

## Panic fittings

A panic fitting is actually a set comprising a lock, a cylinder, and a handle that allows locked doors on escape routes to be opened by simply operating a lever handle or crossbar device.

FSB feels compelled by events to emphasise here that standard panic furniture in Germany cannot be compared with the easy-action panic lock configurations used abroad. German panic hardware is designed to conform to the stringent fire-safety and emergency-exit provisions stipulated under German law and has the task of ensuring locked doors can be opened in an emergency. Accordingly, hardware of this type is not appropriate for doors in constant use. Attention is invariably drawn to these points in German lock-makers' catalogues. German hardware manufacturers cannot accept liability for wobbly fittings, broken spindles, sagging handles or doors that won't close, if their advice is disregarded. In recent years, many clients wishing to locate large heavyweight panic doors in general transit areas have resorted to fitting bar handles alongside the panic furniture for push and pull operations. In such cases, the panic hardware exclusively serves to operate the lock mechanism, whilst the sturdy bar handle is used for pulling or pushing the door (cf. page 461). FSB can provide suitable design proposals for concrete requirements.

There follows a synopsis of the main specifications relating to fire barriers, escape routes, and emergency exit hardware:

DIN 18 082, Part 1

Fire barriers  
Steel doors T 30-1  
Construction type A  
Section 5.4.5

DIN 18 082, Part 3

Fire barriers  
Steel doors T 30-1  
Construction type B  
Section 5.3.5

DIN 18 095, Part 1

Smoke stop doors  
Definitions and requirements

DIN 18 095, Part 2

Smoke stop doors  
Type testing for operational  
endurance and tightness

DIN 18 250

Mortise locks for fire barriers  
Section 6.9

DIN 18 273

Architectural hardware, lever  
handle units for fire doors and  
smoke stop doors, concepts  
and definitions, dimensions,  
requirements and testings.

DIN 4102 Part 18

Fire characteristics of building  
materials and construction  
parts Section 4.1.2 (Architectural  
hardware)

Directives for the approval of fire barriers issued by the Institut für Bautechnik, Berlin, in February 1983

Section 4 of this Directive defines a single-leaf door (4.1), double doors (4.2), construction types of fire barriers and their specific requirements. Section 4.1.2 – Furniture and Hinges – sets forth the requirements for lever handles and accessories. With regard to the panic crossbar fitting, it states: 'Instead of lever handles, what are known as crossbar handles can be fitted to the push side of emergency exit doors. They must extend over at least three-quarters of the width of the leaf.' The structural requirements for lever handles (e.g. steel core) are also applicable to crossbar handles.

There are additional regulations for the German federal state of North-Rhine Westphalia. Please contact us for further details in such cases.

Unless expressly stated otherwise in this work, FSB emergency exit hardware in stainless steel and aluminium meets all the requirements for fire barriers. The relevant endorsements and test results are available on request.

Panic fittings



7970

Aluminium  
Stainless steel

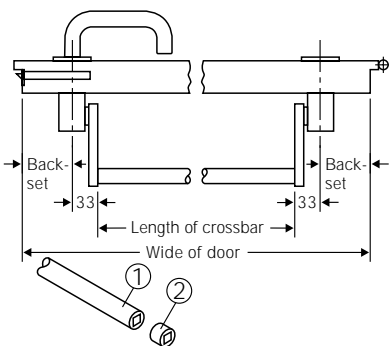
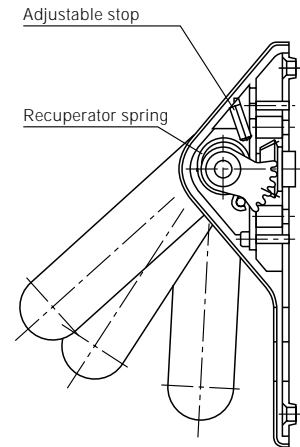
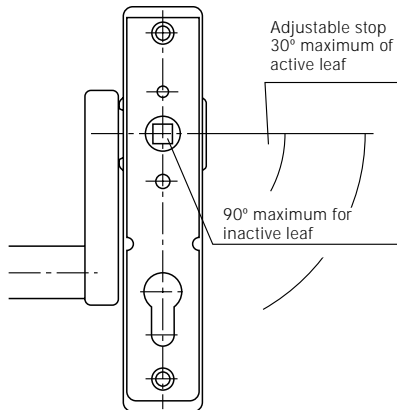
Description of function:

Bevel gearing and spindle combine to convert pressure on the cross bar into rotary motion acting on the lock follower. An adjustable stop protects the lock follower and is set at the fixing stage to suit the operating arc.



