



ETERNA
SOLUTIONS

CABINET HANDLES



HANDLES SERIES

 LS501	 LS503	 LS504-1	 LS504-2	 LS504-3
 LS505	 LS506	 LS507	 LS508	 LS509
 LS510	 LS511	 LS513	 LS515	 LS514-1
 LS514-2	 LS514-3-4-5	 LS516	 LS516-2A	 LS518
 LS519	 LS520	 LS521	 LS522	 LS532

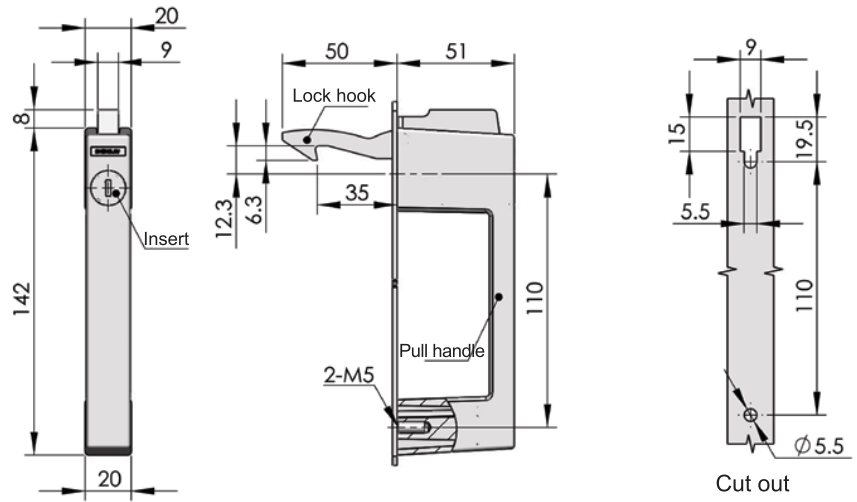
- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles
- Door stop
- Hinge
- Seal gasket

LS501



Main material and finish: Nanometer painted ZDC pull handle, lock hook and steel spring

Performance parameter:
Maximum static load: 600N

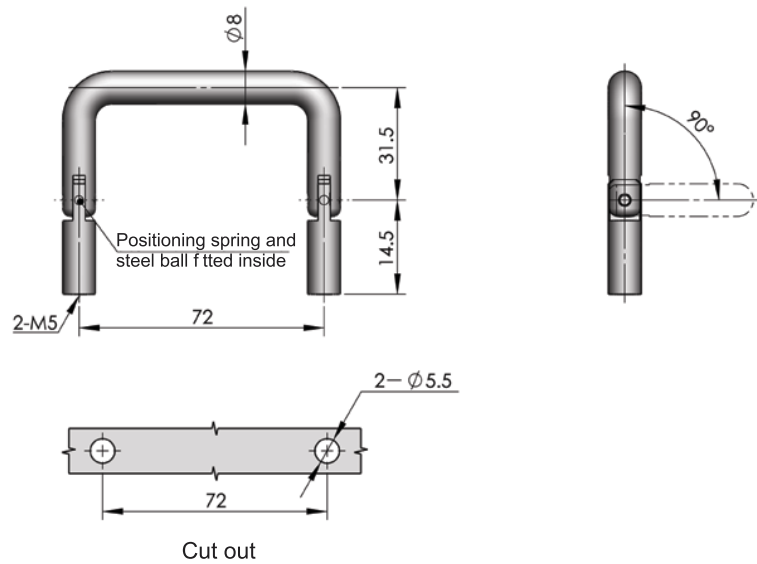


Specification	Model	ERP
With insert	LS501-10	LS501Z2B110001
Without insert	LS501-20	LS501Z2B110002

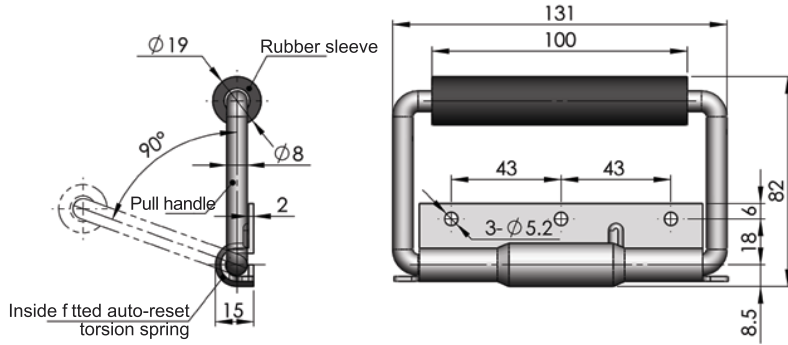
LS503



Performance parameter:
Maximum static load: 1000N



	Stainless steel	Bright chrome-plated steel
ERP	LS503S4A072001	LS503F3A072001

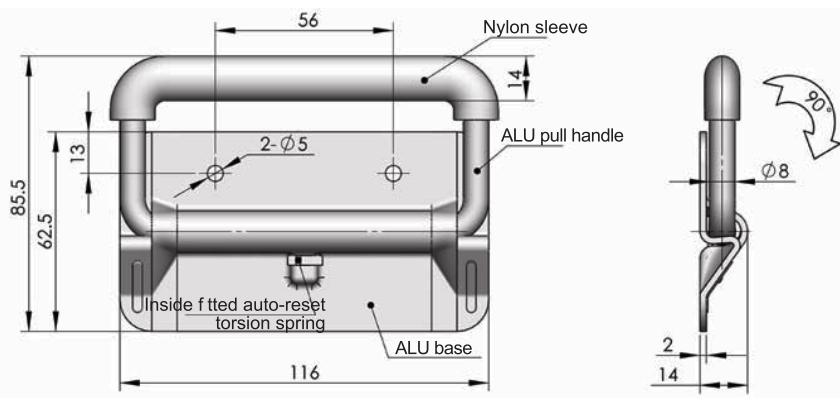


Specification	Model	ERP
Stainless steel	LS504-1B	LS504S0000001
Steel (Bright chrome)	LS504-1	LS504F3A000001

LS504-1



Performance parameter:
Maximum static load: 800N



LS504-2



Main material and finish: Oxidation aluminum alloy base and pull handle, rubber sleeve

Performance parameter:
Maximum static load: 840N

ERP	LS504A9A000001
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Accessories

Electronic lock

Handle lock

Cylinder lock

Plane lock

Rod control lock

Panel lock

Toggle and hook

Handles

Door stop

Hinge

Seal gasket

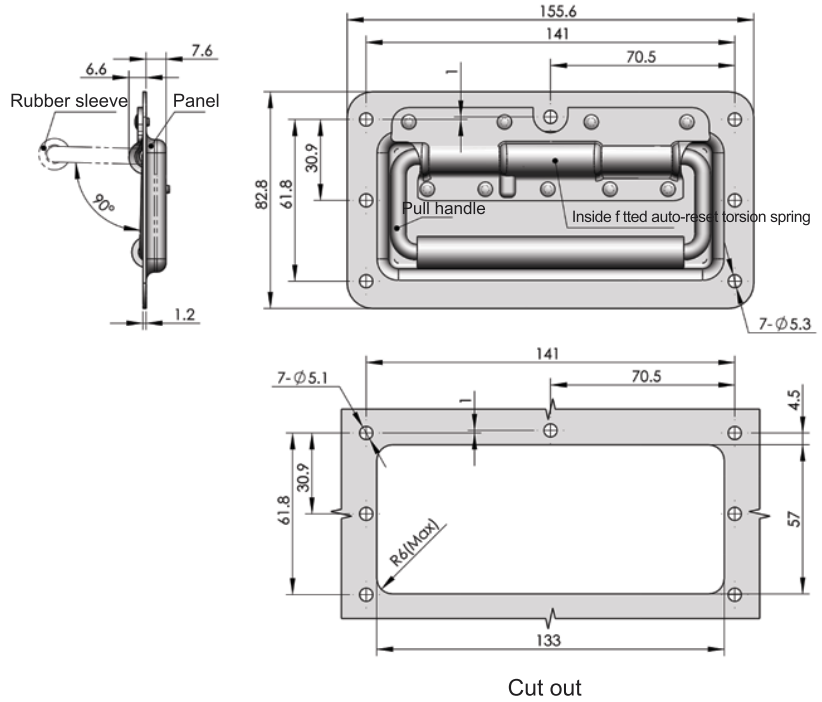
- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles
- Door stop
- Hinge
- Seal gasket

LS504-3



Main material and finish: Silk black powder coated steel base and pull handle, rubber sleeve

