



TSN 1 & TSN 2

TSN SERIES | schröders system







MODELS

TSN 1
single hinged leaf

TSN 2
double hinged leaf



MODELS

TSN 1

TSN 2

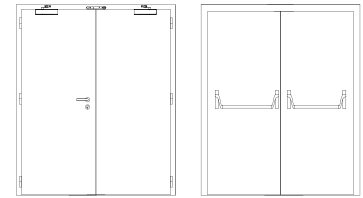
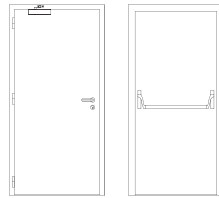
description

Hinged metal door with electro-zinc coated steel frame (1,5 mm thickness), cold-formed and construction by welding. An intumescent seal is embedded in the frame, which ensures the necessary tightness against flames and hot gases.

The leaf, with a door stop edge in all three sides of the frame, is made of two electro-zinc coated steel panels, ranging from 1 to 1,5 mm thick, and contains thermal insulating and acoustic materials according to Schröders constructive system.

The pivoting behavior of the door is ensured by two welded hinges of the system (per leaf), with a 16 mm diameter solid steel pin and movement on thrust ball bearings, allowing an opening up to 180°.

specification



model | typology

TSN 1 | single hinged leaf

TSN 2 | double hinged leaf

classification achieved when tested

FR integrity (EN 1634-1) ⁽¹⁾	E 30	E 30
FR integrity and insulation (EN 1634-1) ⁽¹⁾	EI ₂ 30	EI ₂ 30
radiation control (EN 1634-1) ⁽¹⁾	EW 30	EW 30
cold sealing (EN 1634-3)	Sa / S200	Sa / S200
thermal coefficient (EN ISO 10077-1)	1.3 W/(m ² .°C)	1.2 W/(m ² .°C)
air permeability (EN 1026)	up to classe 4 (optional)	up to classe 3 (optional)
watertightness (EN 1027)	up to classe 8A (optional)	up to classe 3A (optional)
wind resistance (EN 12211)	up to classe C5 (optional)	up to classe C4 (optional)
acoustics (EN 20140-3)	up to 53 dB	up to 48 dB
burglar resistance (EN 1627)	up to RC4	up to RC4
pressure (EN 12211)	up to 5000 Pa	up to 3800 Pa

⁽¹⁾ classification according to standard EN 13501-2

dimensions (mm)

W x H (standard) ⁽²⁾	800 / 900 x 2000 / 2100	1400 / 1600 / 1800 x 2000 / 2100
W maximum	2152	4452
H maximum	4526	4526
external frame (standard)	L + 148 x H + 74	L + 148 x H + 74
other dimensions	upon request	upon request

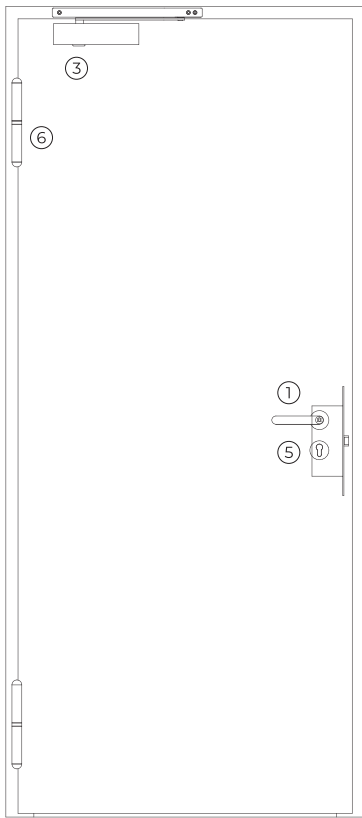
⁽²⁾ W x H = width x height = free passage

