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# Fittings for windows

## Added value at a glance

Bolted, latched or lockable, whatever the variant our window handles will give you years of enjoyment. Awarded the RAL quality seal, they can withstand over 100,000 operational cycles under practical conditions without sustaining notable wear. This means that our window handles will continue to serve their purpose well for more than 25 years, even if the window is opened/closed ten times every day.

Certified under EN 13126-3

25,000 tested operational cycles

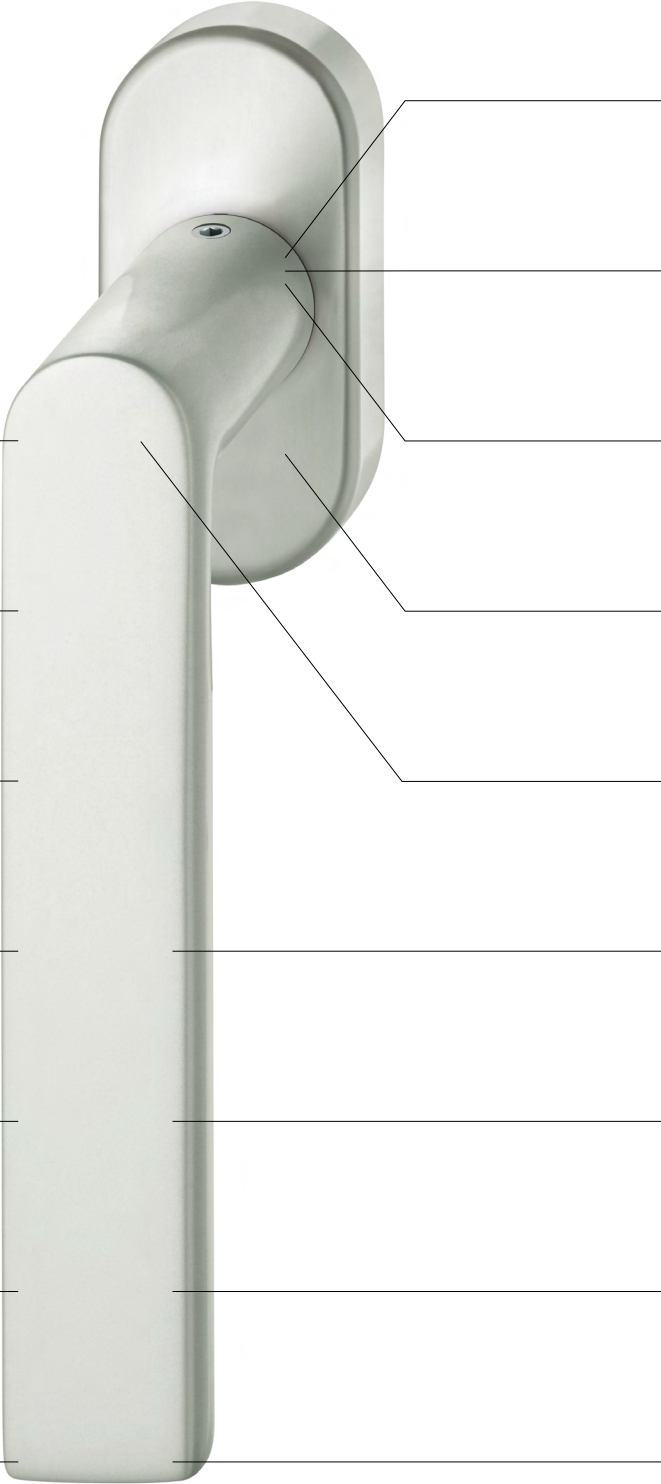
150,000 click-stop events, 180° turn/tilt cycles: RAL quality seal criteria, which only requires 10,000 turn/tilt cycles at 180°, exceeded by 15 times

Highest durability rating 5/180

Certified under RAL-GZ 607/9

Consistent, sustainable, high-quality and functional

Selected handle designs also available as lifting/sliding door handles



|  |   |
|--|---|
|  | Click-stop mechanism ensures tangible and audible positioning in 90° increments: open, close, tilt  |
|  | Increased stability and durability through stainless steel reinforcement combined with GFR plastic in the rose  |
|  | Over 100,000 operational cycles without notable wear: handle will continue to serve its purpose well over more than 25 years, even if the window is opened/closed ten times every day |
|  | Round/angular, surface-mounted/flush-fitted and narrow roses as well as plug-in handle variants available   |
|  | Square spindle with variable projection makes project planning easier   |
|  | Secure hold with < 0.15 mm free play, so sets have no room to wobble  |
|  | Optimal installation process: screw the base together, push on the rose and window handle, tighten – job done!  |
|  | Numerous window handles can be retrofit with securing device  |
|  | Custom concept solutions available upon request, such as cranking for top-hinged sash windows   |



# Fittings for windows

## Product variants

### Product features of window handles

- Equipped with click-stop mechanism
- Highest durability rating 5/180 under EN 13126-3
- Concealed fixing
- Cover rose clips onto rose base
- Distance between fixing points 43 mm
- Square spindle 7 mm
- RAL-certified
- 25,000 tested turn/tilt cycles
- At least 120 h corrosion resistance verified by salt spray test
- Length of spindle accommodated within the adaptor at least 25 mm

#### Standard window handle



34 .... 09039 (oval rose)  
34 .... 09040 (angular rose)

- Surface-mounted rose
- Rose dimensions: 32.5 × 70 × 10 mm (w × h × d)
- Lug Ø 10 mm
- Variable spindle projection of 24–38 mm (supplied as standard)

#### Window handles for narrow profiles



34 .... 09030 (oval rose)  
34 .... 09032 (angular rose)

- Surface-mounted rose
- Rose dimensions: 27 × 62 × 10 mm (w × h × d)
- Lug Ø 10 mm
- Variable spindle projection of 24–38 mm (supplied as standard)

#### Flush-fitted window handles



34 .... 09034 (oval rose)  
34 .... 09036 (angular rose)

- Recessed flush-fitted rose
- Rose dimensions: 25.5 × 60.5 × 10.2 mm (w × h × d)
- Variable spindle projection of 14–28 mm
- For custom spindle projection, please specify when ordering
- The following models are not available as flush-fitted variants: FSB 1021, 1045, 1058, 1135, 1163, 1176, 1226

## Product features of lockable window handles

- Equipped with click-stop mechanism
- Highest durability rating 5/180 under EN 13126-3
- Numerous window handles can be combined with lock adaptors
- Surface-mounted rose with concealed fixing
- Cover rose clips onto rose base
- Distance between fixing points 43 mm
- Rose dimensions: 32.5 × 84.5 × 21 mm (w × h × d)
- Square spindle 7 mm
- Certified under quality standard RAL-GZ 607/9
- Awarded quality seal
- Over 25,000 tested turn/tilt cycles
- At least 120 h corrosion resistance verified by salt spray test
- 200 Nm resistance against twisting-off and forcing-off, which is twice the minimum requirement of the standard
- Lockable window handles with key can be used without restriction on burglary-resistant elements of resistance class RC 1 – RC 6. For lockable window handles with push-button, use on burglary-resistant elements is only possible in conjunction with P6B glazing.

### Lockable window handles with key



34 .... 170 (oval rose)  
34 .... 180 (angular rose)

- Locking mechanism with at least 100 possible locking variations
- Spindle projection 34 mm (supplied as standard)

### Lockable window handles with push-button



34 .... 076 (oval rose)  
34 .... 086 (angular rose)

- Two-handed operation required
- Window handles with push-button are always locked; the window is opened by pushing the button and turning the handle.
- Makes outside tampering more difficult
- Forgetting to lock the window handle is now a thing of the past
- Spindle projection 34 mm (supplied as standard)

### Window handles with automatic locking and 'tilt-to-turn' function

All lockable FSB window handles can be equipped with automatic locking. To remove the key, it must be parallel to the window profile in the 'locked' position. This serves as a visual aid to the user as well, allowing them to determine at a glance whether the window is locked. In the case of window handles without automatic locking, the key can be pulled out irrespective of the position.

The 'tilt-to-turn' function prevents unauthorised users from opening the window fully without sacrificing adequate ventilation. The window can be tilted open when closed. For this function both the window handle and the window drive must support and be fitted for this function. Moreover, please note that these window handles do not conform to the RAL quality standard or to EN 1627 – 1630.

6b

# Plug-in handles

## Product variants

For the complete product code, simply replace the full stops (....) with the desired model number

### Product features of plug-in handles

- Equipped with click-stop mechanism
- Highest durability rating 5/180 under EN 13126-3
- Suitable for burglary-resistant elements pursuant to EN 1267 – 1630
- Surface-mounted rose
- Rose format Ø 30 mm
- Concealed fixing
- Cover rose clips onto rose base
- Installation does not depend on window drive
- Square spindle 7 mm

### Plug-in handles for timber, metal and PVC windows



34 .... 711 (for metal profiles)  
34 .... 711 (for timber profiles)  
34 .... 751 (for PVC profiles)

Additional fixing accessories are needed for timber windows:  
03 0401 00003 0400

- Variable spindle projection 24 – 38 mm
- Rose secured to the profile via clamping mechanism

Metal and timber windows:

- Over 25,000 tested turn/tilt cycles
- At least 120 h corrosion resistance verified by salt spray test
- Locking mechanism with at least 100 possible locking variations

PVC windows:

- Variable spindle projection 16 – 53 mm
- Secure fixing; rose for plug-in handle is fixed securely to the profile

### Lockable plug-in handles for timber and metal windows



34 .... 714 (with key)

Additional fixing accessories are needed for timber windows:  
03 0401 00003 0400


- Variable spindle projection 24 – 38 mm
- Suitable for burglary-resistant elements pursuant to EN 1267 – 1630
- Certified for 100 Nm resistance against twisting-off and forcing-off