Performance parameter:
Maximum static load: 1610N



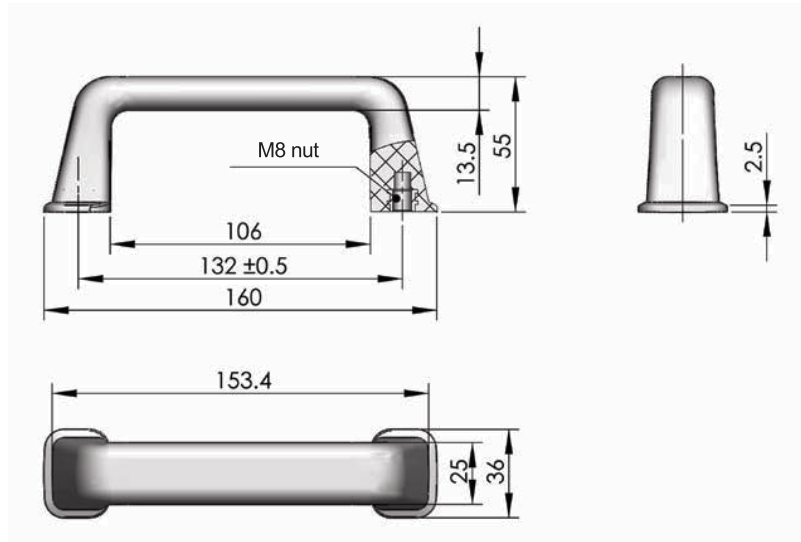
ERP LS504F1A00001

LS505

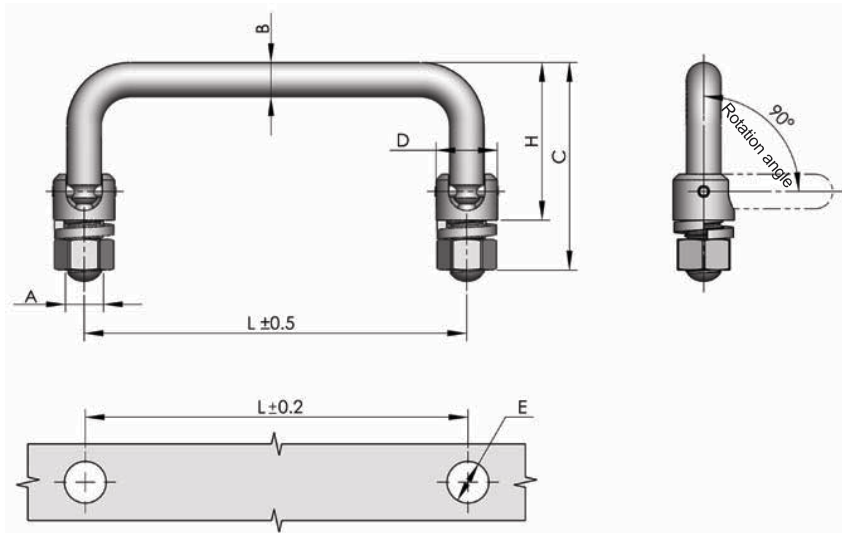


Main material: Black PP

Performance parameter:
Maximum static load: 650N



ERP LS505N00132001



Cut out

LS506



Performance parameter:
Maximum static load: 1200N(L=90)

Accessories

Electronic lock

Handle lock

Cylinder lock

Plane lock

Rod control lock

Panel lock

Toggle and hook

Handles

Door stop

Hinge

Seal gasket

Specif cation	A=M10 B= Ø9 C=57.5 D= Ø16 H=41.5 E=Ø11 Ts=1~2				A=M6 B= Ø6 C=45 D= Ø11 H=32 E= Ø7 Ts=1~5	
	Bright chrome-plated steel		Stainless steel		Bright chrome-plated steel	
	Model	ERP	Model	ERP	Model	ERP
L=55	LS506-55	LS506F3A550002	LS506-S55	LS506F4A550002	LS506-2-55	LS506F3A055001
L=60	LS506-60	LS506F3A600002	LS506-S60	LS506F4A600002	LS506-2-60	LS506F3A060001
L=70	LS506-70	LS506F3A700002	LS506-S70	LS506F4A700002	LS506-2-70	LS506F3A070001
L=84	LS506-84	LS506F3A840002	LS506-S84	LS506F4A840002	LS506-2-84	LS506F3A084001
L=90	LS506-90	LS506F3A090001	LS506-S90	LS506S4A090001	LS506-2-90	LS506F3A090002
L=100	LS506-100	LS506F3A100001	LS506-S100	LS506S4A100001	LS506-2-100	LS506F3A100008
L=102	LS506-102	LS506F3A102002	LS506-S102	LS506S4A102002	LS506-2-102	LS506F3A102001
L=119	LS506-119	LS506F3A119001	LS506-S119	LS506S4A119001	LS506-2-119	LS506F3A119004
L=122	LS506-122	LS506F3A122002	LS506-S122	LS506S4A122002	LS506-2-122	LS506F3A122001
L=135	LS506-135	LS506F3A135001	LS506-S135	LS506S4A135001	LS506-2-135	LS506F3A135005
L=149	LS506-149	LS506F3A149001	LS506-S149	LS506S4A149001	LS506-2-149	LS506F3A149002
L=155	LS506-155	LS506F3A155001	LS506-S155	LS506S4A155001	LS506-2-155	LS506F3A155002
L=160	LS506-160	LS506F3A160001	LS506-S160	LS506S4A160001	LS506-2-160	LS506F3A160002

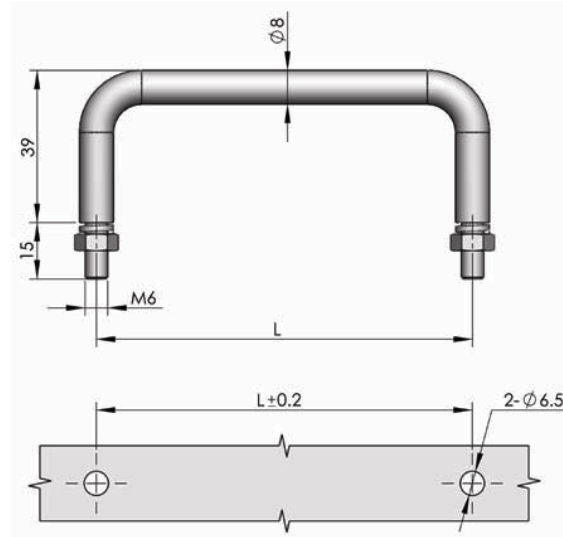
- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles
- Door stop
- Hinge
- Seal gasket



LS507

Main material and finish: Silk black powder coated steel

Performance parameter:
Maximum static load: 1500N(item LS507-S75)



Cut out

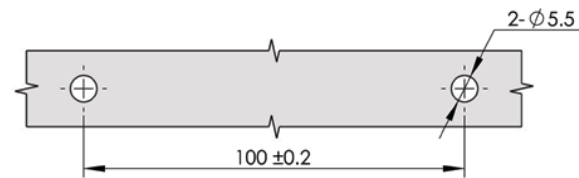
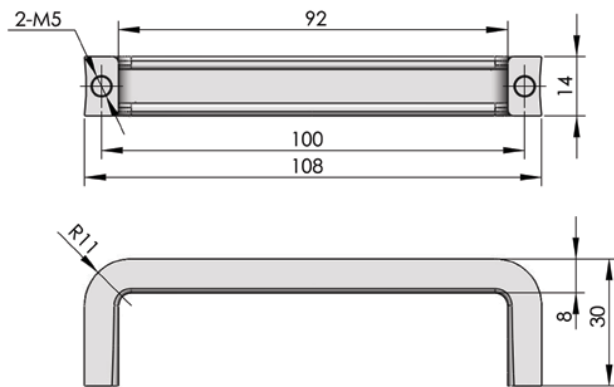
Specification	Bright chrome-plated steel		Stainless steel	
	Model	ERP	Model	ERP
L=68	LS507-68	LS507F3A068001	LS507-S68	LS507S4A068001
L=75	LS507-75	LS507F3A075001	LS507-S75	LS507S4A075001
L=100	LS507-100	LS507F3A075001	LS507-S100	LS507S4A100001
L=150	LS507-150	LS507F3A150001	LS507-S150	LS507S4A150001



LS510

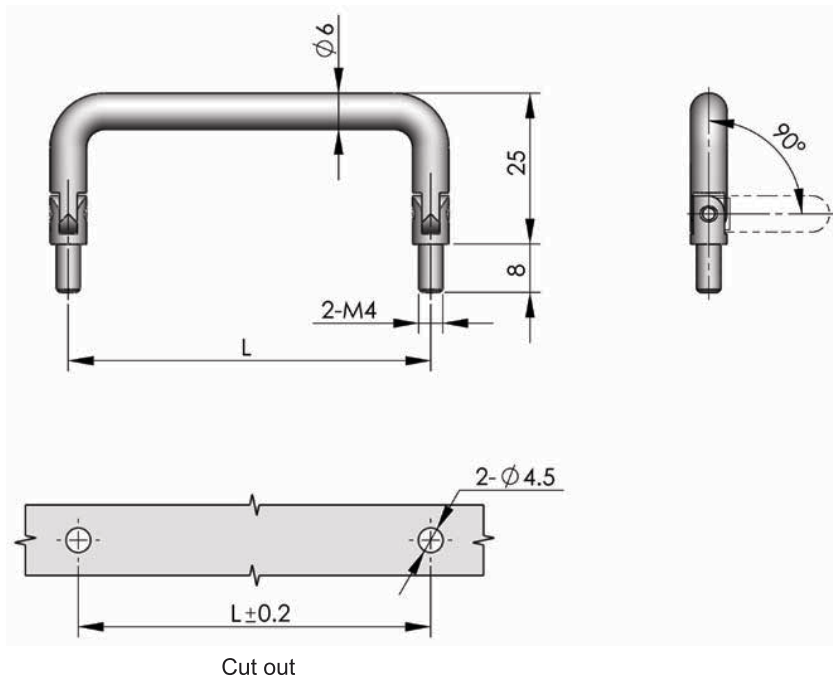
Material: ZDC

Performance parameter:
Maximum static load: 1500N



Cut out

ERP	chrome plated	Nanometer painted
LS510Z3A100001		LS510Z2B100001



LS508



Main material: Stainless steel or steel

Performance parameter:

