Mounting Plate Size Calculations

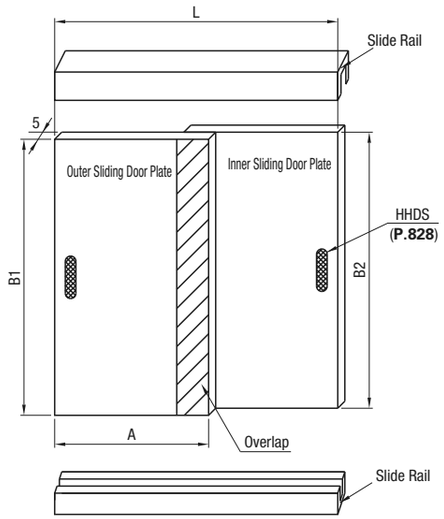
■Door Plate Size for Slide Rail Type

5mm thick plates are used. When both plates are assembled, they can be inserted into the slide rail.
When the slide rail width is L and the height is H (refer to Assy. Cross Section View on **P.788**), the size for the plates will be as follows.

Thickness T=5

Width $A=\frac{(L+20)}{2}$ (with a 20mm Overlap)

Height B1=H-30 (Outer Door Plate Height)
B2=H-31 (Inner Door Plate Height)



■Door Plate Size

Thickness is arbitrary.

- For Single Door

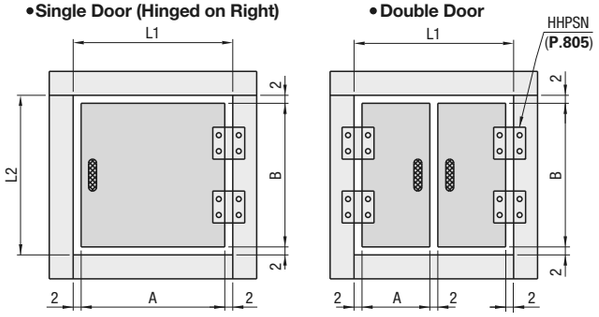
  Perimeter length will be 2mm less than the frame opening on each side.
  A plate with the below size is needed.
  Width A=L1-4
  Height B=L2-4

- For Double Doors

  Perimeter length will be 2mm less than the extrusion opening on each side. There needs to be 2 plates in the following size, and a 2mm gap between the two plates.

  Width $A=\frac{(L1-6)}{2}$
  Height B=L2-4

•Single Door (Hinged on Right) •Double Door



■Cover Plate Size (For bracket mounting)

The thicknesses are assumed as below.

- For M5 (HFS5 Series) Extrusions: 3mm Thick
- For M6 and M8 (HFS6 Series, HFS8(-45) Series) Extrusions: 5mm Thick

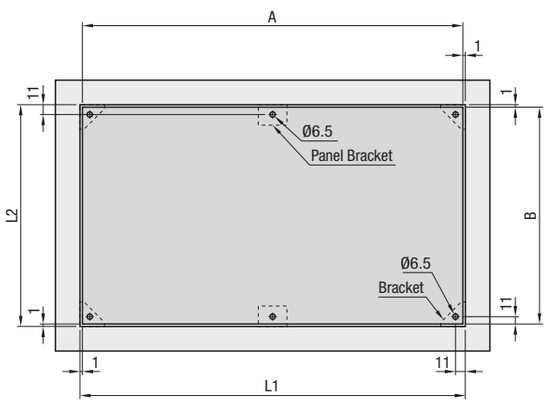
Cover mounting holes will be pre-drilled (-C option) on the bracket's cover mounting side. If the bracket intervals are wide, Panel Brackets (**P.785**) are used in between.

Plate size is as follows.

Width A=L1-2
Height B=L2-2

Mounting holes Ø6.5 are drilled at 11mm from each corner.

(Steel Type and Stainless Steel Type on **P.785** have different mounting hole locations.)
(Recommended Plates: **P.957** ~ **972** Resin Plates)



Ex. When ordering an acrylic plate with A=1000, B=600, T=5 and 6 mounting hole locations:

Part Number	-	A	-	B	-	T	-	F	-	G	-	Screw Nominal Dia. N
ACAE6H	-	1000	-	600	-	5	-	F489	-	G578	-	N6

Panel Size Calculations

There are following panel mounting methods.

