



Conspicuously inconspicuous:
Sensys hinge in obsidian black

Technik für Möbel


Hettich

Hettich NZ Ltd

18 Barmac Place
East Tamaki, Auckland

Free phone 0800 438 842

Free fax 0800 737 847

sales_nz@hettich.co.nz

hettich.com

shop.hettich.com



Fascin[action]

Feel style

Design to fall in love with.



fascinaction.hettich.com

Technik für Möbel


Hettich

Perfect camouflage on exclusive materials and dark surfaces



As intelligent as nature

Good camouflage is worth a lot. Numerous creatures mimic their surroundings and fade in with them to create a harmonious unit. This makes them almost invisible.

Never before as harmonious

Hettich applies this principle of nature to furniture design: with perfectly performing fitting systems that blend discreetly and harmoniously into the design of furniture. The perfectly camouflaged fitting technology is now available for dark timbers and surfaces finished in warm tones ...

Sensys in obsidian black



Differentiation into the luxury segment

Today, furniture doors with perfectly softened action come as standard. Sensys in obsidian black provides plenty of scope for upward differentiation: precious dark timbers or other exquisite surfaces make their big entrance – because the dark Sensys hinge discreetly blends into the background.

Four good reasons for Sensys in obsidian black



1. Fewer hinges per door

Sensys provides the best silent and gentle closing performance in its class. This means that compared to similar products, many common door formats require one hinge less – while still benefiting from Silent System excellence.

2. Maximum customer satisfaction

Whether in a sunny kitchen or on arrival at an unheated ski lodge: with temperature resistant Silent System, Sensys always works reliably over a broad range of temperatures from 5°C to 40°C.

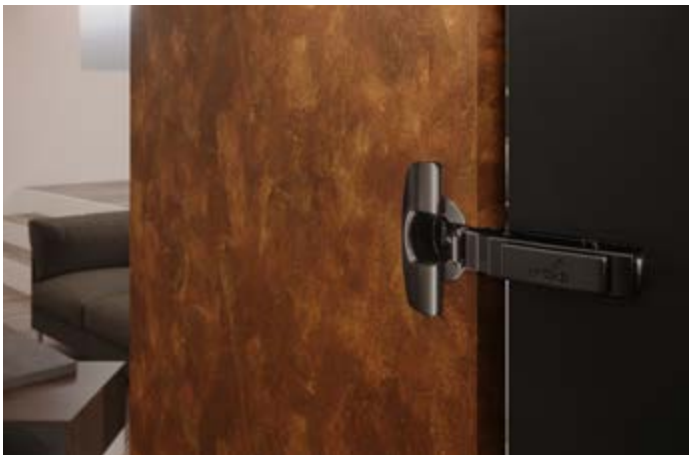
3. Quickly fitted – and works straight away

No matter how large or heavy the door may be: Sensys closes it gently and reliably. As a result of the unusually wide automatic closing angle of 35°, there is no need to adjust or deactivate Silent System elements.

4. Put the final touch to your furniture design

The elegant Sensys hinge in obsidian black complements the design of dark furniture with absolute perfection.

Fascinatingly versatile



Dark wood decors and earthy colours

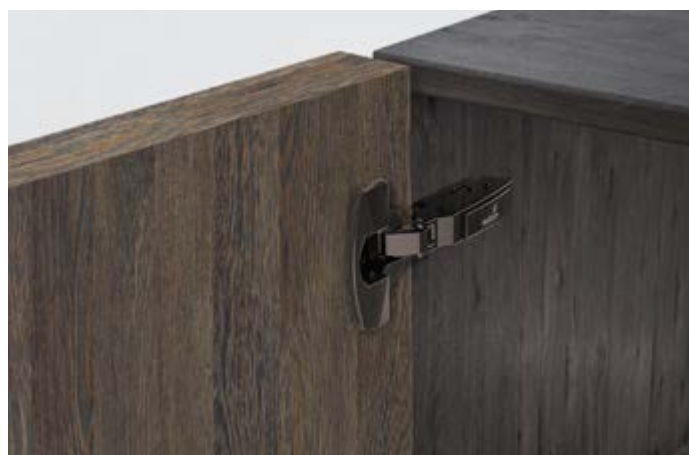
The new trend for furniture fronts also includes dark wood decors. Alongside this, a whole palette of earthy colours has been rediscovered. This trend towards natural authenticity and harmony comes from a rediscovery of the home that promises a sense of well being and security.

Practical versatility and superior design



Sensys universal hinge in obsidian black

- ▶ The multitalented hinge for all common door mounting situations
- ▶ For doors between 15 and 24 mm
- ▶ 110° opening angle



Sensys thin door hinge in obsidian black

- ▶ More creative freedom: purist, light and airy look, classy facing panels, exclusive materials
- ▶ For doors from 10 mm
- ▶ 110° opening angle

Sensys thick door hinge in obsidian black

- ▶ Superbly designed furniture with narrow, precise reveals
- ▶ For thick doors / profile doors up to 32 mm
- ▶ 95° opening angle

Unlimited furniture design

The Sensys range in obsidian black features hinges and mounting plates for all common mounting situations and also for unusual applications, such as for thin doors from 10 mm door thickness, for thick doors with narrow reveals as well as for doors with mitred edges all round.

Unlimited furniture design



Sensys zero protrusion hinge in obsidian black

- ▶ For doors with mitred edges all round and for rebated doors
- ▶ Zero protrusion permits optimum use of storage space
- ▶ 165° opening angle



Sensys for aluminium framed doors in obsidian black

- ▶ Concealed hinge for clip on installation
- ▶ For 19 mm wide aluminium framed profiles
- ▶ 95° opening angle



Handleless furniture design with Push to open

Handleless home environments are reduced to the bare essentials and cut a very sleek and elegant figure with their smooth, shining and understated surfaces and front panels. Exuding peace and tranquillity, they always look extremely neat. Clean cut lines, elegance and reduced form play a key part in handleless furniture designs.

Handleless furniture design with Push to open. Gently closing furniture doors with perfect Silent System performance. These popular functions are also available from the Sensys range in obsidian black.



Fast assembly concealed hinge

- ▶ Sensys in obsidian black
- ▶ Summary



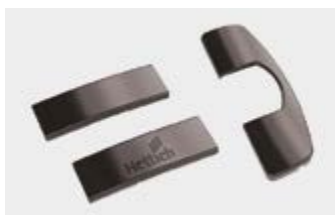
Sensys in obsidian black
Range summary

11



Mounting plates, system 8099, in obsidian black
for Sensys fast assembly concealed hinge

32



Accessories

33 - 35



Technical information

- ▶ Example applications
- ▶ Fitting information
- ▶ Installation notes / Quality criteria

37 - 42

43 - 44

45 - 49



Cleverly camouflaged, creatures become virtually invisible in their surroundings. Hettich applies this intelligent principle of nature to furniture design. With this Sensys hinge, all visible components are obsidian black completing the camouflage.

Fast assembly concealed hinge

- ▶ Sensys in obsidian black
- ▶ Range summary



Sensys 110° standard hinge

- ▶ Sensys 8645i / 8675
- ▶ 110° opening angle

12 - 15



Sensys 95° thick door hinge

- ▶ Sensys 8631i
- ▶ For narrow reveals with thick doors

16 - 19



Sensys 110° thin door hinge

- ▶ Sensys 8646i
- ▶ For thin doors

20 - 21



Sensys 165° zero protrusion hinge

- ▶ Sensys 8657i
- ▶ For unobstructed access to storage space

22 - 23



Sensys W30 angle hinge

- ▶ Sensys 8639i W30
- ▶ For 30° face angles

24 - 25



Sensys W45 angle hinge

- ▶ Sensys 8639i W45
- ▶ For 45° face angles

26 - 27



Sensys W90 angle hinge

- ▶ Sensys 8639i W90
- ▶ For 90° face angles

28 - 29



Sensys aluminium frame hinge

- ▶ Sensys 8638i
- ▶ for aluminium framed doors

30 - 31



Mounting plates

- ▶ System 8099
- ▶ For Sensys

32



Accessories

- ▶ For Sensys

33 - 35



Technical information

37 - 48


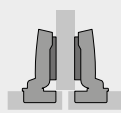
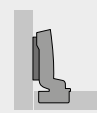
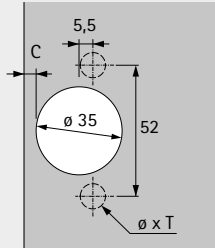
Fast assembly concealed hinge with integrated Silent System

- ▶ Sensys 8645i in obsidian black
- ▶ 110° opening angle



- ▶ Concealed hinge with clip on installation and integrated Silent System
- ▶ Quality classification under EN 15570, Level 3
- ▶ For door thickness of 15 - 24 mm
- ▶ Cup diameter 35 mm
- ▶ Cup depth 12.8 mm
- ▶ Integrated overlay adjustment + 2 mm / - 2 mm
- ▶ Integrated depth adjustment + 3 mm / - 2 mm
- ▶ Height adjustment at mounting plate
- ▶ All visible parts in obsidian black
- ▶ Hinge arm material: steel in obsidian black
- ▶ Hinge cup material: steel in obsidian black

Sensys 8645i, 110° opening angle

Cup assembly	Drilling pattern	Mounting hole ø x T mm	full overlay	half overlay	inset	PU
						
For screwing on TH 52		-	Base B 12.5 mm 9 091 738	Base B 3 mm 9 091 739	Base B -4 mm 9 091 740	50 ea.
With premounted expanding sockets TH 58		ø 10 x 11	9 091 771	9 091 772	9 091 773	50 ea.


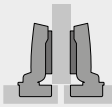
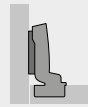
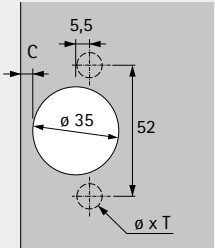
Fast assembly concealed hinge without self closing feature

- ▶ Sensys 8675 in obsidian black
- ▶ 110° opening angle



- ▶ Hinge with clip on installation without self closing feature
- ▶ For example, for Push to open applications
- ▶ Quality classification under EN 15570, Level 3
- ▶ For door thickness of 15 - 24 mm
- ▶ Cup diameter 35 mm
- ▶ Cup depth 12.8 mm
- ▶ Integrated overlay adjustment + 2 mm / - 2 mm
- ▶ Integrated depth adjustment + 3 mm / - 2 mm
- ▶ Height adjustment at mounting plate
- ▶ All visible parts in obsidian black
- ▶ Hinge arm material: steel in obsidian black
- ▶ Hinge cup material: steel in obsidian black

Sensys 8675, 110° opening angle

Cup assembly	Drilling pattern	Mounting hole ø x T mm	full overlay	half overlay	inset	PU
						
For screwing on TH 52		-	9 091 741	9 091 742	9 091 743	50 ea.
With premounted expanding sockets TH 58		ø 10 x 11	9 091 774	9 091 775	9 091 776	50 ea.

Fast assembly concealed hinge

- ▶ Sensys 8645i / Sensys 8675 in obsidian black
- ▶ 110° opening angle

Minimum reveal per door

Door thickness mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
15	0.2	0.2	0.2	0.2	0.2	0.2
16	0.3	0.3	0.3	0.3	0.3	0.3
17	0.4	0.4	0.4	0.4	0.4	0.4
18	0.6	0.6	0.6	0.6	0.6	0.5
19	0.8	0.8	0.8	0.8	0.7	0.7
20	1.1	1.0	1.0	1.0	1.0	0.9
21	1.4	1.3	1.3	1.3	1.2	1.2
22	2.2	1.8	1.7	1.6	1.6	1.5
23	3.0	2.6	2.4	2.2	2.0	1.9
24	3.9	3.4	3.2	3.0	2.6	2.4

Note:

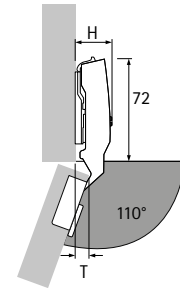
The values in the table refer to doors with an edge radius of 1 mm.

On doors with other radii, the minimum reveal changes as follows:

Radius 0 mm:
Values in table + 0.4 mm

Radius 3 mm:
Values in table - 0.6 mm

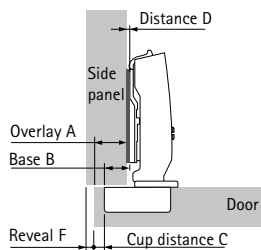
Protrusions / installed depth



Hinge protrusion H / door protrusion T for distance D = 0 mm and cup distance C = 3 mm

Door mounting option	H mm	T mm
full overlay	25.0	8.5
half overlay	31.0	18.0
inset	38.0	25.0

full overlay

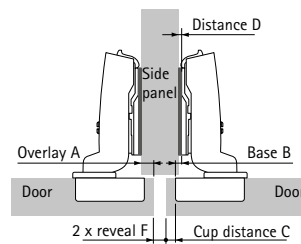


$$\text{Distance D} = \text{C} + \text{B} - \text{A}$$

$$= \text{cup distance C} + 12.5 \text{ mm} - \text{overlay A}$$

Overlay mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
Distance D mm						
10	5.5	6.5	7.0	7.5	8.5	9.5
11	4.5	5.5	6.0	6.5	7.5	8.5
12	3.5	4.5	5.0	5.5	6.5	7.5
13	2.5	3.5	4.0	4.5	5.5	6.5
14	1.5	2.5	3.0	3.5	4.5	5.5
15	0.5	1.5	2.0	2.5	3.5	4.5
16		0.5	1.0	1.5	2.5	3.5
17			0.0	0.5	1.5	2.5
18					0.5	1.5
19						0.5

half overlay

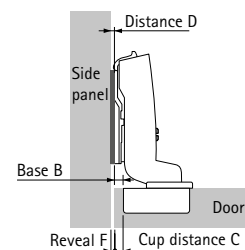


$$\text{Distance D} = \text{C} + \text{B} - \text{A}$$

$$= \text{cup distance C} + 3 \text{ mm} - \text{overlay A}$$

Overlay mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
Distance D mm						
0.5	5.5	6.5	7.0	7.5	8.5	9.5
1.5	4.5	5.5	6.0	6.5	7.5	8.5
2.5	3.5	4.5	5.0	5.5	6.5	7.5
3.5	2.5	3.5	4.0	4.5	5.5	6.5
4.5	1.5	2.5	3.0	3.5	4.5	5.5
5.5	0.5	1.5	2.0	2.5	3.5	4.5
6.5		0.5	1.0	1.5	2.5	3.5
7.5			0.0	0.5	1.5	2.5
8.5					0.5	1.5
9.5						0.5

inset



$$\text{Distance D} = \text{C} + \text{B} + \text{F}$$

$$= \text{cup distance C} - 4 \text{ mm} + \text{reveal F}$$

Door thickness mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
Distance D mm						
15	0.2	0.7	1.2	2.2	3.2	
16	0.3	0.8	1.3	2.3	3.3	
17	0.4	0.9	1.4	2.4	3.4	
18	0.6	1.1	1.6	2.6	3.5	
19	0.8	1.3	1.8	2.7	3.7	
20	0.1	1.0	1.5	2.0	3.0	3.9
21	0.4	1.3	1.8	2.3	3.2	4.2
22	1.2	1.8	2.2	2.6	3.6	4.5
23	2.0	2.6	2.9	3.2	4.0	4.9
24	2.9	3.4	3.7	4.0	4.6	5.4

Advice

- ▶ For mounting plates and accessories, see page 32 - 35
- ▶ For example applications, fitting information, installation notes and quality criteria, see page 37 - 49


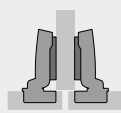
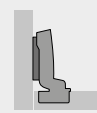
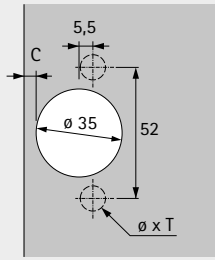
Fast assembly concealed hinge with integrated Silent System

- ▶ Sensys 8631i in obsidian black, for thick doors
- ▶ 95° opening angle



- ▶ Concealed hinge with clip on installation and integrated Silent System
- ▶ Quality classification under EN 15570, Level 2
- ▶ For door thickness of 15 – 32 mm
- ▶ Cup diameter 35 mm
- ▶ Cup depth 12.8 mm
- ▶ Integrated overlay adjustment + 2 mm / - 2 mm
- ▶ Integrated depth adjustment + 3 mm / - 2 mm
- ▶ Height adjustment at mounting plate
- ▶ All visible parts in obsidian black
- ▶ Hinge arm material: steel in obsidian black
- ▶ Hinge cup material: steel in obsidian black

Sensys 8631i, 95° opening angle

Cup assembly	Drilling pattern	Mounting hole ø x T mm	full overlay 	half overlay 	inset 	
			Base B 12.5 mm	Base B 3 mm	Base B -4 mm	PU
With premounted expanding sockets TH 58		ø 10 x 11	9 091 754	9 091 785	9 091 757	50 ea.