construction

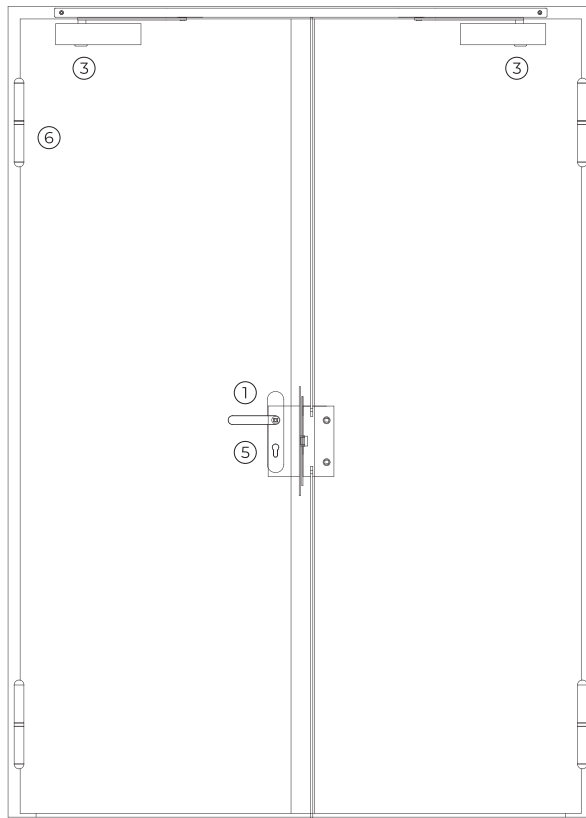
leaf thickness (mm)	68	68
leaf weight (kg/m ²)	30 / 40	30 / 40
hinges (per leaf)	2	2
vision panel (mm)	Ø 300 / 450 x 450 / L ≤ 942 / H ≤ 2155 ⁽³⁾	Ø 300 / 450 x 450 / L ≤ 942 / H ≤ 2155 ⁽³⁾
finishing (standard)	electro-zinc coated steel for painting / lacquering in standard RAL color ⁽⁴⁾	electro-zinc coated steel for painting / lacquering in standard RAL color ⁽⁴⁾

⁽³⁾ minimum border dimension= 130 mm / central glazing bar (optional)

⁽⁴⁾ standard RAL colors= 7035, 7038, 9005 e 9010



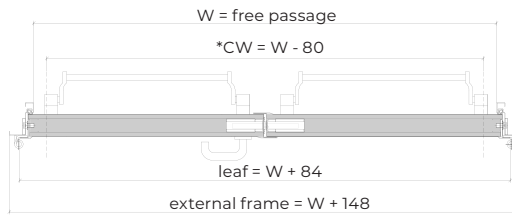
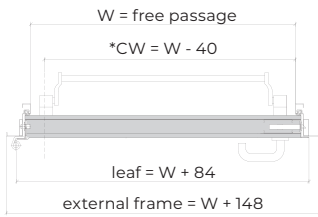
TSN1



