

Anti-ligature solutions

Prisons – Forensic Units –
Psychiatry





Hardware and fitment solutions for surveillanced spaces. FSB has long experience of making products for prisons, forensic units and psychiatric institutions. Dedicated hardware and fitments from Brakel meet the specific requirements (and then some) of such establishments as regards operability, ruggedness, escape prevention, vandal-proofness and suicide deterrence.

It goes without saying that the dedicated hardware and fitment components shown here meet the relevant requirements as regards operability, ruggedness, escape prevention, vandal-proofness and suicide deterrence and have proven themselves over and over again in practice. Experience has shown that the institutions involved adopt a variety of security concepts with specific points of focus and, hence, that it is generally necessary to liaise with the relevant security specialists when developing specialised hardware and fitment solutions. FSB is the ideal point of contact here. We are particularly strong on planning and producing wholly customised solutions for specific security requirements.

Fittings on doors and windows

Doors can, for instance, be fitted with knobset FSB 96 2399 and lever set FSB 96 7099. The doorknob is of particularly rugged construction, taking the form of a stub-ended cone with gripping recesses plus a special-purpose rose enclosing the knob's shank. The lever set features handles with conical necks and grip sections angled 45° downwards on both sides on both sides of the door. Both types of hardware are designed to prevent cords and ropes being attached and accordingly reduce the scope for committing acts of suicide. The same principle is adopted in security fittings, armoured roses and window handles prepared for single profile cylinders.

Fittings in bathrooms and WCs

Safety in bathrooms and WCs is assured by means of a vandal-deterrent wall mirror and shower-curtain rails with re-usable locking mechanisms. Completing the range supplied are shower rails, shower-head holders for single-handed operation, wall hooks with re-usable clip fastenings, non-detachable foldaway hooks, bath-towel rails with magnetic fastenings and WC accessories (thumbturns and toilet-roll holders).

Note on products with “suicide-deterrent” properties

A number of products in this brochure are indicated as having “suicide-deterrent” properties. By the very nature of things, however, the actual use made of any given product invariably needs to be seen within the context of the building and application in question, factors that can vary just as greatly as the forms of tampering and improper use the human mind is capable of hitting upon. A manufacturer like FSB would never be able either to fully simulate or predict such eventualities. The designation “suicide-deterrent” is not, therefore, to be regarded as an assured product property; it is merely intended to serve as a means of orientation for the planner or operator.

Fittings on doors and windows

Knobset

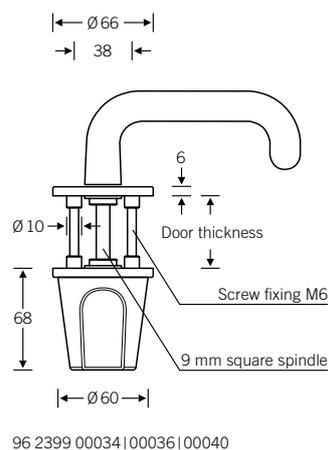
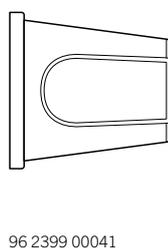
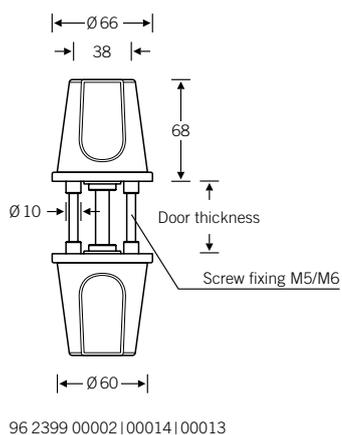
96 2399



Door knob of particularly rugged construction in the shape of a stub-ended cone with gripping recesses, its shank enclosed within a special-purpose rose. It is impossible to attach cords or ropes to the knob. Its ergonomic form guarantees good gripping qualities and lessens the likelihood of acts of suicide.

Variants:

- 96 2399 00002 (dead knobs on both sides, M5 screw fixing)
- 96 2399 00014 (both sides rotate, M6 screw fixing)
- 96 2399 00013 (dead knob on one side, M6 screw fixing)
- 96 2399 00041 (dead knob on one side)
- 96 2399 00034 (lever/dead knob set with FSB 1146)
- 96 2399 00036 (lever/rotating knob set with FSB 1146, RH)
- 96 2399 00040 (lever/rotating knob set with FSB 1146, LH)



Specification wording

Doorknob design 0866 on solid rose with 10 mm-Ø lugs, concealed fixing

Knobset

96 2399 



The handle's shape is a symbiosis of knob and lever. It combines with solid roses and fixing points concealed by covers to afford protection against both the risk of injury and forms of tampering such as jamming the handle to prevent anyone getting in.