Fast assembly concealed hinge

- ▶ Sensys 8631i in obsidian black, for thick doors
- ▶ 95° opening angle

Minimum reveal per door

Door thickness mm	Cup distance C mm						
	3.0	4.0	4.5	5.0	6.0	7.0	8.0
15	0.1	0.1	0.1	0.1	0.1	0.1	0.1
16	0.1	0.1	0.1	0.1	0.1	0.1	0.1
17	0.2	0.2	0.2	0.2	0.2	0.2	0.2
18	0.2	0.2	0.2	0.2	0.2	0.2	0.2
19	0.3	0.3	0.3	0.3	0.3	0.3	0.3
20	0.4	0.4	0.4	0.4	0.4	0.4	0.4
21	0.6	0.6	0.6	0.6	0.6	0.6	0.6
22	0.7	0.7	0.7	0.7	0.7	0.7	0.7
23	0.9	0.9	0.9	0.9	0.9	0.9	0.9
24	1.1	1.0	1.0	1.0	1.0	1.0	1.0
25	1.3	1.2	1.2	1.2	1.2	1.2	1.2
26	1.5	1.5	1.4	1.4	1.4	1.4	1.4
27	1.7	1.7	1.7	1.7	1.6	1.6	1.6
28	2.0	2.0	1.9	1.9	1.9	1.8	1.8
29	2.9	2.3	2.2	2.2	2.2	2.1	2.1
30	3.8	3.2	3.0	2.7	2.5	2.4	2.4
31	4.8	4.1	3.8	3.6	3.1	2.7	2.7
32	5.7	5.1	4.8	4.5	3.9	3.4	3.0

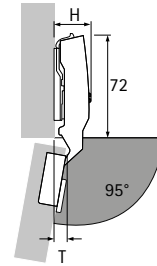
Note:

The values in the table refer to doors with an edge radius of 1 mm.

On doors with other radii, the minimum reveal changes as follows:

Radius 0 mm:
Values in table + 0.4 mm

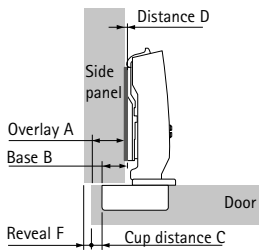
Protrusions / installed depth



Hinge protrusion H / door protrusion T for distance D = 0 mm and cup distance C = 3 mm

Door mounting option	H mm	T mm
full overlay	24.0	12.5
half overlay	28.3	22.0
inset	35.3	29.0

full overlay

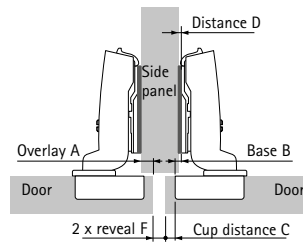


$$\text{Distance D} = \text{C} + \text{B} - \text{A}$$

= cup distance C + 12.5 mm - overlay A

Overlay mm	Cup distance C mm						
	3.0	4.0	4.5	5.0	6.0	7.0	8.0
Distance D mm							
10	5.5	6.5	7.0	7.5	8.5	9.5	10.5
11	4.5	5.5	6.0	6.5	7.5	8.5	9.5
12	3.5	4.5	5.0	5.5	6.5	7.5	8.5
13	2.5	3.5	4.0	4.5	5.5	6.5	7.5
14	1.5	2.5	3.0	3.5	4.5	5.5	6.5
15	0.5	1.5	2.0	2.5	3.5	4.5	5.5
16		0.5	1.0	1.5	2.5	3.5	4.5
17			0.0	0.5	1.5	2.5	3.5
18					0.5	1.5	2.5
19						0.5	1.5
20							0.5

half overlay

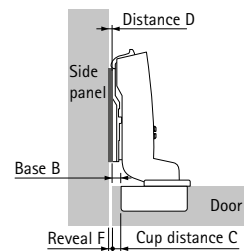


$$\text{Distance D} = \text{C} + \text{B} - \text{A}$$

= cup distance C + 3 mm - overlay A

Overlay mm	Cup distance C mm						
	3.0	4.0	4.5	5.0	6.0	7.0	8.0
Distance D mm							
0.5	5.5	6.5	7.0	7.5	8.5	9.5	10.5
1.5	4.5	5.5	6.0	6.5	7.5	8.5	9.5
2.5	3.5	4.5	5.0	5.5	6.5	7.5	8.5
3.5	2.5	3.5	4.0	4.5	5.5	6.5	7.5
4.5	1.5	2.5	3.0	3.5	4.5	5.5	6.5
5.5	0.5	1.5	2.0	2.5	3.5	4.5	5.5
6.5		0.5	1.0	1.5	2.5	3.5	4.5
7.5			0.0	0.5	1.5	2.5	3.5
8.5					0.5	1.5	2.5
9.5						0.5	1.5
10.5							0.5

inset



$$\text{Distance D} = \text{C} + \text{B} + \text{F}$$

= cup distance C - 4 mm + reveal F

Door thickness mm	Cup distance C mm						
	3.0	4.0	4.5	5.0	6.0	7.0	8.0
Distance D mm							
15	0.1	0.6	1.1	2.1	3.1	4.1	
16	0.1	0.6	1.1	2.1	3.1	4.1	
17	0.2	0.7	1.2	2.2	3.2	4.2	
18	0.2	0.7	1.2	2.2	3.2	4.2	
19	0.3	0.8	1.3	2.3	3.3	4.3	
20	0.4	0.9	1.4	2.4	3.4	4.4	
21	0.6	1.1	1.6	2.6	3.6	4.6	
22	0.7	1.2	1.7	2.7	3.7	4.7	
23	0.9	1.4	1.9	2.9	3.9	4.9	
24	0.1	1.0	1.5	2.0	3.0	4.0	5.0
25	0.3	1.2	1.7	2.2	3.2	4.2	5.2
26	0.5	1.5	1.9	2.4	3.4	4.4	5.4
27	0.7	1.7	2.2	2.7	3.6	4.6	5.6
28	1.0	2.0	2.4	2.9	3.9	4.8	5.8
29	1.9	2.3	2.7	3.2	4.2	5.1	6.1
30	2.8	3.2	3.5	3.7	4.5	5.4	6.4
31	3.8	4.1	4.3	4.6	5.1	5.7	6.7
32	4.7	5.1	5.3	5.5	5.9	6.4	7.0

Advice

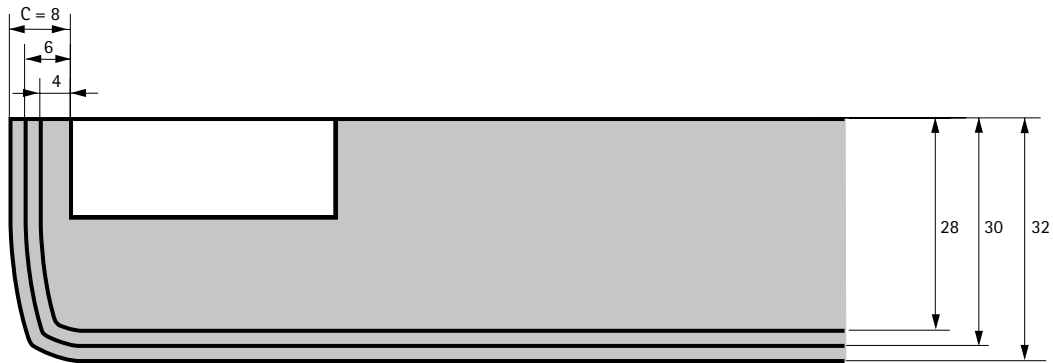
- ▶ For mounting plates and accessories, see page 32 - 35
- ▶ For example applications, fitting information, installation notes and quality criteria, see page 37 - 49

Fast assembly concealed hinge

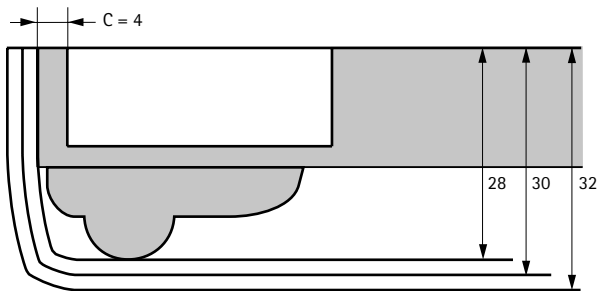
- ▶ Sensys 8631i in obsidian black, for thick doors
- ▶ 95° opening angle

Door contours for minimum reveal application - scale 1:1

The values shown in the Minimum reveal table refer to an edge radius of 1 mm. Smaller reveal values apply if door edges are more rounded. To obtain a minimum reveal application, the chosen door contour must lie within the template illustrated below. All contours protruding beyond the template will increase the reveal accordingly.

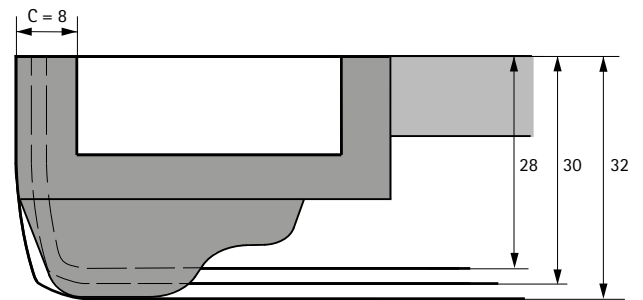


Example of minimum reveal application



Example of minimum reveal application

Door thickness	16 mm
Profile thickness	12 mm
Overall thickness	28 mm
Cup distance C	4 mm



Example of minimum reveal application

Door thickness	19 mm
Profile thickness	13 mm
Overall thickness	32 mm
Cup distance C	8 mm

Excitingly different: thin doors in exclusive materials



**GERMAN
DESIGN
AWARD
SPECIAL
2017**

Award winning design!

The Sensys thin door hinge has won many design awards as well. Alongside elegant looks, it leaves absolutely no margin of doubt by opening up a whole host of new options in designing furniture.


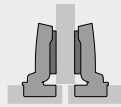
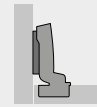
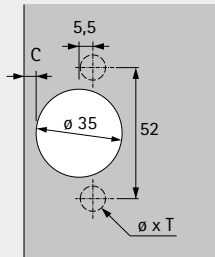
Fast assembly concealed hinge with integrated Silent System

- ▶ Sensys 8646i in obsidian black, for thin doors
- ▶ 110° opening angle



- ▶ Concealed hinge with clip on installation and integrated Silent System
- ▶ Quality classification under EN 15570, Level 3
- ▶ For door thickness of 10 – 19 mm
- ▶ Cup diameter 35 mm
- ▶ Cup depth 7.8 mm
- ▶ Integrated overlay adjustment + 2 mm / - 2 mm
- ▶ Integrated depth adjustment + 3 mm / - 2 mm
- ▶ Height adjustment at mounting plate
- ▶ All visible parts in obsidian black
- ▶ Hinge arm material: steel in obsidian black
- ▶ Hinge cup material: steel in obsidian black
- ▶ **Note:** The method selected for attaching the hinge to the door must be suitable for the type and quality of door material and tested for a secure fit, see page 48

Sensys 8646i, 110° opening angle

Cup assembly	Drilling pattern	Mounting hole ø x T mm	full overlay	half overlay	inset	PU
						
With premounted expanding sockets TH 58		ø 10 x 8	Base B 12.5 mm 9 091 793	Base B 3 mm 9 091 794	Base B -4 mm 9 091 795	50 ea.

Fast assembly concealed hinge

- ▶ Sensys 8646i in obsidian black, for thin doors
- ▶ 110° opening angle

Minimum reveal per door

Door thickness mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
10	0.1	0.1	0.1	0.1	0.1	0.1
11	0.2	0.2	0.2	0.2	0.2	0.2
12	0.4	0.4	0.4	0.4	0.4	0.4
13	0.6	0.6	0.5	0.5	0.5	0.5
14	0.8	0.8	0.7	0.7	0.7	0.7
15	1.0	1.0	1.0	1.0	0.9	0.9
16	1.3	1.3	1.3	1.2	1.2	1.2
17	1.4	1.5	1.5	1.6	1.6	1.7
18	1.8	1.8	1.9	1.9	2.0	2.0
19	2.1	2.2	2.3	2.3	2.3	2.4

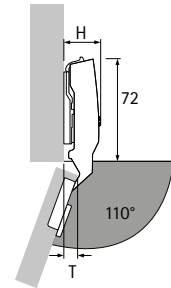
Note:

The values in the table refer to doors with an edge radius of 1 mm.

On doors with other radii, the minimum reveal changes as follows:

Radius 0 mm:
Values in table + 0.3 mm

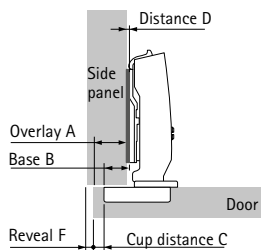
Protrusions / installed depth



Hinge protrusion H / door protrusion T for distance D = 0 mm and cup distance C = 3 mm

Door mounting option	H mm	T mm
full overlay	25.0	8.5
half overlay	31.0	18.0
inset	38.0	25.0

full overlay

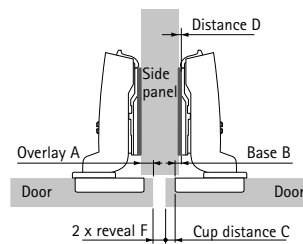


$$\text{Distance D} = \text{C} + \text{B} - \text{A}$$

= cup distance C + 12.5 mm - overlay A

Overlay mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
Distance D mm						
10	5.5	6.5	7.0	7.5	8.5	9.5
11	4.5	5.5	6.0	6.5	7.5	8.5
12	3.5	4.5	5.0	5.5	6.5	7.5
13	2.5	3.5	4.0	4.5	5.5	6.5
14	1.5	2.5	3.0	3.5	4.5	5.5
15	0.5	1.5	2.0	2.5	3.5	4.5
16		0.5	1.0	1.5	2.5	3.5
17			0.0	0.5	1.5	2.5
18					0.5	1.5
19						0.5

half overlay

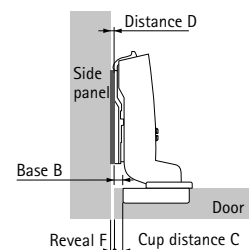


$$\text{Distance D} = \text{C} + \text{B} - \text{A}$$

= cup distance C + 3 mm - overlay A

Overlay mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
Distance D mm						
0.5	5.5	6.5	7.0	7.5	8.5	9.5
1.5	4.5	5.5	6.0	6.5	7.5	8.5
2.5	3.5	4.5	5.0	5.5	6.5	7.5
3.5	2.5	3.5	4.0	4.5	5.5	6.5
4.5	1.5	2.5	3.0	3.5	4.5	5.5
5.5	0.5	1.5	2.0	2.5	3.5	4.5
6.5		0.5	1.0	1.5	2.5	3.5
7.5			0.0	0.5	1.5	2.5
8.5					0.5	1.5
9.5						0.5

inset



$$\text{Distance D} = \text{C} + \text{B} + \text{F}$$

= cup distance C - 4 mm + reveal F

Door thickness mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
Distance D mm						
10	0.1	0.6	1.1	2.1	3.1	
11	0.2	0.7	1.2	2.2	3.2	
12	0.4	0.9	1.4	2.4	3.3	
13	0.6	1.0	1.5	2.5	3.5	
14	0.8	1.2	1.7	2.7	3.7	
15	0.0	1.0	1.5	2.0	2.9	3.9
16	0.3	1.3	1.8	2.2	3.2	4.2
17	0.4	1.5	2.0	2.6	3.6	4.7
18	0.8	1.8	2.4	2.9	4.0	5.0
19	1.1	2.2	2.7	3.3	4.3	5.4

Advice

- ▶ For mounting plates and accessories, see page 32 - 35
- ▶ For example applications, fitting information, installation notes and quality criteria, see page 37 - 49



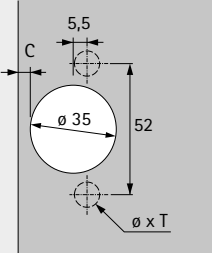
Fast assembly concealed hinge with integrated Silent System

- ▶ Sensys 8657i in obsidian black, zero protrusion hinge
- ▶ 165° opening angle



- ▶ Concealed hinge with clip on installation and integrated Silent System
- ▶ Quality classification under EN 15570, Level 3
- ▶ For door thickness of 15 – 32 mm
- ▶ Cup diameter 35 mm
- ▶ Cup depth 11.6 mm
- ▶ Integrated overlay adjustment + 2 mm / - 2 mm
- ▶ Integrated depth adjustment + 3 mm / - 2 mm
- ▶ Height adjustment at mounting plate
- ▶ Opening angle can be reduced by means of optional accessory
- ▶ Zero protrusion hinge
- ▶ All visible parts in obsidian black
- ▶ Hinge arm material: steel in obsidian black
- ▶ Hinge cup material: steel in obsidian black

Sensys 8657i, 165° opening angle

			full overlay	half overlay	
Cup assembly	Drilling pattern	Mounting hole ø x T mm	 Base B 12.5 mm	 Base B 3 mm	PU
With premounted expanding sockets TH 58		ø 10 x 11	9 091 789	9 091 790	50 ea.