Maximum static load: 1200N(L=90)

Specif cation	Bright chrome-plated steel		Stainless steel	
	Model	ERP	Model	ERP
L=55	LS508-55	LS508F3A055001	LS508-S55	LS508S4A055001
L=60	LS508-60	LS508F3A060001	LS508-S60	LS508S4A060001
L=70	LS508-70	LS508F3A070001	LS508-S70	LS508S4A070001
L=74	LS508-74	LS508F3A074001	LS508-S74	LS508S4A074001
L=84	LS508-84	LS508F3A084001	LS508-S84	LS508S4A084001
L=90	LS508-90	LS508F3A090001	LS508-S90	LS508S4A090001
L=102	LS508-102	LS508F3A102001	LS508-S102	LS508S4A102001
L=122	LS508-122	LS508F3A122001	LS508-S122	LS508S4A122001
L=138	LS508-138	LS508F3A138001	LS508-S138	LS508S4A138001

- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handleless**
- Door stop
- Hinge
- Seal gasket

Accessories

Electronic lock

Handle lock

Cylinder lock

Plane lock

Rod control lock

Panel lock

Toggle and hook

Handles

Door stop

Hinge

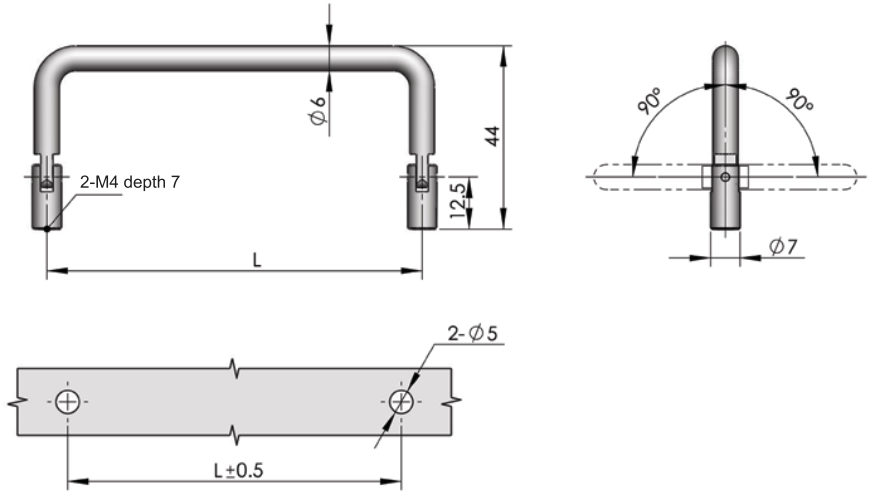
Seal gasket

LS509



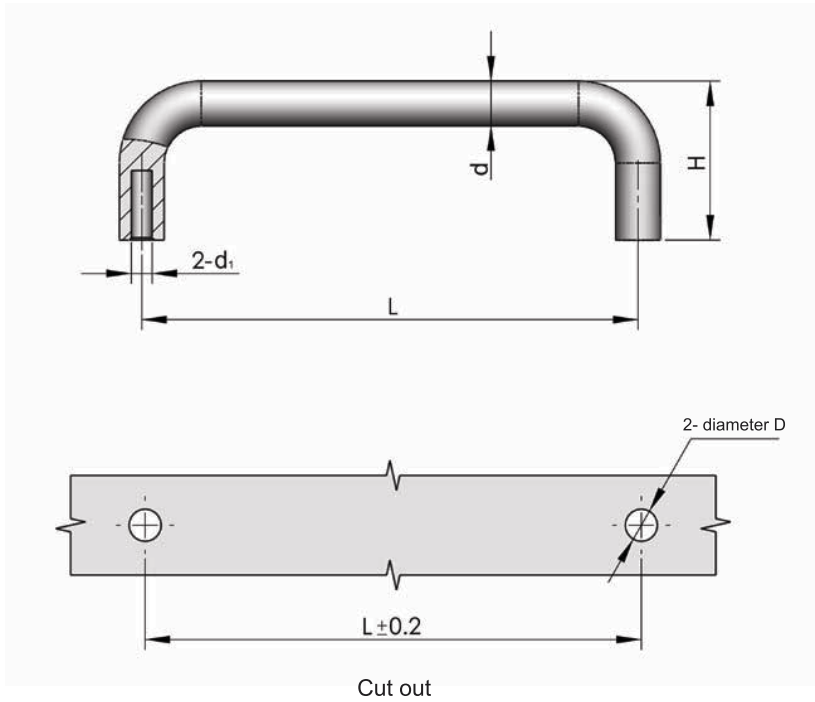
Main material and finish: Polished or bright chrome-plated stainless steel or steel

Performance parameter:
Maximum static load: 1000N (L=90)



Cut out

Specification	Bright chrome-plated steel		Stainless steel	
	Model	ERP	Model	ERP
L=55	LS509-55	LS509F3A055001	LS509-S55	LS509S4A055001
L=60	LS509-60	LS509F3A060001	LS509-S60	LS509S4A060001
L=70	LS509-70	LS509F3A070001	LS509-S70	LS509S4A070001
L=74	LS509-74	LS509F3A074001	LS509-S74	LS509S4A074001
L=84	LS509-84	LS509F3A084001	LS509-S84	LS509S4A084001
L=90	LS509-90	LS509F3A090001	LS509-S90	LS509S4A090001
L=102	LS509-102	LS509F3A102001	LS509-S102	LS509S4A102001
L=122	LS509-122	LS509F3A122001	LS509-S122	LS509S4A122001
L=138	LS509-138	LS509F3A138001	LS509-S138	LS509S4A138001



Performance parameter:
Item: LS511-Z-120
Maximum static load: 1800N

- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles**
- Door stop
- Hinge
- Seal gasket

Bright chrome-plated steel		Stainless steel (mirror polished)		Bright chrome-plated ZDC		Specification				
Model	ERP	Model	ERP	Model	ERP	L	d	H	d ₁	D
LS511-B55	LS511F3A055001	LS511-BS55	LS511S4A055001			55	6	26	M4	Ø 4.5
LS511-B60	LS511F3A060001	LS511-BS60	LS511S4A060001			60	6	26	M4	Ø 4.5
LS511-B70	LS511F3A070001	LS511-BS70	LS511S4A070001			70	6	32	M4	Ø 4.5
LS511-B82	LS511F3A082001	LS511-BS82	LS511S4A082001			82	6	26	M4	Ø 4.5
LS511-B90	LS511F3A090001	LS511-BS90	LS511S4A090001			90	6	32	M4	Ø 4.5
LS511-B102	LS511F3A102001	LS511-BS102	LS511S4A102001			102	6	32	M4	Ø 4.5
LS511-B122	LS511F3A122001	LS511-BS122	LS511S4A122001			122	6	32	M4	Ø 4.5
LS511-B138	LS511F3A138001	LS511-BS138	LS511S4A138001			138	6	32	M4	Ø 4.5
LS511-A75	LS511F3A075001	LS511-AS75	LS511S4A075001			75	8	40	M5	Ø 6
LS511-A100	LS511F3A100001	LS511-AS100	LS511S4A100001			100	8	32	M5	Ø 6
LS511-A150	LS511F3A150001	LS511-AS150	LS511S4A150001			150	8	40	M5	Ø 6
LS511-90	LS511F3A090002	LS511-S90	LS511S4A090002			90	9	32	M5	Ø 6
LS511-100	LS511F3A100002	LS511-S100	LS511S4A100002			100	9	32	M5	Ø 6
LS511-119	LS511F3A119001	LS511-S119	LS511S4A119001			119	9	40	M5	Ø 6
LS511-135	LS511F3A135001	LS511-S135	LS511S4A135001			135	9	32	M5	Ø 6
LS511-149	LS511F3A149001	LS511-S149	LS511S4A149001			149	9	40	M5	Ø 6
LS511-155	LS511F3A155001	LS511-S155	LS511S4A155001			155	9	32	M5	Ø 6
LS511-160	LS511F3A160001	LS511-S160	LS511S4A160001			160	9	40	M5	Ø 6
				LS511-Z101	LS511Z3A101001	101	9	29	M5	Ø 6
				LS511-Z120	LS511Z3A120001	120	10	37	M6	Ø 7
				LS511-Z180	LS511Z3A180001	180	12	45	M5	Ø 7

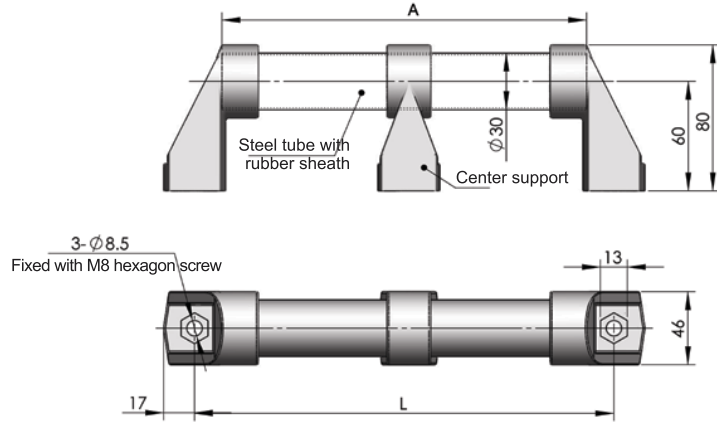
- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles
- Door stop
- Hinge
- Seal gasket