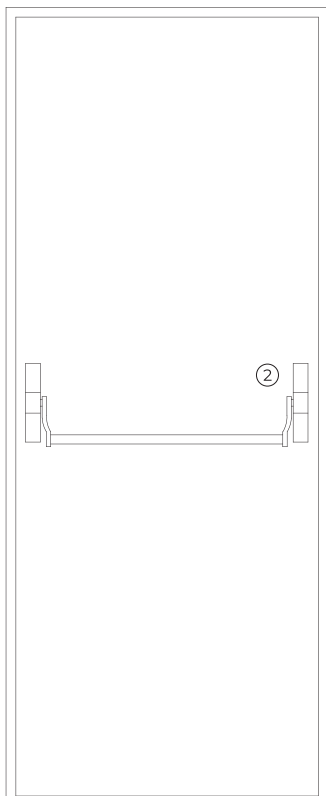
TSN2

exterior view

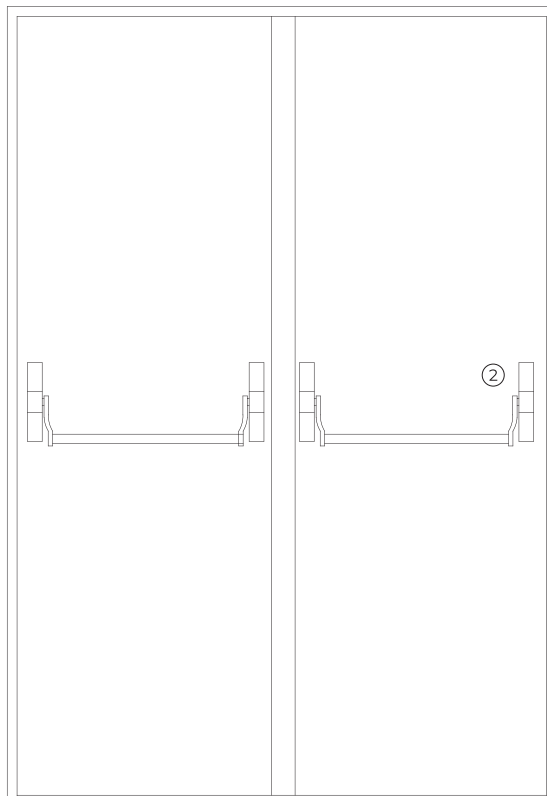
exterior view



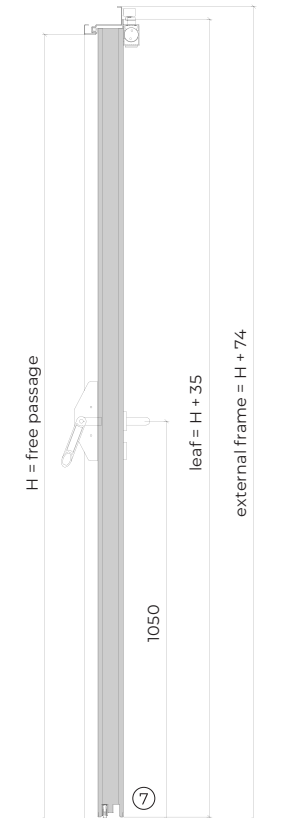
*CLEAR WIDTH, measured with the door leaf in a 90-degree open position excluding panic push bar and handles.



interior view



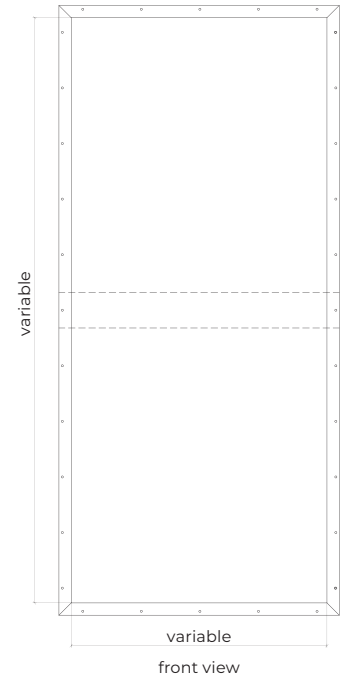
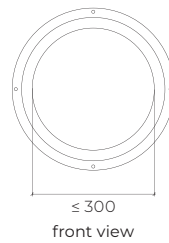
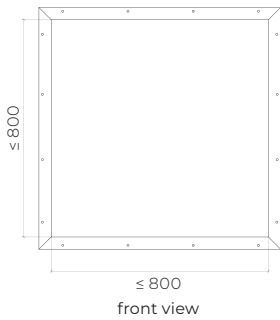
interior view



vertical section

optionals

vision panels



accessories and hardware

TSN 1

TSN 2

handle / anti-panic bar ⁽⁵⁾

- | | | | |
|---|----------|--|--|
| 1 | standard | anti-panic lever handle with drill finished in black (standard) or stainless steel. | |
| 2 | standard | anti-panic bar with gear unit, tube, cover caps and arms finished in nylon black (standard) or stainless steel alternatively, the door may be equipped with a pair of handles. | |

⁽⁵⁾ alternatively, the door may be equipped with a pair of handles.