# Fittings for windows

## Overview


Window handles  
in the FSB product  
collections

34 1001   
Page 81




34 1003   
Page 86



34 1004   
Page 91



34 1005   
Page 97




34 1015   
Page 103



34 1021   
Page 115



34 1023   
Page 119



34 1035   
Page 125



34 1058   
Page 141




34 1070   
Page 145



34 1075   
Page 151



34 1076   
Page 155



34 1078 ■ ■  
 Page 161



34 1093 ■ ■  
 Page 167



34 1102 ■ ■ ■  
 Page 173



34 1106 ■ ■ ■  
 Page 179



34 1107 ■ ■  
 Page 185



34 1108 ■ ■  
 Page 191



34 1135 ■  
 34 1106 ■ ■ ■  
 Page 203



34 1144 ■ ■  
 Page 207



34 1146 ■ ■  
 Page 213



34 1147 ■ ■  
 Page 219



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34 1159 ■ ■  
 Page 225



34 1160 ■ ■  
 Page 231



34 1163 ■ ■ ■  
 34 3453 ■ ■  
 Page 237



34 1176 ■ ■  
 Page 243



34 1183 ■ ■  
 Page 247




# Fittings for windows

## Overview


Window handles  
in the FSB product  
collections

34 1226   
Page 253






34 1232   
Page 257



34 1241   
Page 263




34 1242     
Page 267





34 1244    
Page 273





34 1246   
Page 279





34 1251    
Page 285




34 1254   
343454   
Page 289




34 1267     
Page 295









34 1271    
Page 301









34 1285   
Page 307



Roses




34 0000 09030     
34 0000 09039     
Page 381






34 0000 09032     
34 0000 09040     
Page 381






Lockable roses

34 0000 170     
Page 382






34 0000 180     
Page 382



34 0000 076     
Page 382






34 0000 086     
Page 382



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Roses for plug-in  
handles

34 0000 71101     
34 0000 75101  
Page 383



03 0401 00003  
Page 383







# Fittings for windows

## Overview



### Tee handles for windows

34 3401   
Page 422




34 3402   
Page 422




34 3403    
Page 424





34 3499   
Page 424




34 3404   
Page 422




34 3453    
Page 424




34 3454   
Page 425





34 3455   
Page 425



34 3480   
Page 423




34 3784    
Page 425



### Lockable window handles




Illustrative example  
featuring model 1076

34 .... 170     
Page 428



34 .... 180     
Page 429



34 .... 076     
Page 430



34 ....086     
Page 431



# Lockable window handles

34 3460 ■ ■ ■  
 34 3471 ■ ■  
 Page 432



34 3481 ■  
 Page 433



34 3488 ■  
 Page 433



34 3491 ■ ■  
 Page 435 ff.



34 3495 ■  
 Page 435 ff.



34 3496 ■  
 Page 434



# Window handles

for specific  
 requirements

34 3499 ■  
 Page 426



34 3499 ■  
 Page 427



# Budget lock roses, securing devices

17 1759 ■ ■  
 Page 438



17 1786 ■ ■  
 Page 438



34 3407 ■ ■  
 Page 437



34 3416 ■  
 Page 437



# Fittings for windows

## Overview

Lifting/sliding door  
handles

34 1004   
Page 442



34 1016   
Pages 439, 443



34 1076   
Pages 439, 444



34 1102   
Page 446



34 1146   
Pages 440, 447



34 1163   
Page 445



34 1242   
Page 448



**Parallel slide /  
tilt fittings**

34 1016 ■ ■ ■  
Page 439



34 1076 ■  
Page 439



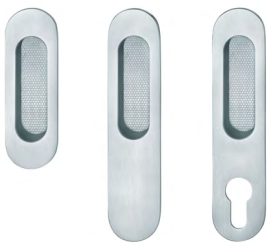
34 1146 ■ ■  
Page 440



6b

**Recessed handles**  
for opposite face

42 4215 ■ ■ ■  
Pages 441, 449



42 4217 ■ ■  
Page 450

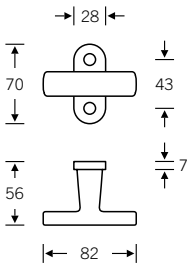


# Fittings for windows

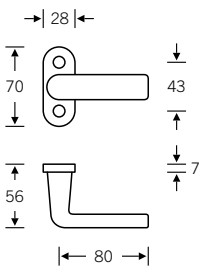
## Tee handles for windows

- Aluminium
- Stainless steel
- Bronze

34 3401 ■

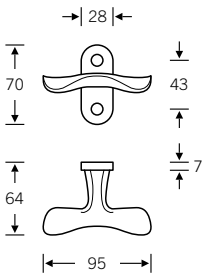


34 3402 ■



34 3404 ■

Design: Johannes Potente



The window handles shown here are not suitable for heavy-duty applications.

Screws are not included in the scope of delivery.

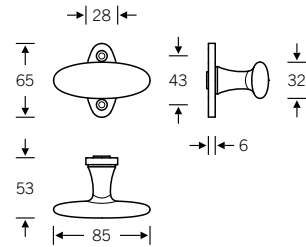
# Fittings for windows

## Tee handles for windows

■ Aluminium  
■ Stainless steel  
■ Bronze

34 3480 ■

Not suitable for heavy-duty applications



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Screws are not included in the scope of delivery.

# Fittings for windows

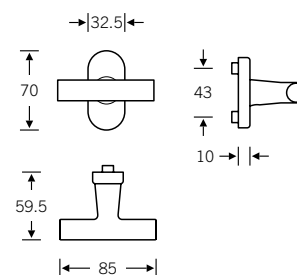
## Tee handles for windows

■ Aluminium  
■ Stainless steel  
■ Bronze

34 3403 ■ ■



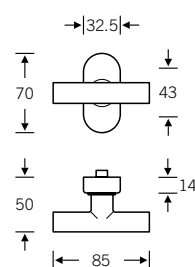
34 3403 09039  
 34 3403 170 (lockable)  
 34 3403 076 (push-button)



34 3499 ■



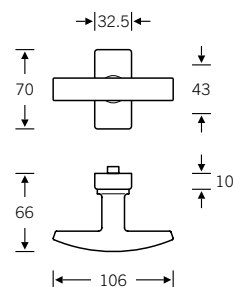
34 3499 00012 (shorter handle neck)



34 3453 ■ ■  
 Design: Hans Kollhoff



34 3453 09040



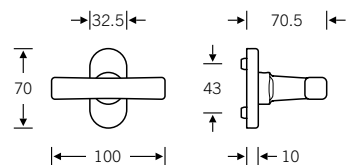
# Fittings for windows

## Tee handles for windows

■ Aluminium  
■ Stainless steel  
■ Bronze

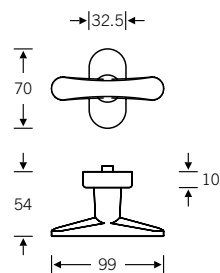
34 3454 ■

34 3454 09039



34 3455 ■

34 3455 09039



6b

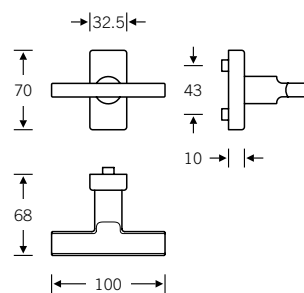
34 3784 ■ ■

Design: Heike Falkenberg

34 3784 09040

34 3784 180 (lockable)

34 3784 086 (push-button)





# Fittings for windows

## Window handles for specific requirements

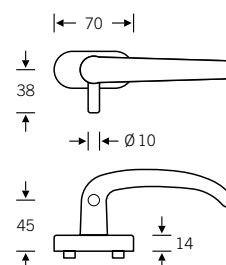
■ Aluminium  
■ Stainless steel  
■ Bronze

34 3499 ■

34 3499 00039 (R) | 34 3499 00040 (L)

Matching model 1023

Model pictured: right

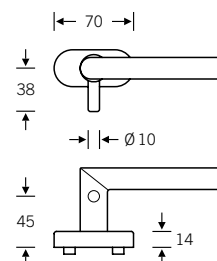


34 3499 ■

34 3499 00036 (R) | 34 3499 00037 (L)

Matching model 1076

Model pictured: right



Window handles without variable spindle projection; please specify the desired projection when ordering

Not suitable for centre-hung sashes by Hautau

# Fittings for windows

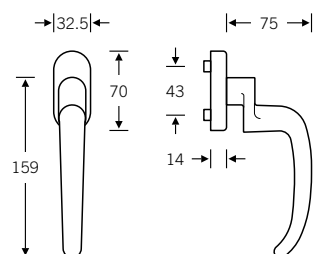
## Window handles for specific requirements

■ Aluminium  
■ Stainless steel  
■ Bronze

34 3499 ■

34 3499 00033

Matching model 1023

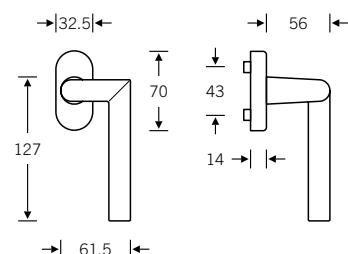


34 3499 ■

34 3499 00018 (R) | 34 3499 00019 (L)

Matching model 1076

Model pictured: right



6b



Window handles without variable spindle projection; please specify the desired projection when ordering

# Fittings for windows

## Lockable window handles with lock cylinder

■ Aluminium  
■ Stainless steel  
■ Bronze

34 .... ■ ■ ■



34 .... 170 (oval with lock cylinder)

Can be combined with almost all FSB handle models; see page 414 ff.