Fast assembly concealed hinge

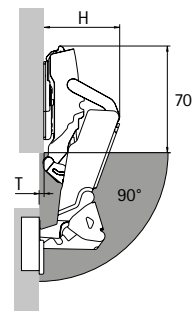
- ▶ Sensys 8657i in obsidian black, zero protrusion hinge
- ▶ 165° opening angle

Minimum reveal per door

Door thickness mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
15	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.0	0.0	0.0
21	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0
23	0.0	0.0	0.0	0.0	0.0	0.0
24	0.0	0.0	0.0	0.0	0.0	0.0
25	0.0	0.0	0.0	0.0	0.0	0.0
26	0.1	0.1	0.1	0.1	0.1	0.1
27	0.1	0.1	0.1	0.1	0.1	0.1
28	0.2	0.2	0.2	0.2	0.2	0.3
29*	0.4	0.4	0.4	0.4	0.5	0.6
30**	0.7	0.7	0.8	0.8	1.0	1.1
31**	1.1	1.2	1.3	1.4	1.6	
32**	1.7	1.9	2.0	2.2		

*when using the opening angle limiter at 120°
 ** when using the opening angle limiter at 105°

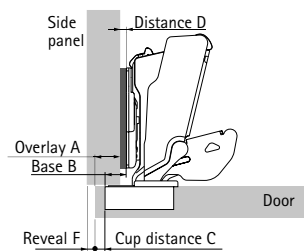
Protrusions / installed depth



No door protrusion T up to distance D = 3, unobstructed interior for pull-outs.
 *Hinge closed: 80 mm

Door mounting option	H mm (max. at 30°)	T mm (90°, D0)
full overlay	66	-3
half overlay	75.5	6.5

full overlay

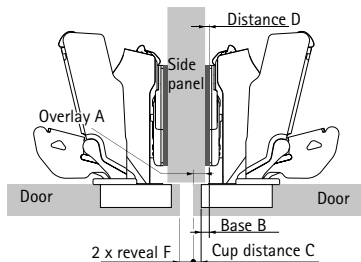


$$\text{Distance D} = \text{C} + \text{B} - \text{A}$$

= cup distance C + 12.5 mm - overlay A

Overlay mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
Distance D mm						
10	5.5	6.5	7.0	7.5	8.5	9.5
11	4.5	5.5	6.0	6.5	7.5	8.5
12	3.5	4.5	5.0	5.5	6.5	7.5
13	2.5	3.5	4.0	4.5	5.5	6.5
14	1.5	2.5	3.0	3.5	4.5	5.5
15	0.5	1.5	2.0	2.5	3.5	4.5
16		0.5	1.0	1.5	2.5	3.5
17			0.0	0.5	1.5	2.5
18					0.5	1.5
19						0.5

half overlay



$$\text{Distance D} = \text{C} + \text{B} - \text{A}$$

= cup distance C + 3 mm - overlay A

Overlay mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
Distance D mm						
- 2	8.0	9.0	9.5	10.0	11.0	12.0
- 1	7.0	8.0	8.5	9.0	10.0	11.0
0	6.0	7.0	7.5	8.0	9.0	10.0
1	5.0	6.0	6.5	7.0	8.0	9.0
2	4.0	5.0	5.5	6.0	7.0	8.0
3	3.0	4.0	4.5	5.0	6.0	7.0
4	2.0	3.0	3.5	4.0	5.0	6.0
5	1.0	2.0	2.5	3.0	4.0	5.0
6	0.0	1.0	1.5	2.0	3.0	4.0
7		0.0	0.5	1.0	2.0	3.0
8				0.0	1.0	2.0
9					0.0	1.0
10						0.0

Advice

- ▶ For mounting plates and accessories, see page 32 - 35
- ▶ For example applications, fitting information, installation notes and quality criteria, see page 37 - 49


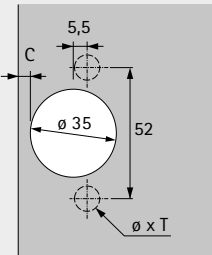
Fast assembly concealed hinge with integrated Silent System

- ▶ Sensys 8639i W30 in obsidian black
- ▶ For 30° face angles, 95° opening angle



- ▶ Concealed hinge with clip on installation and integrated Silent System
- ▶ Quality classification under EN 15570, Level 3
- ▶ For diagonal cabinets, carcass angle 120°
- ▶ For door thickness of 15 - 28 mm
- ▶ Cup diameter 35 mm
- ▶ Cup depth 12.8 mm
- ▶ Integrated overlay adjustment + 2 mm / - 2 mm
- ▶ Integrated depth adjustment + 3 mm / - 2 mm
- ▶ Height adjustment at mounting plate
- ▶ All visible parts in obsidian black
- ▶ Hinge arm material: zinc die-cast in obsidian black
- ▶ Hinge cup material: steel in obsidian black

Sensys 8639i W30, 95° opening angle

Cup assembly	Drilling pattern	Mounting hole ø x T mm	Base B 2 mm	overlay 	PU
For screwing on TH 58		ø 10 x 11	9 091 777*		50 ea.

* Available on request

Fast assembly concealed hinge

- ▶ Sensys 8639i W30 in obsidian black
- ▶ For 30° face angles, 95° opening angle

Minimum reveal per door

Door thickness mm	Cup distance C mm							
	3.0	4.0	4.5	5.0	6.0	7.0	8.0	
15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
16	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
17	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
18	0.6	0.6	0.6	0.6	0.6	0.5	0.5	
19	0.8	0.8	0.8	0.8	0.7	0.7	0.7	
20	1.1	1.0	1.0	1.0	1.0	0.9	0.9	
21	1.4	1.3	1.3	1.3	1.2	1.2	1.2	
22	2.2	1.8	1.7	1.6	1.6	1.5	1.4	
23	3.0	2.6	2.4	2.2	2.0	1.9	1.8	
24	3.9	3.4	3.2	3.0	2.6	2.4	2.2	
25	4.8	4.2	4.0	3.8	3.4	3.0	2.8	
26	5.7	5.1	4.8	4.6	4.2	3.8	3.4	
27	6.6	6.0	5.7	5.5	5.0	4.5	4.2	
28	7.5	6.9	6.6	6.3	5.8	5.3	4.9	

Note:

The values in the table refer to doors with an edge radius of 1 mm.

On doors with other radii, the minimum reveal changes as follows:

Radius 0 mm:
Values in table + 0.4 mm

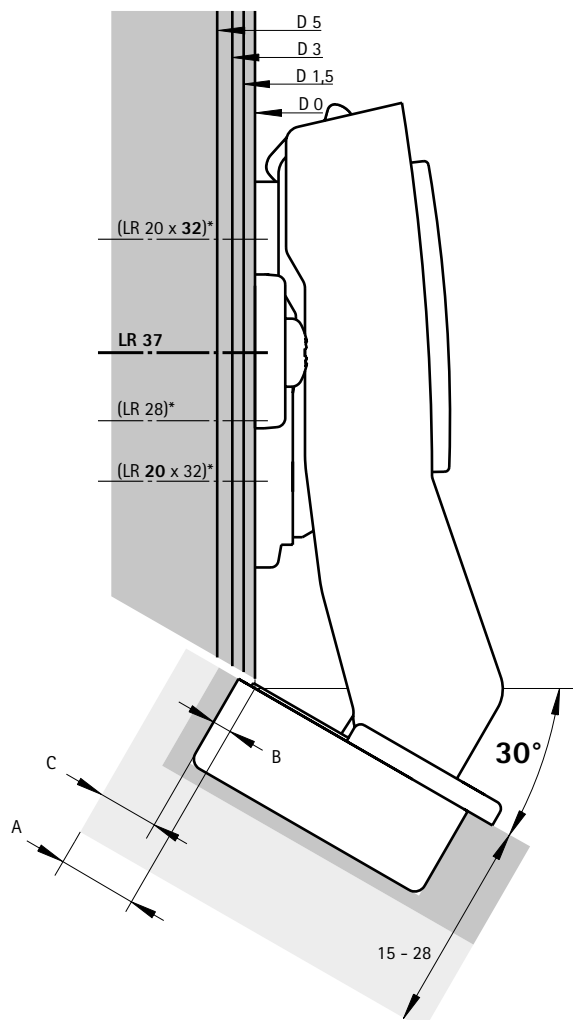
Radius 3 mm:
Values in table - 0.6 mm

Note

The drawings below show the hinges including mounting plate distances on a scale of 1:1. Allowing for cup distance C (3 - 8 mm) as well as the minimum reveal, the required mounting plate distance and hole line can be determined by drawing in the door and side panel.

You will find further information on configuring in the hinge configurator on our website or on our Hettich channel on YouTube.

overlay (B 2 mm) - scale 1:1



Advice

- ▶ For mounting plates and accessories, see page 32 - 35
- ▶ For example applications, fitting information, installation notes and quality criteria, see page 37 - 49

Fast assembly concealed hinge with integrated Silent System

- ▶ Sensys 8639i W45 in obsidian black
- ▶ For 45° face angles, 95° opening angle



- ▶ Concealed hinge with clip on installation and integrated Silent System
- ▶ Quality classification under EN 15570, Level 3
- ▶ For diagonal cabinets, carcase angle 135°
- ▶ For door thickness of 15 - 28 mm
- ▶ Cup diameter 35 mm
- ▶ Cup depth 12.8 mm
- ▶ Integrated overlay adjustment + 2 mm / - 2 mm
- ▶ Integrated depth adjustment + 3 mm / - 2 mm
- ▶ Height adjustment at mounting plate
- ▶ All visible parts in obsidian black
- ▶ Hinge arm material: zinc die-cast in obsidian black
- ▶ Hinge cup material: steel in obsidian black

Sensys 8639i W45, 95° opening angle

			overlay		
Cup assembly	Drilling pattern	Mounting hole ø x T mm	Base B 9 mm	Base B -2 mm	PU
With premounted expanding sockets TH 58		ø 10 x 11	9 091 778	9 091 779	50 ea.

Fast assembly concealed hinge

- ▶ Sensys 8639i W45 in obsidian black
- ▶ For 45° face angles, 95° opening angle

Minimum reveal per door

Door thickness mm	Cup distance C mm							
	3.0	4.0	4.5	5.0	6.0	7.0	8.0	
15	0.2	0.2	0.2	0.2	0.2	0.2	0.2	
16	0.3	0.3	0.3	0.3	0.3	0.3	0.3	
17	0.4	0.4	0.4	0.4	0.4	0.4	0.4	
18	0.6	0.6	0.6	0.6	0.6	0.5	0.5	
19	0.8	0.8	0.8	0.8	0.7	0.7	0.7	
20	1.1	1.0	1.0	1.0	1.0	0.9	0.9	
21	1.4	1.3	1.3	1.3	1.2	1.2	1.2	
22	2.2	1.8	1.7	1.6	1.6	1.5	1.4	
23	3.0	2.6	2.4	2.2	2.0	1.9	1.8	
24	3.9	3.4	3.2	3.0	2.6	2.4	2.2	
25	4.8	4.2	4.0	3.8	3.4	3.0	2.8	
26	5.7	5.1	4.8	4.6	4.2	3.8	3.4	
27	6.6	6.0	5.7	5.5	5.0	4.5	4.2	
28	7.5	6.9	6.6	6.3	5.8	5.3	4.9	

Note:

The values in the table refer to doors with an edge radius of 1 mm.

On doors with other radii, the minimum reveal changes as follows:

Radius 0 mm:
Values in table + 0.4 mm

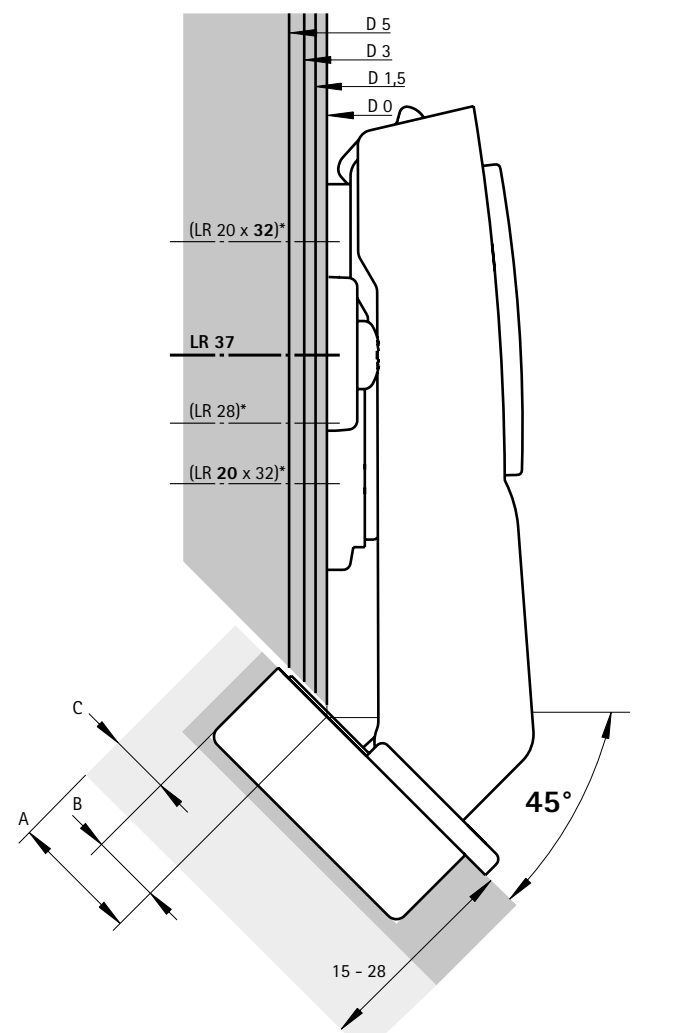
Radius 3 mm:
Values in table - 0.6 mm

Note

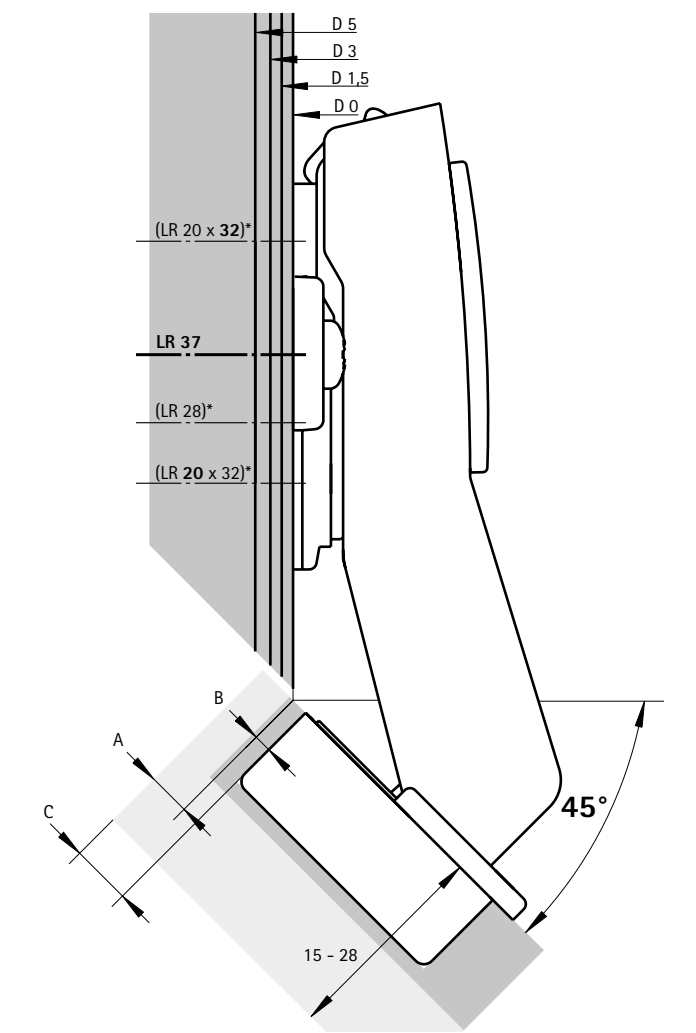
The drawings below show the hinges including mounting plate distances on a scale of 1:1. Allowing for cup distance C (3 - 8 mm) as well as the minimum reveal, the required mounting plate distance and hole line can be determined by drawing in the door and side panel.

You will find further information on configuring in the hinge configurator on our website or on our Hettich channel on YouTube.

overlay (B 9 mm) - scale 1:1



overlay (B -2 mm) - scale 1:1



Advice

- ▶ For mounting plates and accessories, see page 32 - 35
- ▶ For example applications, fitting information, installation notes and quality criteria, see page 37 - 49


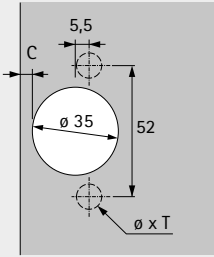
Fast assembly concealed hinge with integrated Silent System

- ▶ Sensys 8639i W90 in obsidian black
- ▶ For 90° face angles, 95° opening angle



- ▶ Concealed hinge with clip on installation and integrated Silent System
- ▶ Quality classification under EN 15570, Level 2
- ▶ For corner cabinets
- ▶ For door thickness of 15 - 28 mm
- ▶ Cup diameter 35 mm
- ▶ Cup depth 12.8 mm
- ▶ Integrated adjustment of door offset + 1 mm / - 2 mm
- ▶ Integrated reveal adjustment + 3 mm / - 2 mm
- ▶ Height adjustment at mounting plate
- ▶ All visible parts in obsidian black
- ▶ Hinge arm material: zinc die-cast in obsidian black
- ▶ Hinge cup material: steel in obsidian black

Sensys 8639i W90, 95° opening angle

Cup assembly	Drilling pattern	Mounting hole ø x T mm	inset  Base B 4 mm	PU
With premounted expanding sockets TH 58		ø 10 x 11	9 091 780	50 ea.

