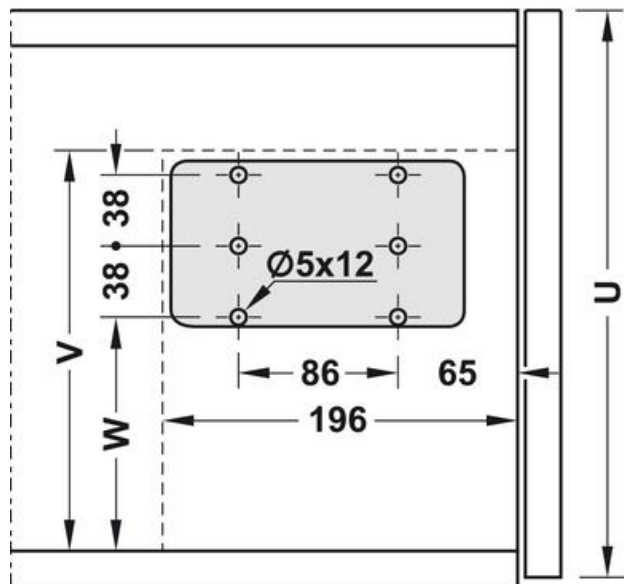
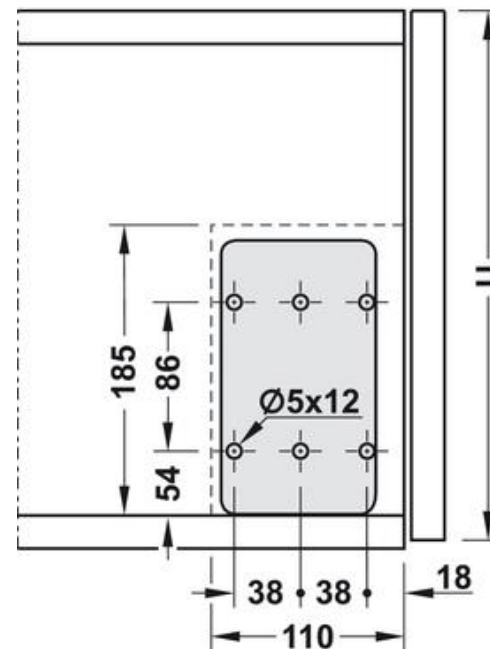


Planning and installation

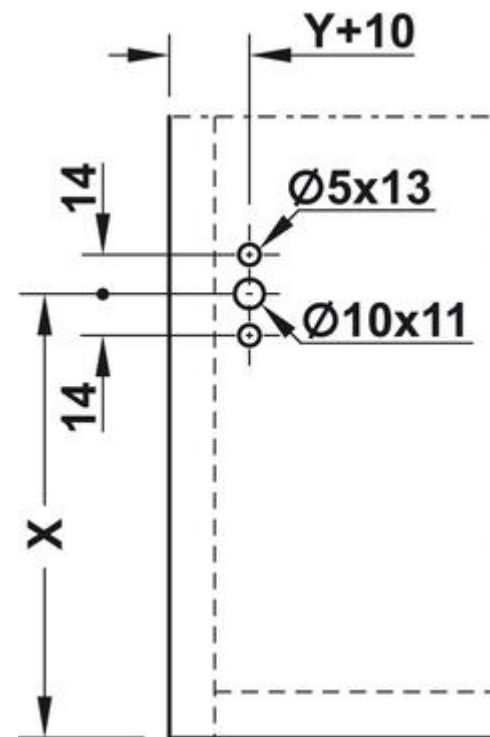
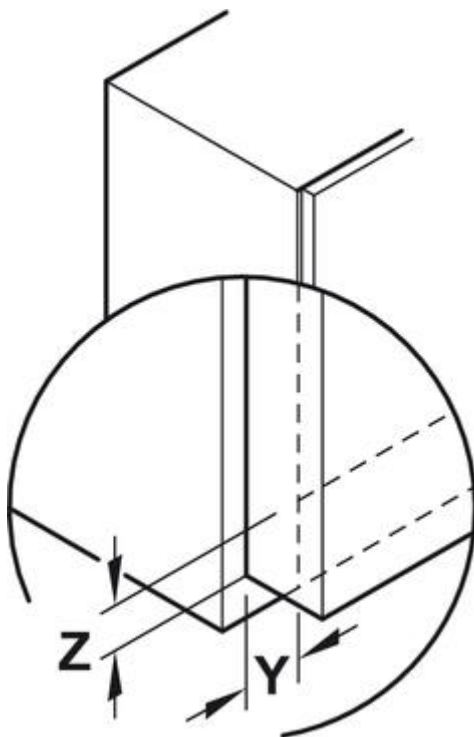
Horizontal installation



