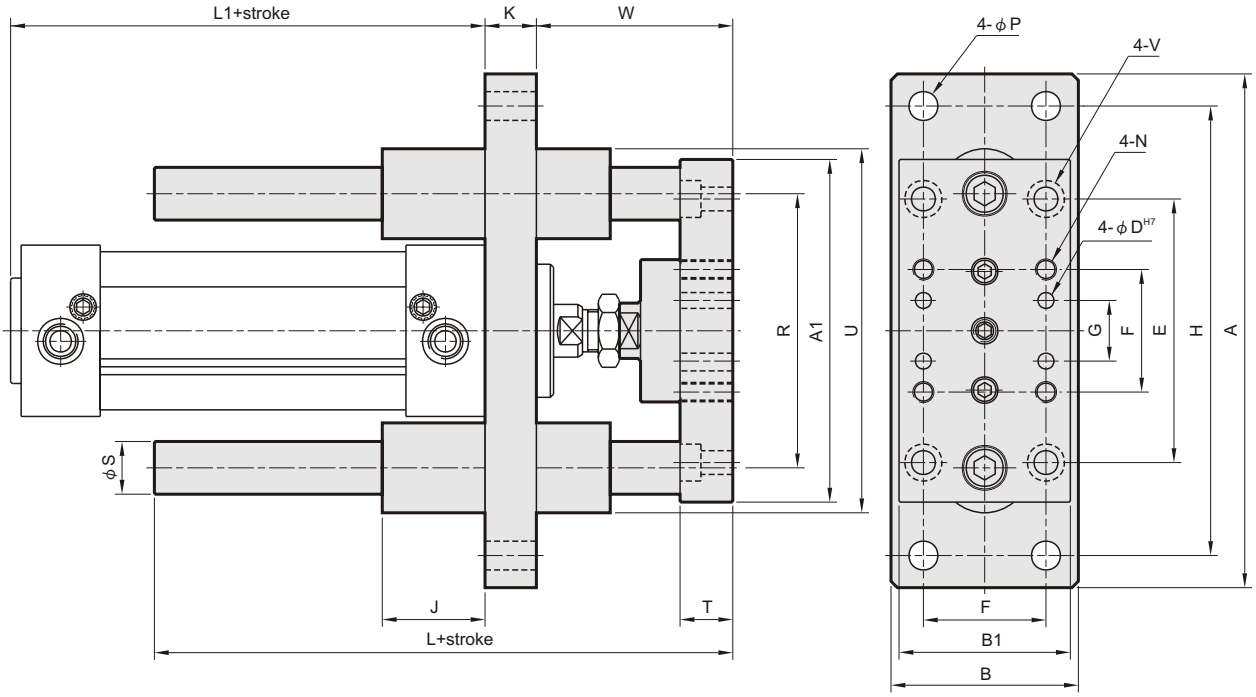


Installation of sensor switch ϕ32~ϕ63



MGTX (Flange type)

ϕ40, ϕ50, ϕ63



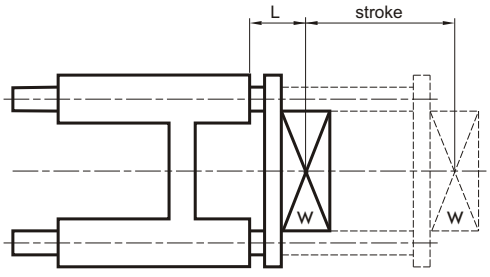
Dimensional table

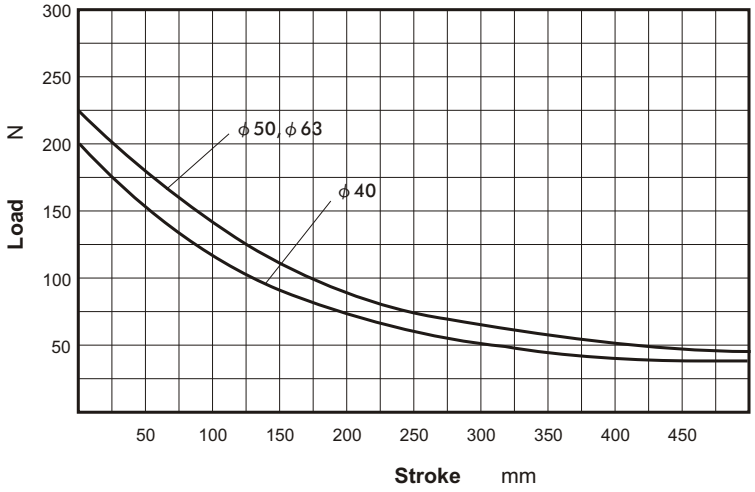
Code / Tube I.D.	A	A1	B	B1	D	E	F	G	H	J	K	L	L1	N	P	R	S	T	U	V	W
40	160	115	55	54	6	84	38	19	140	32	15	148	109	M6,(D)12	ϕ9	87	16	15	115	ϕ6.5, ϕ10.5(D)6.5	61
50	180	135	70	65	6	100	46.5	23	160	36	20	170	110	M8,(D)14	ϕ9	104	20	20	136	ϕ9, ϕ14(D)8.5	74
63	195	150	80	75	6	105	56.5	28	175	36	20	170	125	M8,(D)16	ϕ9	119	20	20	151	ϕ9, ϕ14(D)8.5	74