Fast assembly concealed hinge

- ▶ Sensys 8639i W90 in obsidian black
- ▶ For 90° face angles, 95° opening angle

Minimum reveal per door

Door thickness mm	Cup distance C mm					
	3.0	4.0	4.5	5.0	6.0	7.0
15	0.2	0.2	0.2	0.2	0.2	0.2
16	0.3	0.3	0.3	0.3	0.3	0.3
17	0.4	0.4	0.4	0.4	0.4	0.4
18	0.6	0.6	0.6	0.6	0.6	0.5
19	0.8	0.8	0.8	0.8	0.7	0.7
20	1.1	1.0	1.0	1.0	1.0	0.9
21	1.4	1.3	1.3	1.3	1.2	1.2
22	2.2	1.8	1.7	1.6	1.6	1.5
23	3.0	2.6	2.4	2.2	2.0	1.9
24	3.9	3.4	3.2	3.0	2.6	2.4
25	4.8	4.2	4.0	3.8	3.4	3.0
26	5.7	5.1	4.8	4.6	4.2	3.8
27	6.6	6.0	5.7	5.5	5.0	4.5
28	7.5	6.9	6.6	6.3	5.8	5.3

Note:

The values in the table refer to doors with an edge radius of 1 mm.

On doors with other radii, the minimum reveal changes as follows:

Radius 0 mm:
Values in table + 0.4 mm

Radius 3 mm:
Values in table - 0.6 mm

Note

Calculation of the required mounting-plate distance D and the required hole line distance X: Depending on the required door offset, cup distance C (3 - 7 mm) and reveal F, the dimensions can be seen in the drawing below or table.

The values stated for the hole line distance X apply when using a cross mounting plate for hole line 37.

Hole line distance X must be adjusted when using other mounting plates.
- LR 28: X - 9 mm

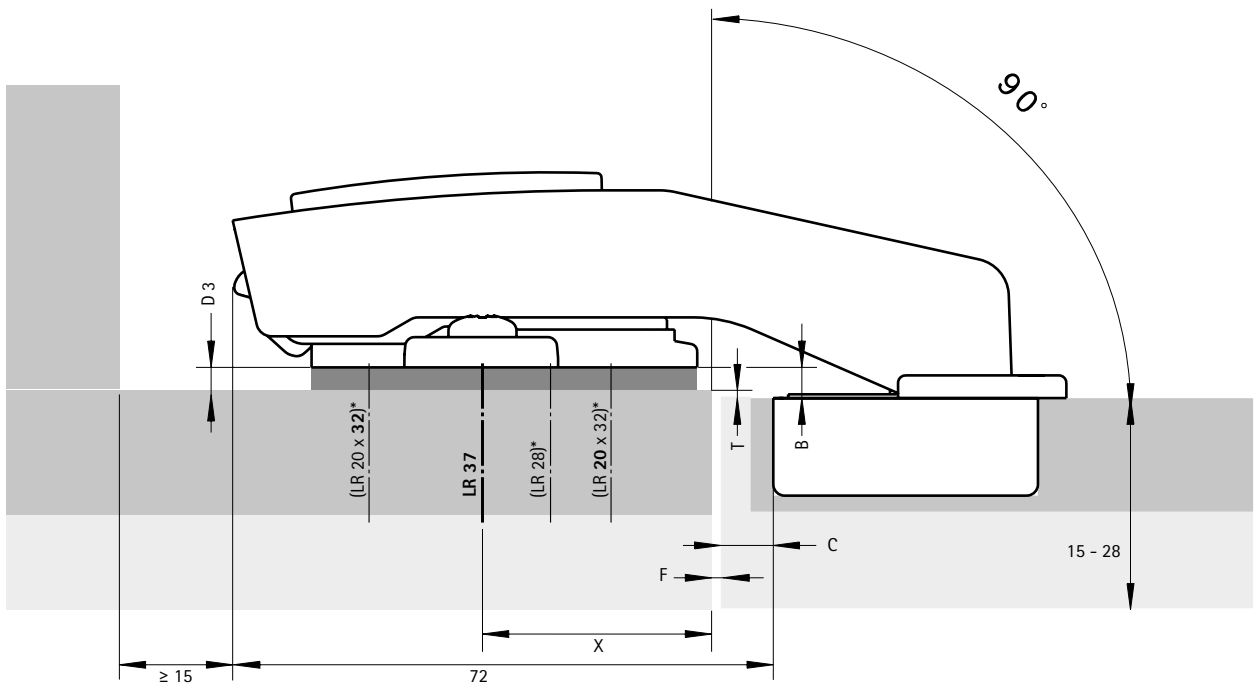
A door offset of 1 mm is recommended. Door offset can be subsequently corrected with the adjusting screw.

Determining hole line distance X mm when using mounting plate for hole line 37

Reveal mm	Cup distance C mm							
	3.0	3.5	4.0	4.5	5.0	5.5	6.0	7.0
0.5	35.0	34.5	34.0	33.5	33.0	32.5	32.0	31.0
1.5	34.0	33.5	33.0	32.5	32.0	31.5	31.0	30.0
2.5	33.0	32.5	32.0	31.5	31.0	30.5	30.0	29.0
3.5	32.0	31.5	31.0	30.5	30.0	29.5	29.0	28.0
4.5	31.0	30.5	30.0	29.5	29.0	28.5	28.0	27.0
5.5	30.0	29.5	29.0	28.5	28.0	27.5	27.0	26.0
6.5	29.0	28.5	28.0	27.5	27.0	26.5	26.0	25.0
7.5	28.0	27.5	27.0	26.5	26.0	25.5	25.0	24.0

inset (B 4 mm) - scale 1:1

Distance D = 4 mm - door offset
(recommended door offset is 1 mm)



Advice

- ▶ For mounting plates and accessories, see page 32 - 35
- ▶ For example applications, fitting information, installation notes and quality criteria, see page 37 - 49


Fast assembly concealed hinge with integrated Silent System

- ▶ Sensys 8638i in obsidian black, for aluminium framed doors
- ▶ 95° opening angle



- ▶ Concealed hinge with clip on installation and integrated Silent System
- ▶ Quality classification under EN 15570, Level 3
- ▶ For 19 mm wide aluminium framed profiles
- ▶ Integrated overlay adjustment + 2 mm / - 2 mm
- ▶ Integrated depth adjustment + 3 mm / - 2 mm
- ▶ Height adjustment at mounting plate
- ▶ All visible parts in obsidian black
- ▶ Hinge arm material: steel in obsidian black
- ▶ Hinge cup material: zinc die-cast in obsidian black
- ▶ Including 2 fixing screws

Sensys 8638i, 95° opening angle

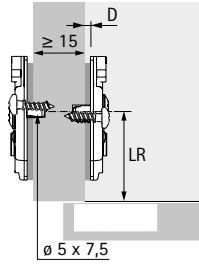
		full overlay	
			
Cup assembly	Mounting hole \varnothing x T mm	Base B 12.5 mm	PU
For screwing on TA 32	-	9 091 744*	50 ea.

* Available on request

Fast assembly concealed hinge

- ▶ System 8099 mounting plates with eccentric cam height adjustment
- ▶ For Sensys in obsidian black

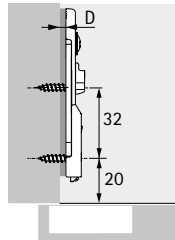
Patented "Hettich Direkt" cross mounting plate with locating pin and special screws



- ▶ For $\varnothing 5 \times 7.5$ mm holes
- ▶ Quality classification under EN 15570, Level 2
- ▶ Hole spacing 32 mm
- ▶ Half overlay door, from 15 mm side panel thickness
- ▶ Eccentric cam height adjustment ± 2 mm
- ▶ Steel in obsidian black

Hole line distance LR mm	Order no. / Distance D mm				PU
	0.0	1.5	3.0	5.0	
37	9 091 811	9 091 812	9 091 813	9 091 814	50 ea.

Linear mounting plate for screwing on



- ▶ For 3.5 mm $\varnothing \times 16$ mm countersunk screws
- ▶ Quality classification under EN 15570, Level 3
- ▶ Eccentric cam height adjustment ± 2 mm
- ▶ Steel in obsidian black

Hole line distance LR mm	Order no. / Distance D mm			PU
	1.5	3.0	5.0	
20	9 091 817	9 091 818	9 091 819	50 ea.

Fast assembly concealed hinge

- ▶ Accessories
- ▶ For Sensys

Cover cap for Sensys hinge arm



- ▶ Can be used with Sensys hinges apart from 8657i / 8657 / 8687
- ▶ Cover caps with customised embossed or printed logo on request
- ▶ Steel in obsidian black

Version	Order no.	PU
embossed with Hettich logo	9 091 821	50 ea.

Cover cap for Sensys zero protrusion hinge



- ▶ Can be used with Sensys hinges 8657i, 8657, 8687
- ▶ Cover caps with customised print available on request
- ▶ Plastic, anthracite

Version	Order no.	PU
neutral	9 099 870	50 ea.
printed with Hettich logo	9 099 871	50 ea.

Cover cap for Sensys hinge cup



- ▶ Can be used for hinges with cup in Sensys design
- ▶ Steel in obsidian black

Version	Order no.	PU
for TH / TS	9 091 822	50 ea.

Soft opening for Sensys zero protrusion hinge



- ▶ Can be used with Sensys hinge 8657i
- ▶ Cannot be combined with opening angle limiter
- ▶ Plastic, anthracite

Door mounting option	Order no.	PU
full overlay	9 100 037	50 ea.
half overlay	9 100 116	50 ea.

Fast assembly concealed hinge

- ▶ Accessories
- ▶ For Sensys

Opening angle limiter for Sensys 8645i



- ▶ For reducing the opening angle of doors with adjoining elements
- ▶ This avoids damaging the front
- ▶ Also suitable for hinges without Silent System / without self closing feature
- ▶ Plastic, white
- ▶ For installation advice, see technical Information

Version	Order no.	PU
Limitation from 110° to 85°	9 072 540	50 ea.

Opening angle limiter for Sensys 8646i



- ▶ For reducing the opening angle of doors with adjoining elements
- ▶ This avoids damaging the front
- ▶ Also suitable for hinges without Silent System / without self closing feature
- ▶ Plastic, anthracite
- ▶ For installation advice, see technical Information

Version	Order no.	PU
Limitation from 110° to 85°	9 076 440	50 ea.

Opening angle limiter for Sensys 8639i W



- ▶ For reducing the opening angle of doors with adjoining elements
- ▶ This avoids damaging the front
- ▶ Also suitable for hinges without Silent System / without self closing feature
- ▶ Plastic, black
- ▶ For installation advice, see technical Information

Version	Order no.	PU
Limitation from 95° to 85°	9 072 541	50 ea.

Opening angle limiter for Sensys 8638i



- ▶ For reducing the opening angle of doors with adjoining elements
- ▶ This avoids damaging the front
- ▶ Also suitable for hinges without Silent System / without self closing feature
- ▶ Plastic, black
- ▶ For installation advice, see technical Information

Version	Order no.	PU
Limitation from 95° to 85°	9 072 542	50 ea.

Opening angle limiter for Sensys 8657i



- ▶ For reducing the opening angle of doors with adjoining elements
- ▶ This avoids damaging the front
- ▶ Also suitable for hinges without Silent System / without self closing feature
- ▶ Plastic, anthracite
- ▶ For installation advice, see technical Information

Version	Order no.	PU
Limitation from 165° to 105° or 120°	9 090 756	50 ea.

Fast assembly concealed hinge

- ▶ Accessories
- ▶ For Sensys

Opening angle limiter for Sensys 8657i



- ▶ For reducing the opening angle of doors with adjoining elements
- ▶ This avoids damaging the front
- ▶ Also suitable for hinges without Silent System / without self closing feature
- ▶ Plastic, anthracite
- ▶ For installation advice, see technical Information

Version	Order no.	PU
Limitation from 165° to 90° or 135°	9 090 864	50 ea.

Opening angle limiter for Sensys 8631i



- ▶ For reducing the opening angle of doors with adjoining elements
- ▶ This avoids damaging the front
- ▶ Also suitable for hinges without Silent System / without self closing feature
- ▶ Steel
- ▶ For installation advice, see technical Information

Version	Order no.	PU
Limitation from 95° to 85°	9 103 006	50 ea.

Aid for installing opening angle limiter



- ▶ Can be used with the following opening angle limiters
 - Order no. 9 072 540 for Sensys 8645i / 8645 / 8675
 - Order no. 9 072 541 for Sensys 8639i W / 8639 W / 8669 W

Order no.	PU
9 081 657	100 ea.

Fixing screw



- ▶ Self tapping countersunk screw
- ▶ For use with hinges for screwing on in combination with hard door materials, such as solid surface material or full core panel
- ▶ Not suitable for use in engineered wood
- ▶ Steel, nickel plated

Version	Order no.	PU
For drilling \varnothing 3.6 mm x 8 mm	9 217 435	100 ea.
For drilling \varnothing 5 mm x 8 mm	9 238 321	100 ea.

Designer adapter for Push to open in obsidian black



- Set comprises:
 - ▶ 25 attachment housings
 - ▶ 25 designer adapters
- ▶ This is where you will find the full Push to open range, including accessories: <https://www.hettich.com/short/656083>

Order no.	PU
9 089 566	1 set



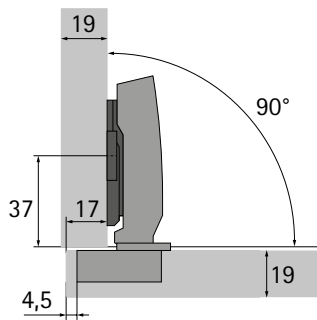
Expectation on the working components: provide perfect performance but not stand out; not spoil the design

of furniture but fit in harmoniously, and do their job discreetly in the background.

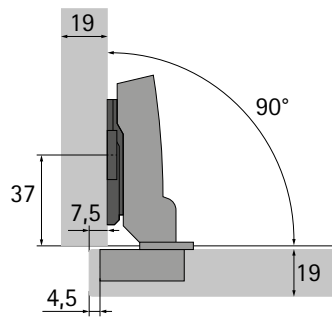
Technical information

- ▶ Example applications
- ▶ For Sensys

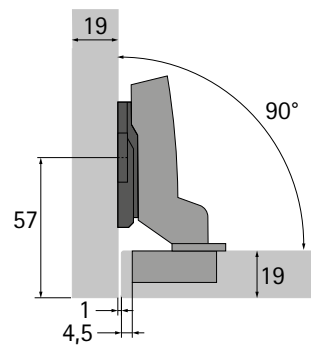
Example applications



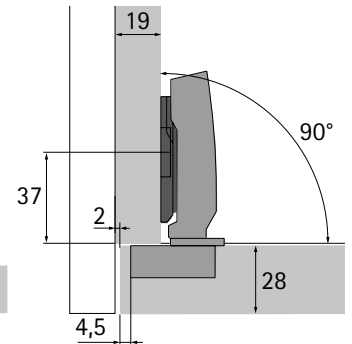
Sensys 8645i B12,5
For inset front panel
Mounting plate distance = 0 mm



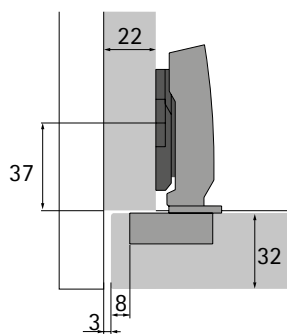
Sensys 8645i B3
For half overlay front panel
Mounting plate distance = 0 mm



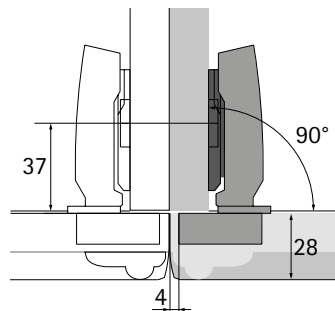
Sensys 8645i B-4
For inset front panel
Mounting plate distance = 1,5 mm



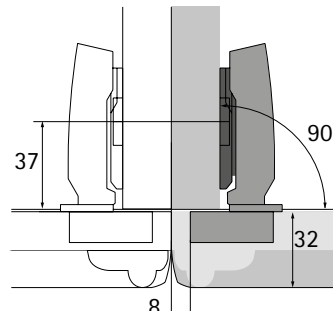
Sensys 8631i B12,5
For narrow gaps between thick doors
For inset front panel
Mounting plate distance = 0 mm



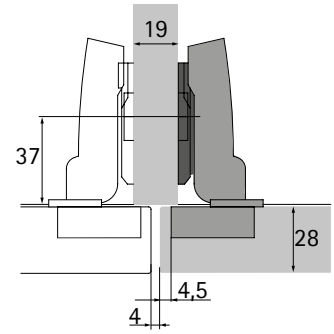
Sensys 8631i B12,5
For narrow gaps between thick doors
For inset front panel
Mounting plate distance = 1,5 mm



