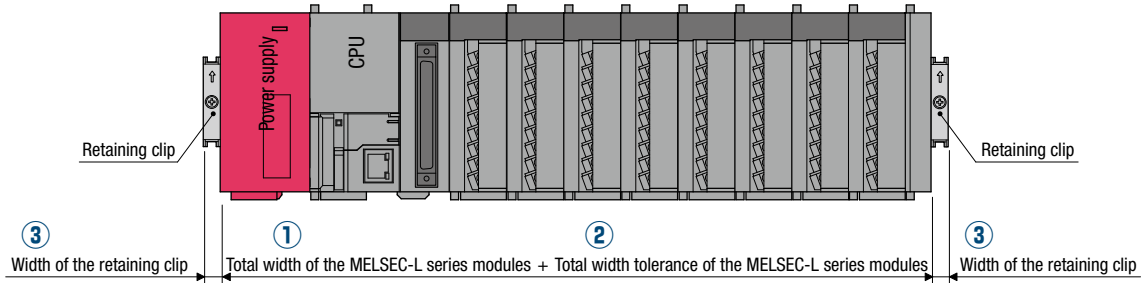


# How to select the installation method

The MELSEC-L series features a structure that connects modules without a base unit. Therefore, the width of the system after replacement need to be calculated, considering the width tolerance of each module. The installation method (base adapter or DIN rail) is determined based on the calculation result.

## ○ Calculating the width of the system after replacement

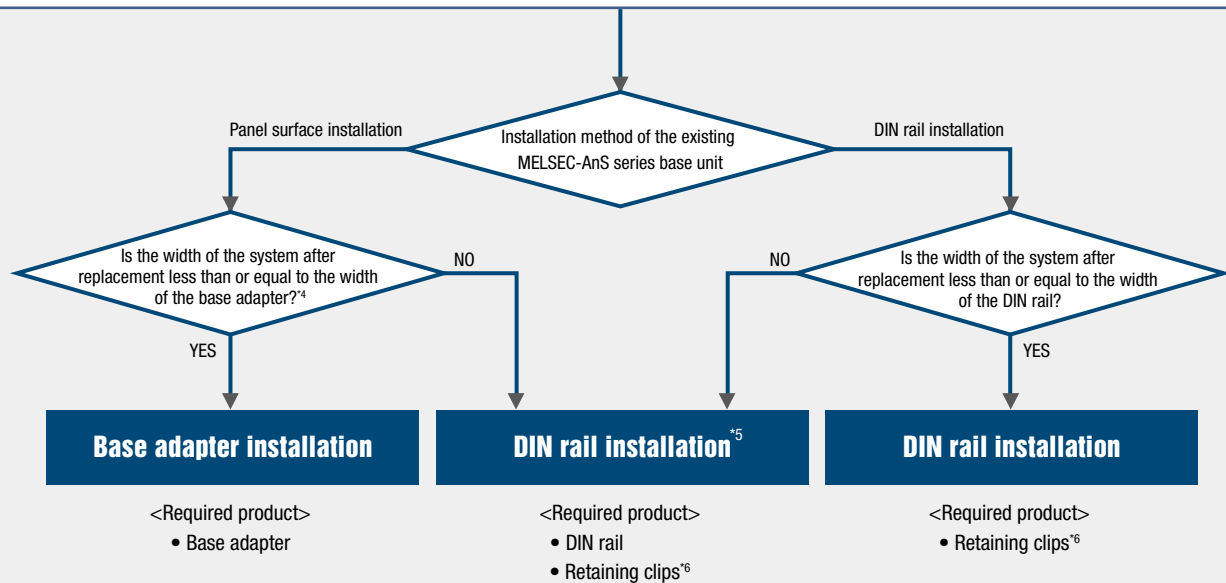
Calculate the width of the system using the following formula.



$$\text{① Total width of the MELSEC-L series modules}^{\text{*1}} + \text{② Total width tolerance of the MELSEC-L series modules}^{\text{*2}} + \text{③ Width of the retaining clip}^{\text{*3}}$$

### Automatic calculation

With the product transition selection tool provided by the Web information service MEEFAN, the width can be calculated automatically by simply selecting the model.