Lock cylinder can be fitted pointing up or down; see picture

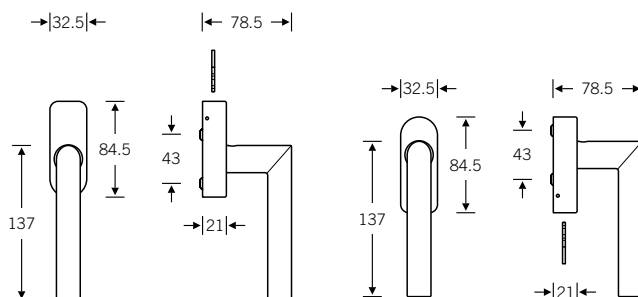
Rated as burglary-resistant pursuant to EN 1627 ff.

Option with automatic locking, where the lock cylinder has to be locked in order to remove the key

Keys to differ or keys alike

'Tilt-to-turn' function possible (not rated as burglary-resistant pursuant to EN 1627 ff. and without RAL quality seal)

Illustrative example featuring FSB 1076



Click-stop  
mechanism +  
security

Spindle projection 34 mm; for different spindle projections please specify when ordering

# Fittings for windows

## Lockable window handles with lock cylinder

■ Aluminium  
■ Stainless steel  
■ Bronze

34 .... ■ ■ ■



34 .... 180 (angular with lock cylinder)

Can be combined with almost all FSB handle models; see page 414 ff.

Lock cylinder can be fitted pointing up or down; see picture

Rated as burglary-resistant pursuant to EN 1627 ff.

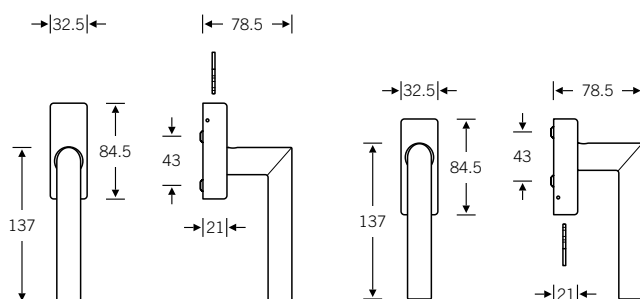
Option with automatic locking, where the lock cylinder has to be locked in order to remove the key

Keys to differ or keys alike

'Tilt-to-turn' function possible (not rated as burglary-resistant pursuant to EN 1627 ff. and without RAL quality seal)

Illustrative example featuring FSB 1076

6b



Click-stop  
mechanism +  
security

Spindle projection 34 mm; for different spindle projections please specify when ordering

# Fittings for windows

## Lockable window handles with push-button

■ Aluminium  
■ Stainless steel  
■ Bronze

34 .... ■ ■ ■



34 .... 076 (oval with push-button)

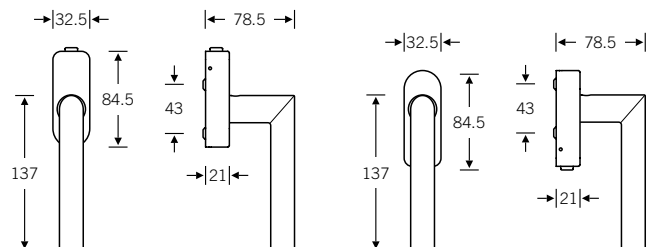
Can be combined with almost all FSB handle models; see page 414 ff.

Push-button can be fitted pointing up or down; see picture

Push-button requires two-handed operation and makes access from outside more difficult

Rated as burglary-resistant pursuant to EN 1627 ff.

Illustrative example featuring FSB 1076



Click-stop  
mechanism +  
security

Spindle projection 34 mm; for different spindle projections please specify when ordering

# Fittings for windows

## Lockable window handles with push-button

■ Aluminium  
■ Stainless steel  
■ Bronze

34 .... ■ ■ ■



34 .... 086 (angular with push-button)

Can be combined with almost all FSB handle models; see page 414 ff.

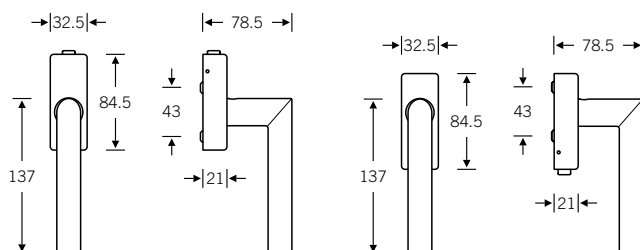
Push-button can be fitted pointing up or down; see picture

Push-button requires two-handed operation and makes access from outside more difficult

Rated as burglary-resistant pursuant to EN 1627 ff.

Illustrative example featuring FSB 1076

6b



Click-stop  
mechanism +  
security

Spindle projection 34 mm; for different spindle projections please specify when ordering

# Fittings for windows

## Lockable window-handle roses

■ Aluminium  
■ Stainless steel  
■ Bronze

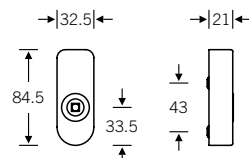
34 3460 ■ ■ ■



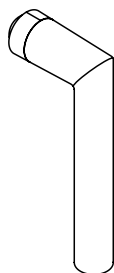
34 3460 170  
Automatic locking device with ball catch

Matching operating handle 34 1076 09001 in stainless steel must be ordered separately

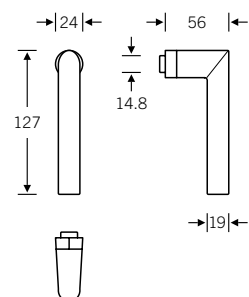
Adaptor can be fitted pointing up or down



34 1076 ■



34 1076 09001  
Operating handle

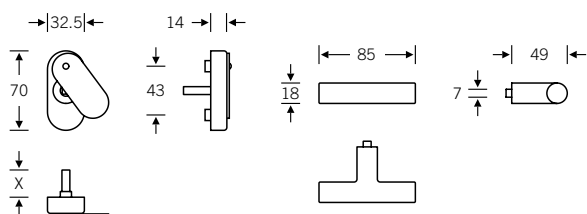


34 3471 ■ ■



Automatic locking device with ball catch

Matching operating handle 34 3403 09000 in aluminium must be ordered separately



34 3471

34 3403

# Fittings for windows

## Lockable window handles

■ Aluminium  
■ Stainless steel  
■ Bronze

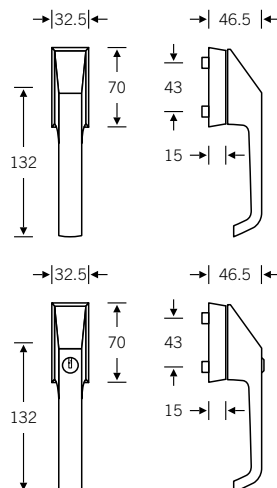
34 3488 ■



34 3488 000 (not lockable)

34 3488 021 (lockable)

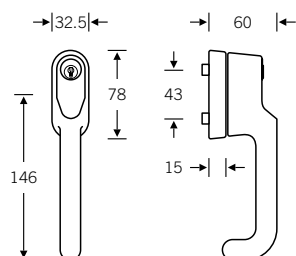
Rated as burglary-resistant pursuant to EN 1627 ff.; options of keys to differ, keys alike and 'tilt-to-turn'\*; only available without automatic locking



34 3481 ■



Rated as burglary-resistant pursuant to EN 1627 ff.; options of keys to differ, keys alike and 'tilt-to-turn'\*; only available without automatic locking



Click-stop  
mechanism +  
security

Spindle projection 34 mm; for different spindle projections please specify when ordering

\* Not rated as burglary-resistant pursuant to EN 1627 ff. and without RAL quality seal; specify DIN handing when ordering



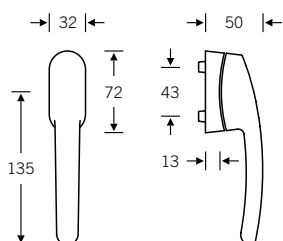
# Fittings for windows

## Lockable window handles

■ Aluminium  
■ Stainless steel  
■ Bronze

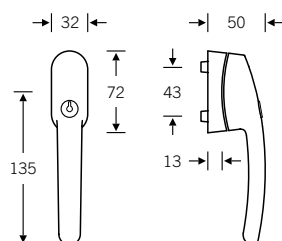
34 3496 ■

34 3496 000



34 3496 ■

34 3496 021



Rated as burglary-resistant pursuant to EN 1627 ff.; options of keys to differ, keys alike and 'tilt-to-turn'\*; only available without automatic locking

Spindle projection 34 mm; for different spindle projections please specify when ordering

\* Not rated as burglary-resistant pursuant to EN 1627 ff. and without RAL quality seal; specify DIN handing when ordering

# Fittings for windows

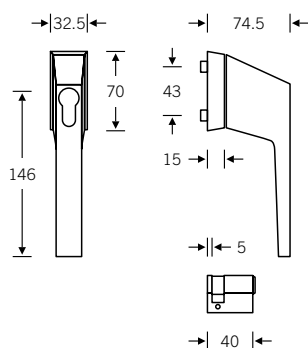
## Lockable window handles

■ Aluminium  
■ Stainless steel  
■ Bronze

34 3495 ■

34 3495 00059

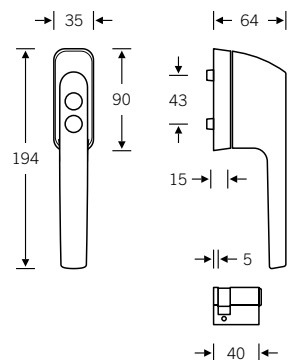
Rated as burglary-resistant pursuant to EN 1627 ff.; fitted for single-profile cylinder; option of 'tilt-to-turn'\*; max. cylinder length 40 mm; only compatible with cylinders with adjustable throwers; option fitted for single-profile cylinder Winkhaus BC0217Z49



34 3491 ■ ■

34 3491 00059

Rated as burglary-resistant pursuant to EN 1627 ff.; fitted for single-profile cylinder; option of 'tilt-to-turn'\*; option fitted for single-profile cylinder 34 3491 00008, Winkhaus BC02X3: 25 2500 08207 4504; max. cylinder length 40 mm; only compatible with cylinders with adjustable throwers