Dimensions:

Mounting boxes  
185 x 36 mm,  
all counter backplates  
185 x 45 mm



Determining length crossbar:

Width of door  
minus (2 x backset)  
minus 67 mm  
= Crossbar length

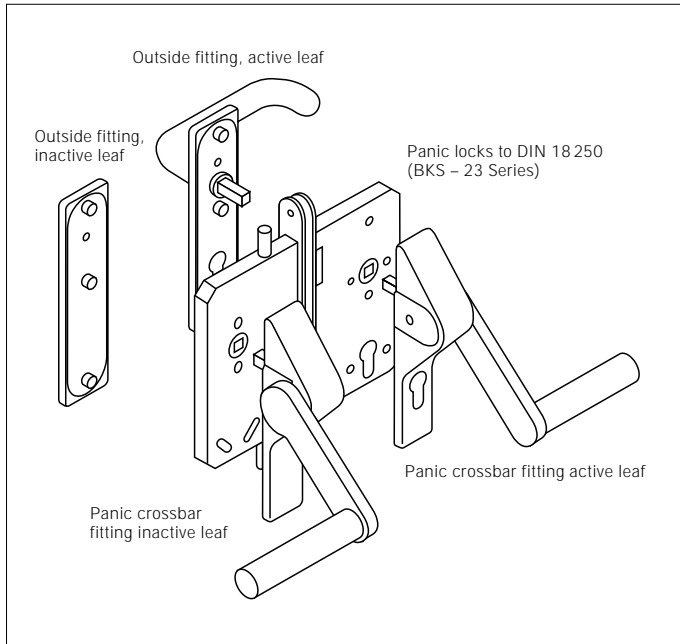
Note on fitting:

Cut crossbar (1) to size.

In the case of panic crossbars in stainless steel, insert plastic end piece (2).



# Panic fittings



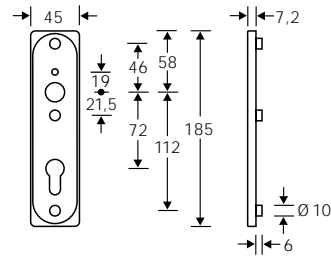
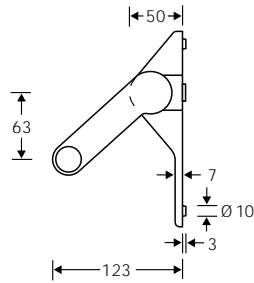
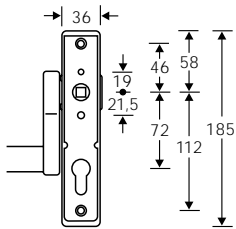
## 7970

Aluminium  
Stainless steel

Crossbar furniture for  
flush panic doors

The FSB 7970 panic crossbar fitting was developed for use on flush doors featuring BKS 23 series locks. All fixing dimensions correspond to the lock preparations in this BKS lock series.

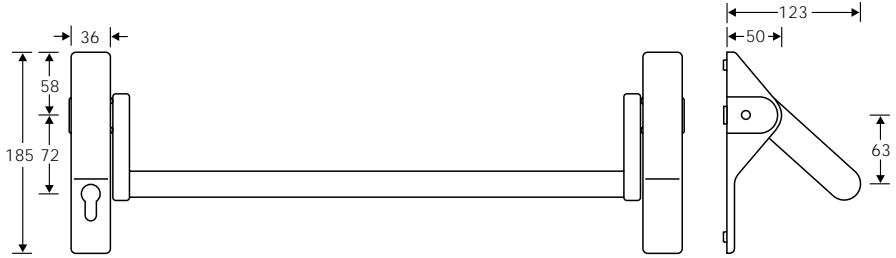
The hardware package (FSB/BKS) was coordinated so that the FSB panic crossbar fitting on the active leaf and on the inactive leaf can be assembled with non-loosening screws through the preparations in the lock case from the inside or outside door face.



To ensure flawless fitting and operation, please advise lock type and its planned closing function with every enquiry or order.

