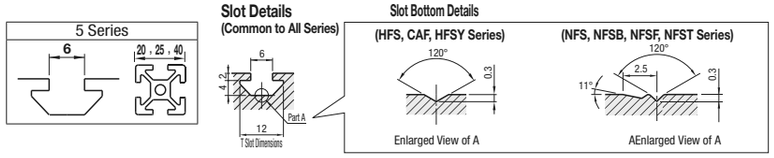
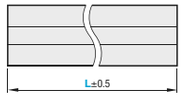
5 Series Aluminum Extrusions - Overview

5 Series

Aluminum extrusions with 6mm slot width. Available in 20mm, 25mm and 40mm in size. Applicable to M5 bolts.
Slot Depth 6mm, T Slot Dimension 12mm, L Dimension Tolerance ±0.5mm





Variations

	Standard Aluminum Extrusions			Lightweight Aluminum Extrusions		High Rigidity Aluminum Extrusions
	HFS Series	EFS Series	NFS (NEFS) Series	HFSL Series	NFSL Series	GFS Series
Cross Section Photo						
Material	EN AC-51400-T5 Equiv.	EN AC-51400-T5 Equiv.	EN AW-6063-T5 Equiv.	EN AC-51400-T5 Equiv.	EN AW-6063-T5 Equiv.	A6061SS-T6 Equiv.
Features	Standard cross section shape.	Have rigidity Equiv. to HFS Series yet lighter and more economical.	Significant price reduction has been achieved by material change. Strength(*) is the same as that of HFS and EFS Series.	Lightweight and economical extrusions. Suitable for use when light weight and economical price are given priority over strength.	Further price reduction has been achieved by changing the material of HFSL. Strength(*) is the same as that of HFSL Series.	These thick extrusions offer high rigidity and are suitable for use in high load.
Surface Treatment	Clear Anodize (HFS) Black Anodize (HFSB) Clear Coating (CAF) Baked Paint (Yellow) (HFSY)	Clear Anodize (EFS) Black Anodize (EFSB)	Clear Anodize Black Anodize	Clear Anodize Black Anodize	Clear Anodize	Clear Anodize
5 Series Representative Product	HFS5-2020 HFSB5-2020 CAF5-2020 HFSY5-2020	Not available in 5 Series lineup.	NFS5-2020 NFSB5-2020	Not available in 5 Series lineup.	Not available in 5 Series lineup.	Not available in 5 Series lineup.
Mass (kg/m) (**)	0.5	-	0.5	-	-	-
Cross Sectional Moment of Inertia (**) ℓx	0.742×10^4	-	0.742×10^4	-	-	-
Cross Sectional Moment of Inertia (**) ℓy	0.742×10^4	-	0.742×10^4	-	-	-

* Cross Sectional Moment of Inertia is equal to that of HFS, EFS and HFSL Series, however proof stress and tensile strength slightly decrease.
** Mass and Cross Sectional Moment of Inertia are for 20 square extrusions.

5 Series Aluminum Extrusions Lineup

Number of Slots (Vertical Axis) : Four-Side Slot Type can be jointed as desired; Flat Plane Type (1 - 3 sides) provides ornamental side(s).
Number of Slot Lines (Horizontal Axis) :There are extrusions with one or multiple slots on one side. Ones with multiple slots are suitable where strength is required.
Also available are Angled, Outer Surface R, Milled Surface, Bending and Slot Width Mixed Type.