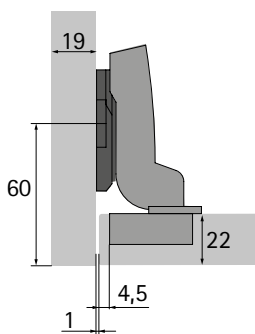
Sensys 8631i B12,5
Thick door with minimum reveal application
For inset front panel
Mounting plate distance = 0 mm



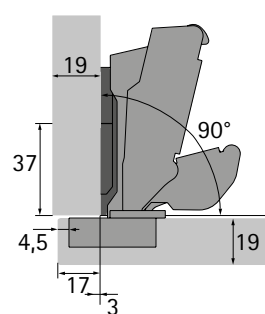
Sensys 8631i B12,5
Thick door with minimum reveal application
For inset front panel
Mounting plate distance = 0 mm



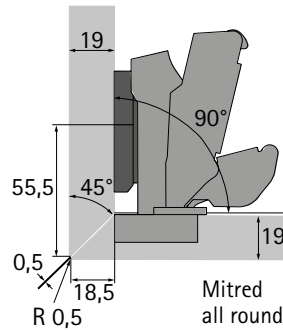
Sensys 8631i B3
For narrow gaps between thick doors
For half overlay front panel
Mounting plate distance = 0 mm



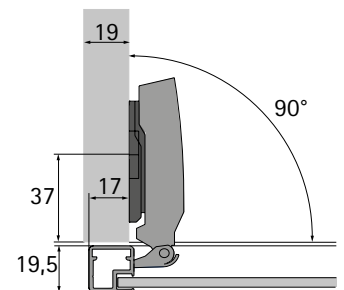
Sensys 8631i B-4
Thick door hinge
For inset front panel
Mounting plate distance = 1,5 mm



Sensys 8657i B12,5
Zero protrusion hinge
For overlay front panel
Mounting plate distance = 0 mm



Sensys 8657i B3
Zero protrusion hinge
For overlay front panel
Mounting plate distance = 3 mm

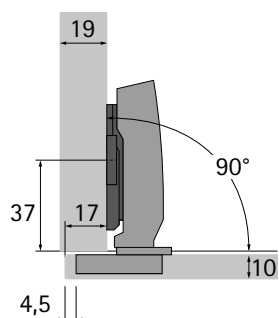


Sensys 8638i B12,5
Aluminium frame hinge
For overlay front panel
Mounting plate distance = 0 mm

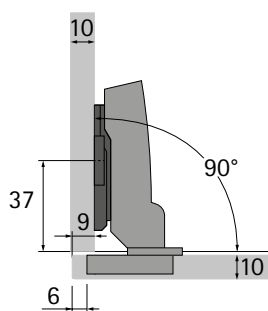
Technical information

- ▶ Example applications
- ▶ For Sensys

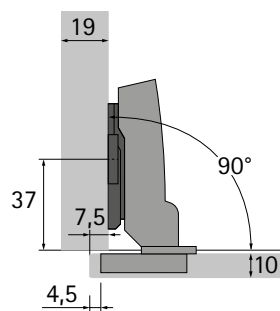
Example applications



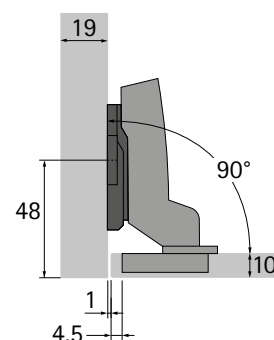
Sensys 8646i B12,5
Thin door hinge
For overlay front panel
Mounting plate distance = 0 mm



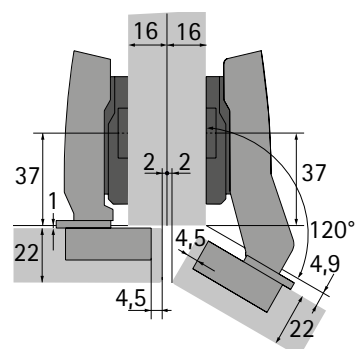
Sensys 8646i B3
Thin door hinge
For overlay front panel
Mounting plate distance = 0 mm



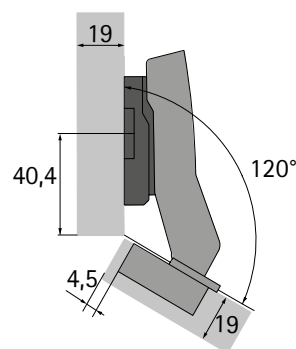
Sensys 8646i B3
Thin door hinge
For half overlay front panel
Mounting plate distance = 0 mm



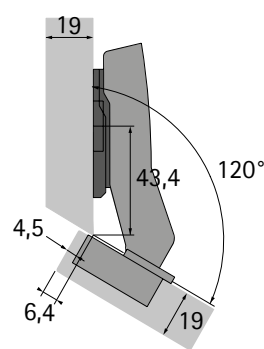
Sensys 8646i B-4
Thin door hinge
For inset front panel
Mounting plate distance = 1,5 mm



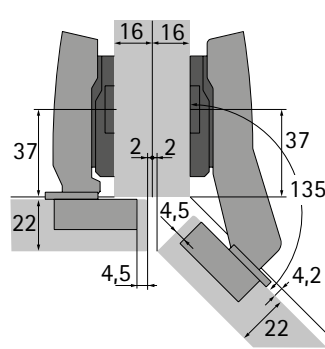
Sensys 8639i W30 B2
Sensys 8645i B12,5
For overlay front panel
Mounting plate distance = 3 mm



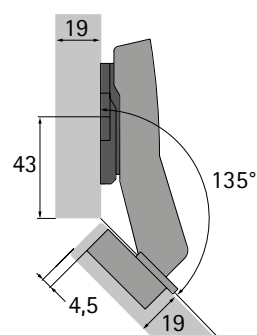
Sensys 8639i W30 B2
For overlay front panel
Mounting plate distance = 5 mm



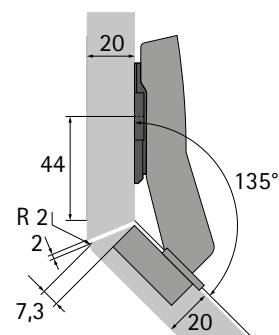
Sensys 8639i W30 B2
For overlay front panel
Mounting plate distance = 0 mm



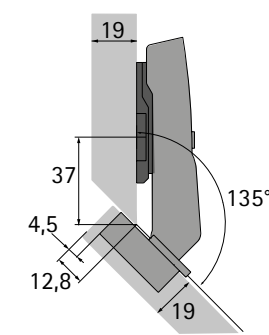
Sensys 8639i W45 B-2
Sensys 8645i B12,5
For overlay front panel
Mounting plate distance = 3 mm



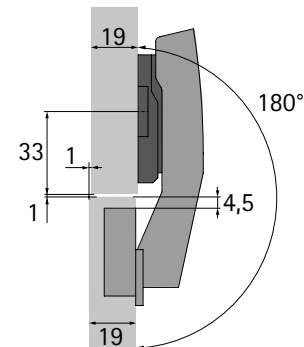
Sensys 8639i W45 B-2
For overlay front panel
Mounting plate distance = 1,5 mm



Sensys 8639i W45 B-2
For overlay front panel
Mounting plate distance = 0 mm



Sensys 8639i W45 B9
For overlay front panel
Mounting plate distance = 0 mm

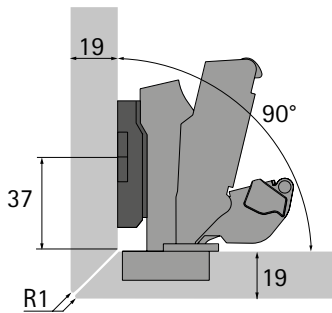


Sensys 8639i W90 B4
For inset front panel
Mounting plate distance = 3 mm

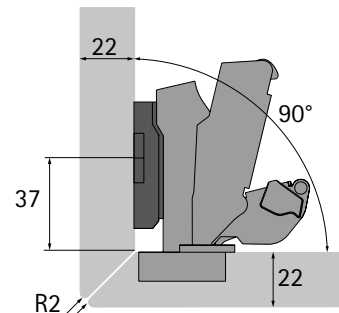
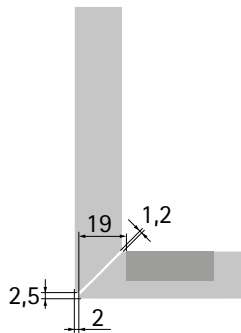
Technical information

- ▶ Example applications
- ▶ For Sensys

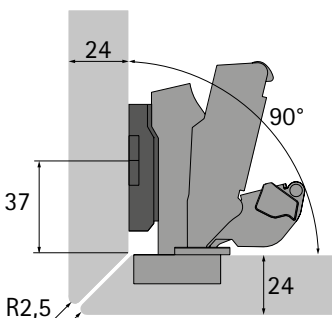
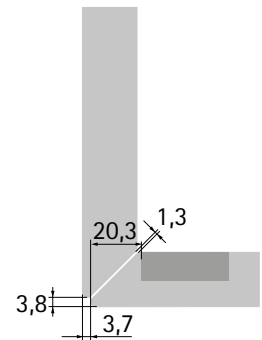
45° mitred all round



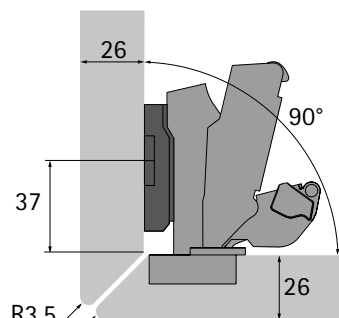
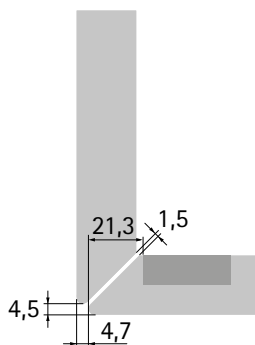
Sensys 8657i B3
Mounting plate: 8099 LR37 D5
Opening angle limiter: 135°



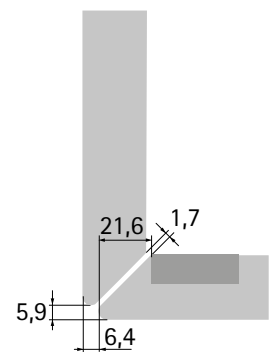
Sensys 8657i B3
Mounting plate: 8099 LR37 D5
Opening angle limiter: 135°



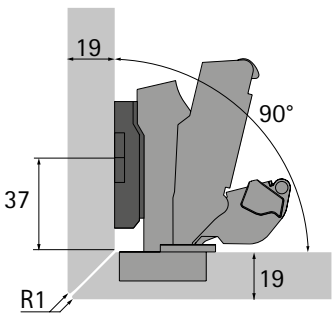
Sensys 8657i B3
Mounting plate: 8099 LR37 D5
Opening angle limiter: 135°



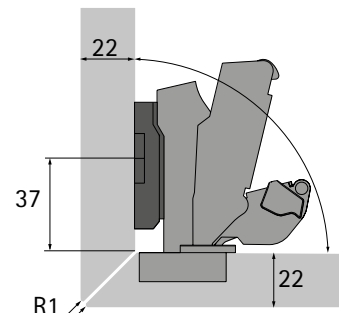
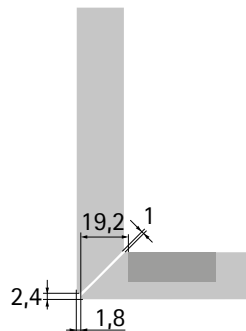
Sensys 8657i B3
Mounting plate: 8099 LR37 D5
Opening angle limiter: 135°



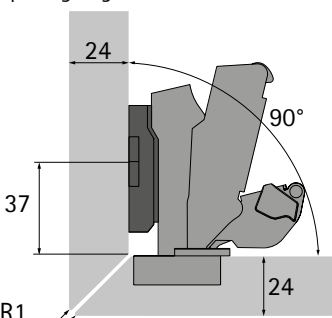
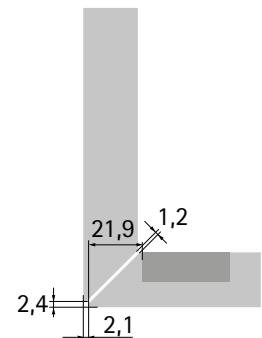
Side mitring



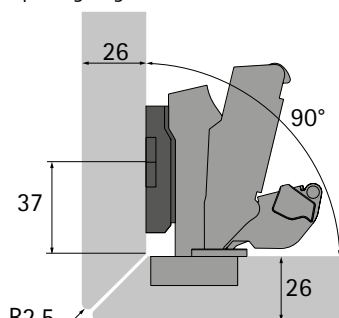
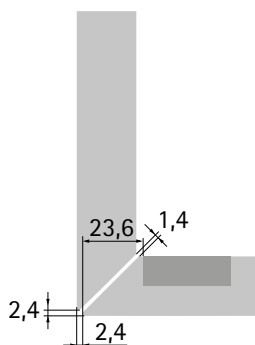
Sensys 8657i B3
Mounting plate: 8099 LR37 D5
Opening angle limiter: 135°



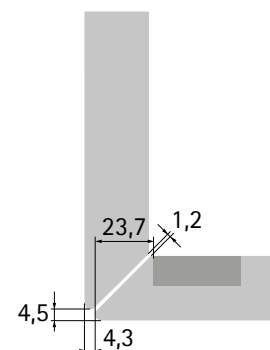
Sensys 8657i B3
Mounting plate: 8099 LR37 D5
Opening angle limiter: 135°



Sensys 8657i B3
Mounting plate: 8099 LR37 D5
Opening angle limiter: 135°



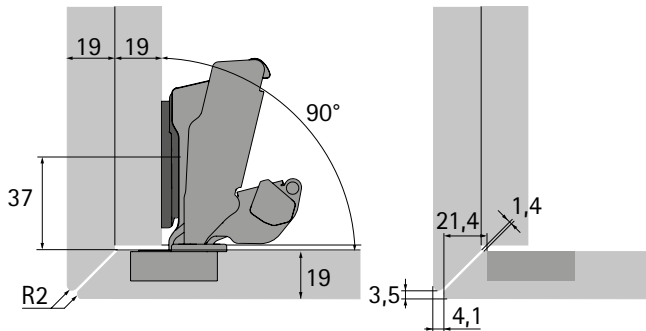
Sensys 8657i B3
Mounting plate: 8099 LR37 D5
Opening angle limiter: 135°



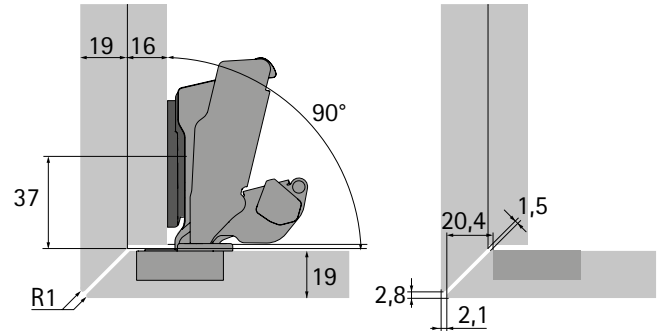
Technical information

- ▶ Example applications
- ▶ For Sensys

Liner all round mitring

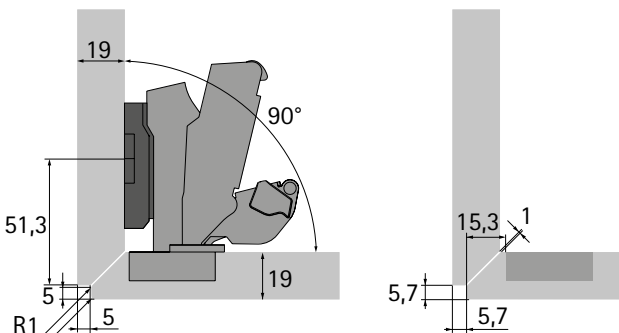


Sensys 8657i B12,5
 Mounting plate: 8099 LR37 D0
 Opening angle limiter: 120°
 Side panel thickness additional panel: 19 mm

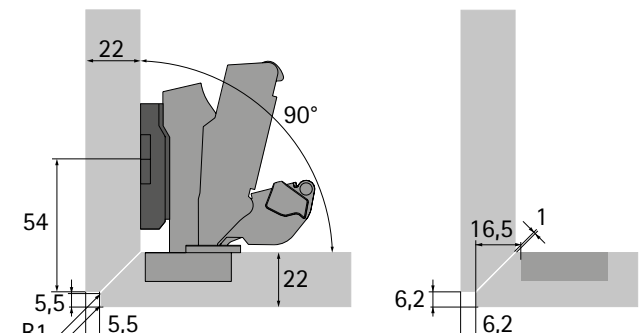


Sensys 8657i B12,5
 Mounting plate: 8099 LR37 D0
 Opening angle limiter: 135°
 Side panel thickness additional panel: 19 mm