hidraulic door closer ⁽⁶⁾

- | | | | |
|---|----------|--------------------------------------|-------------------------------------|
| 3 | standard | door closer with an articulated arm. | door closers with articulated arms. |
| | optional | door closer with sliding rail. | door closer with sliding rail. |

⁽⁶⁾ with electromagnetic hold-open (optional).

lock / counter lock

- | | | | |
|---|----------|---------------------------------------|--|
| 4 | standard | anti-panic lock with 1 locking point. | anti-panic lock with 1 locking point + counter lock. |
|---|----------|---------------------------------------|--|

cylinder

- | | | | |
|---|----------|----------------------------------|--|
| 5 | standard | 1/2 cylinder (european profile). | |
|---|----------|----------------------------------|--|

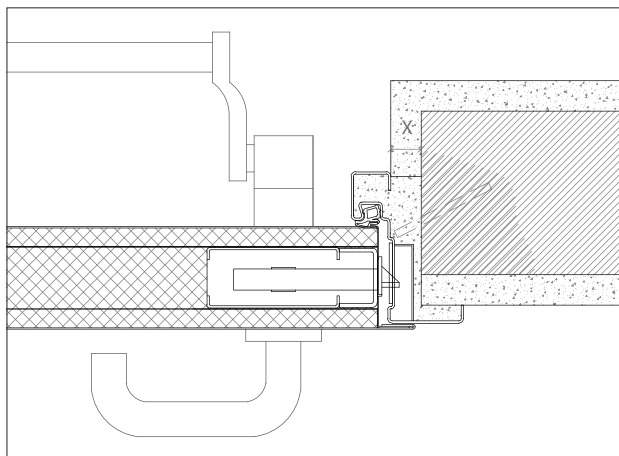
hinges

- | | | | |
|---|----------|------------------------------------|------------------------------------|
| 6 | standard | 2 exclusive hinges of this series. | 2 exclusive hinges of this series. |
|---|----------|------------------------------------|------------------------------------|

others

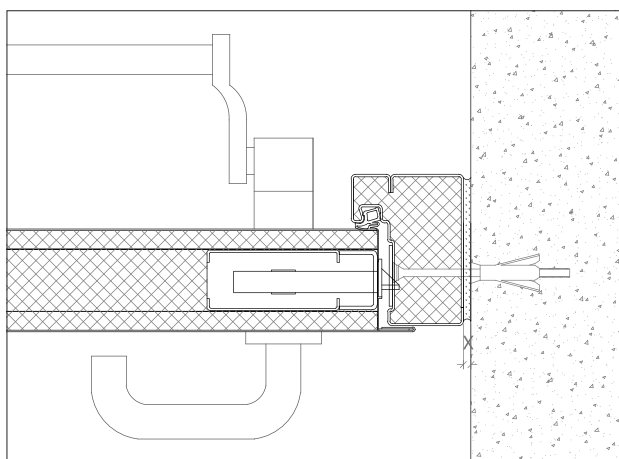
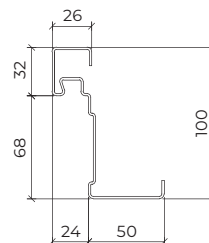
- | | | | |
|---|----------|-----------------------------|-----------------------------|
| 7 | optional | automatic seal. (VAS). | automatic seal.(VAS). |
| | optional | optical door viewer (180°). | optical door viewer (180°). |
| | optional | acoustic kit. | acoustic kit. |

details



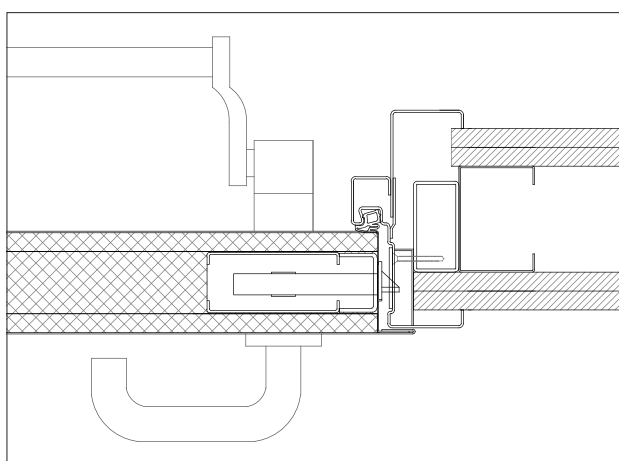
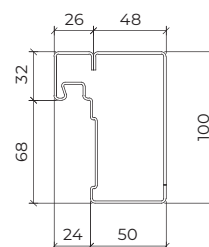
x > 20 mm (steel rod fixation)