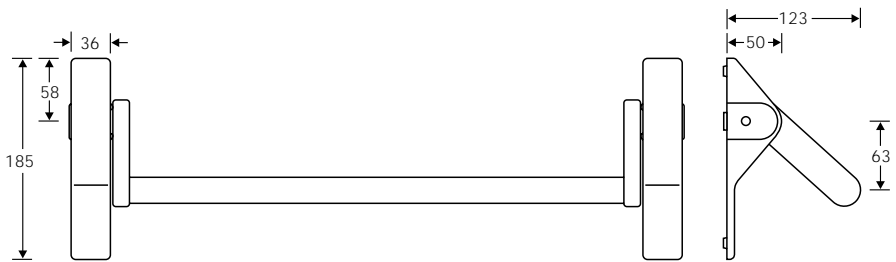


Panic fittings



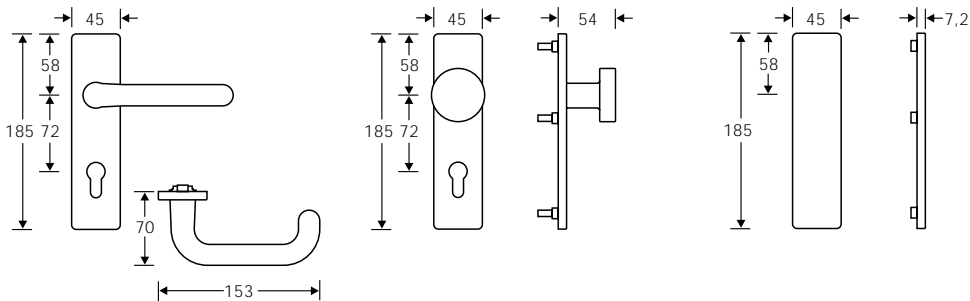
7970 0110

Aluminium  
Stainless steel



7970 0200

Aluminium  
Stainless steel



Outside furniture options

7971 0010

FSB lever handle turnably fixed on backplate concealed fixing for fire doors to German DIN standard, PZ 72 mm.

7972 0110

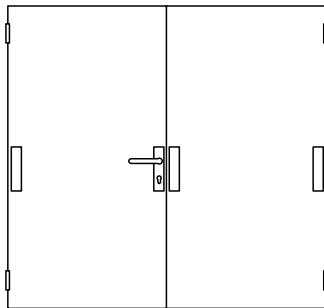
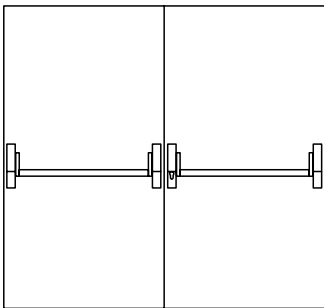
FSB backplate with dead knob concealed fixing for fire doors to German DIN standard PZ 72 mm.

7973 0000

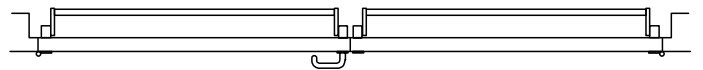
FSB blind backplate concealed fixing for fire doors to German DIN standard.



Panic fittings



Examples of use



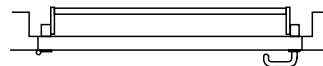
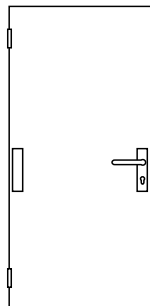
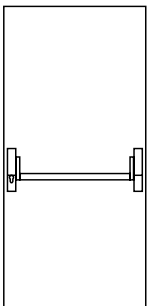
Active leaf

Inside: crossbar fitting 7970 0110  
PZ 72 mm

Outside: lever handle with 7971 0010  
counterbackplate PZ 72 mm  
blind backplate 7973 0000