Variations			HFS Series							EFS Series							NFS Series						
Number of Slots (Vertical Axis)		Color	1 Slot	2 Slots Rectangle	2 Slots Square	3 Slots or More	Other Shapes	Parallel Surfacing	Bending Slot Width Mixed	1 Slot	2 Slots Rectangle	2 Slots Square	3 Slots or More	Other Shapes	Parallel Surfacing	Bending Slot Width Mixed	1 Slot	2 Slots Rectangle	2 Slots Square	3 Slots or More	Other Shapes	Parallel Surfacing	Bending Slot Width Mixed
Four-Side Slots	No Flat Plane	Clear Anodize	•	•	•	•	•	•	•								•	•	•	•			
		Black Anodize	•	•	•												•	•	•				
		Clear Coating	•	•	•																		
		Yellow Paint	•																				
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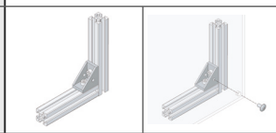
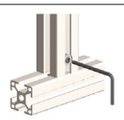
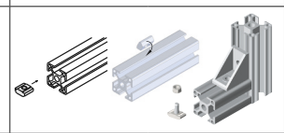
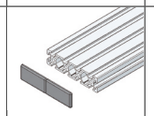
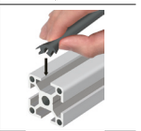
Flat Plane	One Flat	Clear Anodize	•	•	•				•								•	•	•				
		Black Anodize	•																				
		Clear Coating																					
		Yellow Paint																					
		Page	P.529	P.530	P.530				P.534								P.529	P.530	P.530				
	Two Flats	Clear Anodize	•		•												•						
		Black Anodize	•																				
		Clear Coating																					
		Yellow Paint																					
		Page	P.529		P.530												P.529						
	3 Sides Flat	Clear Anodize	•																				
		Black Anodize																					
		Clear Coating																					
		Yellow Paint																					
		Page	P.529																				

Accessories for 5 Series Aluminum Extrusions

MISUMI provides various types of mounting components and accessories.

Product Name	Brackets	Blind Joint	Nut	Extrusion End Caps	Slot Cover
Product Photo					
Mounted Product Photo					
Material	EN AC-46100 Equiv., EN AC-51400-T5 Equiv., etc.	EN 1.1191 Equiv., EN 1.4308 Equiv., EN 1.4301 Equiv., etc.	EN 1.0301 Equiv., EN 1.4301 Equiv., EN 1.4401 Equiv., etc.	Polyamide	Polyethylene, etc.
Features	Economical and standard joints mountable with screws and nuts. Alterations on aluminum extrusions for mounting are not required. Cover plates can be mounted by using Side Tapped Hole Type Brackets.	Suitable for locations where equipment is loaded and unloaded or doors are to be mounted. Alterations are required on the aluminum extrusions.	Nuts for mounting brackets and other accessories. Selectable from various types: Pre-Assembly Insertion Type, Post-Assembly Insertion Type, Thread Locking Adhesive Type, Spring-integrated Type convenient for vertical positioning.	Caps for protecting extrusion end faces. Can be mounted without any alterations.	Protects extrusion slots from dust. Can be cut with scissors. Various colors and materials are available.
Variations	Brackets for 1 Slot ~ 3 Slots Surface Treatment (Black Anodize, Electroless Nickel Plating, etc.) Brackets with Cover, etc.	-	Standard (Single Item, Bulk Packages, Stopper Sets)With Additional Functions (Temporary Holding, Thread Locking Adhesive, Holding Function) Screw Integrated, Long Nuts	Three-Sided Caps for Corners Screw Mounted	Elastomer Sponge Aluminum, etc.
Page No.	Brackets - Overview **P.535** Screws **P.751**~	Overview **P.551**	Overview **P.557**	**P.567**	**P.773**

5 Series Applications

Most lightweight aluminum extrusions usable with various fastening parts.
Suited for locations where small forces apply, such as for small coverings, small part racks and safety fences.

Usable in combination with different slot width extrusions.

Extrusions with different slot width can be combined when integrating frames and coverings.
5 Series, 6 Series, 8 Series Slot Width Mixed Extrusions (**P.580, P.640**) and Assembly Brackets for Different Extrusion Sizes (**P.590**) are available. Utilize these aluminum extrusions to assemble them as you desire.

(Additional Info.) Number of Slots and Number of Slot Lines

Number of Slots (Vertical Axis)

Four-Side Slots | One Flat | Two Flats | 3 Sides Flat

Number of Slot Lines (Horizontal Axis)

1 Slot | 2 Slots (Rectangle) | 2 Slots (Square) | 3 Slots or More

Variations			HFSL Series							NFSL Series							GFS Series						
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		Yellow Paint																					
		Page																					
	3 Sides Flat	Clear Anodize																					
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