LS513

Main material and finish: Rubber sheath, steel tube, black PA end pieces and center support

Performance parameter:
Maximum static load: 600N (L=300)



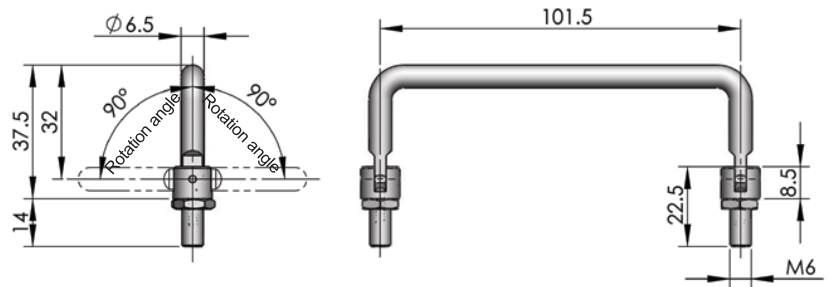
Specification		Model	ERP
L	A		
300	266	LS513-300	LS513N00300001
400	366	LS513-400	LS513N00400002
500	466	LS513-500	LS513N00500001
600	566	LS513-600	LS513N00600001
700	666	LS513-700	LS513N00700002
800	766	LS513-800	LS513N00800001
900	866	LS513-900	LS513N00900002
1000	966	LS513-1000	LS513N00000A02
2000	1966	LS513-2000	LS513N00000B01



LS515

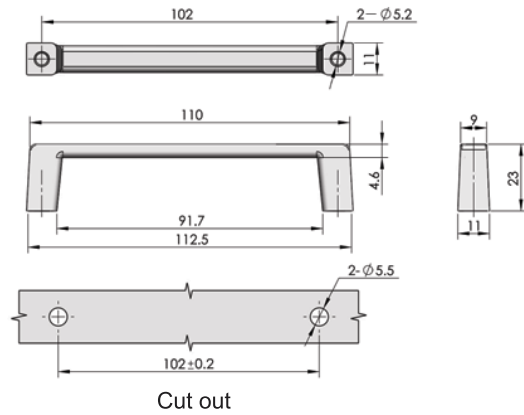
Main material and finish: Black powder coated steel

Performance parameter:
Maximum static load: 800N



ERP	LS515F1A102001
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LS514-1

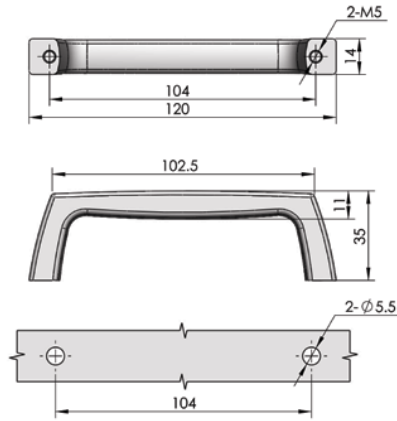


Cut out

ERP

LS514Z3A102001

LS514-2

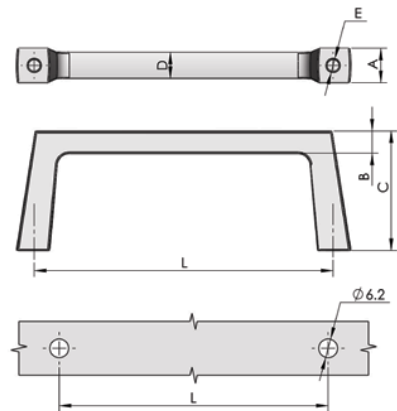


Cut out

ERP

LS514Z2B104001

LS514-3-4-5



Cut out

Model	ERP	Specification					
		A	B	C	D	L	E
LS514-3	LS514A2B100001	10.5	7	32	8	100	2-M6
LS514-4	LS514A2B125001	14.5	9.5	50	11	125	2-M6
LS514-5	LS514A2B130001	18.5	9.5	40	16	130	2-M6

LS514-1



Main material and finish: Bright chrome plated ZDC

LS514-2



Main material and finish: Nanometer painted ZDC

LS514-3-4-5



Main material and finish: Nanometer painted aluminium alloy

Performance parameter:
Maximum static load: 800N

Accessories

Electronic lock

Handle lock

Cylinder lock

Plane lock

Rod control lock

Panel lock

Toggle and hook

Handles

Door stop

Hinge

Seal gasket

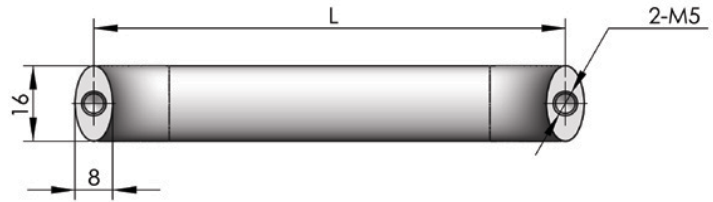
- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles**
- Door stop
- Hinge
- Seal gasket



LS516

Main material and finish: Silk black powder coated aluminum alloy

Performance parameter:
Maximum static load: 2500N (L=100)



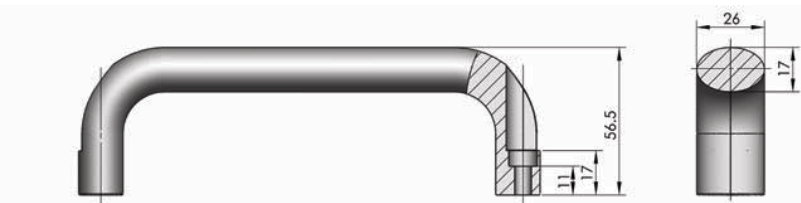
Specification	Model	ERP
L		
75	LS516-75	LS516A1A075001
100	LS516-100	LS516A1A100001
125	LS516-125	LS516A1A125001
150	LS516-150	LS516A1A150001
175	LS516-175	LS516A1A175001



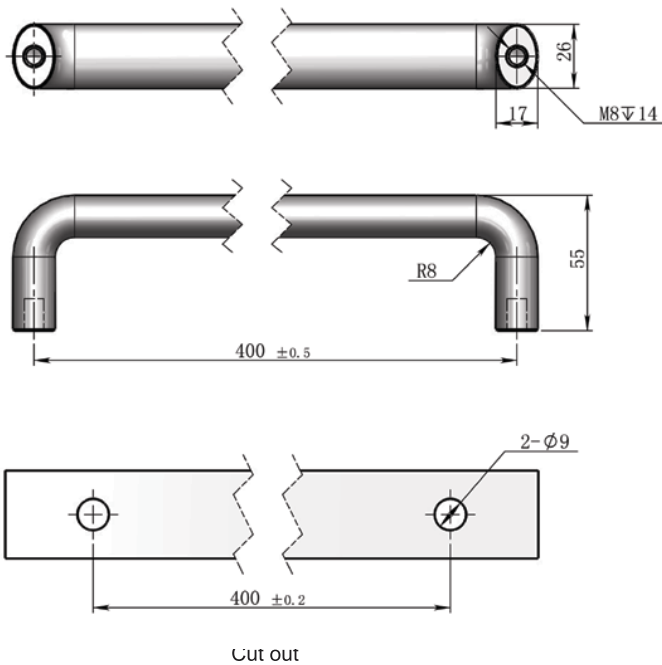
LS516-2A

Main material and finish: Silk black powder coated aluminum alloy

Performance parameter:
Maximum static load: 3000N



ERP	LS516A1A164001
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Cut out

ERP LS516A2A400001

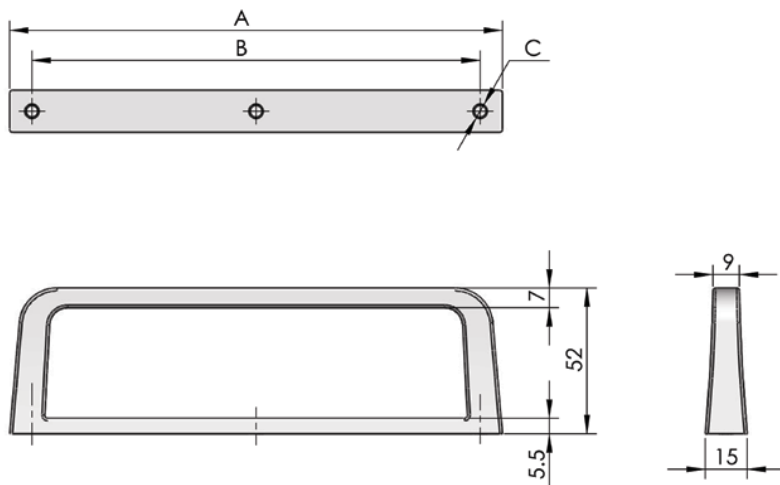
LS516-2A-1D



Main material and finish: Black painted aluminum alloy

Performance parameter:
Maximum static load: 1000N

- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles
- Door stop
- Hinge
- Seal gasket



LS518



Main material and finish: Nanometer painted ZDC handle

Performance parameter:
Maximum static load: 1500N

Model	ERP	Specification		
		A	B	C
LS518-1U	LS518Z2B030001	42.6	30	2 - M4
LS518-2U	LS518Z2B071001	86.7	71	2 - M5
LS518-3U	LS518Z2B116001	131.2	115.5	2 - M5
LS518-4U	LS518Z2B160001	176	160	3 - M5