F1 frame – standard frame | masonry wall mounting | steel rod fixation | plaster finish.



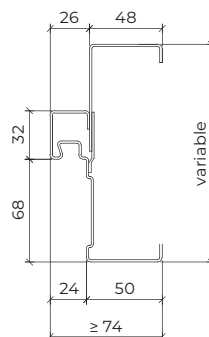
X ≥ 5-10 mm (for fixing with metal wall plugs according to wall type)

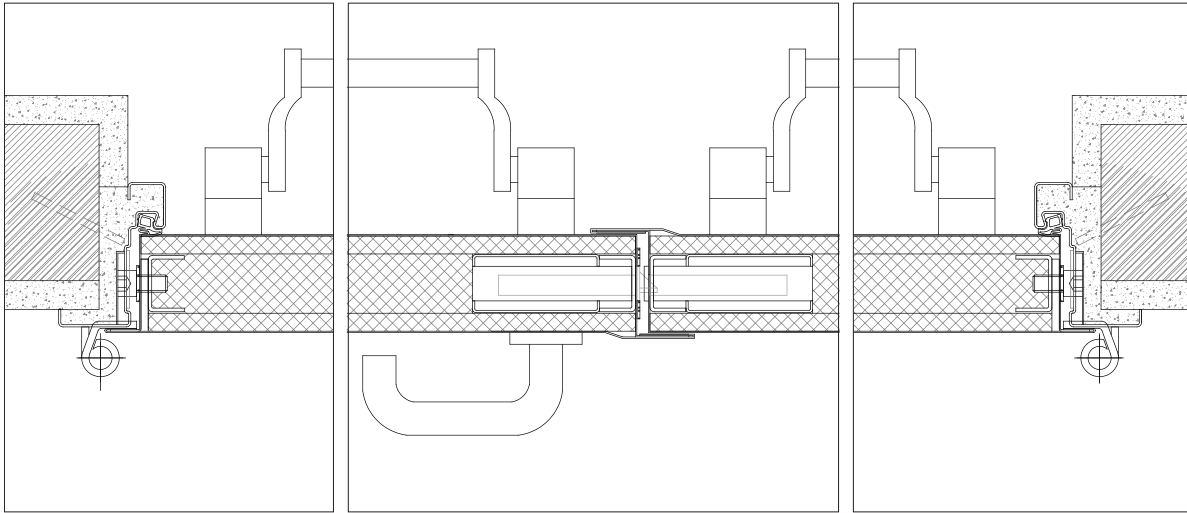
F2 frame – Closed frame | concrete wall mounting | metal wall plugs fixation.



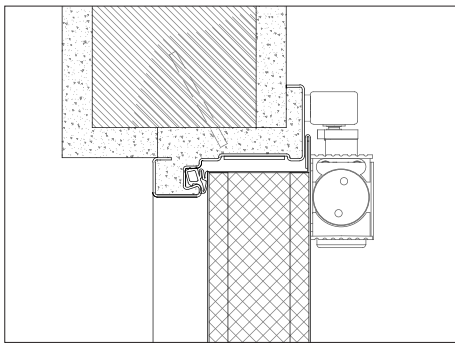
Note: there are certain elements – namely intumescent and acoustic seals and / or leaf and frame fillings – shown in details, that can be suppressed depending on the technical requirements of the door.

F3 frame – frame + counter-frame | gypsum wall mounting | metal portico fixation.