Vertical installation



Front fixing



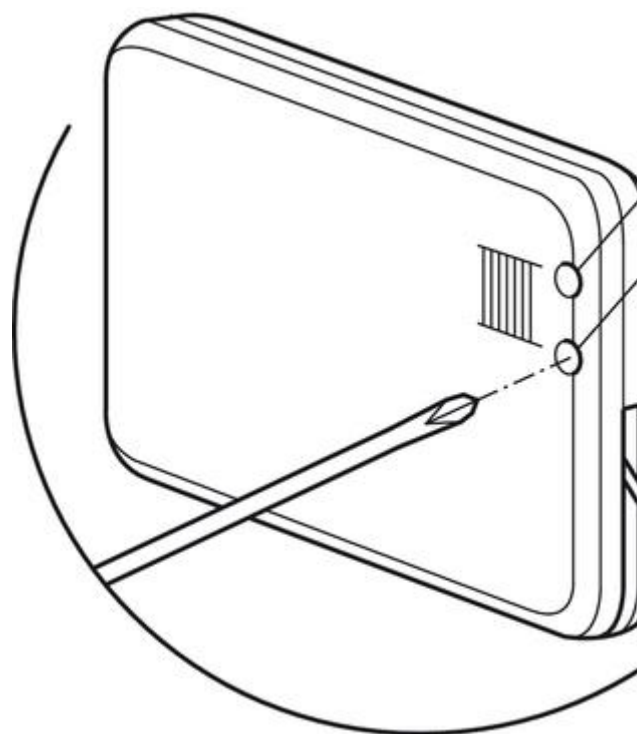
U	V	W	X
200–330	194	102	$137 + Z$
330–430	218	126	$161 + Z$
430–480	228	136	$171 + Z$

U	X
200–480	$161 + Z$

Y = lateral flap overlay dimension

Z = bottom flap overlay dimension

Adjustment



(1)

Opening angle adjustment

(2)

Opening speed adjustment

Note

Lower flap weight during adjustment.

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
200–230 (7 7/8 - 9 1/16")	5.3-6.2	1	–	–	–	–	–	4.4-6.2	1	–	–	–	–	–
	8.8-10.6	–	1	–	–	–	–	7.7-10.6	–	1	–	–	–	–
	9.3-13.7	–	–	1	–	–	–	9.5-12.8	–	–	1	–	–	–
	10.6-15	–	–	–	1	–	–	10.8-15.2	–	–	–	1	–	–
	12.8-17.6	–	–	–	–	1	–	13-17.2	–	–	–	–	1	–
	15.9-22.9	–	–	–	–	–	1	16.8-22	–	–	–	–	–	1
230–270 (9 1/16 - 10 5/8")	4.4-5.1	1	–	–	–	–	–	4.4-5.3	1	–	–	–	–	–
	6.6-9.7	–	1	–	–	–	–	6.6-7.9	2	–	–	–	–	–

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	7.1-9.7	2	–	–	–	–	–	7.1-8.8	–	1	–	–	–	–
	7.9-11.5	–	–	1	–	–	–	8.2-12.3	–	–	1	–	–	–
	9.7-13.2	–	–	–	1	–	–	9.7-13.7	–	–	–	1	–	–
	11.5-15.4	–	–	–	–	1	–	13.2-16.8	–	–	–	–	1	–
	13.2-18.5	–	2	–	–	–	–	15-18.7	–	2	–	–	–	–
	15-19	–	–	–	–	–	1	15-20.3	–	–	2	–	–	–
	15-21.2	–	–	2	–	–	–	15.4-19.8	–	–	–	–	–	1
270–330 (10 5/8 - 13")	3.1-4.4	1	–	–	–	–	–	3.7-4.6	1	–	–	–	–	–
	6.4-8.4	2	1	–	–	–	–	6.8-8.6	–	1	–	–	–	–
	6.6-10.1	–	–	1	–	–	–	7.1-8.4	2	–	–	–	–	–