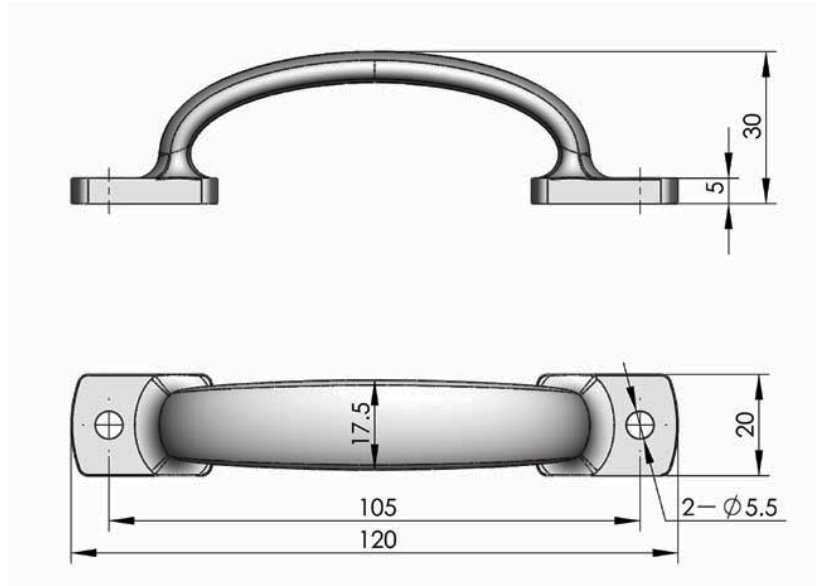
- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles
- Door stop
- Hinge
- Seal gasket

LS519



Main material and finish: Mirror polishing stainless steel handle

Performance parameter:
Maximum static load: 850N



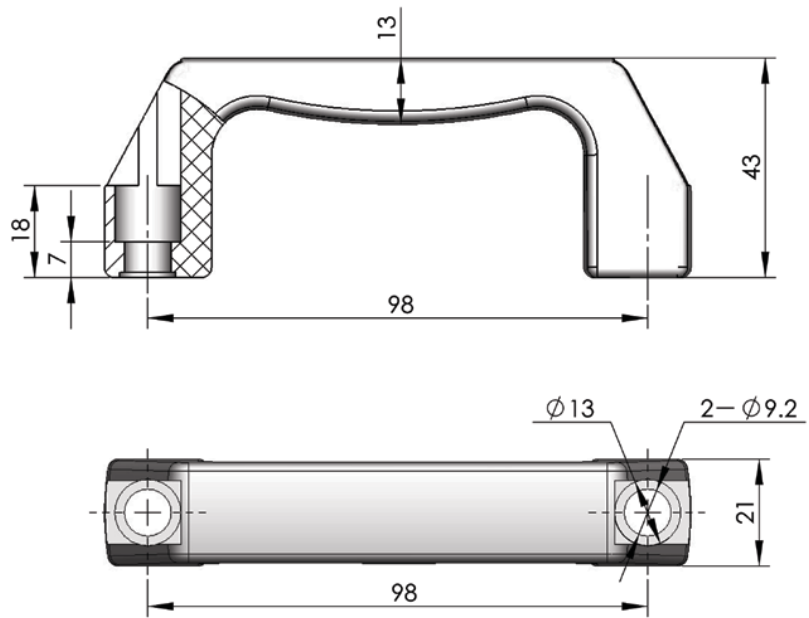
ERP LS519S4A105001

LS520

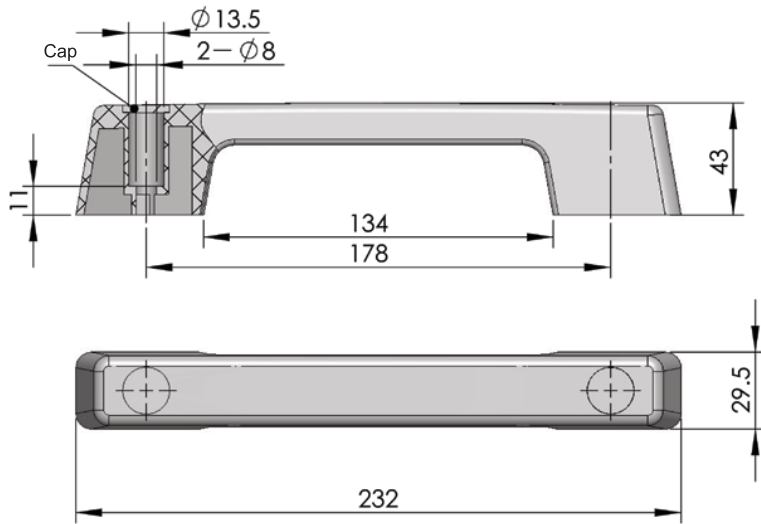


Main material and finish: Black ABS

Performance parameter:
Maximum static load: 980N



ERP LS520N00098001



ERP

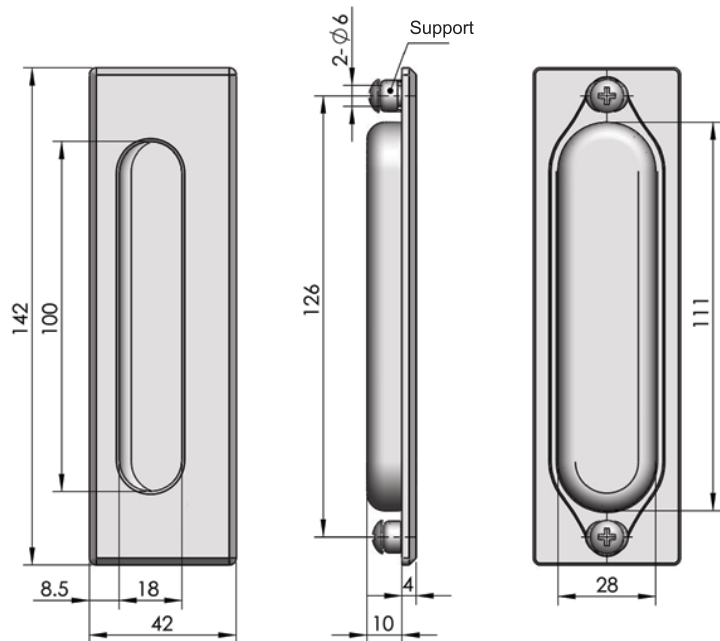
LS521N00178001

LS521



Main material and finish: Black ABS

Performance parameter:
Maximum static load: 1050N



ERP

LS523Z3A126001

LS523



Main material and finish: Bright chrome plated ZDC

Performance parameter:
Maximum static load: 400N

Accessories

Electronic lock

Handle lock

Cylinder lock

Plane lock

Rod control lock

Panel lock

Toggle and hook

Handles

Door stop

Hinge

Seal gasket

- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles**
- Door stop
- Hinge
- Seal gasket

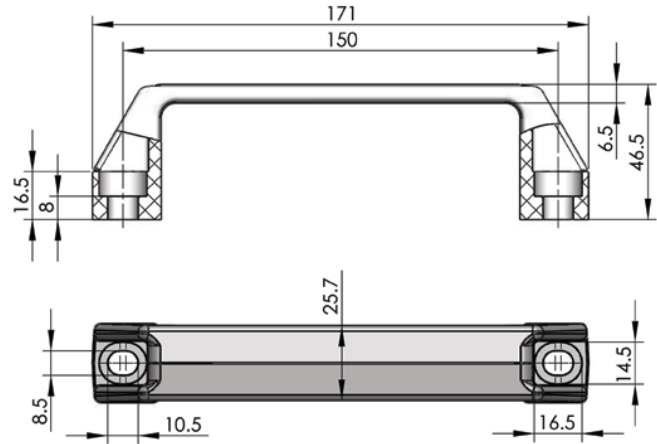
LS522



Main material and finish: Black PA

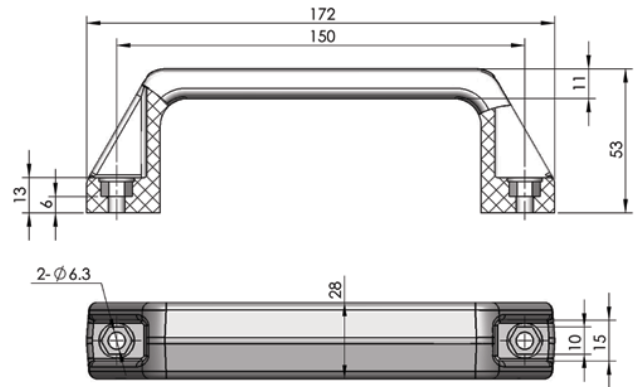
Performance parameter:
Maximum static load: 800N