6b



Click-stop  
mechanism +  
security

Spindle projection 34 mm; for different spindle projections please specify when ordering

\* Not rated as burglary-resistant pursuant to EN 1627 ff. and without RAL quality seal; specify DIN handing when ordering

# Fittings for windows

## Lockable window handles

■ Aluminium  
■ Stainless steel  
■ Bronze

34 3495 ■

34 3495 01009

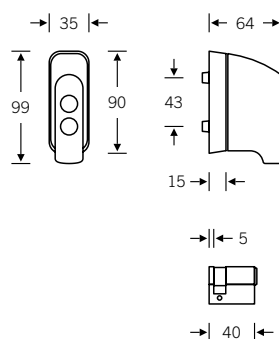
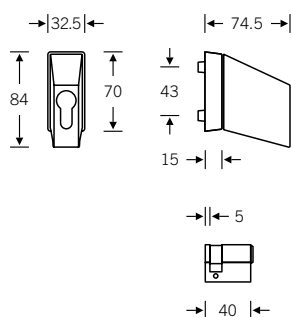
Rated as burglary-resistant pursuant to EN 1627 ff.; fitted for single-profile cylinder; option of 'tilt-to-turn'\*; max. cylinder length 40 mm; only compatible with cylinders with adjustable throwers



34 3491 ■ ■

34 3491 01009

Rated as burglary-resistant pursuant to EN 1627 ff.; fitted for single-profile cylinder; option of 'tilt-to-turn'\* (design differs slightly); max. cylinder length 40 mm; only compatible with cylinders with adjustable throwers



Click-stop mechanism + security

Spindle projection 30 mm; for different spindle projections please specify when ordering

\* Not rated as burglary-resistant pursuant to EN 1627 ff. and without RAL quality seal; specify DIN handing when ordering

# Fittings for windows

## Window securing devices

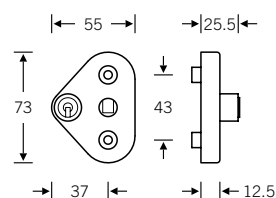
■ Aluminium  
■ Stainless steel  
■ Bronze

34 3407 ■ ■



34 3407 02185  
 Securing device for FSB window handles  
 with oval rose 70 × 32.5 mm  
 (34 .... 09039)

Not rated as burglary-resistant pursuant to  
 EN 1627 ff.

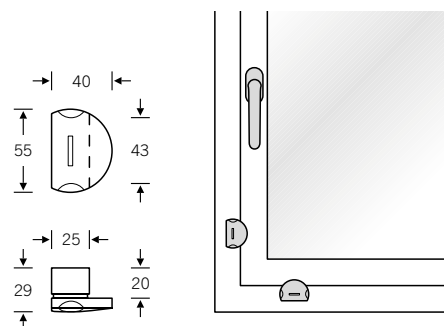


34 3416 ■



Anti-leverage device

6b



# Fittings for windows

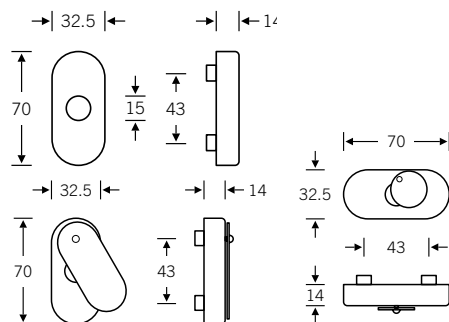
## Budget lock roses

■ Aluminium  
■ Stainless steel  
■ Bronze

17 1759 ■ ■



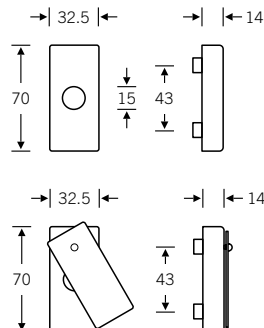
17 1759 025 (no flap)  
 17 1759 026 (with oval flap  
 for vertical use)  
 17 1759 027 (with round flap  
 for horizontal use)  
 Matching operating handle  
 34 3402 09000 in aluminium must be  
 ordered separately



17 1786 ■ ■



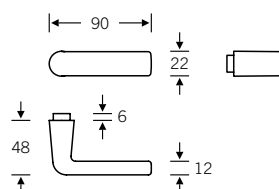
17 1786 025 (no flap)  
 17 1786 026 (with angular flap  
 for vertical use)  
 Matching operating handle  
 34 3402 09000 in aluminium must be  
 ordered separately



34 3402 ■



34 3402 09000  
 Operating handle



# Fittings for windows

## Parallel slide/tilt fittings (PST)

■ Aluminium  
■ Stainless steel  
■ Bronze

34 1016 ■

34 1076 ■



Parallel slide/tilt fittings with 90° click-stop mechanism, turnably fixed, concealed fixing, square spindle 7 and 8 mm

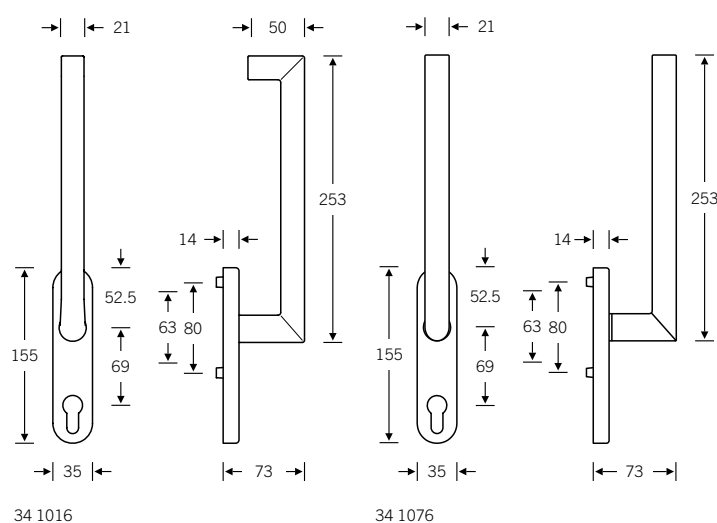
.... 01202

No keyway, with M6 × 80 mm screws, for back-to-back fixing with FSB 42 4215

... 01203

Profile cylinder (PC) keyway, with M6 × 80 mm screws, for back-to-back fixing with FSB 42 4215

6b



For matching FSB 42 4215 recessed handles, see page 441

# Fittings for windows

## Parallel slide/tilt fittings (PST)

■ Aluminium  
■ Stainless steel  
■ Bronze

34 1146 ■ ■



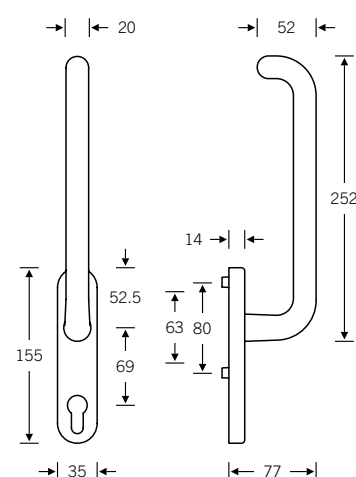
Parallel slide/tilt fittings with 90° click-stop mechanism, turnably fixed, concealed fixing, square spindle 7 and 8 mm

.... 01202

No keyway, with M6 × 80 mm screws, for back-to-back fixing with FSB 42 4215

... 01203

Profile cylinder (PC) keyway, with M6 × 80 mm screws, for back-to-back fixing with FSB 42 4215



For matching FSB 42 4215 recessed handles, see page 441

# Fittings for windows

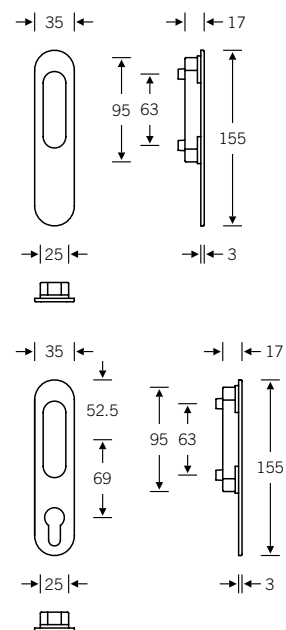
## Recessed handles for PST opposite face

■ Aluminium  
■ Stainless steel  
■ Bronze

42 4215 ■

42 4215 00100 (no keyway)  
42 4215 00102 (PC keyway)

M6 threaded screws

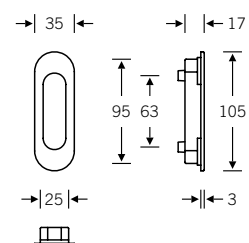


6b

42 4215 ■

42 4215 01100

M6 threaded screws





# Fittings for windows

## Lifting/sliding door fittings

■ Aluminium  
■ Stainless steel  
■ Bronze

34 1004 ■ ■



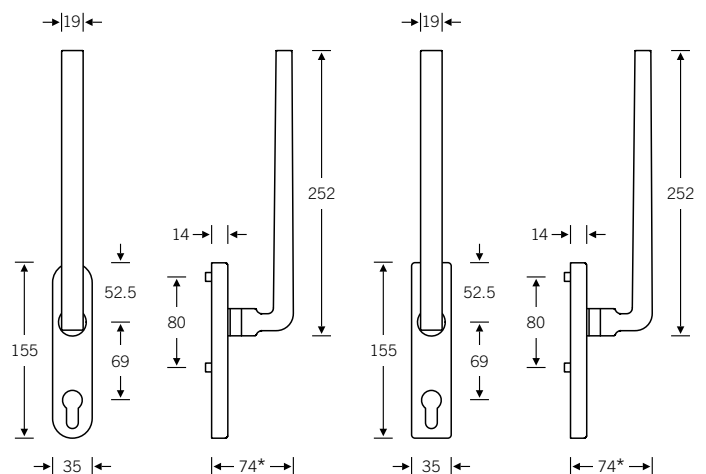
Lifting/sliding door handles with 180° click-stop mechanism, turnably fixed, concealed fixing, square spindle 10 mm

... 01100 (oval)  
 ... 02100 (angular)  
 – No keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01102 (oval) or variant 02102 (angular)

... 01101 (oval)  
 ... 02101 (angular)  
 – PC keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01103 (oval) or variant 02103 (angular)

... 01102 (oval)  
 ... 02102 (angular)  
 – No keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval) or variant 01100, or 42 4217 (angular) or variant 02100

... 01103 (oval)  
 ... 02103 (angular)  
 – PC keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval) or variant 01101, or 42 4217 (angular) or variant 02101



\* Aluminium and bronze 74 mm, stainless steel 71 mm

For matching FSB 42 4215 and 42 4217 recessed handles, see page 449 f.