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	7.9-11.5	–	–	–	1	–	–	8.4-11	–	–	1	–	–	–
	10.1-13.2	–	–	–	–	1	–	8.8-11.5	–	–	–	1	–	–
	12.3-17.2	–	2	–	–	–	–	10.4-16.1	–	–	–	–	1	–
	14.1-17.2	–	–	–	–	–	1	11.9-16.3	–	2	–	–	–	–
	14.1-19.4	–	–	2	–	–	–	12.3-16.8	–	–	–	–	–	1
	15.4-22.5	–	–	–	2	–	–	16.3-19.8	–	–	2	–	–	–
	19-26	–	–	–	–	2	–	19-24.3	–	–	–	2	–	–
	-							23.4-27.8	–	–	–	–	2	–
330–380 (13 - 15")	6-8.2	–	1	–	–	–	–	5.7-7.9	–	1	–	–	–	–
	7.1-9.5	–	–	1	–	–	–	8.2-11.2	–	–	–	1	–	–

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	8.2-10.8	–	–	–	1	–	–	8.6-10.8	–	–	1	–	–	–
	9.5-12.6	–	–	–	–	1	–	9.7-12.1	–	–	–	–	1	–
	11-15.4	–	2	–	–	–	–	11-15.9	–	2	–	–	–	–
	12.1-15.7	–	–	–	–	–	1	11.9-14.8	–	–	–	–	–	1
	14.3-18.7	–	–	2	–	–	–	15.9-19.4	–	–	2	–	–	–
	15.2-22.3	–	–	–	2	–	–	17.6-24.7	–	–	–	2	–	–
	19.2-24.5	–	–	–	–	2	–	21.2-27.3	–	–	–	–	2	–
	26.2-29.8	–	–	–	–	–	2	28.2-30.9	–	–	–	–	–	2
380–430 (15- 17”)	6.4-7.9	–	1	–	–	–	–	6.2-8.2	–	1	–	–	–	–
	6.8-8.6	–	–	1	–	–	–	6.4-8.6	–	–	1	–	–	–

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	8.2-9.9	–	–	–	1	–	–	7.3-9.9	–	–	–	1	–	–
	9.9-13.4	–	–	–	–	1	–	8.6-11.5	–	–	–	–	1	–
	9.9-13.4	–	2	–	–	–	–	9.9-15.4	–	2	–	–	–	–
	11.9-15.2	–	–	–	–	–	1	10.8-13.4	–	–	–	–	–	1
	12.6-16.1	–	–	2	–	–	–	13.4-19.2	–	–	2	–	–	–
	15.2-17.6	–	–	–	2	–	–	16.5-24.3	–	–	–	2	–	–
	18.7-22.3	–	–	–	–	2	–	18.5-26.9	–	–	–	–	2	–
	24-27.6	–	–	–	–	–	2	26.5-32	–	–	–	–	–	2
430–460 (17 - 18 1/8")	6-6.8	–	1	–	–	–	–	4.9-6.6	–	1	–	–	–	–
	6-8.6	–	–	1	–	–	–	6.4-8.2	–	–	1	–	–	–