LS522-1



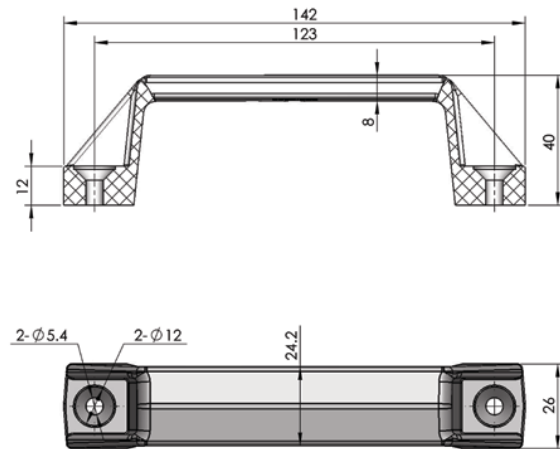
ERP LS522N00150001

LS522-2

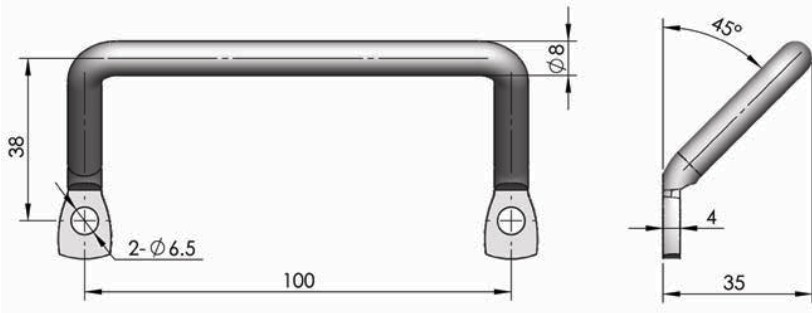


ERP LS522N00150002

LS522-3



ERP LS522N00123001



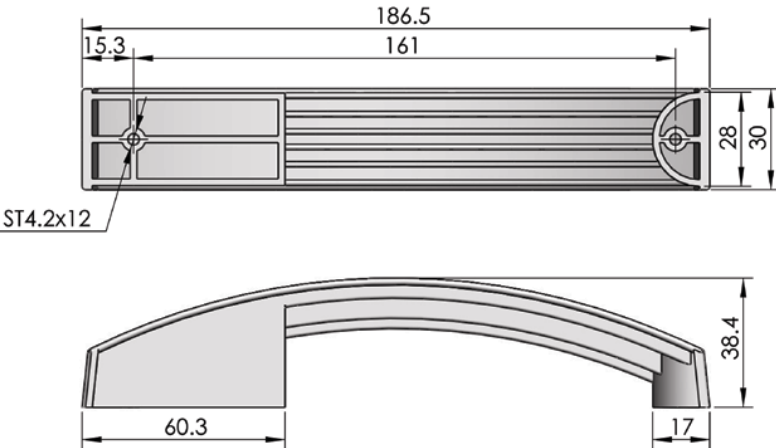
ERP LS531F3A100001

LS531



Main material and finish: Bright chrome plated steel

Performance parameter:
Maximum static load: 2595N



ERP LS532N00000001

LS532




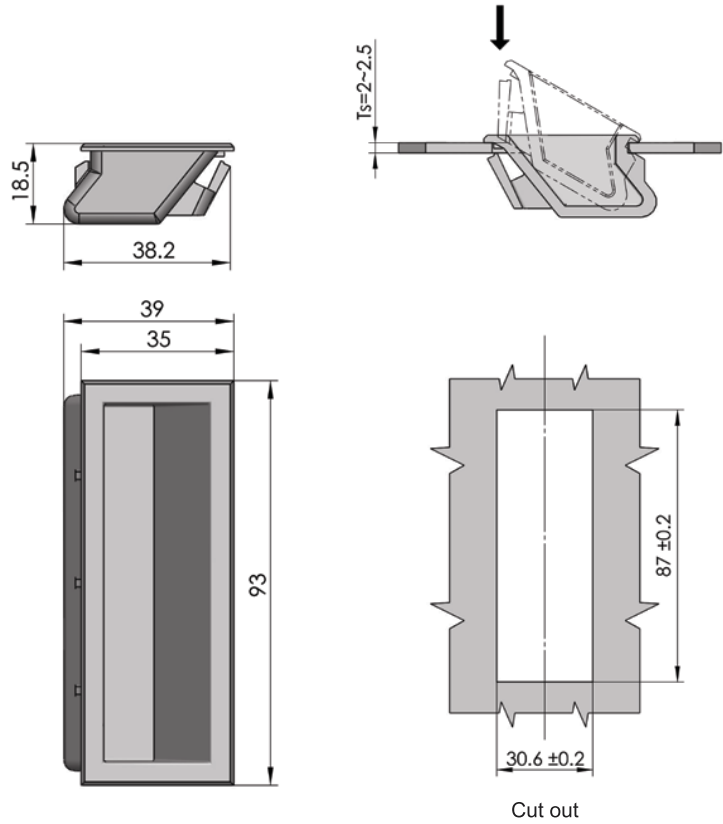
Main material and finish: Grey PC

Performance parameter:
Maximum static load: 500N


- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook
- Handles
- Door stop
- Hinge
- Seal gasket

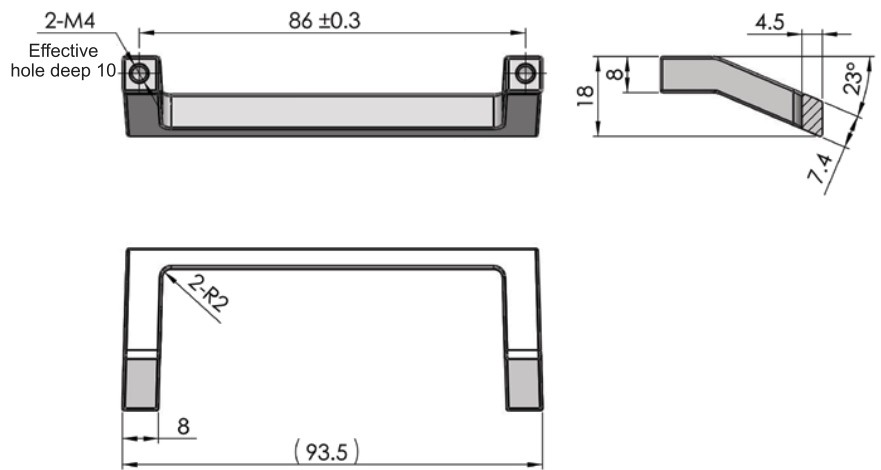


Accessories	<p>LS537-3</p>  <p>Main material and finish: Black ABS</p> <p>Performance parameter: Maximum static load: 400N</p>
Electronic lock	
Handle lock	
Cylinder lock	
Plane lock	
Rod control lock	

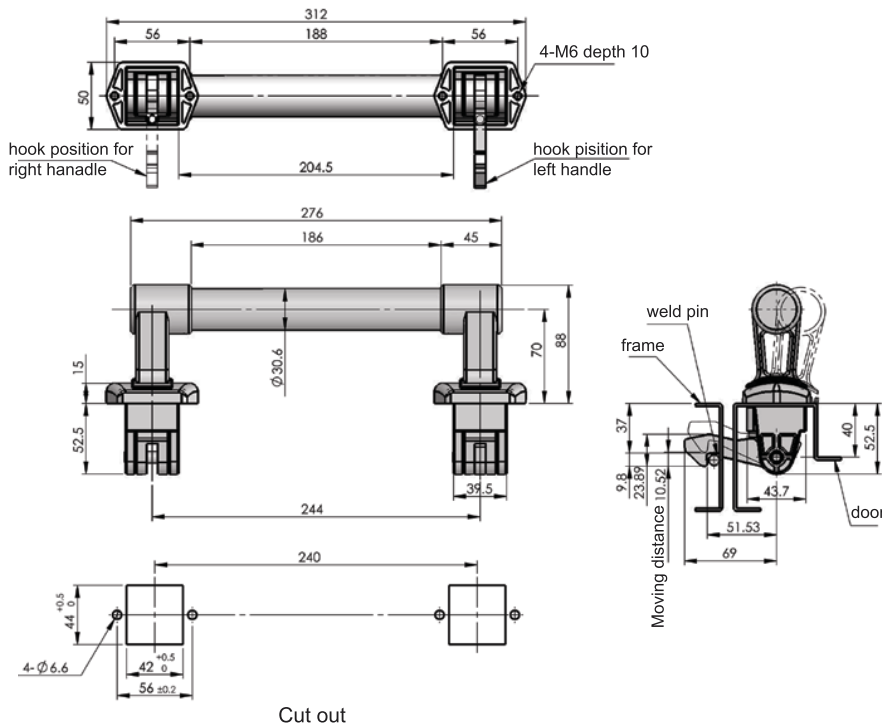


ERP LS537N00000004

Panel lock	<p>LS539</p>  <p>Main material and finish: Grind vibration polishing Aluminum handle</p> <p>Performance parameter: Maximum static load: 1790N</p>
Toggle and hook	
Handles	
Door stop	
Hinge	
Seal gasket	



ERP LS539A4C086001



Cut out

LS546-Y



Main material and finish: Black painted ZDC housing, PVC packed steel pipe
 Application: unlock the hook by the swing handle, different hook installation position for the left and right handle