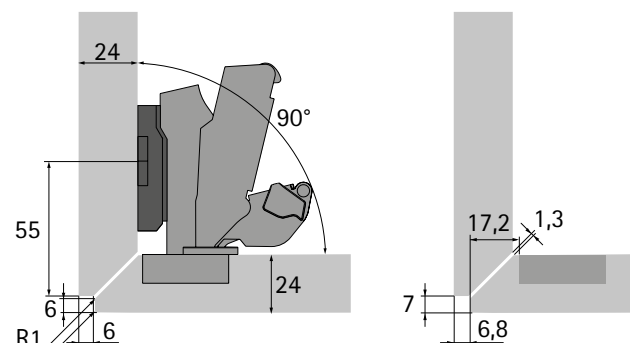
Mitred all round with cut out rebate



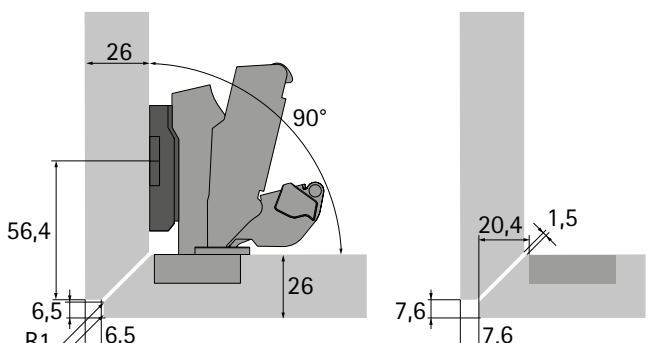
Sensys 8657i B3
 Mounting plate: 8099 LR37 D5
 Opening angle limiter: 135°



Sensys 8657i B3
 Mounting plate: 8099 LR37 D3
 Opening angle limiter: 135°



Sensys 8657i B3
 Mounting plate: 8099 LR37 D3
 Opening angle limiter: 135°

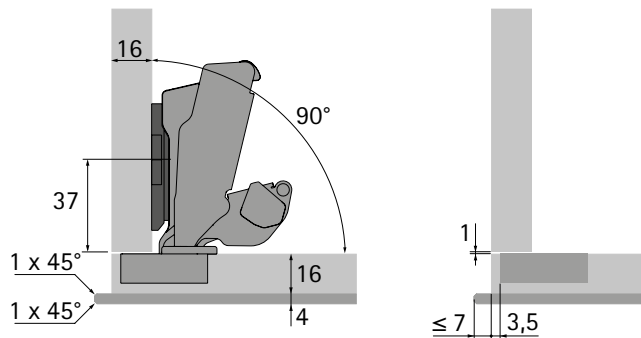


Sensys 8657i B3
 Mounting plate: 8099 LR37 D5
 Opening angle limiter: 135°

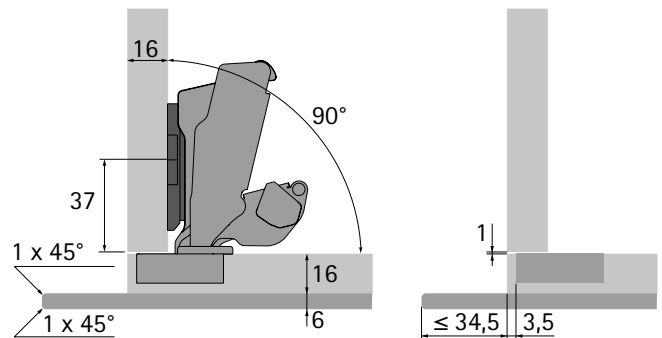
Technical information

- ▶ Example applications
- ▶ For Sensys

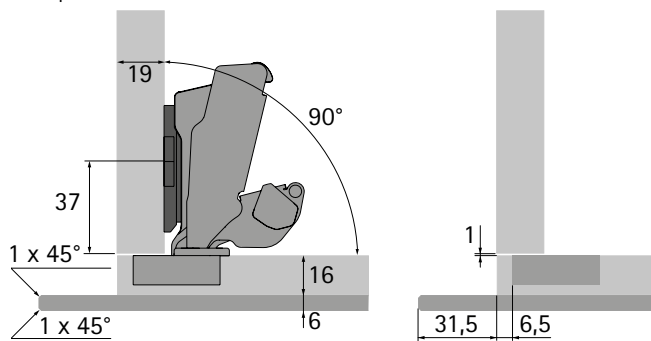
Protruding thin materials



Sensys 8657i B12,5
 Mounting plate: 8099 LR37 D0, Opening angle limiter: no
 Side panel thickness: 16 mm, Door thickness with base board: 16 mm

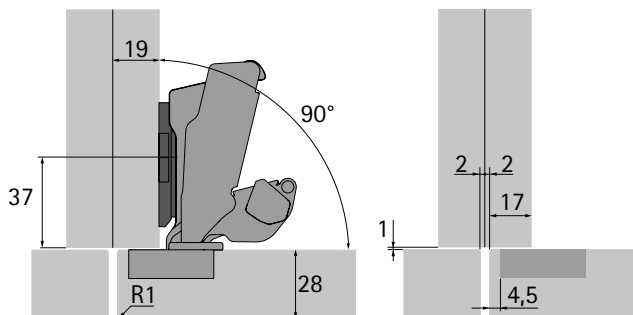


Sensys 8657i B12,5
 Mounting plate: 8099 LR37 D0, Opening angle limiter: 120°
 Side panel thickness: 16 mm, Door thickness with base board: 16 mm

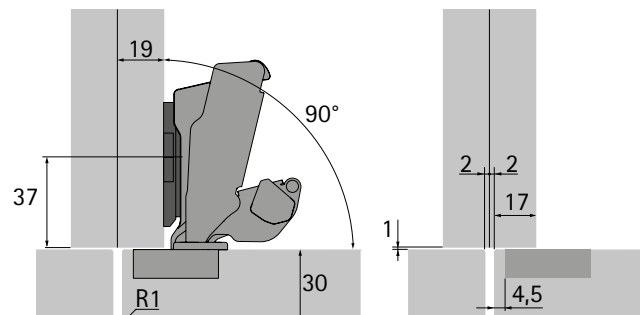


Sensys 8657i B12,5
 Mounting plate: 8099 LR37 D0, Opening angle limiter: 120°
 Side panel thickness: 19 mm, Door thickness with base board: 16 mm

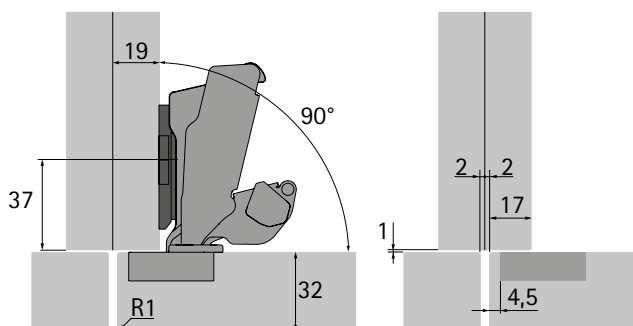
Door thickness



Sensys 8657i B12,5
 Mounting plate: 8099 LR37 D0
 Opening angle limiter: no



Sensys 8657i B12,5
 Mounting plate: 8099 LR37 D0
 Opening angle limiter: 120°

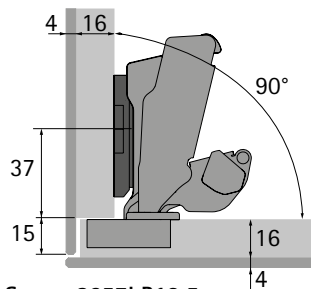


Sensys 8657i B12,5
 Mounting plate: 8099 LR37 D0
 Opening angle limiter: 105°

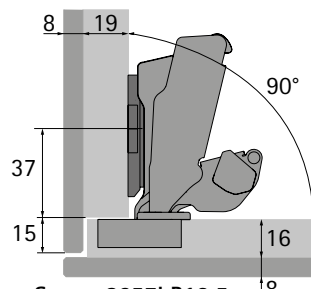
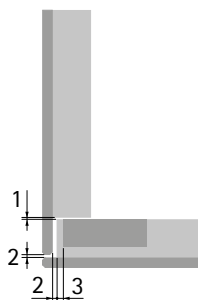
Technical information

- ▶ Example applications
- ▶ For Sensys

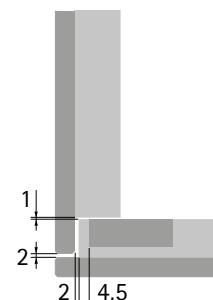
Lined materials



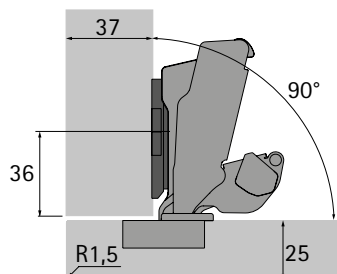
Sensys 8657i B12,5
Mounting plate: 8099 LR37 D1,5
Opening angle limiter: no
Side panel thickness: 16 mm



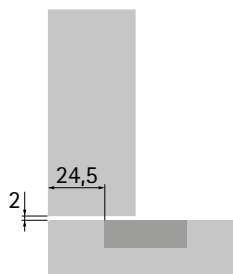
Sensys 8657i B12,5
Mounting plate: 8099 LR37 D0
Opening angle limiter: 135°
Side panel thickness: 19 mm



Maximum door overlay



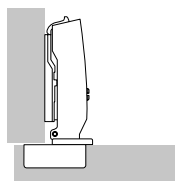
Sensys 8657i B12,5
Mounting plate: 8099 LR37 D0
Opening angle limiter: 105°
Side panel thickness: 37 mm



Technical information

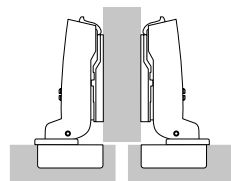
- ▶ Sensys
- ▶ Fitting information

Full overlay door



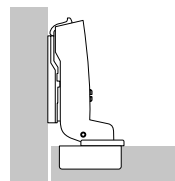
The door is in front of the cabinet side and only a small gap remains at the side within which the door can open reliably. Alternatively, the door can also be overlaid fully. In this case sufficient space must be allowed at the side for the required minimum reveal. Straight hinges are used.

Half overlay door



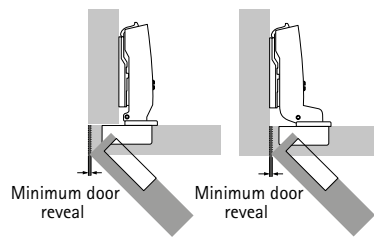
This is where two doors are positioned in front of a cabinet centre panel, with the required overall reveal between them (at least 2 x minimum reveal). In other words, each door has a smaller overlay and cranked hinges are therefore used.

Inset door



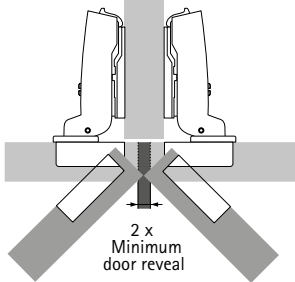
The door is positioned inside the carcass, i.e. next to the carcass side. Here too, a gap is needed so that the door can open reliably. Highly cranked hinges are used here. For an inset door, the mounting plate must be set back by the thickness of the door + 1 mm as well as by any chosen door offset.

Minimum reveal



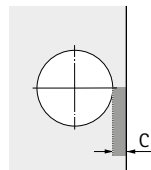
For overlay and inset door
The minimum reveal (also known as the door clearance or minimum clearance) is the space required at the side for opening the door. The size of the minimum reveal depends on the cup distance C, the door thickness and the type of hinge selected. Radii on the door edges reduce the door clearance. The minimum reveal is shown in the table for the respective hinge types.

Minimum reveal



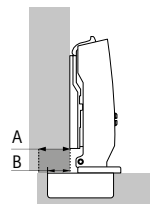
For half overlay doors
The total reveal selected between the doors must be at least twice the door clearance. Both doors can then be opened at the same time.

Cup distance C



Cup distance C is the distance between door edge and the edge of the cup drilling. The greater the distance selected for cup distance C, the smaller door clearance will be, i.e. the minimum reveal required.

Overlay / Base



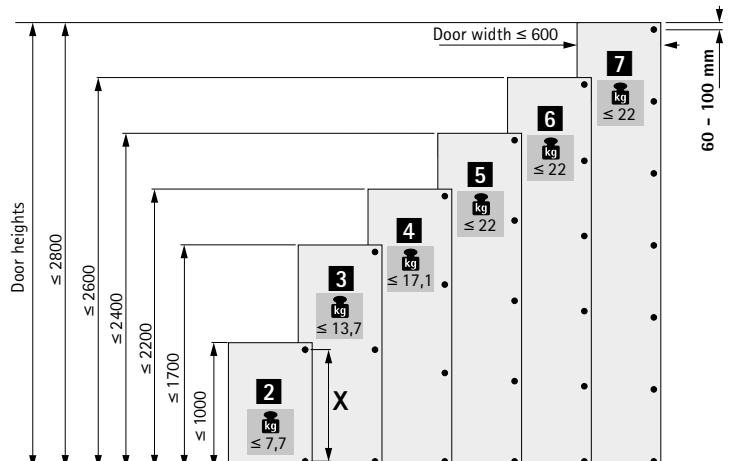
Overlay refers to the projection of the door in front of the carcass side. Base refers to the projection of the cup in front of the carcass side for a mounting plate distance of 0 mm.

A = Overlay
B = Base

Number of hinges per door

Door width, height and weight as well as the material quality of the door are decisive factors determining the number of hinges required.

The factors encountered in practice differ widely from case to case. For this reason, the number of hinges specified in the diagram must be understood as a guide only. If in doubt, it is recommended to carry out a trial mounting and adjust the number of hinges as necessary. For reasons of stability, space X between the hinges must always be made as large as possible. Distance X must be at least 280 mm.



Door height (mm)	Weight (kg)	Number of hinges
≤ 1000	≤ 7,7	2
≤ 1700	≤ 13,7	3
≤ 2200	≤ 17,1	4
≤ 2400	≤ 22	5
≤ 2600	≤ 22	6
≤ 2800	≤ 22	7

Door width ≤ 600 mm
60 - 100 mm

- ▶ Sensys
- ▶ Fitting information

General calculation of distances

Mounting plates are available in various distances. The effective height of the mounting plate is defined by distance D. Distance D is embossed on the top of each mounting plate. A larger distance D reduces the overlay for full and half overlay applications. On inset doors, a larger distance D increases the door reveal. Before determining the required distance, check whether

the desired reveal is equal to or greater than the required minimum reveal. If the desired reveal is less than the required minimum reveal, the required minimum reveal can be reduced by increasing cup distance C or by producing radii on the door edges.

Calculation of distances

For overlay and half overlay doors

The required distance D can be determined after checking the minimum reveal. Ideally, door overlay and cup distance should be selected to produce distance D that is available as mounting plate.

Example: Distance determined using the table

Overlay = 14 mm and cup distance C = 4.5 mm yield a distance of 3.0 mm.

Example: Distance determined using the calculation formula

Hinge for overlay door, basis B = 12.5 mm
 Distance D = Cup distance C + Basis B - Overlay A
 Distance D = 4.5 mm + 12.5 mm - 14 mm = 3.0 mm

Intermediate distances not available as mounting plate distances are achieved by adjusting the hinge overlay.

Overlay mm	Cup distance C mm					
	3,0	4,0	4,5	5,0	6,0	7,0
	Distance D mm					
10	5,5	6,5	7,0	7,5	8,5	9,5
11	4,5	5,5	6,0	6,5	7,5	8,5
12	3,5	4,5	5,0	5,5	6,5	7,5
13	2,5	3,5	4,0	4,5	5,5	6,5
14	1,5	2,5	3,0	3,5	4,5	5,5
15	0,5	1,5	2,0	2,5	3,5	4,5
16		0,5	1,0	1,5	2,5	3,5
17			0,0	0,5	1,5	2,5
18					0,5	1,5
19						0,5

Calculation of distances

For inset doors

When calculating the mounting plate distance using the table for inset doors, allowance is automatically made for the reveal that is shown as the minimum reveal produced by cup distance C and door thickness in the table of minimum reveals. If a reveal is to be produced that is larger than this minimum reveal, select a mounting plate distance of the appropriate size.

Example: Distance determined using the table

From the table, a door thickness = 20 mm and cup distance C = 4.5 mm produces a mounting-plate distance of 1.5 mm. This creates the required minimum reveal of 1 mm, for example. If a reveal of 2.5 mm is required instead, select a mounting plate distance 1.5 mm larger. In this example, that means a distance of 3 mm instead of 1.5 mm.