Variants:

96 2399 00008 (dead knobs on both sides)

96 2399 00007 (both sides rotate)

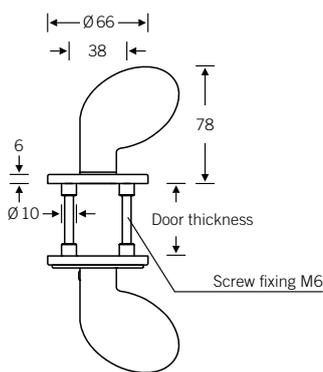
96 2399 00004 (knob-handle set,
knob 0804 angled right)

96 2399 00003 (knob-handle set,
knob 0804 angled left)

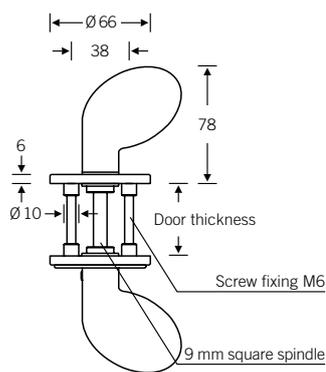
96 2399 00042 (dead knobs on both sides,
knob 0804 angled right,
Aluminium)

96 2399 00043 (dead knobs on both sides,
knob 0804 angled left,
Aluminium)

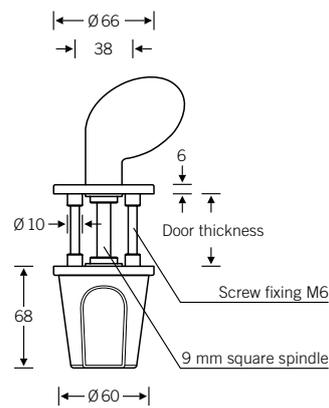
96 2399 00019 (dead knobs on both sides,
knob 0804 angled right,
Stainless Steel)



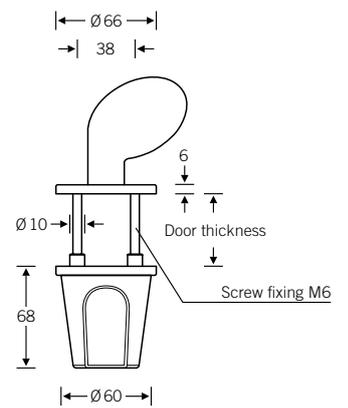
96 2399 00008



96 2399 00007



96 2399 00004/100003



96 2399 00042/100043/100019

Specification wording

Doorknob design 0804 on solid roses with 10 mm-Ø lugs, concealed fixing from either side

Knobset

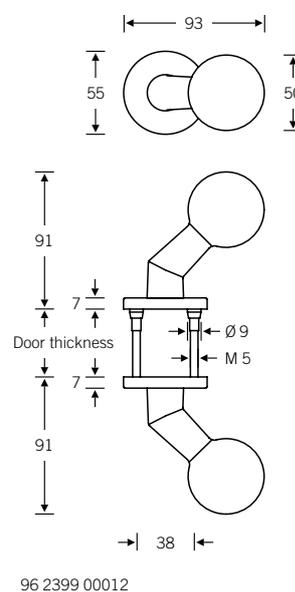
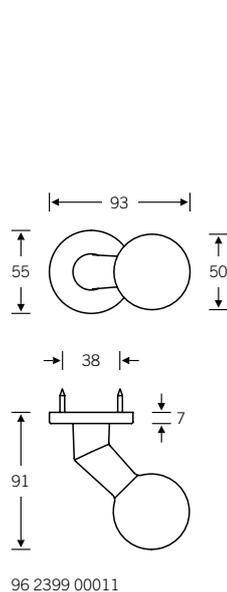
96 2399 ■



The handle's shape is a symbiosis of knob and lever. It combines with solid roses and fixing points concealed by covers to afford protection against both the risk of injury and forms of tampering such as jamming the handle to prevent anyone getting in.