Performance parameter:
 Maximum static load: 1000N

Accessories

Electronic lock

Handle lock

Cylinder lock

Plane lock

Rod control lock

Panel lock

Toggle and hook

Handles

Door stop

Hinge

Seal gasket

	LS546-Z LH	LS546-Y RH
ERP	LS546Z2A266001	LS546Z2A266002

DOOR STOP SERIES



TX80-1



TX80-2



TX90-1



TX90-2



TX90-3



TX91



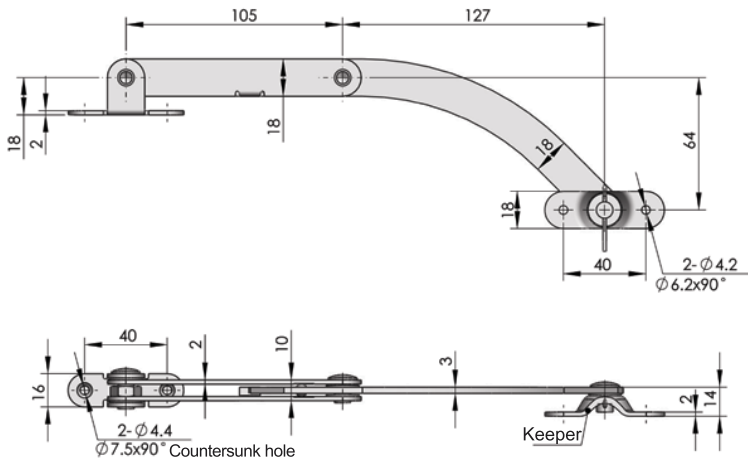
TX92-2



TX100-B

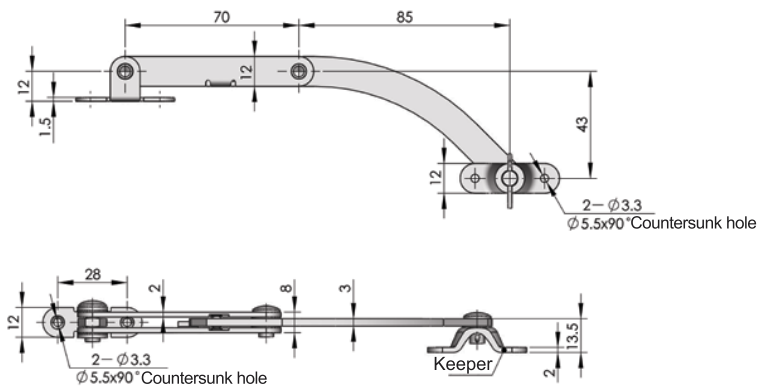


TX101-1 TX101-2



TX80-1

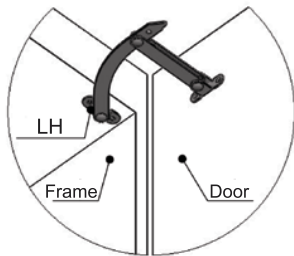
Remark: change the fitting direction of the keeper to suit RH or LH application



TX80-2

Remark: change the fitting direction of the keeper to suit RH or LH application

Example of application



Specifcation	Model	ERP	Model	ERP
LH	TX80-1-Z	TX080F3A001	TX80-2-Z	TX080F3A005
RH	TX80-1-Y	TX080F3A002	TX80-2-Y	TX080F3A006

TX80-1



TX80-2



Main material and finish: Bright chrome plated steel body

Accessories

Electronic lock

Handle lock

Cylinder lock

Plane lock

Rod control lock

Panel lock

Toggle and hook

Handles

Door stop

Hinge

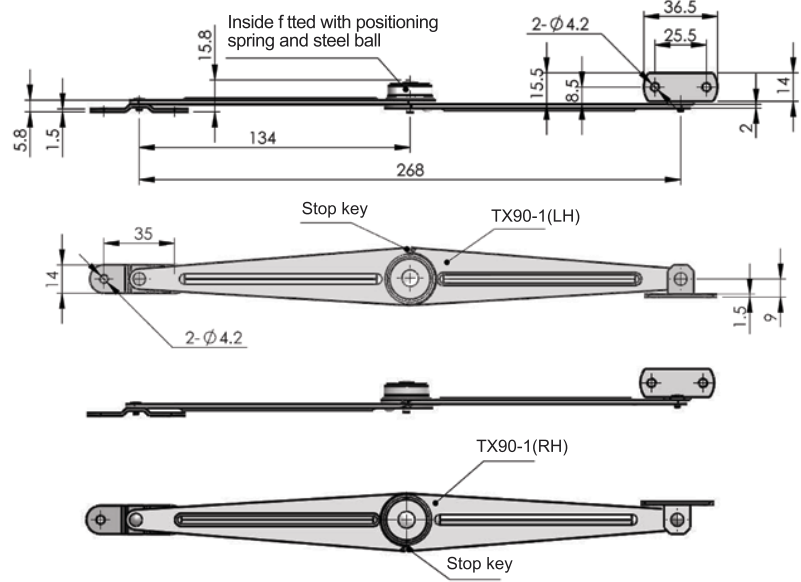
Seal gasket

- Accessories
- Electronic lock
- Handle lock
- Cylinder lock
- Plane lock
- Rod control lock
- Panel lock
- Toggle and hook

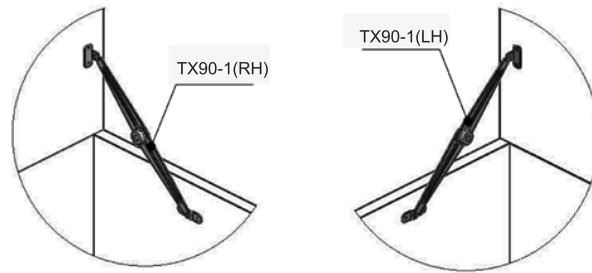


TX90-1

Main material and finish: Bright chrome plated steel



Example of application



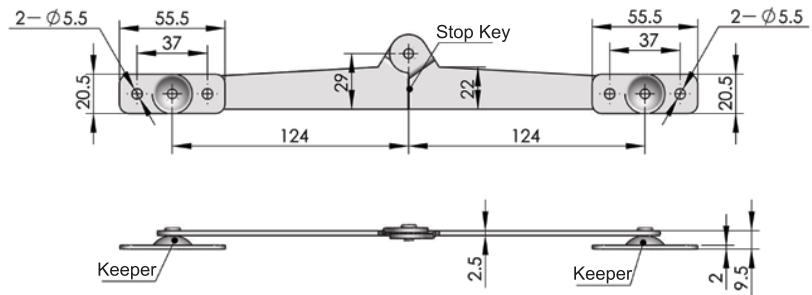
	TX90-1-Z LH	TX90-1-Y RH
ERP	TX090F3A001	TX090F3A002

- Handles
- Door stop
- Hinge
- Seal gasket

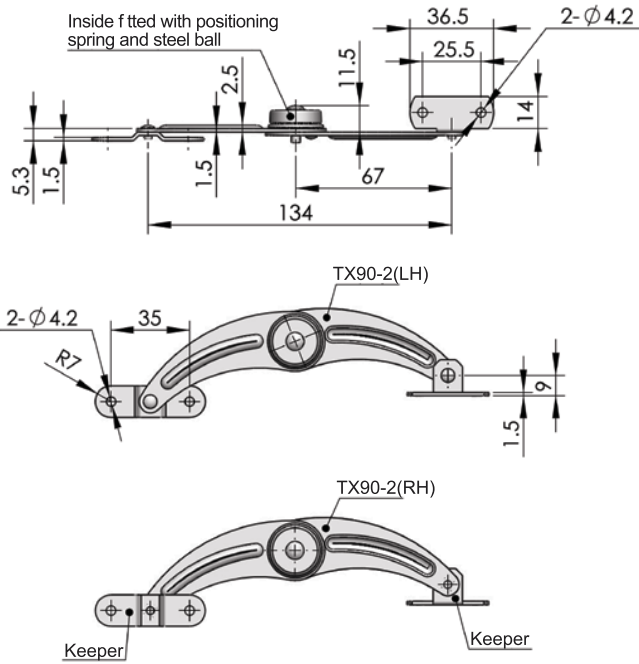


TX90-3

Main material and finish: Chrome plated steel



ERP	TX090F3A011
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	TX90-2-Z LH	TX90-2-Y RH
ERP	TX090F3A008	TX090F3A009