\*1: Width described in the user's manual for the MELSEC-L series module used

\*2: The width tolerance (per module) of the MELSEC-L series modules will be as follows:

Width of the MELSEC-L series module	Tolerance
28.5mm or less	+0.5mm (per module)
More than 28.5mm	+1.0mm (per module)

\*3: Width of the retaining clips used (When the retaining clips included with the base adapter are used, the width will be 18mm (9mm each).)

\*4: The following table lists the width of base adapters.

Base adapter model	Width (mm)
ERNT-ASLB38	430
ERNT-ASLB35	325
ERNT-ASLB33	255
ERNT-ASLB32	220
ERNT-ASLB30	330
ERNT-ASLB68	420
ERNT-ASLB65	315
ERNT-ASLB58	365
ERNT-ASLB55	260
ERNT-ASLB52	155

\*5: If the system after replacement does not fit in the installation space (width), consider using extension blocks for branch connection.

\*6: Prepare retaining clips that can be attached to the DIN rail by the user.

## (Example) When the A1S38B with eight input/output modules being mounted is replaced

### ○ When no space module is used

(a) Width of the base adapter ERNT-ASLB38: 430mm

(b) Width after replacement

1) Power supply module: 45mm (tolerance +1.0mm)

2) CPU module: 70mm (tolerance +1.0mm)

3) Input/output module: 28.5mm (tolerance +0.5mm) × 8

4) End cover: 13mm (tolerance +0.5mm)

5) Retaining clip: 9mm × 2

$$(45+70+28.5 \times 8+13) + (1.0+1.0+0.5 \times 8+0.5) + (9 \times 2)$$

Total width of the MELSEC-L series modules      Total width tolerance of the MELSEC-L series modules      Width of the retaining clip

$$= 356 + 6.5 + 18$$

$$= 380.5\text{mm} \approx \text{Max. } 381\text{mm}$$

### ○ When space modules are used

(a) Width of the base adapter ERNT-ASLB38: 430mm

(b) Width after replacement

1) Power supply module: 45mm (tolerance +1.0mm)

2) CPU module: 70mm (tolerance +1.0mm)

3) Space module: 16.5mm (tolerance +0.5mm) × 8

4) Input/output module: 28.5mm (tolerance +0.5mm) × 8

5) End cover: 13mm (tolerance +0.5mm)

6) Retaining clip: 9mm × 2

$$(45+70+16.5 \times 8+28.5 \times 8+13) + (1.0+1.0+0.5 \times 8+0.5 \times 8+0.5) + (9 \times 2)$$

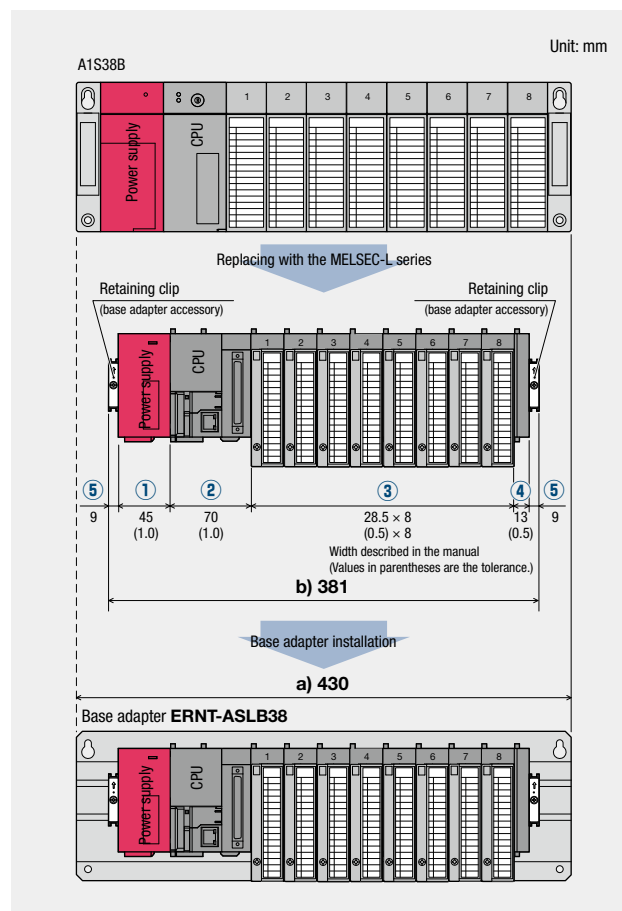
Total width of the MELSEC-L series modules      Total width tolerance of the MELSEC-L series modules      Width of the retaining clip