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	8.2-10.4	–	–	–	1	–	–	7.3-9.9	–	–	–	1	–	–
	9-10.8	–	–	–	–	1	–	8.2-10.8	–	–	–	–	1	–
	9.5-13.4	–	2	–	–	–	–	9.5-13.9	–	2	–	–	–	–
	11.7-12.6	–	–	–	–	–	1	10.8-12.6	–	–	–	–	–	1
	13-18.3	–	–	2	–	–	–	13-18.3	–	–	2	–	–	–
	15.7-18.7	–	–	–	2	–	–	16.5-23.1	–	–	–	2	–	–
	18.3-20.9	–	–	–	–	2	–	18.7-24.3	–	–	–	–	2	–
	22.3-25.4	–	–	–	–	–	2	23.1-27.6	–	–	–	–	–	2
460–480 (18 1/8 - 18 7/8")	5.5-6.4	–	1	–	–	–	–	6.2-6.6	–	1	–	–	–	–
	6.2-8.4	–	–	1	–	–	–	6.4-8.2	–	–	1	–	–	–

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	7.9-9.7	–	–	–	1	–	–	7.5-9	–	–	–	1	–	–
	8.4-10.6	–	–	–	–	1	–	8.2-9.9	–	–	–	–	1	–
	9-12.6	–	2	–	–	–	–	9-13.4	–	2	–	–	–	–
	11.7-17	–	–	2	–	–	–	10.4-12.1	–	–	–	–	–	1
	11.9-12.3	–	–	–	–	–	1	12.1-16.5	–	–	2	–	–	–
	15-19.6	–	–	–	2	–	–	15.4-20.9	–	–	–	2	–	–
	15.9-21.2	–	–	–	–	2	–	19.8-22	–	–	–	–	2	–
	21.6-25.1	–	–	–	–	–	2	24.3-26.5	–	–	–	–	–	2

* The specified number refers to the number of required flap stays with pull cable.

Vertical installation

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
200–230 (7 7/8 - 9 1/16")	5.5-6.4	1	–	–	–	–	–	5.7-6.8	1	–	–	–	–	–
	9-13	–	1	–	–	–	–	9.7-12.1	–	1	–	–	–	–
	11.7-16.1	–	–	1	–	–	–	13.9-18.7	–	–	1	–	–	–
	17.6-24.3	–	–	–	1	–	–	16.5-20.5	–	–	–	1	–	–
230–270 (9 1/16 - 10 5/8")	4.9-5.5	1	–	–	–	–	–	4.6-5.5	1	–	–	–	–	–
	7.3-10.6	–	1	–	–	–	–	7.5-9.9	–	1	–	–	–	–
	9-10.6	2	–	–	–	–	–	8.8-10.6	2	–	–	–	–	–

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	9.3-13.2	–	–	1	–	–	–	9.9-12.3	–	–	1	–	–	–
	14.6-19	–	–	–	1	–	–	15-19	–	–	–	1	–	–
	15-21.2	–	2	–	–	–	–	15-20.3	–	2	–	–	–	–
	21.2-28.2	–	–	2	–	–	–	20.3-26.5	–	–	2	–	–	–
270–330 (10 5/8 - 13")	4.2-5.1	1	–	–	–	–	–	4.4-5.1	1	–	–	–	–	–
	7.1-9.9	–	1	–	–	–	–	6.6-10.8	–	1	–	–	–	–
	7.5-9.5	2	–	–	–	–	–	7.7-9.9	2	–	–	–	–	–
	8.4-11.2	–	–	1	–	–	–	8.2-11.2	–	–	1	–	–	–
	12.6-16.1	–	–	–	1	–	–	11.9-15.7	–	–	–	1	–	–
	13.4-17.6	–	–	–	–	1	–	13.4-16.1	–	–	–	–	1	–

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	13.9-17.9	–	2	–	–	–	–	13.4-17	–	2	–	–	–	–
	17.4-24.5	–	–	2	–	–	–	17-22.3	–	–	2	–	–	–
	24.9-32	–	–	–	2	–	–	23.1-30.2	–	–	–	2	–	–
	28.4-34.2	–	–	–	–	2	–	26.7-32	–	–	–	–	2	–
330–380 (13 - 15")	5.7-7.5	–	1	–	–	–	–	5.5-7.9	–	1	–	–	–	–
	7.3-9.9	–	–	1	–	–	–	7.1-9.5	–	–	1	–	–	–
	10.8-13.9	–	–	–	1	–	–	10.1-13.4	–	–	–	1	–	–
	11-14.3	–	2	–	–	–	–	10.8-14.1	–	–	–	–	1	–
	11.7-14.3	–	–	–	–	1	–	11.2-15.2	–	2	–	–	–	–
	14.8-16.1	–	–	–	–	–	1	13.9-16.1	–	–	–	–	–	1