TX90-2



Main material and finish: Bright chrome plated steel

Accessories

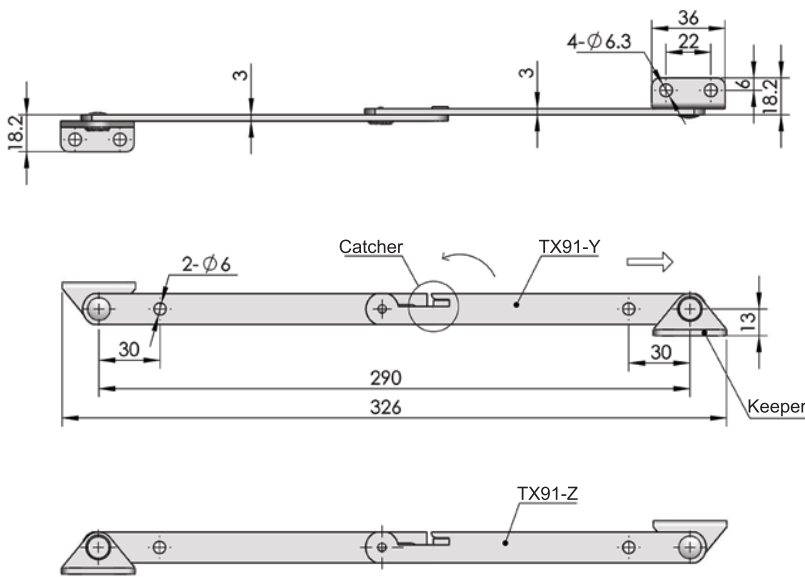
Electronic lock

Handle lock

Cylinder lock

Plane lock

Rod control lock



	TX91-1-Z LH	TX91-2-Y RH
ERP	TX091S00002	TX091S00001

TX91



Main material: Stainless steel

Panel lock


Toggle and hook

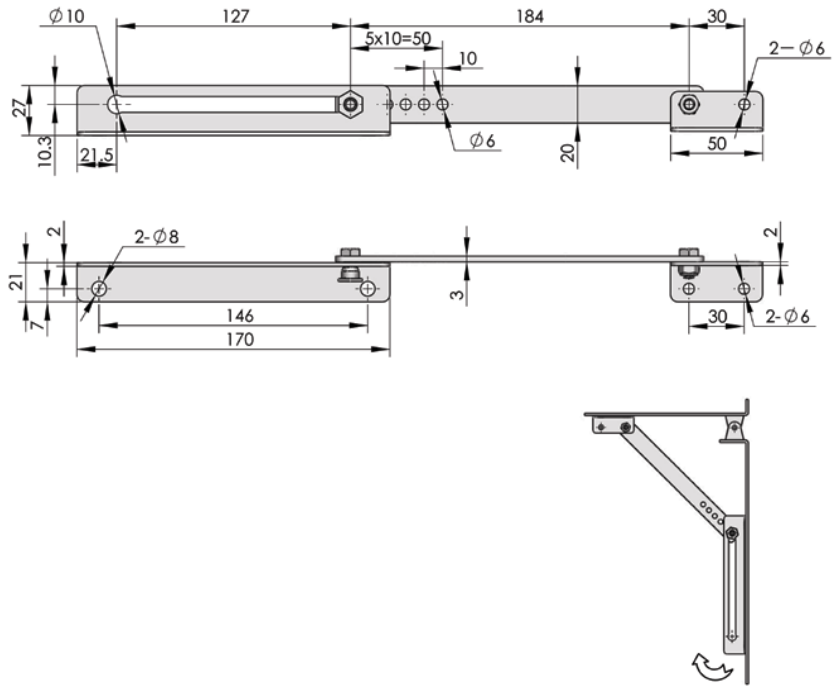
Handles

Door stop


Hinge

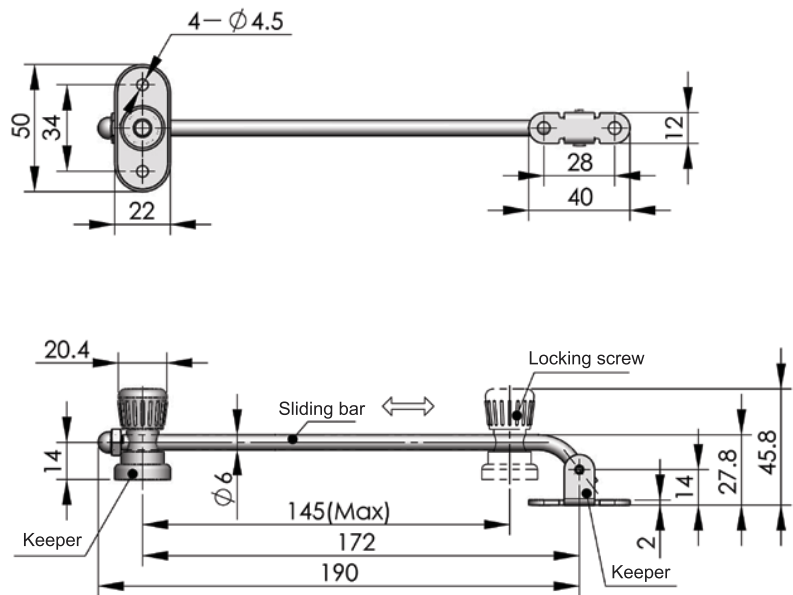
Seal gasket

Accessories	 <p>TX92-2</p> <p>Main material: Stainless steel</p>
Electronic lock	
Handle lock	
Cylinder lock	
Plane lock	
Rod control lock	



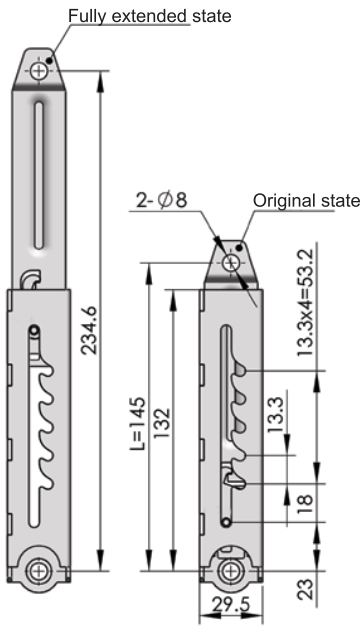
ERP TX092S00002

Panel lock	 <p>TX100-B</p> <p>Main material and finish: Bright chrome plated steel body, bright chrome plated steel body, locking screw and ZDC knob</p>
Toggle and hook	
Handles	
Door stop	
Hinge	
Seal gasket	

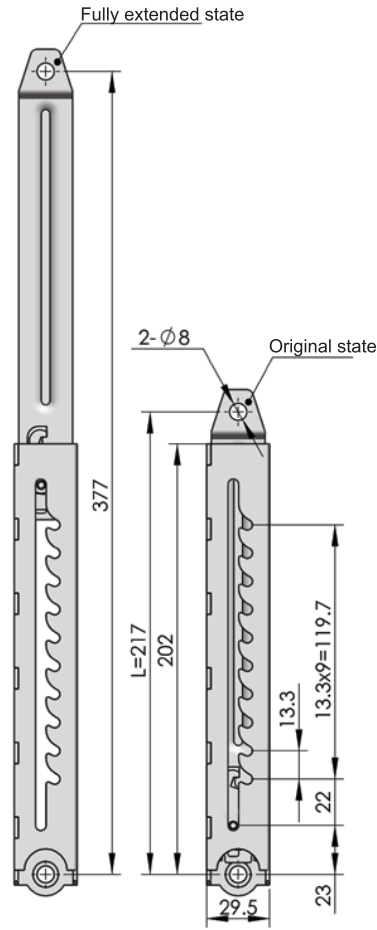


ERP TX100F3A001

TX101-1



TX101-2



Main material and finish: Zinc plated steel
 Application: Automatic multiple stops and release in the end position

Accessories

Electronic lock

Handle lock

Cylinder lock

Plane lock

Rod control lock

Panel lock

Toggle and hook

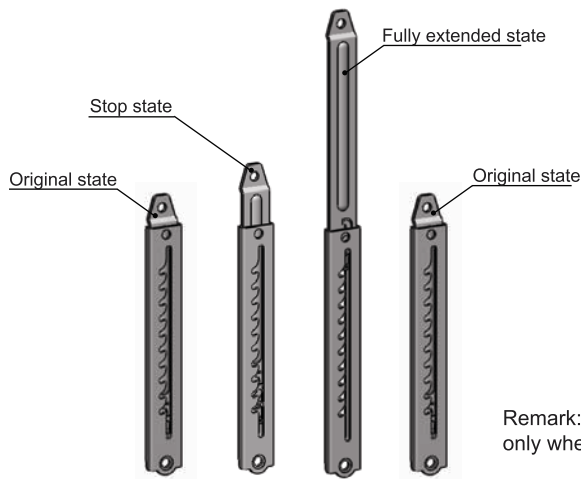
Handles

Door stop

Hinge

Seal gasket

Different states of telescopic cover stay

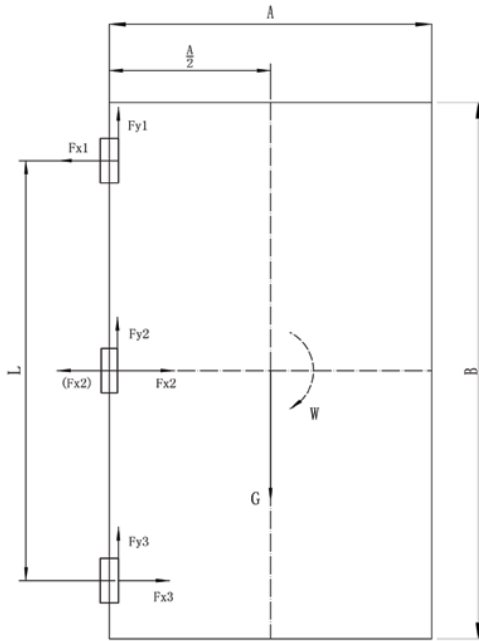


Remark: Extension rod retracts only when fully extended

Specification	Model	ERP
L=145	TX101-1	TX101F3D001
L=217	TX101-2	TX101F3D002

Accessories
Electronic lock
Handle lock
Cylinder lock
Plane lock
Rod control lock
Panel lock
Toggle and hook
Handles
Door stop
Hinge
Seal gasket

Hinge calculation instructionsv



Hinge calculation formula:

No. of hinge= n , door width = A ; door height = B ; door weight = G ; hinge installation distance = L

Axial force F_y analysis:

$$F_y = G * 1/n$$

That is, $F_{y1} + F_{y2} + F_{y3} = G$ $F_{y1} = F_{y2} = F_{y3} = G/n$

Radial force F_x analysis:

As pic shows, F_{x2} and center door weight G at the same height position,

This horizontal force is not applied to the center hinge $F = 0$;

So: $F_{x2} = 0$

$$W = G * A/2 = L * F_x$$

$$F_x = F_{x1} = F_{x3}$$

$$F_{x1} = F_{x3} = G * A/2 L$$

Remark: while Selection, every hinge can support bearing door weight; in static conditions, the selection can be based on catalog data; Above for the theoretical calculation formula;