Inactive leaf

Inside: crossbar fitting 7970 0200  
Outside: blind backplates 7973 0000

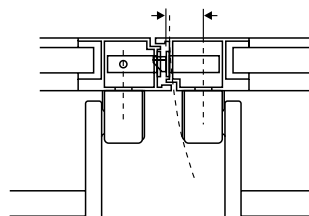
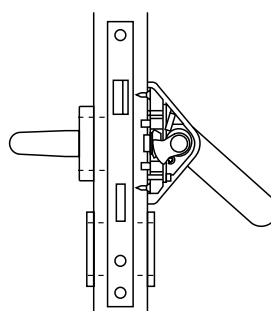
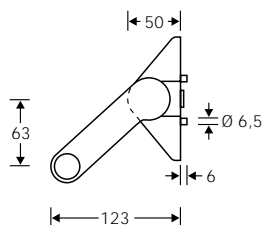
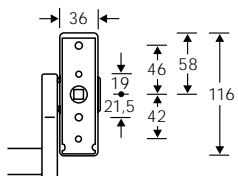
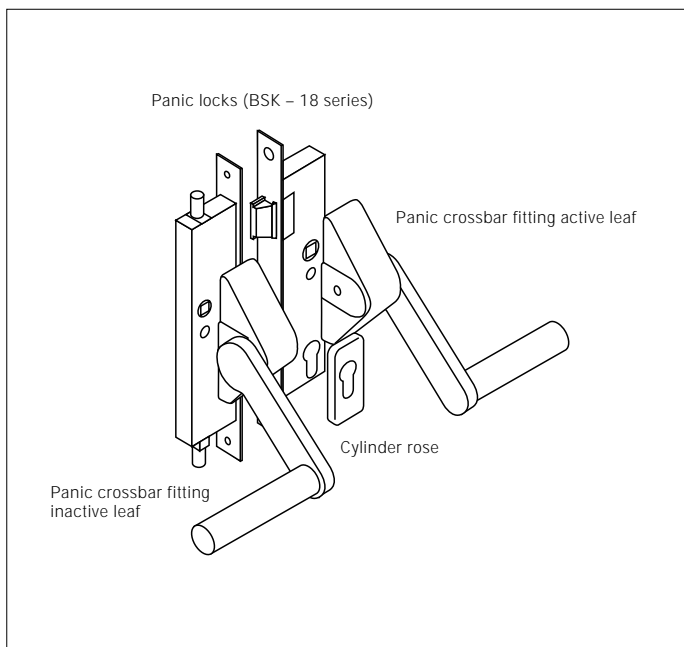


Inside: crossbar fitting 7970 0110  
PZ 72 mm

Outside: lever handle with 7971 0010  
counterbackplate PZ 72 mm

blind backplate 7973 0000

Panic fittings



7970

Aluminium  
Stainless steel

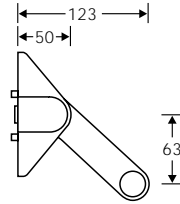
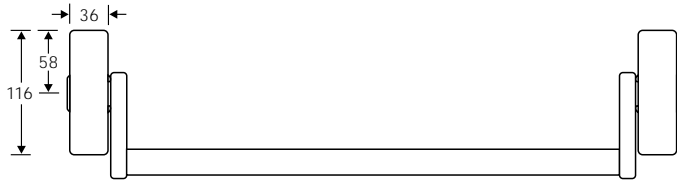
Crossbar fittings with slim mounting boxes for narrow frame panic doors

The FSB crossbar furniture FSB 7970 featuring slim mounting boxes was developed for narrow frame panic doors equipped with BKS lock series 18. The slim FSB panic mounting boxes can be combined with FSB cylinder roses for centres exceeding 92 mm.

When installing panic crossbar fittings with slim mounting boxes to panic doors, the geometry of the door and the backset of the lock determine the opening angle. These calculations should be carefully considered to avoid the possibility of jamming.

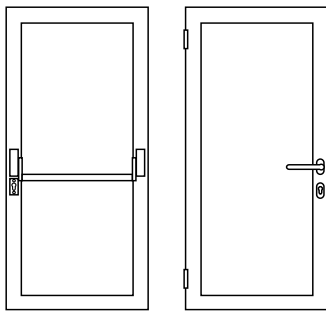
To ensure flawless fitting and operation, please advise lock type and its planned closing function with every enquiry or order.

Panic fittings

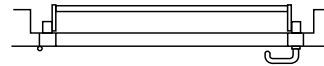


7970 0300

Aluminium  
Stainless steel



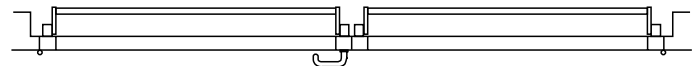
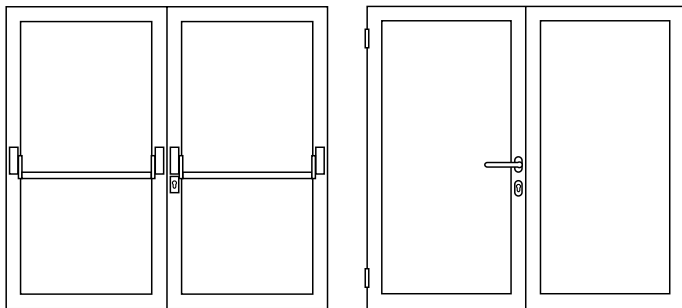
Examples of use