Variants:

- 96 2399 00011 (dead knob on one side)
- 96 2399 00012 (dead knobs on both sides)



Specification wording

Doorknob design 0846 on roses with 9 mm-Ø lugs, concealed fixing from either side

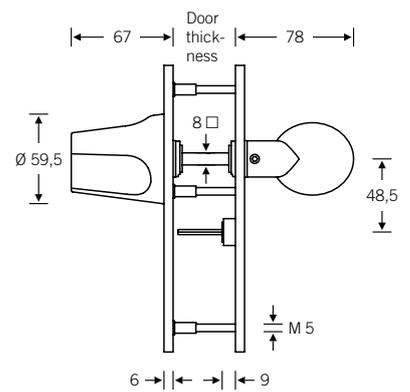
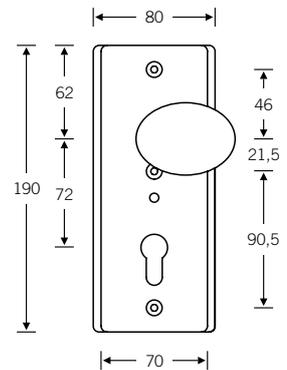
Dedicated Solution

Prisons – Forensic Units – Psychiatry



96 7099 00228 (RH)
96 7099 00229 (LH)

- Series 55 | Class 5
- for heavy-duty doors
- no mains connection
- no batteries, no follow-up costs
- wholly mechanical solution
- bolt-status indicator as visual backup
- lock with special screw fixings for heavy loadings
- with double forend = burglar-resistant
- backset: 100 mm



Shown here: RH



Lever set

Backplate variant

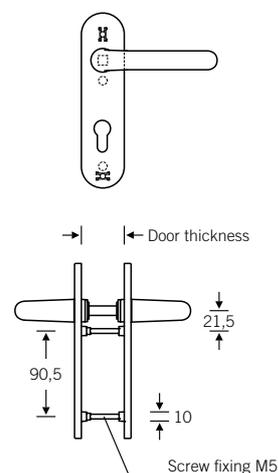
96 7099 00001 



Lever set with short, invisibly fixed backplates, equipped on the female-handle face with fixed lugs. This “female” hardware is fitted on the inside of the room so as to prevent its being tampered with or dismantled. The levers are rotatably fixed on either side and are designed to cope with heavy use. The screw fixings on the outside face are concealed by an outer backplate that is securely clipped fast.

Variants:

- outer backplate on male-handle side with fixed lugs, cannot be unclipped
- can also be supplied as a lever/knob set



Specification wording

Lever set with short backplates having 10 mm-Ø lugs, concealed fixing from either side, fixed outer backplate on male-handle face, cannot be unclipped

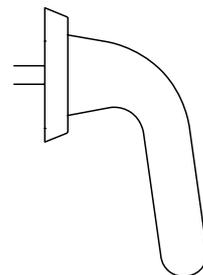
Lever set

Rose variant

96 7099 ■

Door lever handle with conical neck and grip angled diagonally downwards. The handle is borne within a conically styled rose, thus making it impossible to attach cords or ropes and lessening the likelihood of acts of suicide. This exceedingly rugged configuration makes for very safe handling.

Face fixing concealed by solid conical roses with 8.5 mm-Ø lugs



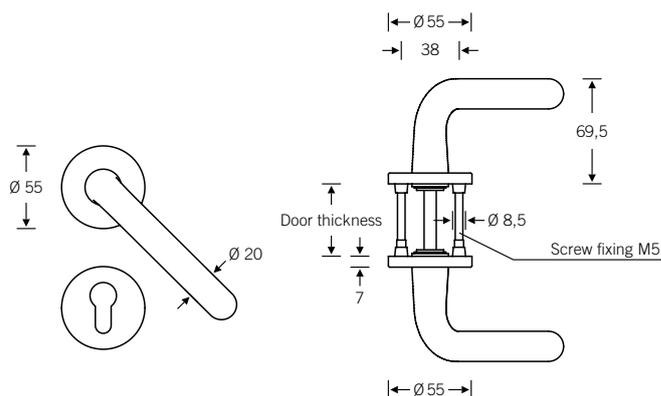
Lever set

Rose variant

96 7099 00056 

(8 mm square spindle)