Example: Distance determined using the calculation formula

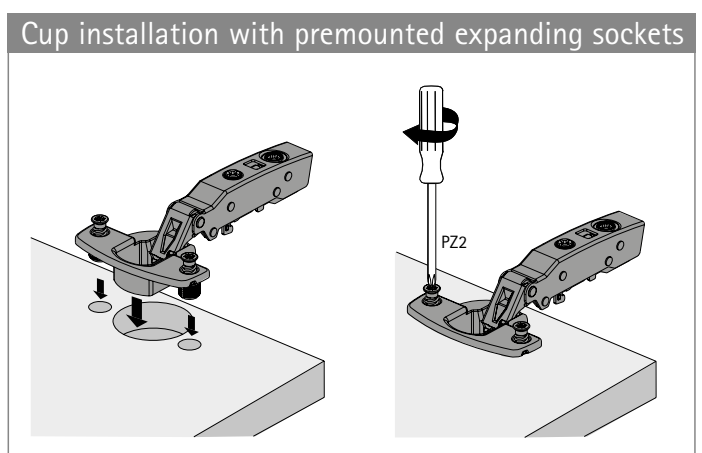
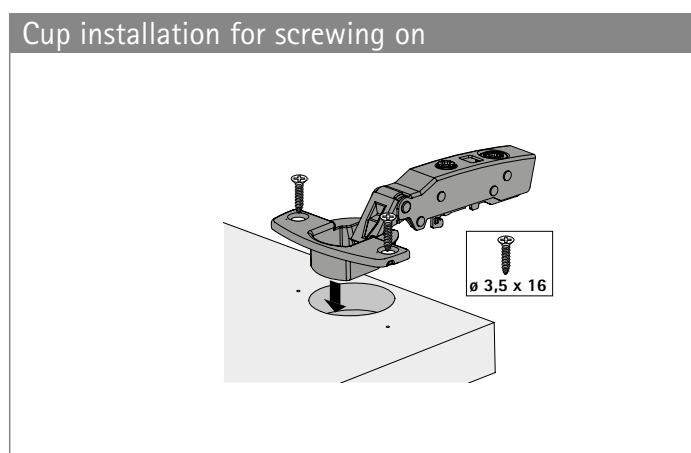
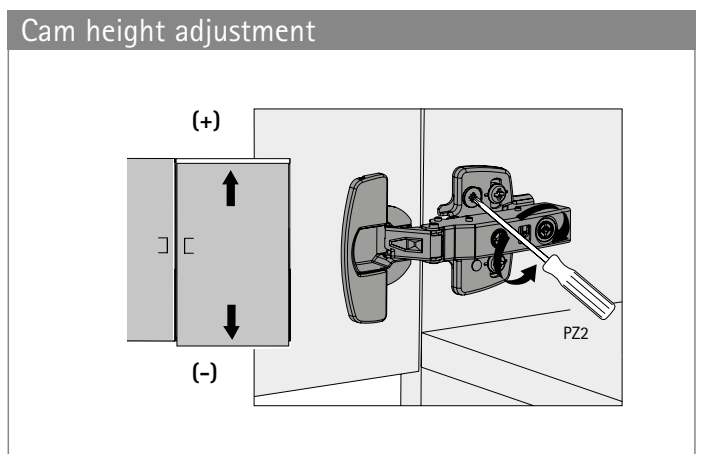
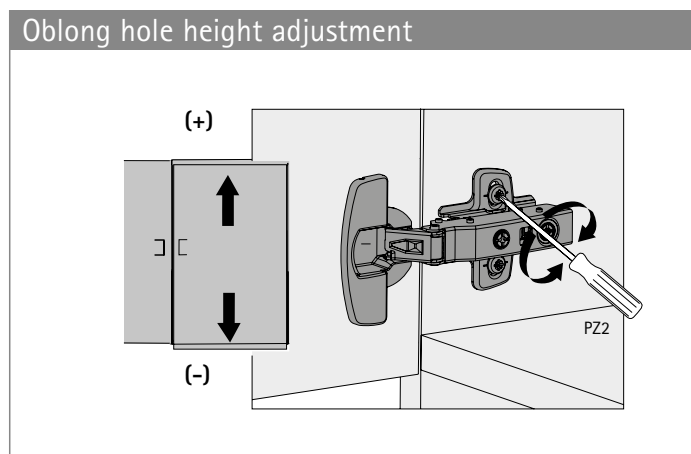
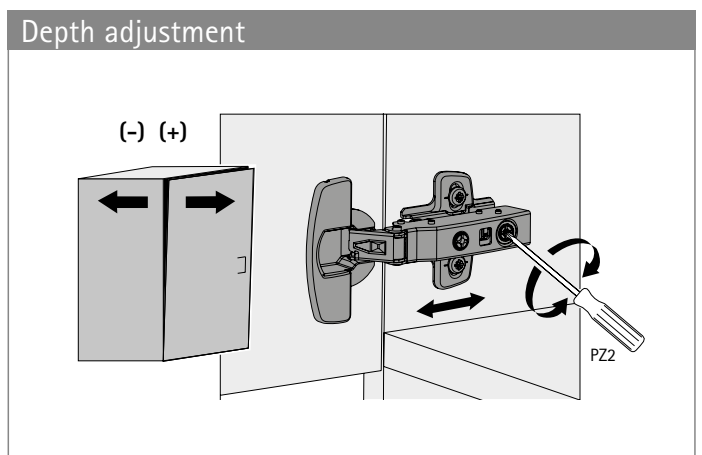
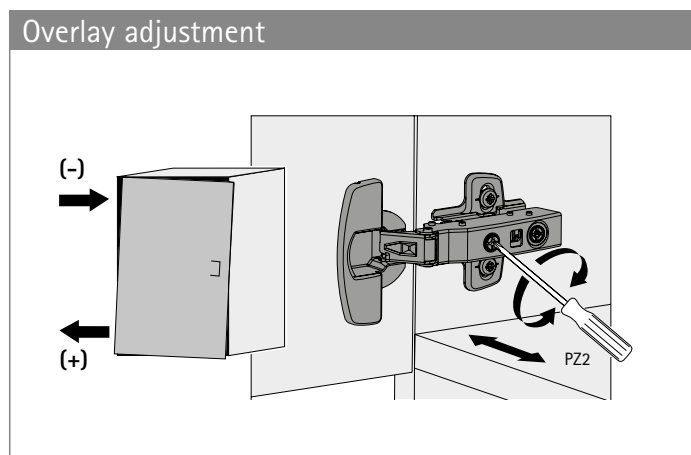
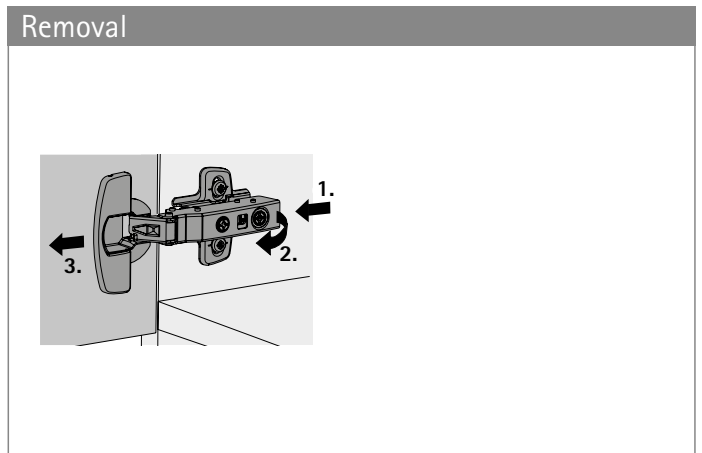
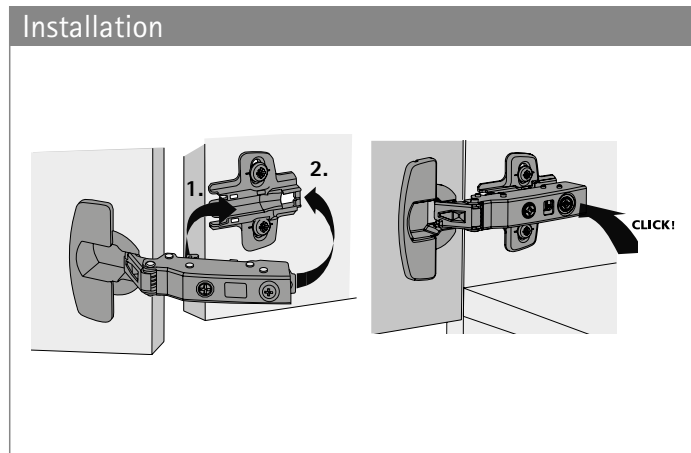
Hinge for inset application, basis B = - 4 mm
 Distance D = cup distance C + basis B + reveal F
 Distance D = 4.5 mm - 4 mm + 1 mm = 1.5 mm

Intermediate values not available as mounting plate distances are achieved by adjusting the hinge overlay.

Door thickness mm	Cup distance C mm					
	3,0	4,0	4,5	5,0	6,0	7,0
	Distance D mm					
15		0,2	0,7	1,2	2,2	3,2
16		0,3	0,8	1,3	2,3	3,3
17		0,4	0,9	1,4	2,4	3,4
18		0,6	1,1	1,6	2,6	3,5
19		0,8	1,3	1,8	2,7	3,7
20	0,1	1,0	1,5	2,0	3,0	3,9
21	0,4	1,3	1,8	2,3	3,2	4,2
22	1,2	1,8	2,2	2,6	3,6	4,5

Technical information

- ▶ Sensys
- ▶ Installation notes

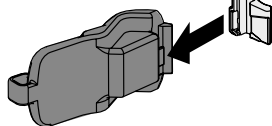


Technical information

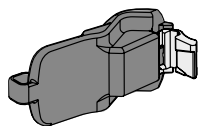
- ▶ Sensys
- ▶ Installation notes

Using installation aid for installing opening angle limiter for Sensys 8645i, Sensys 8639i W

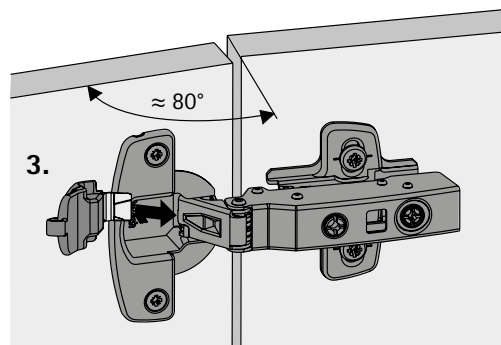
1.



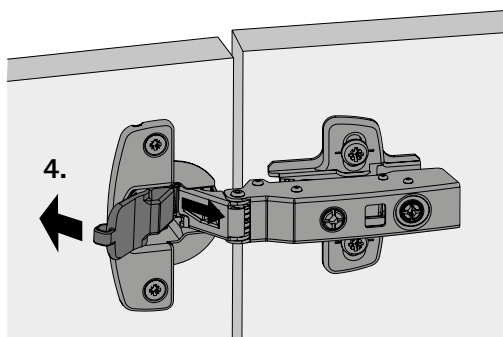
2.



3.

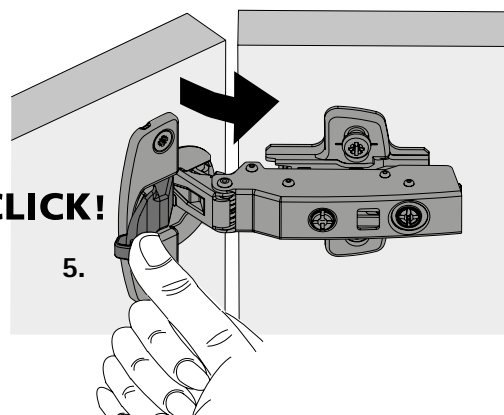


4.

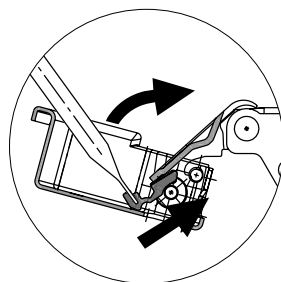
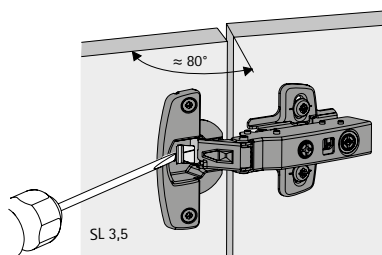


CLICK!

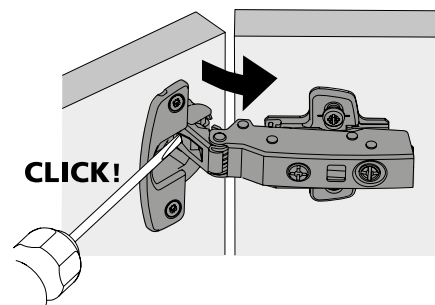
5.



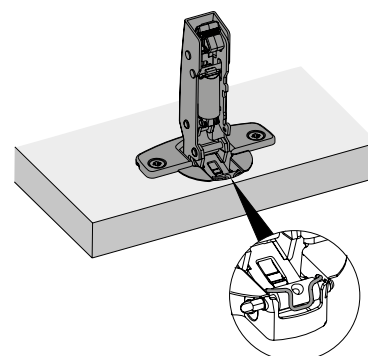
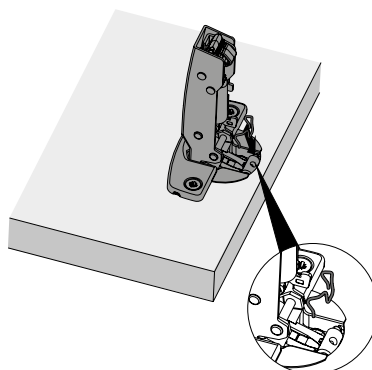
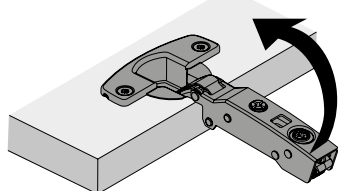
Using screwdriver for installing opening angle limiter for Sensys 8645i, Sensys 8639i W



CLICK!



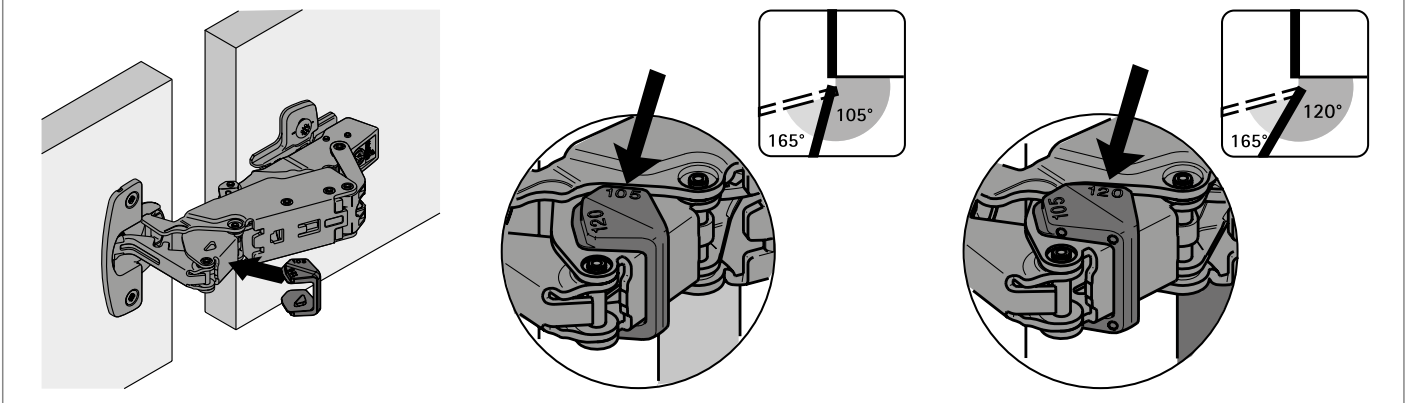
Installing opening angle limiter for thick door hinge 8631i



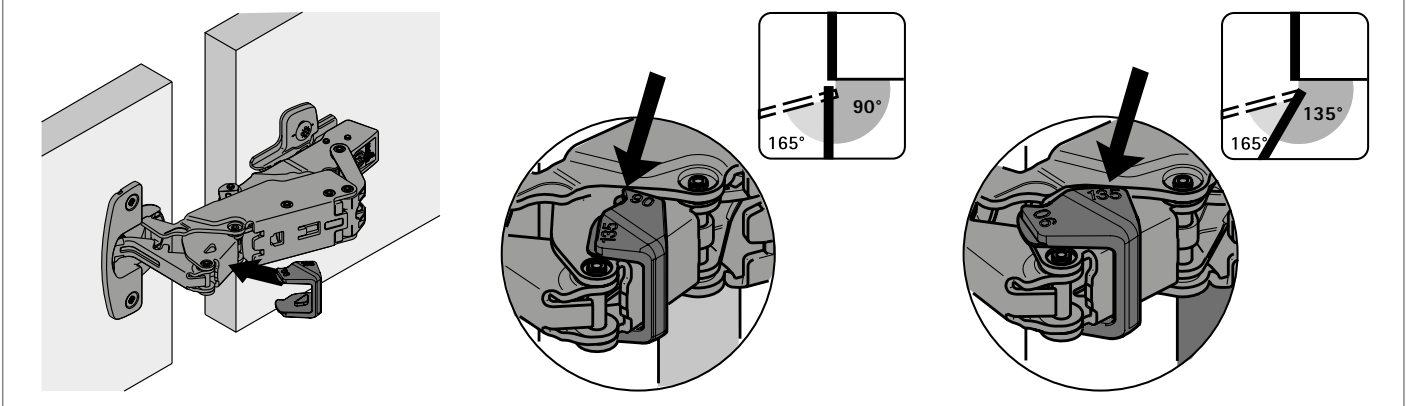
Technical information

- ▶ Sensys
- ▶ Installation notes

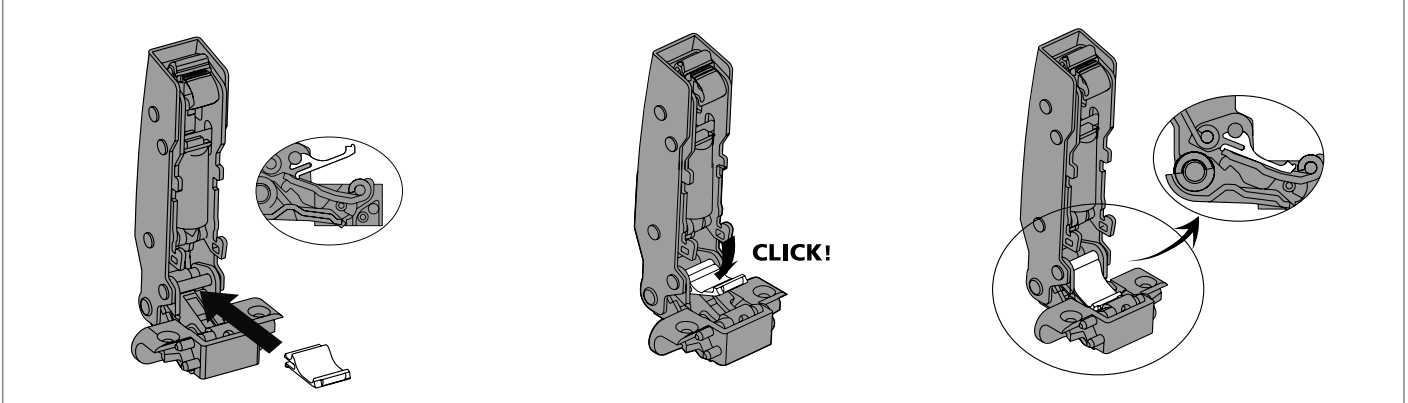
Installing the opening angle limiter for 8657i zero protrusion hinge