Maximum allowable torque moment

Max. allowable load

MGTX ϕ40~ϕ63





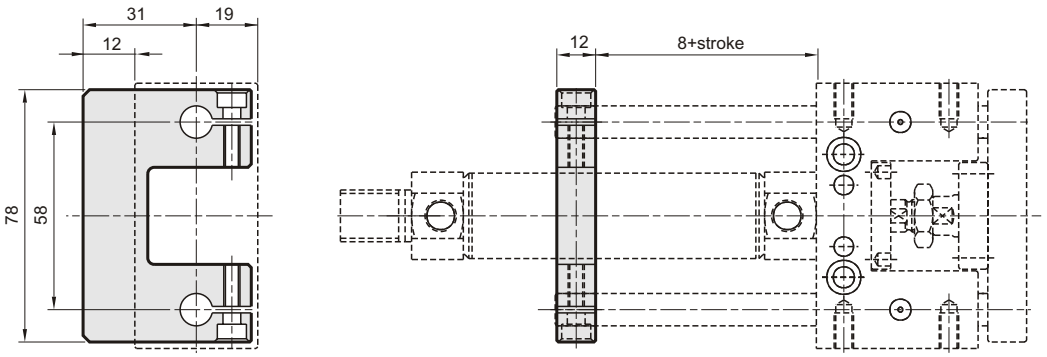
MGT* Rear flange coupling ϕ20, ϕ25

TWIN-GUIDE CYLINDERS

mindman

MGTK

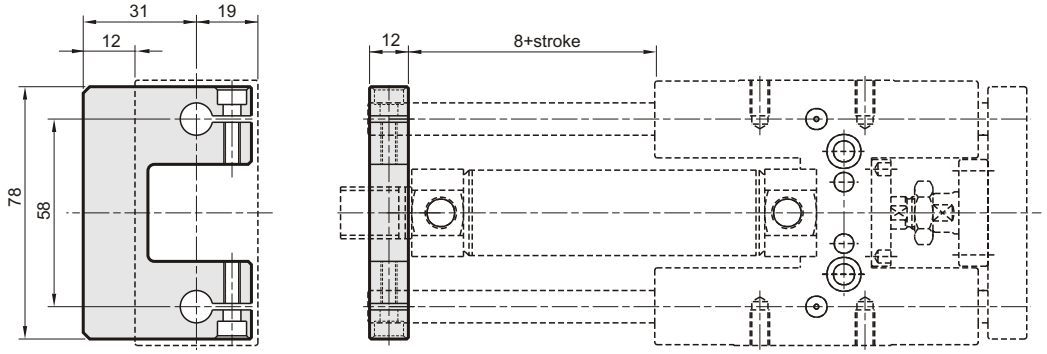
ϕ20, ϕ25



MGTB

MGTU

ϕ20, ϕ25



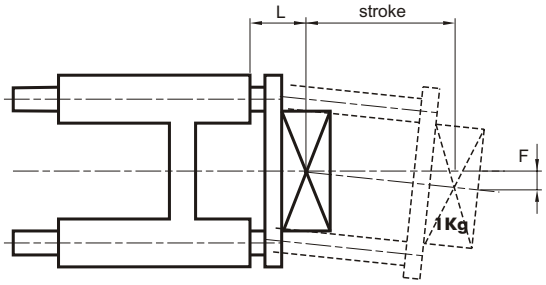
Building material: aluminium alloy
2 Clamps screws are included in the supply

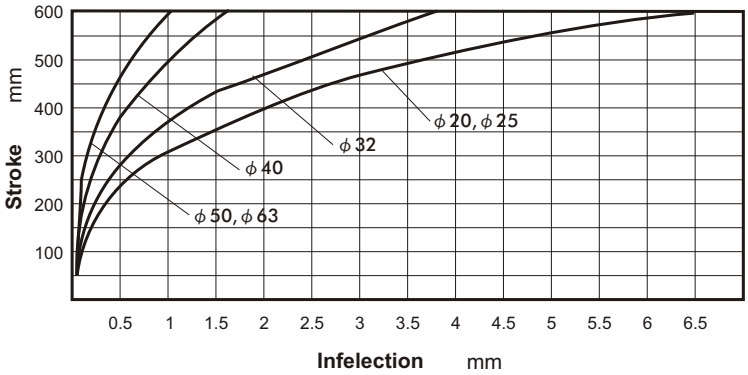
Maximum allowable torque moment

Max. allowable load

MGTB.MGTU

Inflection of guide stems is due to their weight summed to the load of 1Kg.related to the stroke.