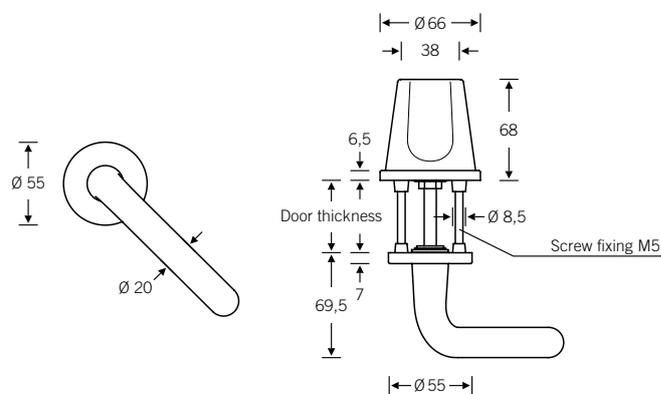
Lever set 10 1147 angled 45° downwards, roses 17 1731 and 17 1735, PC keyway, concealed fixing from either side



96 7099 

96 7099 00222 (RH) | 96 7099 00223 (LH)
(9 mm square spindle)

Lever/knob set, knob 0866, lever 10 1147 angled 45° downwards, rose 17 1731, concealed fixing from either side



Shown here: RH

Specification wordings

96 7099 00056

Lever set with levers 10 1147 angled 45° downwards on either side, 8 mm square spindle, rotatably fixed in rose 17 1731, roses with securing lugs 8.5 mm in diameter, with key roses 17 1735 PC, concealed fixing from either side

96 7099 00223

Lever/knob set with knob 0866, of particularly rugged construction, in the shape of a stub-ended cone with gripping recesses, lever 10 1147 with 9 mm square spindle, rotatably fixed in roses 17 1731 with securing lugs 8.5 mm in diameter, lever angled 45° downwards, concealed fixing from either side

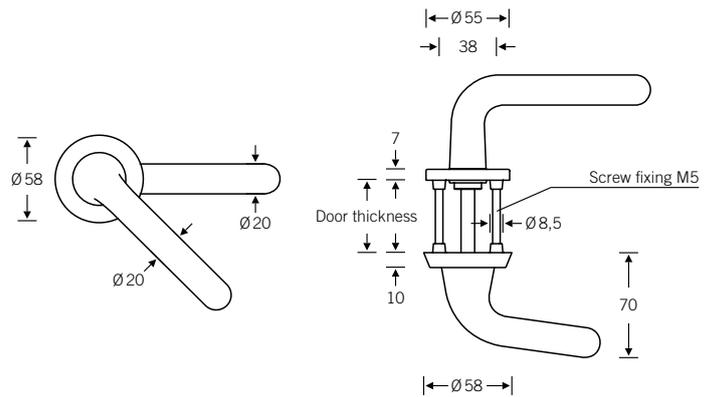
Lever set

Rose variant

96 7099

96 7099 00052 (RH) | 96 7099 00051 (LH)
(8 mm square spindle)

Conical lever angled 45° downwards on one side, reverse face with lever 10 1147 and rose 17 1731, concealed fixing from either side

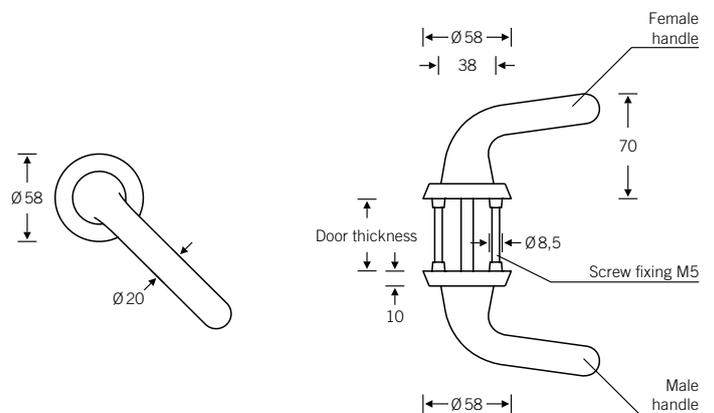


Shown here: LH

96 7099

96 7099 00100 (RH) | 96 7099 00099 (LH)
(8 mm square spindle)
96 7099 00202 (RH) | 96 7099 00201 (LH)
(9 mm square spindle)