$$= 488 + 10.5 + 18$$

$$= 516.5\text{mm} \approx \text{Max. } 517\text{mm}$$

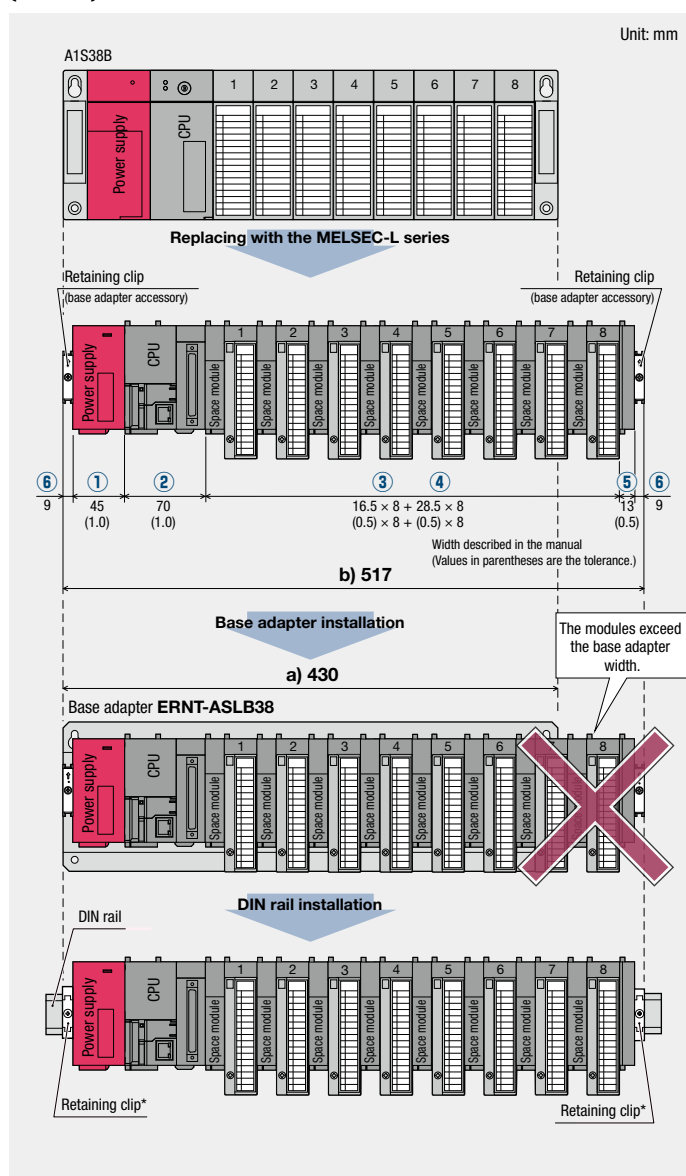
**a) 430mm ≥ b) 381mm**

The MELSEC-L series can be installed using a base adapter because the total width does not exceed the width of the base adapter ERNT-ASLB38 (430mm).



**a) 430mm < b) 517mm**

The MELSEC-L series needs to be installed using a DIN rail because the total width exceeds the width of the base adapter ERNT-ASLB38 (430mm).



\*: Prepare retaining clips that can be attached to the DIN rail by the user.