# Fittings for windows

## Lifting/sliding door fittings

■ Aluminium  
■ Stainless steel  
■ Bronze

34 1016 ■ ■



Lifting/sliding door handles with 180° click-stop mechanism, turnably fixed, concealed fixing, square spindle 10 mm

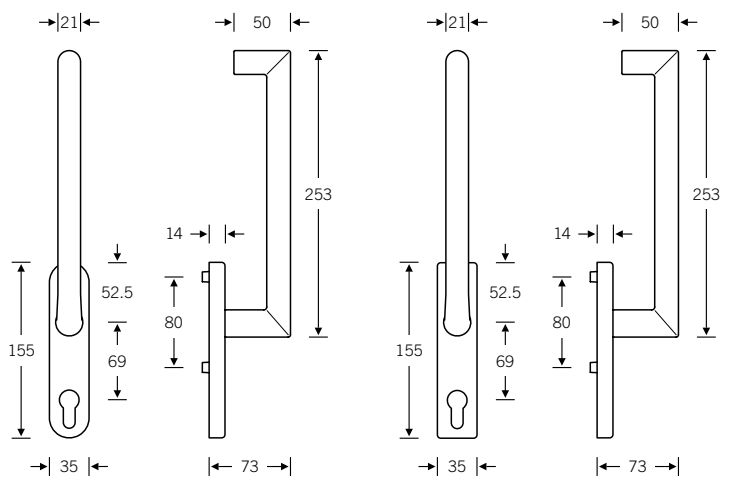
... 01100 (oval)  
 ... 02100 (angular)  
 – No keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01102 (oval) or variant 02102 (angular)

... 01101 (oval)  
 ... 02101 (angular)  
 – PC keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01103 (oval) or variant 02103 (angular)

... 01102 (oval)  
 ... 02102 (angular)  
 – No keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval) or variant 01100, or 42 4217 (angular) or variant 02100

... 01103 (oval)  
 ... 02103 (angular)  
 – PC keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval) or variant 01101, or 42 4217 (angular) or variant 02101

6b



For matching FSB 42 4215 and 42 4217 recessed handles, see page 449 f.

# Fittings for windows

## Lifting/sliding door fittings

■ Aluminium  
■ Stainless steel  
■ Bronze

34 1076 ■



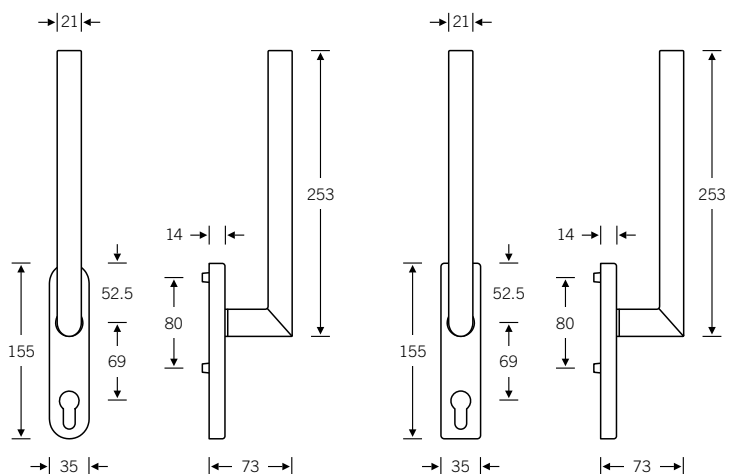
Lifting/sliding door handles with 180° click-stop mechanism, turnably fixed, concealed fixing, square spindle 10 mm

... 01100 (oval)  
 ... 02100 (angular)  
 – No keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01102 (oval) or variant 02102 (angular)

... 01101 (oval)  
 ... 02101 (angular)  
 – PC keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01103 (oval) or variant 02103 (angular)

... 01102 (oval)  
 ... 02102 (angular)  
 – No keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval) or variant 01100, or 42 4217 (angular) or variant 02100

... 01103 (oval)  
 ... 02103 (angular)  
 – PC keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval) or variant 01101, or 42 4217 (angular) or variant 02101



For matching FSB 42 4215 and 42 4217 recessed handles, see page 449 f.

# Fittings for windows

## Lifting/sliding door fittings

■ Aluminium  
■ Stainless steel  
■ Bronze

34 1163 ■



Lifting/sliding door handles with 180° click-stop mechanism, turnably fixed, concealed fixing, square spindle 10 mm

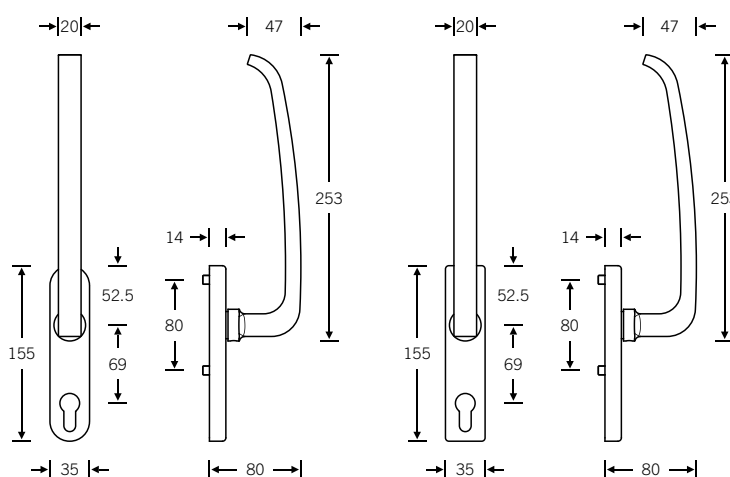
... 01100 (oval)  
... 02100 (angular)  
– No keyway  
– M6 threaded lugs  
– For back-to-back fixing with variant 01102 (oval) or variant 02102 (angular)

... 01101 (oval)  
... 02101 (angular)  
– PC keyway  
– M6 threaded lugs  
– For back-to-back fixing with variant 01103 (oval) or variant 02103 (angular)

... 01102 (oval)  
... 02102 (angular)  
– No keyway  
– M6 × 80 mm screws  
– For back-to-back fixing with 42 4215 (oval) or variant 01100, or 42 4217 (angular) or variant 02100

... 01103 (oval)  
... 02103 (angular)  
– PC keyway  
– M6 × 80 mm screws  
– For back-to-back fixing with 42 4215 (oval) or variant 01101, or 42 4217 (angular) or variant 02101

6b



For matching FSB 42 4215 and 42 4217 recessed handles, see page 449 f.

# Fittings for windows

## Lifting/sliding door fittings

■ Aluminium  
■ Stainless steel  
■ Bronze

34 1102 ■



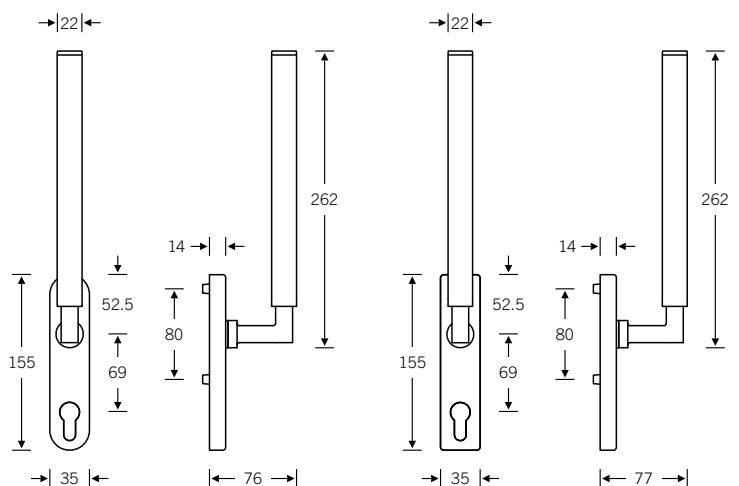
Lifting/sliding door handles with 180° click-stop mechanism, turnably fixed, concealed fixing, square spindle 10 mm

... 01100 (oval)  
 ... 02100 (angular)  
 – No keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01102 (oval) or variant 02102 (angular)

... 01101 (oval)  
 ... 02101 (angular)  
 – PC keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01103 (oval) or variant 02103 (angular)

... 01102 (oval)  
 ... 02102 (angular)  
 – No keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval) or variant 01100, or 42 4217 (angular) or variant 02100

... 01103 (oval)  
 ... 02103 (angular)  
 – PC keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval) or variant 01101, or 42 4217 (angular) or variant 02101



For matching FSB 42 4215 and 42 4217 recessed handles, see page 449 f.