Conical levers angled 45° downwards on either side

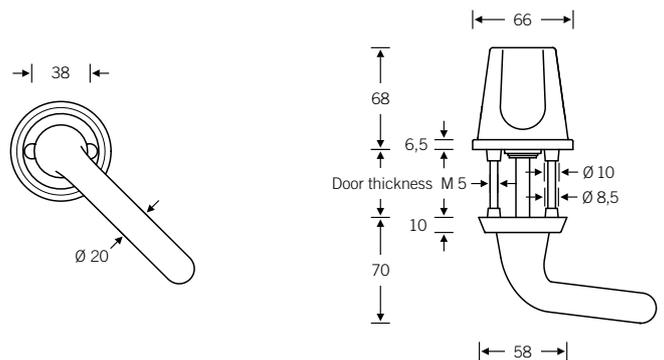


Shown here: LH

96 7099

96 7099 00195 (RH) | 96 7099 00196 (LH)
(9 mm square spindle)

Conical lever angled 45° downwards on one side, visible fixing, reverse face with doorknob design 0866 on solid rose with 10 mm-Ø lugs, concealed fixing



Shown here: RH

Specification wordings

96 7099 00051

Lever set with conical lever angled 45° downwards and solid conical rose on one side, reverse face with lever 10 1147 and rose 17 1731, roses with 8.5 mm-Ø lugs, concealed fixing from either side

96 7099 00099

Lever set with conical levers angled 45° downwards on either side and solid conical roses with 8.5 mm-Ø lugs invisibly fixed from one side

96 7099 00196

Lever/knob set with conical lever angled 45° downwards and solid conical rose on one side, visible fixing, reverse face with doorknob design 0866 on solid rose with 10 mm-Ø lugs, concealed fixing, 9 mm square spindle

Doorknob

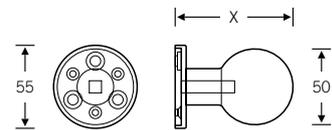
23 0802 01005 



Aluminium X = 77 mm
Stainless Steel X = 73 mm

Special doorknob variant for single-sided face fixing to particularly heavy doors with the aid of a sturdy screw-fix plate. Differing fixing holes allow the knob to be fitted so as to suit the door face. The knob is slotted over the square spindle complete with its permanently attached cover rose and secured with a grub screw.

Suppliable for either through or face fixing



Concealed fixing, drawing shows special screwing procedure for the base

Security fittings and armoured roses

73 7377 



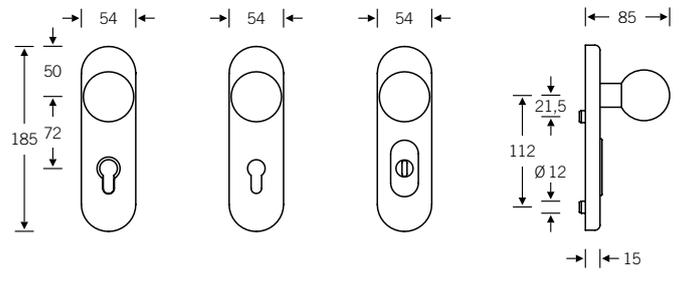
Short backplate

Resistance class 2 (EN 1906), open version
(BR 1 K Reg. No. 4X078)

Resistance class 2 (EN 1906), with cylinder guard
(BR 1 CG Reg. No. 4X077)

Security fittings with a solid base and rugged screw fixings protect cylinders and locks against unsolicited tampering and secure both internal and external doors.

Also available as a long backplate



73 7395 

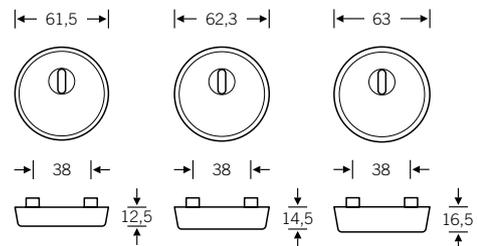


Product Code	Ø	CP	Height
73 7395 01010	61.5 mm	6.5 mm	12.5 mm
73 7395 01110	62.3 mm	8.5 mm	14.5 mm
73 7395 01210	63.0 mm	10.5 mm	16.5 mm

to suit cylinder projections (CP) as per table

This armoured rose encloses the entire cylinder, leaving only the slot for the key exposed. It is not possible to lever the cylinder off or to extract the cylinder plug. The rotatable cover disc also protects the cylinder against other forms of damage, moreover.

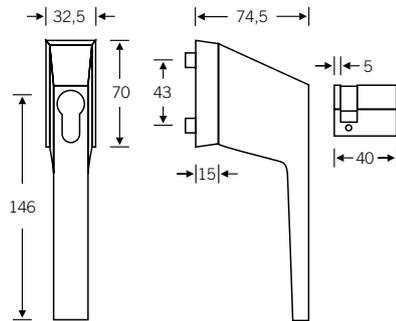
Tested and certified to DIN 18257 BR 1



The comprehensive range of security hardware in our "Design + Security" collection, featuring backplates of varying length, is set out in the FSB Manual, which we would be delighted to send you free of charge if so desired.