- **Bracket Mounting***

  Brackets and Panel Brackets (alum. type) are used (See **P.785**).
  Tapping is specified for the brackets (Ex. HBLTS6-C).
  When mounting with Panel Brackets only, sheet steel or stainless steel can be selected, and the brackets are already tapped (refer to **P.785**).

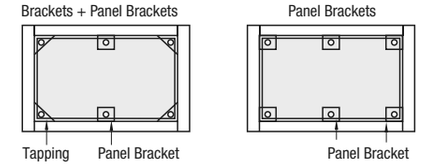
- **Fit in Slots**

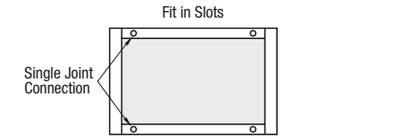
  A method useable when the extrusions are connected with: Simple Joints, Screw Joints, Center Joints, Single Joints, Pre Assy. Insertion Double Joints, and Post Assy. Insertion Double Joints (**P.552**~**554**, **602**~**614**, **660**~**664**, **705**~**710**).
  Slot Cover (**P.773**) is reversed and inserted into the slot, then the cover is inserted.
  Notches on four corners are needed in order to insert the panel into the slots.
  (See the diagram below)

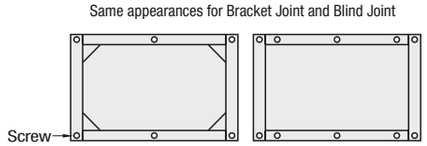
- **Direct Mounting***

  Mounted to cover the entire extrusion frame.
  Screw heads will protrude.

* Use Panel Mounting Screws (**P.787**) for panel mounting.







			Panel Mounting Method			Note
			Bracket Mounting *1	Fit in Slots *2	Direct Mounting	
Panel Thickness (mm)	Extrusion	HFS5 Series HFS6 Series HFS8 Series HFS8-45 Series	3, 5 5	3, 5	No limitations on panel thickness	*1. HBLFSN5 same as Direct Mounting *2. Use Slot Covers
Ease of Panel Removal			○	×	○	When removing for maintenance
Gap between Panels and Extrusions			Yes	No	No	-
Aesthetics			Normal	Excellent	Extrusions are covered and screw heads are more noticeable *3	*3. Use of Ultra Low Head Screws (**P.195**) makes for less noticeable.
Panel Size Calculations			Easy	Calculations for the corners needed *4	Easy	*4. See below for the calculations

Panel notching dimensions for slot fitting **P950 Resin Plates Standard/Anti-Static Grades can be specified to have notched as shown below.**

	Single Joint Kit (P.604)	Single Joint Kit (P.609, 661, 707) Screw Joint Kit (P.552, 603, 660, 706)		Pre-Assembly Insertion Double Joint Kit (P.611, 663, 709)		Center Joint (P.553, 605) (P.662, 708)	Post-Assembly Insertion Double Joint (P.554, 607) (P.664, 710)
		Single Joint Kit Standard Type	Single Joint Kit Narrow Type, Screw Joint Kit	Standard Type	Offset Nut Type		
Notching Shape by Joint	(Ex. 1) (Ex. 2) Panel notching is not needed for the case of Example 2.		Illustration is a Single Joint Kit Narrow Type.			(Ex. 1) (Ex. 2)	
HFS5 Series	-	-	5, 2, 13, 7	-	-	5, 1, 5, 5	5, 26, 5
HFS6 Series	8, 9, 13, 8	Portion that fits into slot. 8, 9, 13, 8	8, 2, 13, 8	8, 3, 9, 8, 31, 8	8, 9, 39, 8	8, 1, 8, 8	8, 36, 8
HFS8 Series	-	11.5, 12, 19, 11.5	11.5, 2, 17, 11.5	11.5, 1, 13, 10, 42, 11.5	11.5, 13, 52, 11.5	11.5, 1, 12, 11.5	11.5, 48, 11.5
HFS8-45 Series	-	12, 12, 17, 12	12, 2, 17, 12	12, 1, 13, 10, 48, 12	12, 13, 58, 12	12, 1, 12, * Notching is not needed.	12, 48, 12

Illustration is a Single Joint Kit Narrow Type.

The panels above have 1mm play allowances where fitting into the extrusion slots.
Resin plates have large thermal coefficient of expansion. Allow sufficient clearances.
Ex.: An acrylic plate will expand/shrink by 0.7mm per 1m length with 10°C temperature differential. If the temperature swings by 30°C, approx. 2mm allowance will be needed.