Inside: crossbar fitting

7970 0300

Outside:  
lever handle with cylinder rose  
from the FSB programme



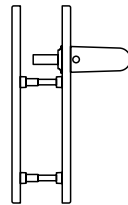
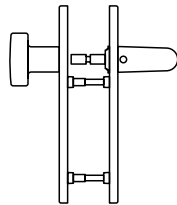
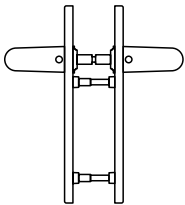
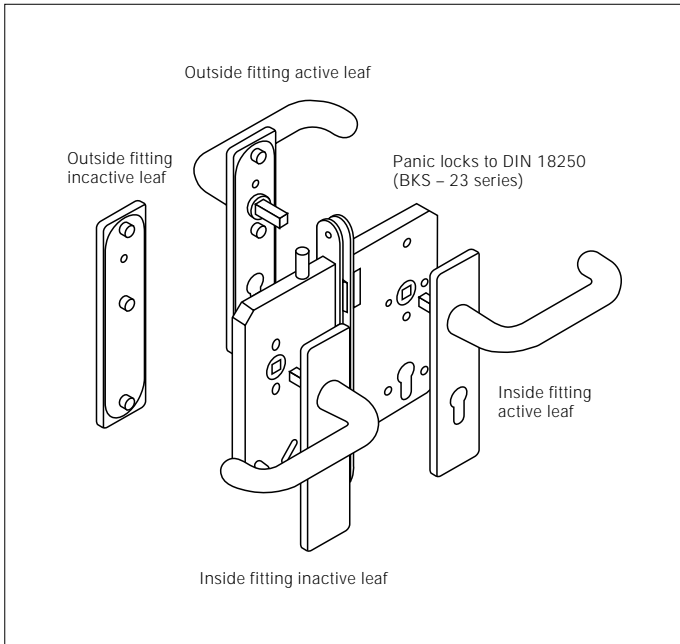
Active leaf	7970 0300
Inside: crossbar fitting	.....
Cylinder rose	.....
Outside: lever handle with rose	.....
cylinder rose	.....

Inactive leaf	
Inside: crossbar fitting	7970 0300



# Panic fittings

Backplate version



Door furniture  
lever handle on both sides

Entrance door furniture  
Inside: lever handle  
Outside: backplate with  
dead knob

Inactive leaf furniture  
Inside: lever handle  
Outside: blind backplate

e. g.  
1 set 7646 0410  
1 each 0125

e. g.  
1 set 7646 0510 . . . .  
1 each 0125

e. g.  
1 set 7646 7400 . . . .

## Lever handle furniture for flush panic doors

Flush panic doors equipped with BKS 23 series locks can usually be fitted with any of FSB's fire door sets.

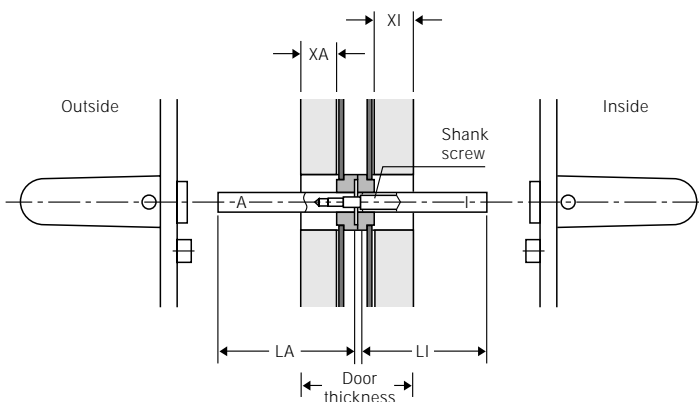
The FSB special spindle no. 0125 for door thicknesses from 34 mm to 101 mm, is ideal for use with locks incorporating a split follower.

Building Regulations should be borne in mind when ordering and we also require the following details:

Door thickness  
Measurements XA and XI  
Product code for the FSB fire door furniture required

For FSB fire door fittings please also refer to catalogue sections a and c.