Window handles prepared for single profile cylinders

34 3495 00009 ■



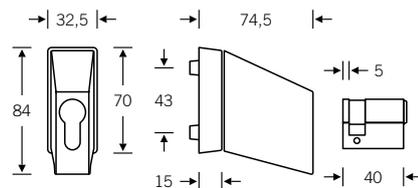
Window handle prepared for single profile cylinders for integration into the overall lock suite

Only compatible with cylinders having an adjustable thrower

10 mm-Ø lugs
7 mm spindle
30 mm projection

Non-suicide-deterrent

34 3495 01009 ■



Window handle prepared for single profile cylinders

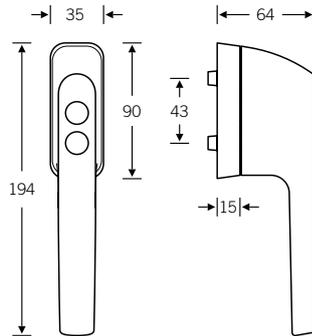
Short grip section to prevent forcible opening through lack of leverage

10 mm-Ø lugs
7 mm spindle
30 mm projection

Non-suicide-deterrent in the case of "tilt-to-turn" windows

Window handles prepared for single profile cylinders

34 3491 00009 



Lockable window handles are generally seen as childproofing measures and/or means of preventing break-ins. Exactly the opposite is required where prisons and forensics units are concerned, however. The single profile cylinder fitted is completely concealed on these window handles, thus preventing them from being removed or tampered with. The window handle can only be closed or opened by key. The lack of leverage brought about by the shortened grip section prevents the handle being forcibly operated.

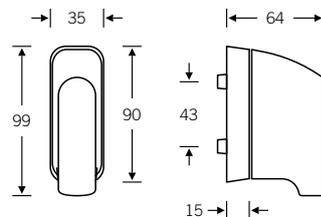
Lock-suite integration can be achieved by fitting single profile cylinders in conjunction with “tilt-to-turn” operation.

10 mm-Ø lugs
7 mm spindle
30 mm projection

Max. overall length of single profile cylinder
40.5 mm

Non-suicide-deterrent

34 3491 01009 



10 mm-Ø lugs
7 mm spindle
30 mm projection

Max. overall length of single profile cylinder
40.5 mm

Non-suicide-deterrent in the case of
“tilt-to-turn” windows

The single-profile cylinder controls the action of the deadlocking bolt, either allowing the window to be opened or preventing this from happening. The bolt can only be deadlocked or released by key.

Locking: turn the key clockwise through approx. 30°, depress the deadlocking bolt, return key to original position and withdraw.

Opening: turn the key clockwise through approx. 30°, thus automatically releasing the sprung bolt, return key to original position and withdraw.

Window knob

Lockable

34 3481 01009 ■

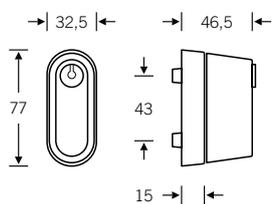


Lockable window knob

Straightforward window securing device with press-button cylinder of oval, chamfered design. No scope for attaching ropes or cords, thus reducing the potential for acts of suicide.

10 mm-Ø lugs
7 mm spindle
30 mm projection

34 3481 01000
without cylinder as blank knob



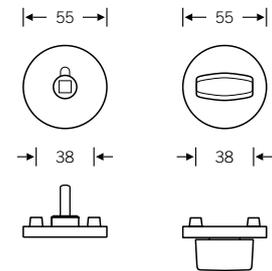
WC thumbturn Emergency release

12 1735 00231 ■■



WC thumbturn

This thumbturn is coupled on the reverse with a sturdy emergency release that can only be operated by authorised persons using a special key, in the process overcoming any resistance put up from the inside. Rose sets are shown here. If so required, the emergency release can also be supplied on backplates. Please advise.