# Fittings for windows

## Lifting/sliding door fittings

■ Aluminium  
■ Stainless steel  
■ Bronze

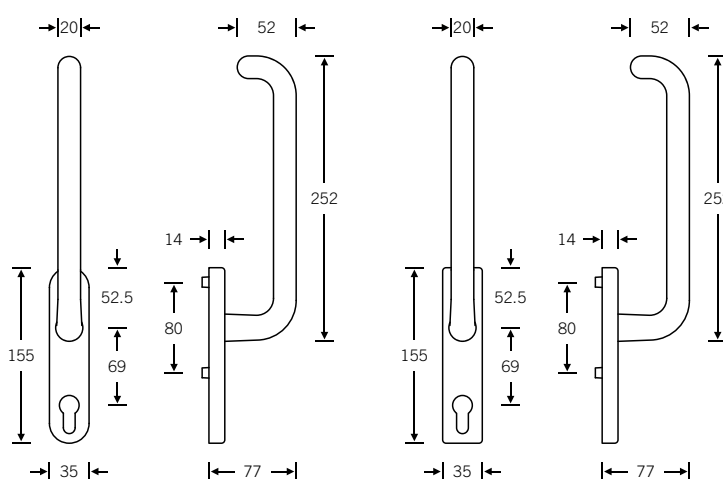
34 1146 ■ ■



Lifting/sliding door handles with 180° click-stop mechanism, turnably fixed, concealed fixing, square spindle 10 mm

- ... 01100 (oval)
- ... 02100 (angular)
  - No keyway
  - M6 threaded lugs
  - For back-to-back fixing with variant 01102 (oval) or variant 02102 (angular)
- ... 01101 (oval)
- ... 02101 (angular)
  - PC keyway
  - M6 threaded lugs
  - For back-to-back fixing with variant 01103 (oval) or variant 02103 (angular)
- ... 01102 (oval)
- ... 02102 (angular)
  - No keyway
  - M6 × 80 mm screws
  - For back-to-back fixing with 42 4215 (oval) or variant 01100, or 42 4217 (angular) or variant 02100
- ... 01103 (oval)
- ... 02103 (angular)
  - PC keyway
  - M6 × 80 mm screws
  - For back-to-back fixing with 42 4215 (oval) or variant 01101, or 42 4217 (angular) or variant 02101

6b



For matching FSB 42 4215 and 42 4217 recessed handles, see page 449 f.



# Fittings for windows

## Lifting/sliding door fittings

■ Aluminium  
■ Stainless steel  
■ Bronze

34 1242 ■

Design: John Pawson



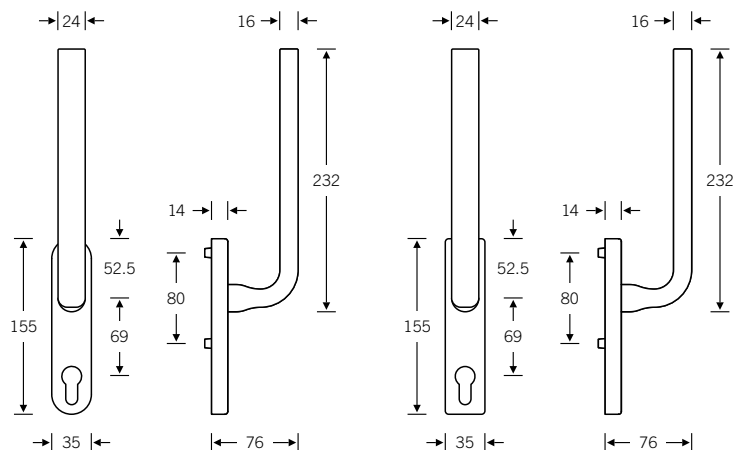
Lifting/sliding door handles with 180° click-stop mechanism, turnably fixed, concealed fixing, square spindle 10 mm

... 01100 (oval)  
 ... 02100 (angular)  
 – No keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01102 (oval) or variant 02102 (angular)

... 01101 (oval)  
 ... 02101 (angular)  
 – PC keyway  
 – M6 threaded lugs  
 – For back-to-back fixing with variant 01103 (oval) or variant 02103 (angular)

... 01102 (oval)  
 ... 02102 (angular)  
 – No keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval), variant 01100 or variant 02100

... 01103 (oval)  
 ... 02103 (angular)  
 – PC keyway  
 – M6 × 80 mm screws  
 – For back-to-back fixing with 42 4215 (oval), variant 01101 or variant 02101



For matching FSB 42 4215 and 42 4217 recessed handles, see page 449 f.

# Fittings for windows

## Recessed handles for lifting/sliding door fittings

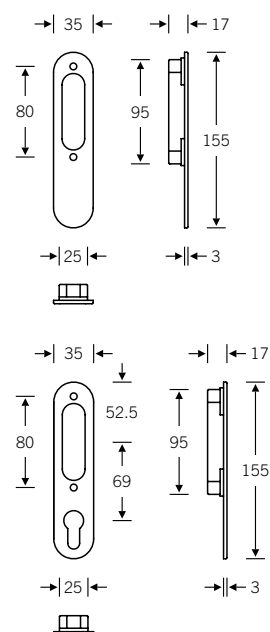
■ Aluminium  
■ Stainless steel  
■ Bronze

42 4215 ■ ■



42 4215 00000 (no keyway)  
 42 4215 00002 (PC keyway)  
 Recessed handles for back-to-back fixing

M6 threaded screws



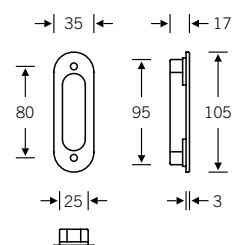
6b

42 4215 ■ ■ ■



42 4215 01000  
 Recessed handle for back-to-back fixing

M6 threaded screws





# Fittings for windows

## Recessed handles for lifting/sliding door fittings

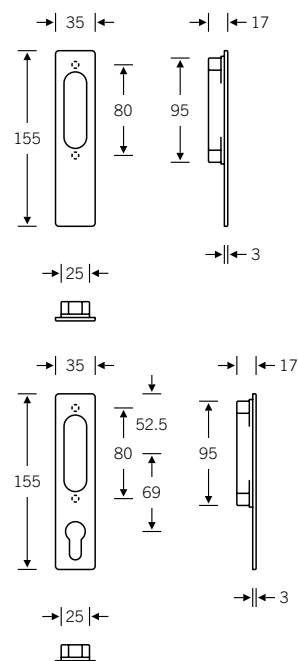
■ Aluminium  
■ Stainless steel  
■ Bronze

42 4217 ■ ■



42 4217 00000 (no keyway)  
 42 4217 00002 (PC keyway)  
 Recessed handles for back-to-back fixing

M6 threaded screws

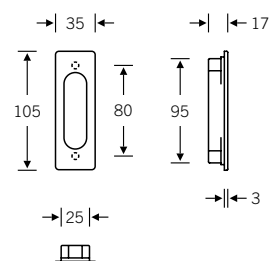


42 4217 ■ ■



42 4217 01000  
 Recessed handle for back-to-back fixing

M6 threaded screws







453 **Technical information**  
Fittings for windows

# Technical information

## Fittings for windows conforming to EN 13126-3

The engineering behind our window handles centres around the click-stop mechanism, which is a particularly rugged fusion of components in tempered steel, stainless steel and GFR plastic that is further enhanced by its compact design and ideal installation process.

FSB's fine new hardware is engineered to deliver 25,000 operations or 150,000 click-stop events (180° turn/tilt cycles), earning it the highest durability rating of 5/180.

EN 13126 specifies the test requirements for windows in terms of their durability, strength, security and functionality. Part 3 of this standard defines requirements for window handles that serve to ensure unchanging quality and fitness for purpose over a great many years. The test results produce a classification code composed of grades from nine categories, also known as 'digits'.

### Classification code

FSB window handles/plug-in handles with click-stop mechanism

|   |       |   |   |   |    |     |      |   |
|---|-------|---|---|---|----|-----|------|---|
| 2 | 5/180 | — | 0 | 1 | 3* | 0/0 | 3/C1 | — |
|---|-------|---|---|---|----|-----|------|---|

\* Bronze grade 0

FSB window handles with lock cylinder

|   |       |   |   |   |    |     |      |   |
|---|-------|---|---|---|----|-----|------|---|
| 2 | 5/180 | — | 0 | 1 | 3* | 3/3 | 3/C1 | — |
|---|-------|---|---|---|----|-----|------|---|

\* Bronze grade 0

FSB plug-in handles with lock cylinder

|   |       |   |   |   |    |     |      |   |
|---|-------|---|---|---|----|-----|------|---|
| 2 | 5/180 | — | 0 | 1 | 3* | 2/3 | 3/C1 | — |
|---|-------|---|---|---|----|-----|------|---|

\* Bronze grade 0

FSB window handles with push-button

|   |       |   |   |   |    |     |      |   |
|---|-------|---|---|---|----|-----|------|---|
| 2 | 5/180 | — | 0 | 1 | 3* | 3/1 | 3/C1 | — |
|---|-------|---|---|---|----|-----|------|---|

\* Bronze grade 0

FSB plug-in handles with push-button

|   |       |   |   |   |    |     |      |   |
|---|-------|---|---|---|----|-----|------|---|
| 2 | 5/180 | — | 0 | 1 | 3* | 2/1 | 3/C1 | — |
|---|-------|---|---|---|----|-----|------|---|

\* Bronze grade 0

| 2 | 5/180 | — | 0 | 1 | 3 | 0/0, 2/1, 2/3<br>3/1, 3/3 | 3/C1 | —  |
|---|-------|---|---|---|---|---------------------------|------|--|
|   |       |   |   |   |   |                           |      | Test size*   |
|   |       |   |   |   |   |                           |      | Application  |
|   |       |   |   |   |   |                           |      | Security<br>Twisting-off and forcing-off                                     |
|   |       |   |   |   |   |                           |      | Corrosion resistance<br>Aluminium and stainless steel pursuant to<br>EN 1670 |
|   |       |   |   |   |   |                           |      | Safety in use*   |
|   |       |   |   |   |   |                           |      | Fire resistance*   |
|   |       |   |   |   |   |                           |      | Mass*  |
|   |       |   |   |   |   |                           |      | Durability   |
|   |       |   |   |   |   |                           |      | Category of use  |

\* No requirement

# Technical information

## Fittings for windows conforming to EN 13126-3

### 1. Category of use

There are two grades for the first digit of the classification code (category of use), which take different quality levels in Europe into account. The higher-quality grade 2 reflects the known, tried-and-tested product features of previous RAL window handles.