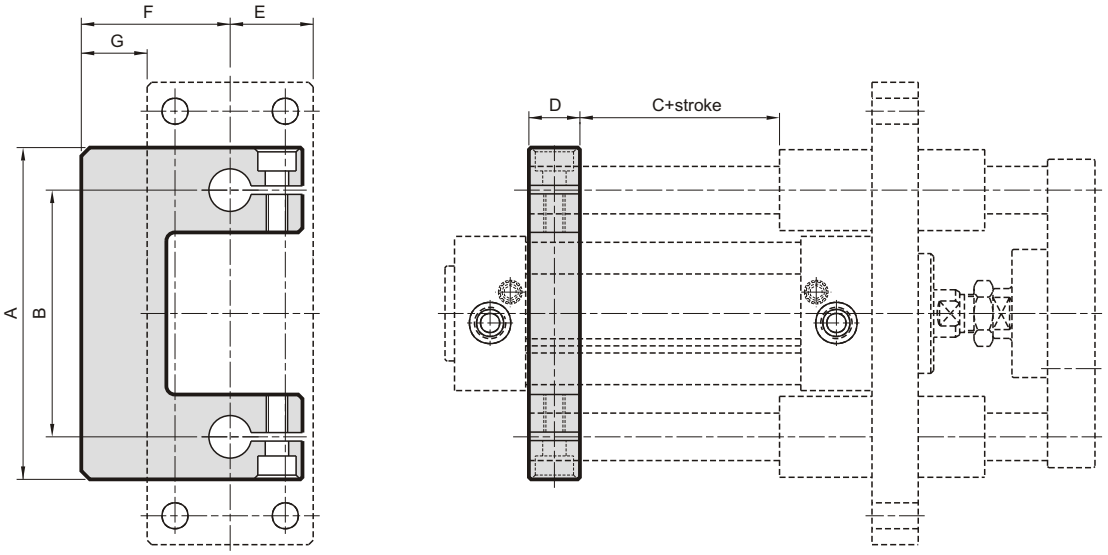


Weight of the guide cylinder

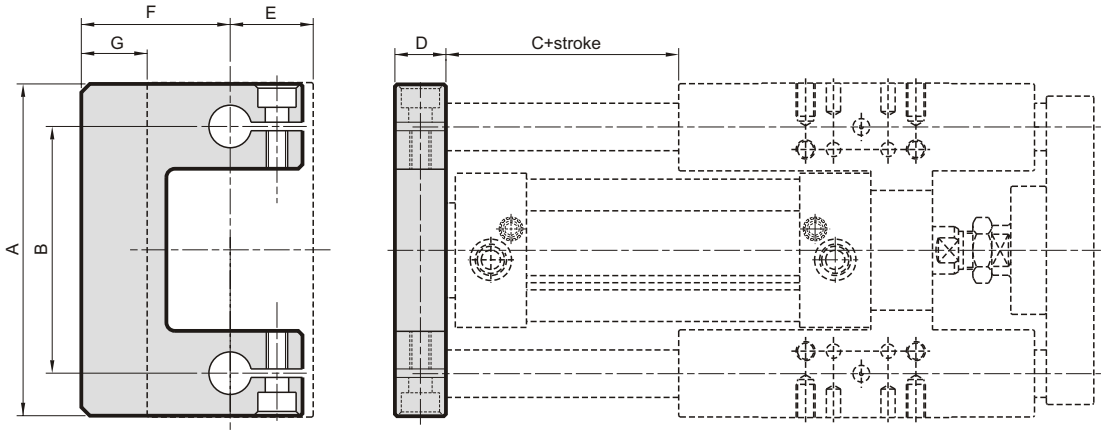
unit: kg

Tube I.D.	Basic weight	Stroke 25 mm	Basic weight	Stroke 25 mm	Basic weight	Stroke 25 mm
	MGTK (Oilless bush guide)		MGTB (Brass bush guide)		MGTU (Linear bushing guide)	
20	0.690	0.050	1.090	0.050	0.967	0.050
25	0.716	0.058	1.137	0.058	1.015	0.058

MGTX ϕ32, ϕ40, ϕ50, ϕ63



MGTB MGTU ϕ32, ϕ40, ϕ50, ϕ63



Dimensional table

Code / Tube I.D.	A	B	C	D	E	F	G
32	95	74	25	15	25	47	22
40	115	87	20	20	28	52.5	24.5
50	135	104	20	20	35	67.5	32.5
63	150	119	20	20	40	78	38

Building material: aluminium alloy
2 Clamps screws are included in the supply

Weight of the guide cylinder

unit: kg

Tube I.D.	Basic weight	Stroke 25 mm	Basic weight	Stroke 25 mm	Basic weight	Stroke 25 mm
	MGTB (Brass bush guide)		MGTU (Linear bushing guide)		MGTX (Brass bush guide)	
32	2.060	0.100	1.918	0.100	1.274	0.100
40	3.423	0.159	3.113	0.159	2.082	0.159
50	5.584	0.240	5.162	0.240	3.440	0.240
63	6.816	0.250	6.390	0.250	4.221	0.250