The FSB special spindle for locks with split follower is outlined in detail on page 485.



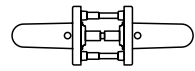
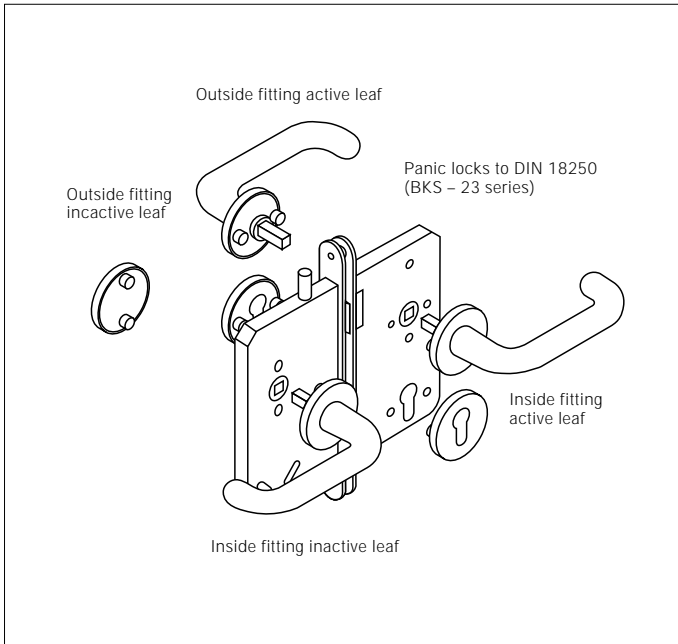
To ensure flawless fitting and operation, please advise lock type and its planned closing function with every enquiry or order.





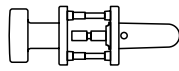
# Panic fittings

Round rose version



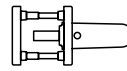
Door furniture  
lever handle on both sides

e. g.  
1 set 7646 1310 . . . .  
1 each 0125



Entrance door furniture  
Inside: lever handle  
Outside: dead knob

e. g.  
1 set 7646 1210 . . . .  
1 each 0125



Inactive leaf furniture  
Inside: lever handle  
Outside: blind rose

e. g.  
1 each 7646 7300 . . . .

## Lever handle furniture for flush panic doors

Flush panic doors equipped with BKS 23 series locks can usually be fitted with any of FSB's fire door sets.

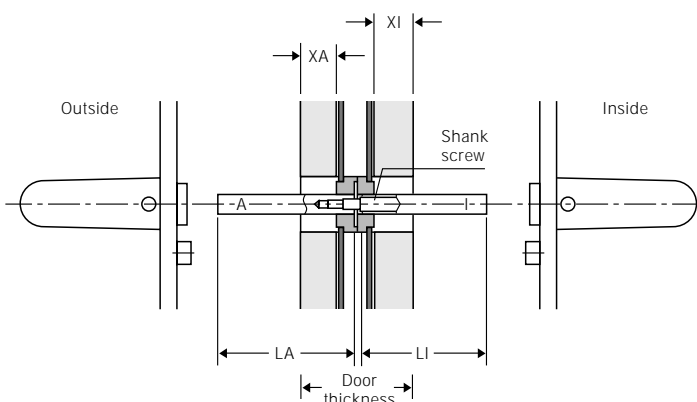
The FSB special spindle no. 0125 for door thicknesses from 34 mm to 101 mm, is ideal for use with locks incorporating a split follower.

Building Regulations should be borne in mind when ordering and we also require the following details:

Door thickness  
Measurements XA and XI  
Product code for the FSB fire door furniture required

For FSB fire door fittings please also refer to catalogue sections a and c.

The FSB special spindle for locks with split follower is outlined in detail on page 485.