The overview on the right shows the test components of the category of use and a comparison of FSB product features with the requirements for grades 1 and 2.

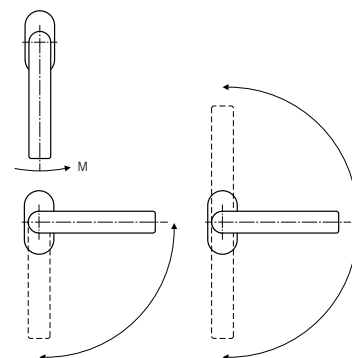
### Click torques

$M_0$  = between-clicks torque (the torque between two click-stop events)

$M_a$  = click-out torque

$M_d$  = differential value before and after durability test

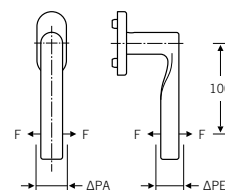
|         |                           |
|---------|---------------------------|
| Grade 1 | $M_0 \leq 1.4 \text{ Nm}$ |
|         | $M_a \leq 6.0 \text{ Nm}$ |
|         | $M_d \geq 0.4 \text{ Nm}$ |
| Grade 2 | $M_0 \leq 0.8 \text{ Nm}$ |
|         | $M_a \leq 4.0 \text{ Nm}$ |
|         | $M_d \geq 0.8 \text{ Nm}$ |
| FSB     | $M_0 \leq 0.2 \text{ Nm}$ |
|         | $M_a \leq 1.5 \text{ Nm}$ |
|         | $M_d \geq 0.8 \text{ Nm}$ |



### Free play at a right angle and parallel to the fixing plane

FSB fittings ensure a secure hold and do not allow any space for sets to wobble.

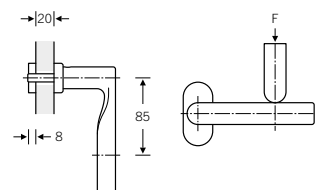
|         |                               |
|---------|-------------------------------|
| Grade 1 | $\Delta \leq 6 \text{ mm}$    |
| Grade 2 | $\Delta \leq 4 \text{ mm}$    |
| FSB     | $\Delta \leq 0.15 \text{ mm}$ |



### Torsional strength 200 N / 85 mm / 30 s

Refers to the resistance of the unlocked window handle against twisting-off

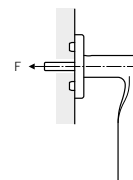
|         |                            |
|---------|----------------------------|
| Grade 1 | $\Delta \leq 5 \text{ mm}$ |
| Grade 2 | $\Delta \leq 2 \text{ mm}$ |
| FSB     | $\Delta \leq 1 \text{ mm}$ |



### Tensile strength of the spindle connection

Compactly designed connection elements ensure high tensile strength.

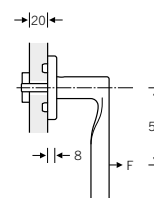
|         |                        |
|---------|------------------------|
| Grade 1 | $F \geq 100 \text{ N}$ |
| Grade 2 | $F \geq 100 \text{ N}$ |
| FSB     | $F \geq 115 \text{ N}$ |



### Eccentric tensile strength

FSB fittings can withstand eccentric forces and do not break.

|         |                       |
|---------|-----------------------|
| Grade 1 | $F = 600 \text{ N}$   |
| Grade 2 | $F = 1,200 \text{ N}$ |
| FSB     | $F = 1,200 \text{ N}$ |

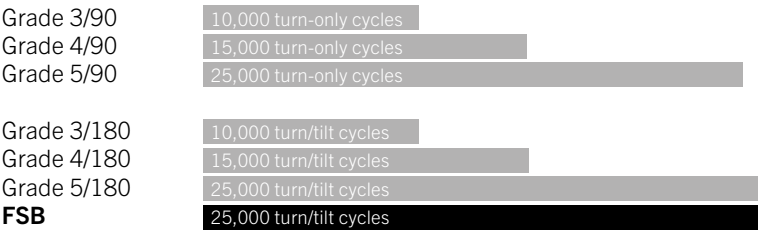


# Technical information

## Fittings for windows conforming to EN 13126-3

### 2. Durability

FSB sets far exceed the requirements set for the fatigue test. The force and motion conditions likely to be experienced in the field are recreated on a test rig and simulated in a fatigue test.



### 3. Mass

No requirement in accordance with the main part of this standard, EN 13126-1

### 4. Fire resistance

No requirement in accordance with the main part of this standard, EN 13126-1

### 5. Safety

Grade 1 in accordance with the main part of this standard, EN 13126-1

### 6. Corrosion resistance

At least grade 2 as per EN 1670 in accordance with the main part of this standard, EN 13126-1

### 7. Security

Whether you need window handles without a locking mechanism or lockable variants with high resistance against forcing-off, FSB offers the right solutions for every requirement and application area; see next page.

|             |  |
|-------------|--|
| Grade 0     | without security   |
| Grade 1     | 35 Nm resistance against twisting-off and forcing-off        |
| Grade 2     | 100 Nm resistance against twisting-off and forcing-off       |
| Grade 3     | 200 Nm resistance against twisting-off and forcing-off       |
| Extension 0 | no locking mechanism   |
| Extension 1 | non-key-operated locking mechanism                           |
| Extension 2 | key-operated locking mechanism with ≤ 99 locking variations  |
| Extension 3 | key-operated locking mechanism with ≥ 100 locking variations |

# Technical information

## Fittings for windows conforming to EN 13126-3

### 7. Security

Here you will find all of the possible permutations for the seventh digit:

|     |   |
|-----|---|
| 0/0 | <b>FSB window handles / FSB plug-in handles:</b><br>without security / without locking mechanism  |
| 1/1 | 35 Nm resistance against twisting-off and forcing-off /<br>non-key-operated locking mechanism   |
| 1/2 | 35 Nm resistance against twisting-off and forcing-off /<br>key-operated locking mechanism with ≤ 99 locking variations  |
| 1/2 | 35 Nm resistance against twisting-off and forcing-off /<br>key-operated locking mechanism with minimum 100 locking variations   |
| 2/1 | <b>FSB plug-in handles with push-button:</b><br>100 Nm resistance against twisting-off and forcing-off /<br>non-key-operated locking mechanism  |
| 2/2 | 100 Nm resistance against twisting-off and forcing-off /<br>key-operated locking mechanism with ≤ 99 locking variations   |
| 2/3 | <b>FSB lockable plug-in handles with lock cylinder:</b><br>100 Nm resistance against twisting-off and forcing-off /<br>key-operated locking mechanism with minimum 100 locking variations |
| 3/1 | <b>FSB window handles with push-button:</b><br>200 Nm resistance against twisting-off and forcing-off /<br>non-key-operated locking mechanism   |
| 3/2 | 200 Nm resistance against twisting-off and forcing-off /<br>key-operated locking mechanism with ≤ 99 locking variations   |
| 3/3 | <b>FSB lockable window handles with lock cylinder:</b><br>200 Nm resistance against twisting-off and forcing-off /<br>key-operated locking mechanism with minimum 100 locking variations  |

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### 8. Application

Applicable part of this EN standard, grade 3:

|                            |               |
|----------------------------|---------------|
| Application N              | non-clickable |
| Application C <b>(FSB)</b> | clickable     |
| Type 1 <b>(FSB)</b>        | window handle |
| Type 2                     | geared handle |

Here you will find all of the possible permutations for the eighth digit:

|                   |                                    |
|-------------------|------------------------------------|
| 3/N1              | Part 3/non-clickable/window handle |
| 3/N2              | Part 3/non-clickable/geared handle |
| 3/C1 <b>(FSB)</b> | Part 3/clickable/window handle     |
| 3/C2              | Part 3/clickable/geared handle     |



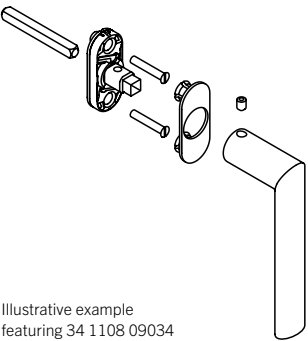
# Technical information

## Fixing system for flush-fitted window handles

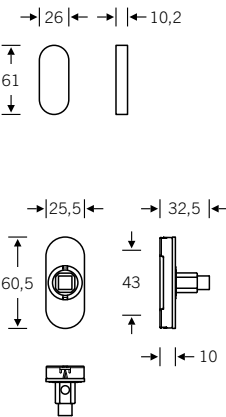
### Flush-fitted window handles

A number of FSB window handles are also available as flush-fitted variants. Please note that CNC machining is required for flush-fitted solutions.

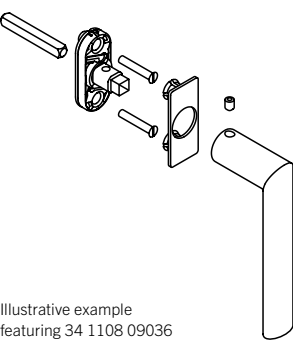
34 .... 09034 (oval rose)



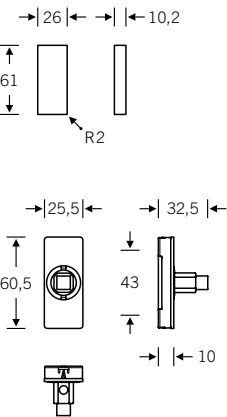
Routing dimensions:



34 .... 09036 (angular rose)



Routing dimensions:



# Technical information

## Fixing system for plug-in handles for windows

### Metal and PVC profiles

Please note that CNC machining is required for routing on metal and PVC profiles. Precision CNC routing details can be found at [www.fsb.de/cnc](http://www.fsb.de/cnc)

The required drill hole layout for plug-in handles needs to be in keeping with the window profile selected (see drawing). Further details and information about routing and installation can be found in the installation instructions:

For PVC profiles:  
6 79 8430 00701

For metal profiles:  
6 79 8430 00570  
6 79 8430 00680 (lockable plug-in handles)

Models equipped with a lock cylinder can also be used on burglary-resistant windows.