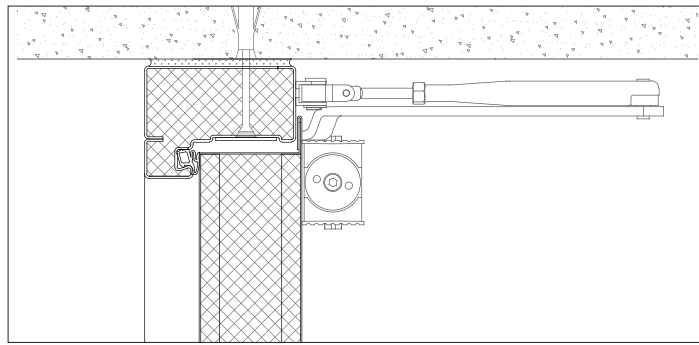




F1 frame – standard frame | masonry wall mounting | steel rod fixation | plaster finish

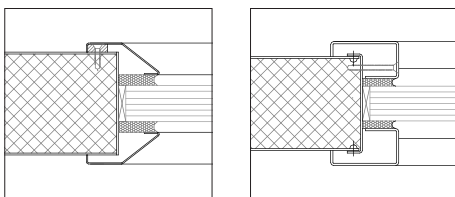


F1 frame – standard frame | masonry wall mounting | steel rod fixation | plaster finish | door closer with sliding rail



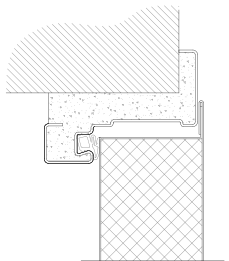
F2 frame – standard frame | masonry wall mounting | steel rod fixation | plaster finish | door closer with articulated arms

types of vision panels

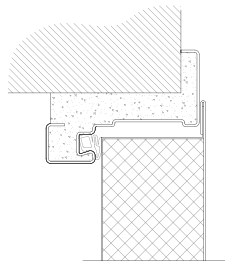


acoustic

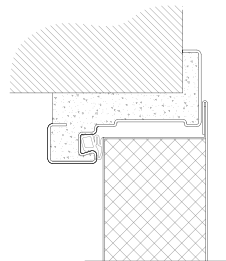
single-leaf door



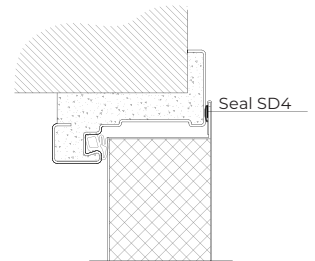
44 dB
Automatic Drop Seal



46 dB
Double Automatic Drop Seal

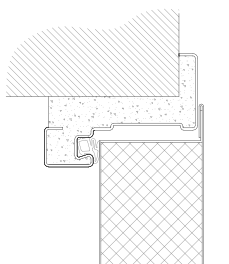


47 dB
Threshold Profile 4-Sided

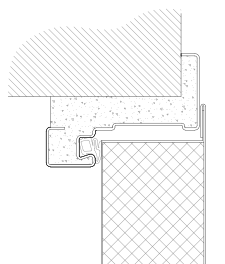


53 dB
Threshold Profile 4-Sided
Automatic Drop Seal
Seal SD4

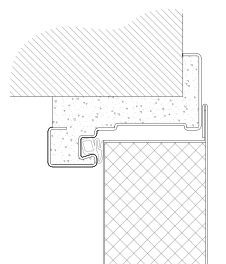
double-leaf door



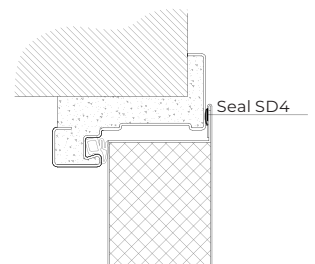
42 dB
Automatic Drop Seal



45 dB
Double Automatic Drop Seal



45 dB
Threshold Profile 4-Sided



48 dB
Threshold Profile 4-Sided
Automatic Drop Seal
Seal SD4

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