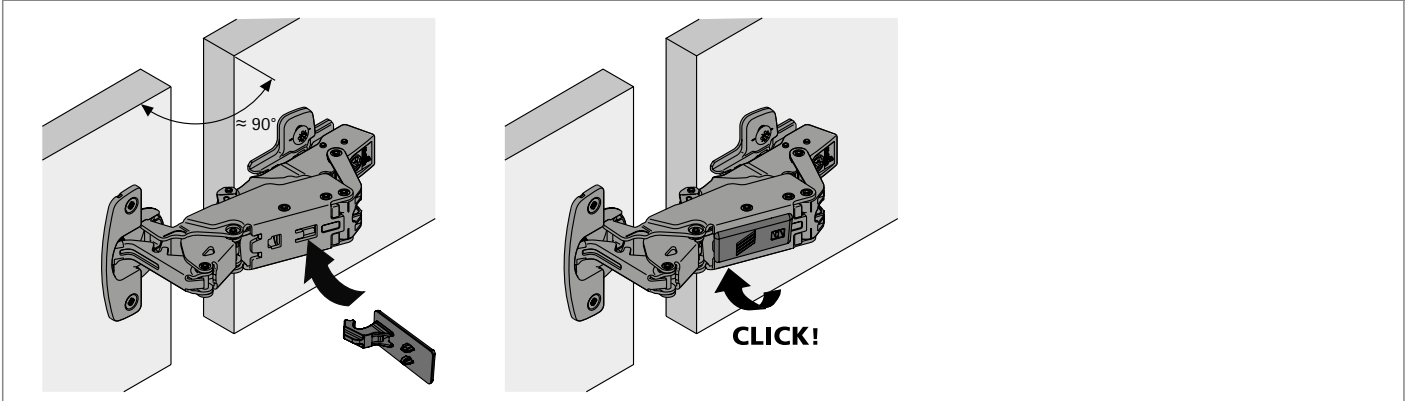
Installing the opening angle limiter for 8657i zero protrusion hinge



Installing opening angle limiter for Sensys 8638i aluminium framed doors



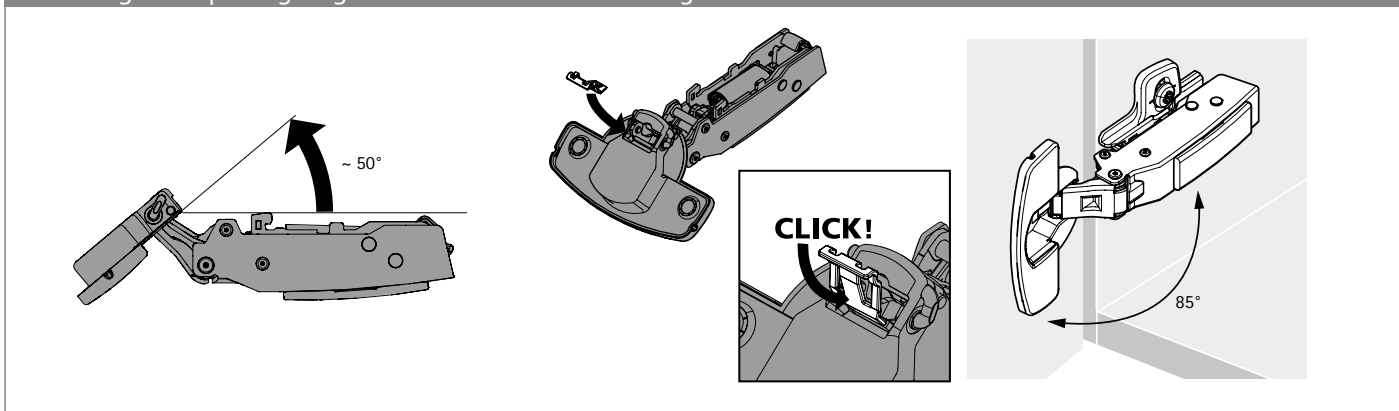
Installing soft opening



Technical information

- ▶ Sensys
- ▶ Installation notes

Installing the opening angle limiter for thin door hinge 8646i



Thin door hinge: attachment method must be selected to suit door material

Door material	Cup assembly	Drilling pattern	Mounting hole mm	Fixing screw
Chipboard, MDF	For pressing in TH 53	TH: 	TH: \varnothing 10 x 8	-
	Premounted expanding sockets TH 58			
Aluminium, HPL, solid surface material	For screwing on TH 52		\varnothing 3,6 x 8	9 217 435

Note:

The method selected for attaching the hinge to the door must be suitable for the type and quality of door material and tested for a secure fit.

Quality criteria

► Concealed hinges

Quality that meets all the demands

Quality that meets all the demands

The quality of hinges is subject to a process of continuous monitoring. Hettich fittings comply with the national and international quality standards of the markets our customers operate in. The diagrams below show examples of the principles behind some of the testing processes.

Application

Hettich hinges can be used in living room, kitchen, bathroom and office furniture.

Load capacity

The quality levels indicated on products comply with the requirements of EN 15570 and satisfy the overload tests at the specified level. We will be pleased to provide any further information you may require.

Corrosion test

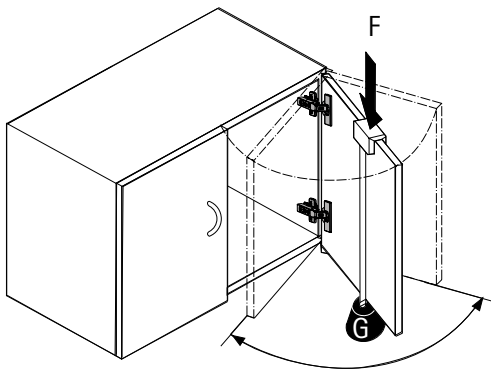
Hettich hinges satisfy the corrosion requirements under EN ISO 9227-2012 in accordance with the 48 h neutral salt spray test (NSS) as well as DIN EN ISO 6270-2-2012 in accordance with the 96 h alternating condensation water climate test with alternating air humidity and temperature (AHT).

Quality assurance

The processes for assuring the quality of Hettich hinges are certified under EN ISO 9001, Cert. No. DE8000209.

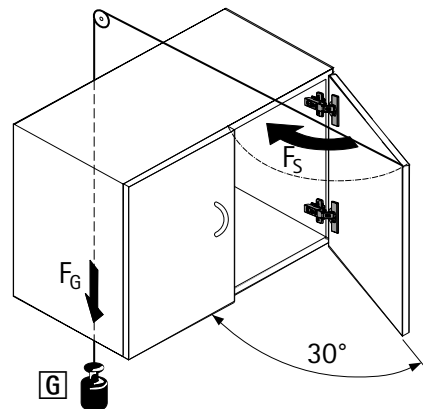
Endurance test

The door is subjected to a specific number of opening and closing cycles.



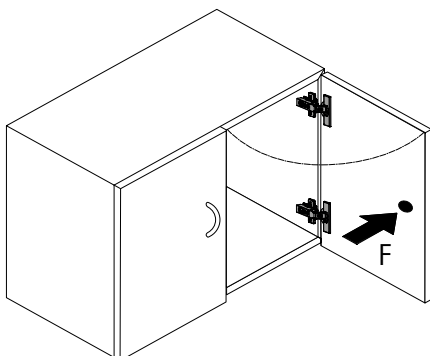
Closing test

The door is opened by 30° and pushed closed from this position by means of a pulley and falling weight.



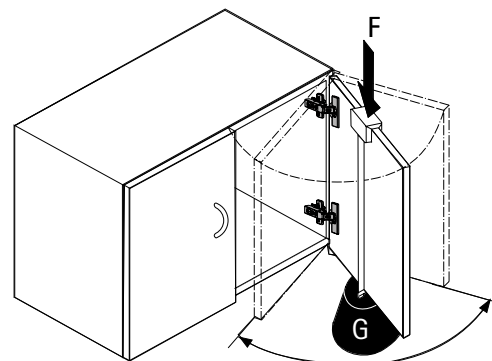
Horizontal test

The door is over opened with a defined test force F. (This test only applies to hinges with an opening angle < 135°.)



Vertical test

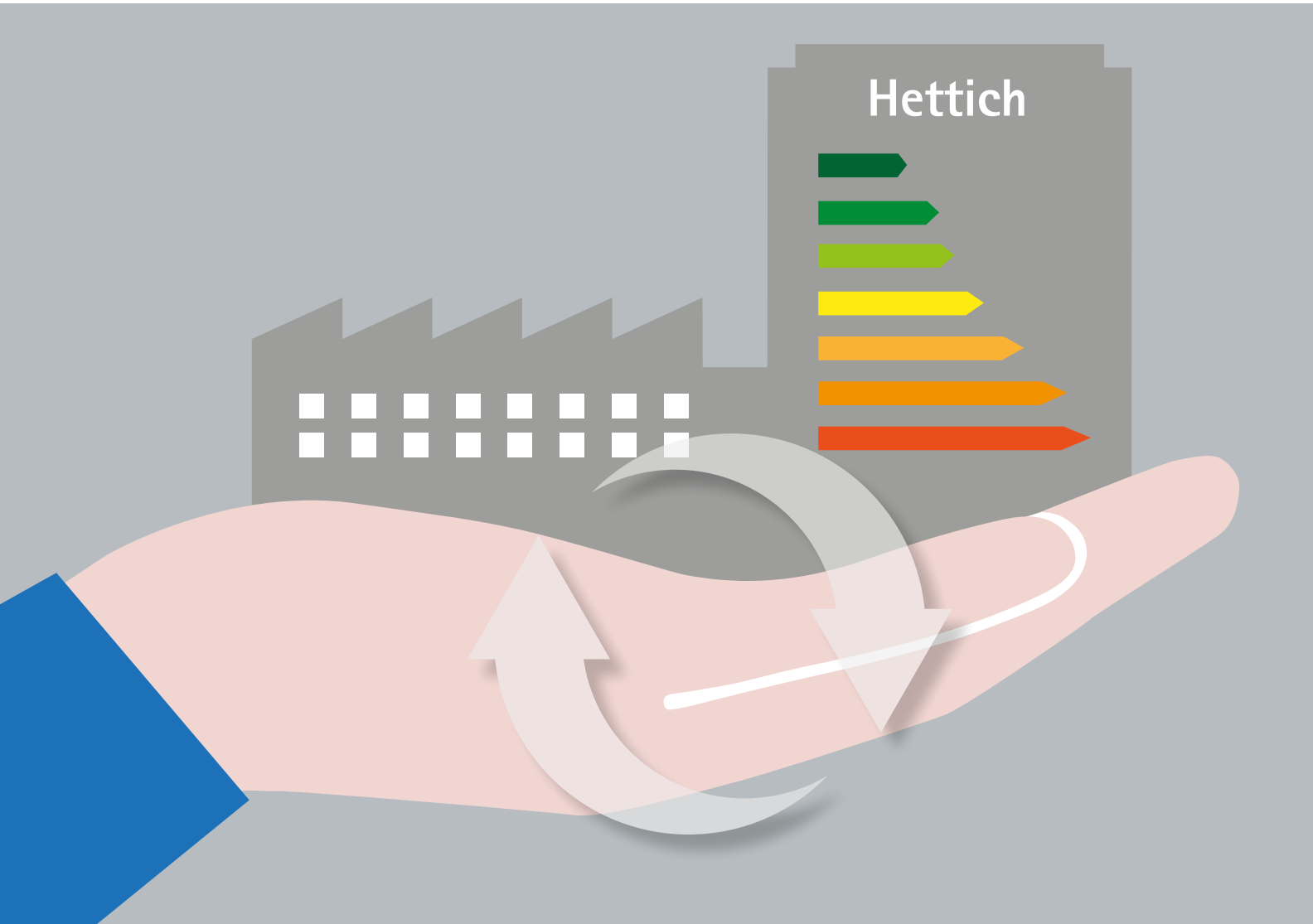
The door is subjected to a specific number of opening and closing cycles under a defined additional load G.



Order number index

Order no.	Page	Order no.	Page
9 072 540	34	9 091 793	20
9 072 541	34	9 091 794	20
9 072 542	34	9 091 795	20
9 076 440	34	9 091 811	32
9 081 657	35	9 091 812	32
9 089 566	35	9 091 813	32
9 090 756	34	9 091 814	32
9 090 864	35	9 091 817	32
9 091 738	12	9 091 818	32
9 091 739	12	9 091 819	32
9 091 740	12	9 091 821	33
9 091 741	13	9 091 822	33
9 091 742	13	9 099 870	33
9 091 743	13	9 099 871	33
9 091 744*	30	9 100 037	33
9 091 754	16	9 100 116	33
9 091 757	16	9 103 006	35
9 091 771	12	9 217 435	35
9 091 772	12	9 238 321	35
9 091 773	12		
9 091 774	13		
9 091 775	13		
9 091 776	13		
9 091 777*	24		
9 091 778	26		
9 091 779	26		
9 091 780	28		
9 091 785	16		
9 091 789	22		
9 091 790	22		

We are improving our environmental performance – as proven by EMAS, the world's most stringent environmental management system.



Our corporate principles include taking responsibility for preserving the natural basis of life. This is where we regard statutory provisions as minimum requirements. Over and above meeting statutory requirements, it is imperative for all members of staff to act in a way that conserves energy and resources in their own particular work environment in order to overcome the global ecological challenges of the near future. In the same way, using energy and resources efficiently also plays a key part in maintaining our competitive edge.

The group wide Environmental Department was established back in 1992, with its sustainability principles of environmental protection and occupational health and safety having consistently set the framework for leading the company group forward in this direction since 1993. Introduced in 1996, the environmental management systems complying with the European EMAS Regulation (Eco Management and Audit Scheme), including ISO 14.001, are of central impor-

tance in this context. These implemented a targeted approach to identifying and realising the potentials for using energy and resources in an efficient manner as well as to ensuring conformity with the law. The results are nothing short of impressive.

Environmentally friendly projects

Innovative projects are the mark of our approach to environmental management. For instance, the primary-energy requirement of our new production facilities is up to 75% below the specifications demanded in building legislation. The exemplary, consistent use of wood-based materials in constructing our commercial buildings puts us on the forefront of using resource-conserving, renewable building materials that take enormous quantities of climate-damaging CO₂ out of the atmosphere while they are growing.

Since 2015, we have been trying out three new vehicles, each employing different propulsion systems, to test the



practical suitability of electric mobility in a variety of usage situations. At our Indian production plant, heavy metals are absorbed from concentrated waste water using an innovative method that involves living algae. At our factory in China, a solar-powered system provides staff accommodation and the canteen with hot water.

Success stories

Between 1997 and 2015, for example, we have managed to reduce environmental pollution from manufacturing our drawer runners and drawer systems at the Kirchlengern-Bünde production facility as follows:

- ▶ Specific water consumption 45%
- ▶ Specific power consumption 10%
- ▶ Specific heat consumption 73%
- ▶ Specific CO₂ emission 30%

Numerous awards reflect our commitment to the environment. In 2009, the European Commission gave our zero-energy Hettich Forum building the Green Building Award at national level. In 2016, we won the sustainability prize from the East Westphalian Business Environment Foundation for an environment education project carried out over 20 years.

Technik für Möbel



www.hettich.com

Order No.: 9 260 487
1806-039_Sensys_obsidianschwarz_07/18_HNZ/en

Hettich New Zealand
18 Barmac Place
East Tamaki, Auckland

Free Phone: 0800 438 842
Free Fax: 0800 737 847
sales_nz@hettich.co.nz
hettich.com
shop.hettich.com

Technik für Möbel


Hettich