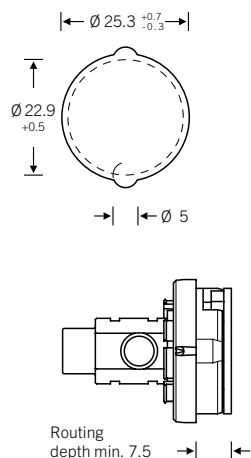
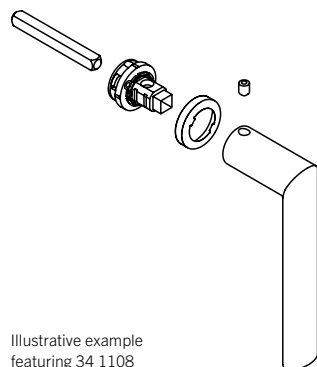
The following models are available as lockable variants with 100 Nm resistance against twisting-off and forcing-off: 1001, 1076, 1078, 1093, 1108, 1144, 1244. The 'tilt-to-turn' function is not available.

### Plug-in handles for metal profiles

34 .... 711..

Variable spindle projection:

...00 (16–24 mm)  
...01 (24–38 mm)  
...02 (38–53 mm)

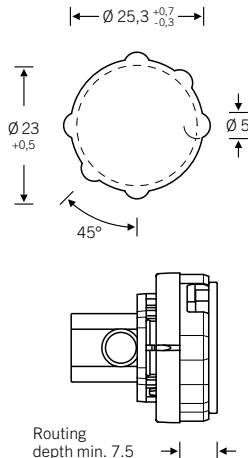
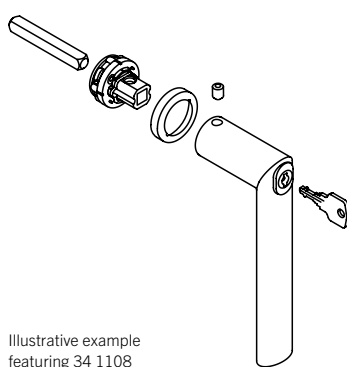


### Lockable plug-in handles for metal profiles

34 .... 71...

Variable spindle projection:

... 423 (29–34 mm)  
... 424 (34–39 mm)  
... 723 (push-button 29–34 mm)  
... 724 (push-button 34–39 mm)

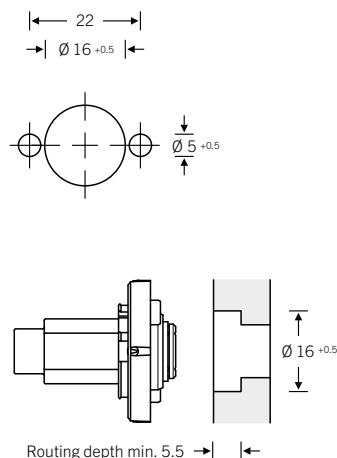
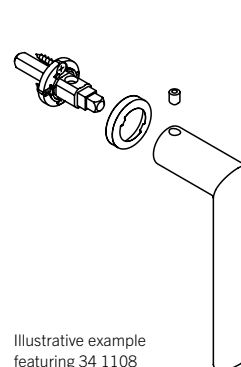


### Plug-in handles for PVC profiles

34 .... 751..

Variable spindle projection:

...00 (16–24 mm)  
...01 (24–38 mm)  
...02 (38–53 mm)



6b

# Technical information

## Fixing system for plug-in handles for windows

### Plug-in handles for timber profiles

Please note that CNC machining is an option for preparing timber profiles for FSB plug-in handle solutions. Precision CNC routing details can be found at [www.fsb.de/cnc](http://www.fsb.de/cnc)

Alternatively, you can use the correct FSB routing jig 03 0462 00040, which must be ordered separately.

The required drill hole layout for plug-in handles needs to be in keeping with the window profile selected (see drawing).

Further details and information about routing and installation can be found in the installation instructions 6 79 8430 00689 0000.

If the profile depth is greater than 16 mm, a 1 mm thick baseplate can be used (product code 03 0450 09298 8000).

### Plug-in handles for timber profiles

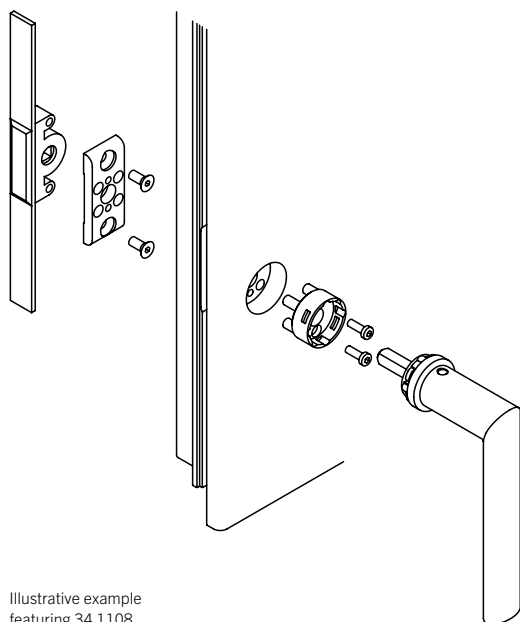
34 ... 711.. with fixing accessories  
03 0401 00003 0400

Variable spindle projection:

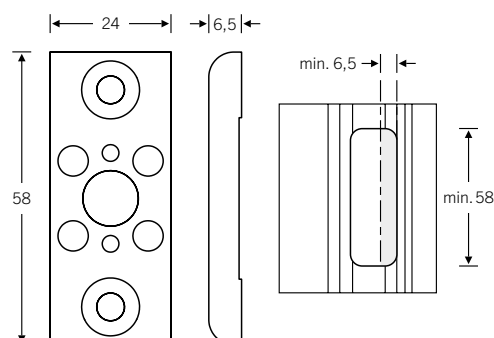
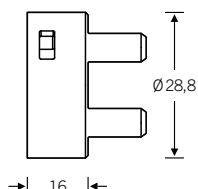
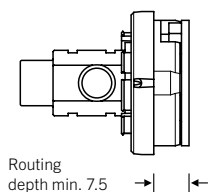
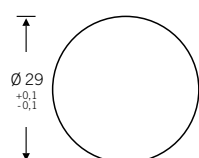
...00 (16–24 mm)

...01 (24–38 mm)

...02 (38–53 mm)



Illustrative example featuring 34 1108



# Technical information

## Fixing system for plug-in handles for windows

Models equipped with a lock cylinder can also be used on burglary-resistant windows. The following models are available as lockable variants with 100 Nm resistance against twisting-off and forcing-off: 1001, 1076, 1078, 1093, 1108, 1144, 1244. The 'tilt-to-turn' function is not available.

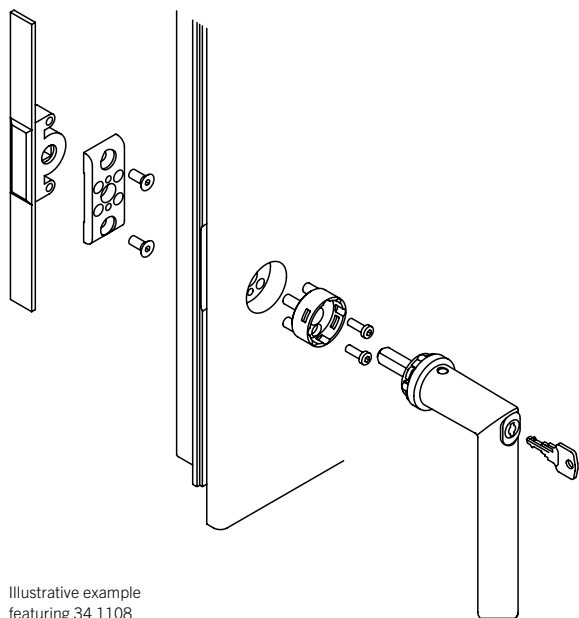
If the profile depth is greater than 16 mm, a 1 mm thick baseplate can be used (product code 03 0450 09298 8000).

### Lockable plug-in handles for timber profiles

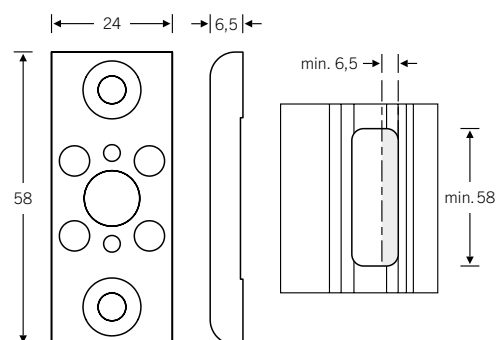
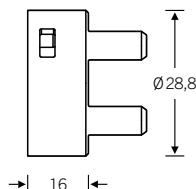
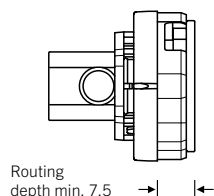
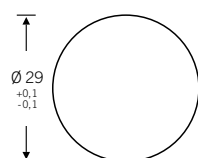
34 .... 71... with fixing accessories  
03 0401 00003 0400

Variable spindle projection:

- ... 423 (29–34 mm)
- ... 424 (34–39 mm)
- ... 723 (push-button 29 – 34 mm)
- ... 724 (push-button 34 – 39 mm)



Illustrative example featuring 34 1108



6b