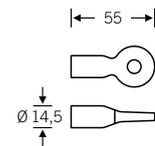


34 3464 ■



Emergency release for special requirements

8 mm spindle
to suit 12 1735 00231

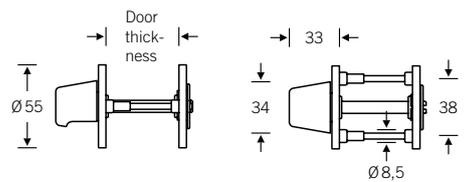


96 1799 00027 ■■



WC thumbturn

WC roses with conical thumbturns, solid roses, special screw fixings and emergency release option



Fittings in bathrooms and WCs

Shower curtain rail

Suicide-deterrent functions

82 8235 ■



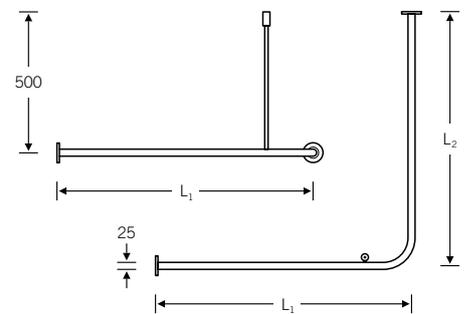
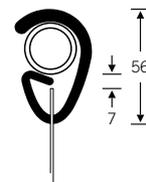
	L ₁	L ₂
82 8235 01000 (16 hooks)	1,000	1,000
82 8235 01200 (24 hooks)	1,200	1,200
82 8235 01500 (24 hooks)	1,500	1,500

Angled shower curtain rail with hooks (available in black or white) and ceiling connector for shortening on site

Suicide-deterrent variant with re-usable click-lock mechanism on wall and ceiling connector

Please note: two curtains are required for angled shower curtain rails.

FSB supplies curtain hooks in black as standard, though they are available in white to order.



Shower curtain rail

Suicide-deterrent functions

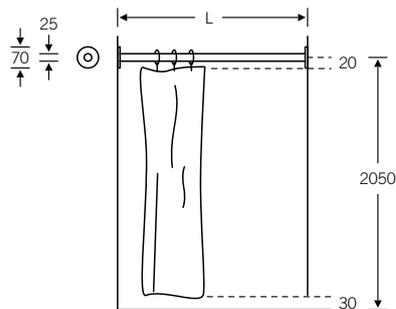
82 8233 

82 8233 00900 (8 hooks, L = 900 mm)
 82 8233 01200 (16 hooks, L = 1,200 mm)
 82 8233 01500 (16 hooks, L = 1,500 mm)
 82 8233 01800 (16 hooks, L = 1,800 mm)

Shower curtain rail with hooks for alcoves

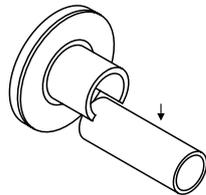
Suicide-deterrent variant with re-usable click-lock mechanism on ceiling connector

The distance between rail centre and curtain is 20 mm, that between the bottom of the curtain and the floor ought to be 30 mm, cf. example shown.

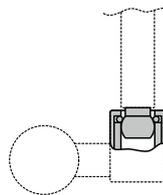


Shower curtain rails in a special variant for forensic and psychiatric units

Detail A



Detail B



These shower curtain rails are special in that they are fixed to both wall and ceiling. A dedicated click-lock mechanism provides sufficient holding power for normal use but is designed to fail when subjected to loads of approx. 25 kg upwards, such as when someone attempts to commit suicide by hanging themselves. The rail can be re-attached.

Shower rail

with shower-head holder

82 8259 ■

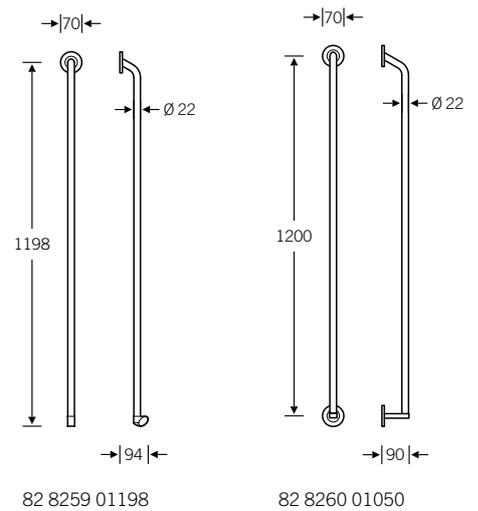
82 8260 ■



82 8259 01198 (shower rail with shower-head holder for attachment to grab/handrail, length 1,198 mm)

82 8260 01050 (shower rail with shower-head holder for wall mounting, length 1,200 mm)

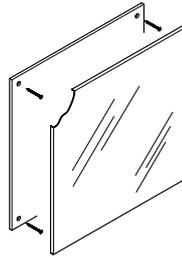
These shower rails are special in the way they curve towards the wall at the top. The curvature is such that ropes and cords cannot be attached – an effective means of pre-empting acts of suicide.