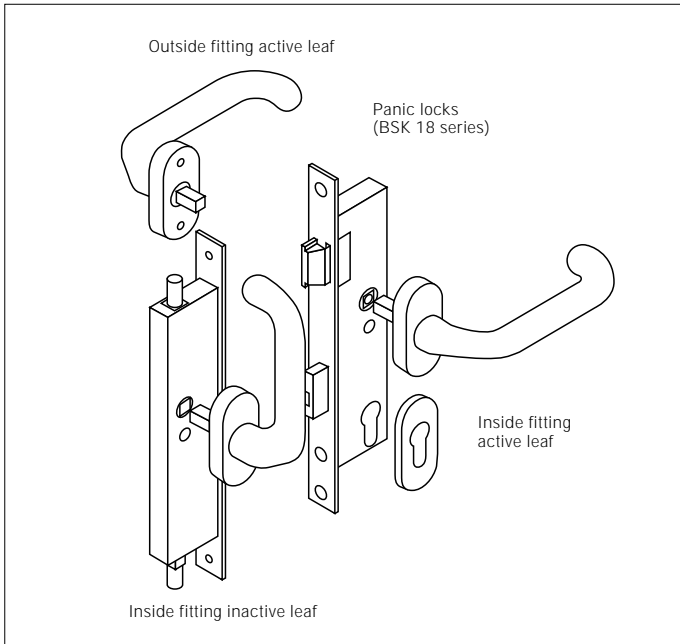


To ensure flawless fitting and operation, please advise lock type and its planned closing function with every enquiry or order.



# Panic fittings

Oval rose version



## FSB lever furniture for framed panic doors

FSB lever handles on oval rose for fire and smoke stop doors (in-line and cranked) can be used with matching accessories on all framed panic doors featuring BKS 18 series locks.

The FSB special spindle no. 0125 for door thicknesses from 34 mm to 101 mm, is ideal for use with locks incorporating a split follower.

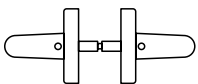
Building Regulations should be borne in mind when ordering and we also require the following details:

Door thickness  
Measurements XA and XI  
Product code for the FSB fire door furniture required

For FSB fire door fittings please also refer to catalogue sections a and c.

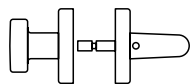
The FSB special spindle for locks with split follower is outlined in detail on page 485.

The relevant cranked-design lever handle sets are shown on pages 419ff.



Door furniture  
lever handle on both sides

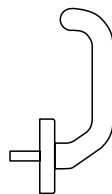
e. g.  
2 each 0646 22  
1 each 0125



Entrance door furniture

Inside: lever handle  
Outside: dead knob

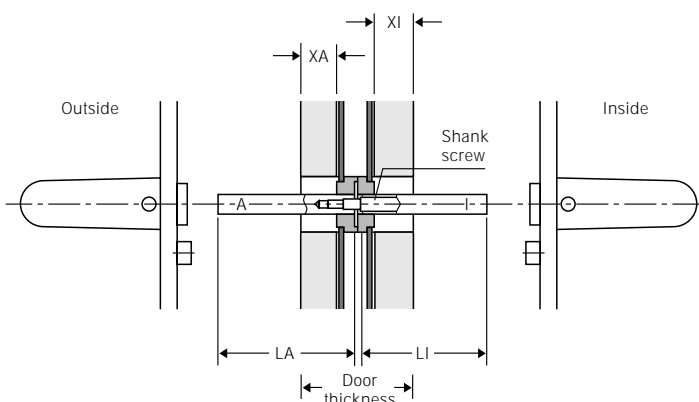
e. g.  
1 each 0646 22  
1 each 2329 28  
1 each 0125



Inactive leaf furniture  
Inside: lever handle

e. g.  
1 each 0646 22  
1 each 0173

10



To ensure flawless fitting and operation, please advise lock type and its planned closing function with every enquiry or order.

When fitting the lever handles, the roses must be secured against slippage by means of the lugs provided whilst the handles are rigidly tightened against the 9 mm spindle using a cup point stud bolt through the lever neck.

## Unlatching and pulling or pushing



### Lever handle for unlatching handle for pulling and pushing

We know from sorry experience that architects, interior designers and clients often disregard the recommendations of the hardware industry in respect of panic doors, allowing them to be used for general public transit. Such furniture is only intended for emergency application, however and subjecting it to regular heavy use can cause spindles to break, backplates and roses to work loose and locks to suffer damage. The following procedure has proved effective in such scenarios:

The panic door lever handle furniture is fitted together with a pull. In this disparate match, the lever handle has the task of releasing the panic lock, whilst the robust pull suggests itself as a means of pulling or pushing the door. It has been our observation that people very soon grasp how difficult it is to move a heavy panic door, with door-closer attached using a lightweight lever handle. It is only a matter of time, therefore, before attention switches to the sturdier fixed pull handle.

Where there is a likelihood – against the advice of the industry – of panic doors being used as standard transit points, FSB recommends fitting a lever/pull combination from the outset, instead of waiting until damage has occurred.