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	16.1-18.7	–	–	2	–	–	–	14.6-20.5	–	–	2	–	–	–
	21.4-25.8	–	–	–	2	–	–	20.1-24.9	–	–	–	2	–	–
	23.6-28.4	–	–	–	–	2	–	23.1-28.4	–	–	–	–	2	–
	29.3-32.8	–	–	–	–	–	2	27.6-32	–	–	–	–	–	2
380–430 (15 - 17")	5.5-7.5	–	1	–	–	–	–	5.1-7.5	–	1	–	–	–	–
	7.1-9.3	–	–	1	–	–	–	6.6-8.8	–	–	1	–	–	–
	9.7-11.9	–	–	–	1	–	–	9.7-11.9	–	–	–	1	–	–
	10.6-12.3	–	–	–	–	1	–	9.7-14.6	–	2	–	–	–	–
	11-13.7	–	2	–	–	–	–	10.1-12.3	–	–	–	–	1	–
	13-14.6	–	–	–	–	–	1	12.1-14.1	–	–	–	–	–	1

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	13.7-18.1	–	–	2	–	–	–	14.6-18.1	–	–	2	–	–	–
	19-23.4	–	–	–	2	–	–	18.5-22.5	–	–	–	2	–	–
	21.6-25.1	–	–	–	–	2	–	20.7-25.1	–	–	–	–	2	–
	26-28.7	–	–	–	–	–	2	24.3-28.7	–	–	–	–	–	2
430–460 (17 - 18 1/8")	5.1-6.6	–	1	–	–	–	–	5.1-6.6	–	1	–	–	–	–
	6.6-8.4	–	–	1	–	–	–	6.2-7.9	–	–	1	–	–	–
	8.8-11.5	–	–	–	1	–	–	9.3-11.5	–	–	–	1	–	–
	10.1-11.9	–	–	–	–	1	–	9.3-13.7	–	2	–	–	–	–
	10.1-13.7	–	2	–	–	–	–	9.7-11.9	–	–	–	–	1	–
	12.3-13.2	–	–	–	–	–	1	11.5-13.2	–	–	–	–	–	1

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	13.7-17.2	–	–	2	–	–	–	11.9-16.8	–	–	2	–	–	–
	17.2-22.5	–	–	–	2	–	–	16.3-20.7	–	–	–	2	–	–
	20.7-22.9	–	–	–	–	2	–	18.5-23.4	–	–	–	–	2	–
	25.1-26.9	–	–	–	–	–	2	23.4-26.9	–	–	–	–	–	2
460–480 (18 1/8 - 18 7/8")	5.3-7.1	–	1	–	–	–	–	5.1-6.6	–	1	–	–	–	–
	6.2-8.8	–	–	1	–	–	–	6.2-7.9	–	–	1	–	–	–
	8.4-11	–	–	–	1	–	–	8.8-11.5	–	–	–	1	–	–
	9.9-11.9	–	–	–	–	1	–	9.3-13.7	–	2	–	–	–	–
	10.1-13.2	–	2	–	–	–	–	9.7-11.9	–	–	–	–	1	–
	11.9-13.2	–	–	–	–	–	1	9.3-13.2	–	–	–	–	–	1

Flap height mm	Flap hinge							Concealed hinge						
	Flap weight lb	Model*						Flap weight lb	Model*					
		A	B	C	D	E	F		A	B	C	D	E	F
	12.3-17.2	–	–	2	–	–	–	11.9-16.8	–	–	2	–	–	–
	16.8-22	–	–	–	2	–	–	15.9-20.7	–	–	–	2	–	–
	19.4-22.9	–	–	–	–	2	–	18.5-23.4	–	–	–	–	2	–
	23.8-25.6	–	–	–	–	–	2	22.9-25.6	–	–	–	–	–	

* The specified number refers to the number of required flap stays with pull cable.