Mirror

Bath-towel rail

82 8260 ■



82 8260 00054 (450 × 450 mm)
 82 8260 00055 (600 × 600 mm)
 82 8260 00056 (600 × 450 mm)

Mirror with mounting plate

The mirror is made of mirror-polished Stainless Steel 1.5 mm thick, is bonded to the surface of a solid mounting plate screwed to the wall and hence can be neither removed nor vandalised.

The danger of anyone cutting themselves on broken glass can also be ruled out, furthermore.

At most, the mirror's surface or appearance can be impaired should it be subjected to acts of violence.



5223 0001 6015 (concealed fixing)
 5223 0010 6015 (visible fixing)

Mirror without mounting plate

Please advise the dimensions required when ordering. Custom designs to order.

Thickness of metal plate 1.5 mm

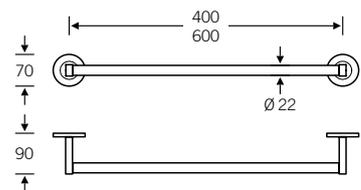
82 8260 ■



82 8260 00073 (length 400 mm)
 82 8260 00074 (length 600 mm)

Bath-towel rail

Variant suicide-deterrent due to magnetic attachment to baserose



Wall hooks

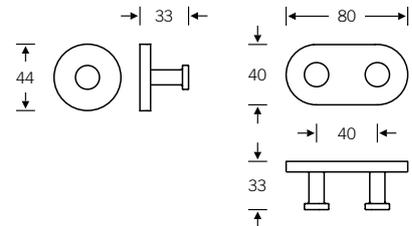
Toilet-roll holder

82 8260 01005 ■
82 8260 01007 ■



82 8260 01005 (wall hook)
82 8260 01007 (double wall hook)

Variant suicide-deterrent due to re-usable clip fastening

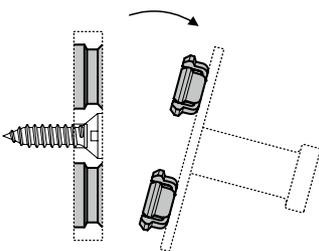
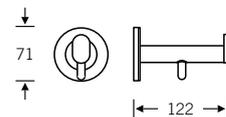


82 8260 01058 ■



Toilet-roll holder with roll retainer

Variant suicide-deterrent due to re-usable clip fastening



Wall hooks 82 8260 01005 and 82 8260 01007, 82 8260 01008 and 82 8260 01009 plus toilet-roll holder 82 8260 01058 are supplied with a special retaining device into which they are clip-fastened. They become detached if even the slightest amount of excess pressure is applied and are, therefore, ill-suited to attempts at suicide. As with the shower curtain rails, they can however be re-attached.

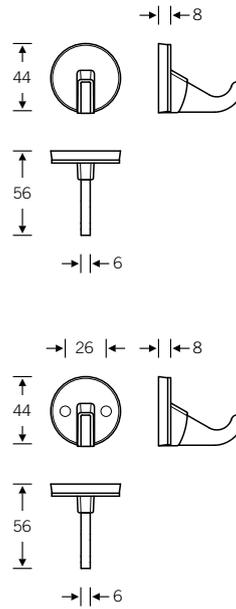
Wall hooks

82 8260 00060 ■
82 8260 00061 ■

82 8260 00060 (concealed fixing)
82 8260 00061 (visible fixing)

Suicide-deterrent folding hook
non-detachable

C:c distance 26 mm

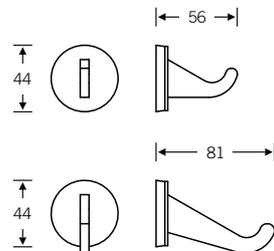


82 8260 01008 ■
82 8260 01009 ■

82 8260 01008 (short wall hook)
82 8260 01009 (long wall hook)

Variant suicide-deterrent due to re-usable
clip fastening

C:c distance 30 mm



Responsibility for fastening items lies
with the planning specialist or operator
as a function of the envisaged application.
Fastenings (screws and plugs) are not
included in the scope of delivery.



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