

# Modular Adapter

## E210/310/410 Series

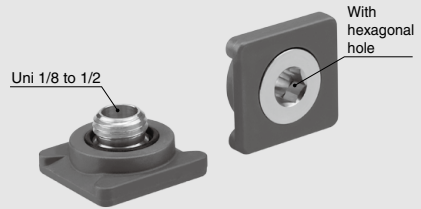
### Easy connection to current products!

#### Flexible mounting

- Can be connected to current products such as 2 port valves as well as F.R.L. Unit
- Can be freely rotated, thus allowing a wide selection of mounting directions
- Can be connected to current products of different size  
Ex.: AF30+ARG20

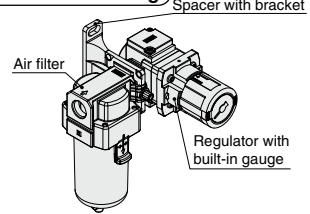
#### Reduced space/piping maintenance cost

- Can be connected/disconnected without rotation
- Fittings, tube, etc. not required for connection

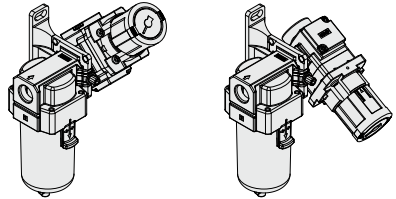


- Location of pressure gauge can be fixed depending on the installation location.

#### Ex. 1: Front face mounting

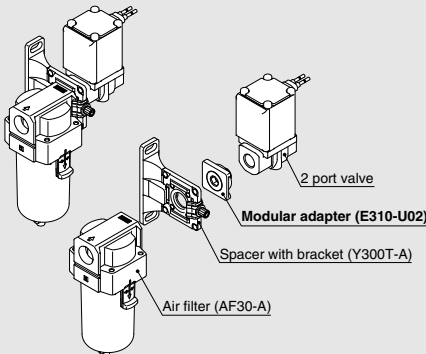


#### Ex. 2: Tilted position mounting

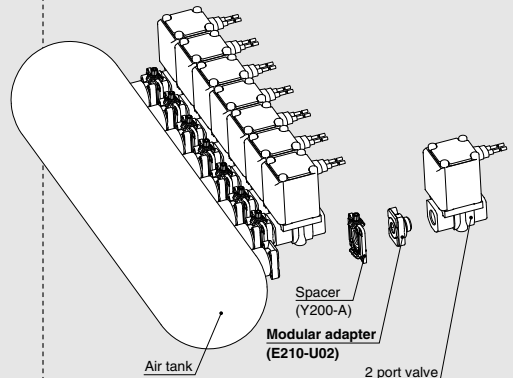


### Application Examples

#### Ex. 1 Filter + 2 port valve

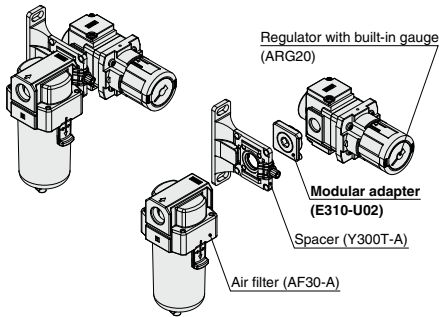


#### Ex. 2 2 port valve connection to air tank

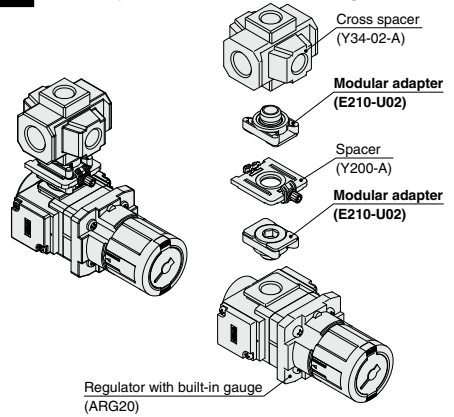


# Application Examples

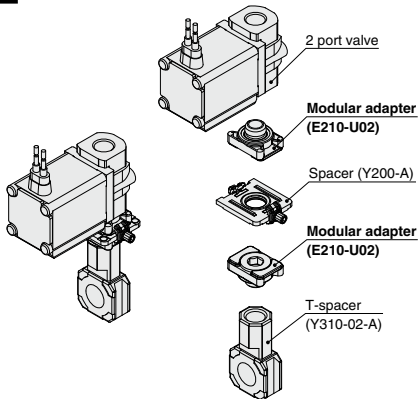
## Ex. 3 Front face mounting of regulator with built-in gauge



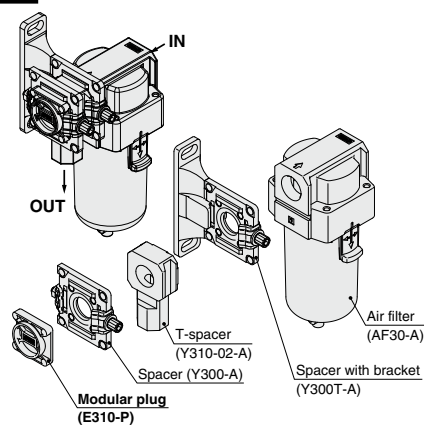
## Ex. 4 Cross spacer to branch mounting



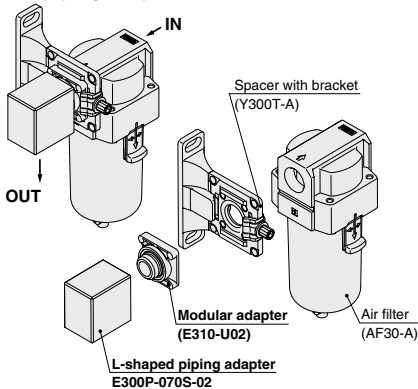
## Ex. 5 T-spacer to branch mounting (1)



## Ex. 6 T-spacer to downward face mounting (2)



## Ex. 7 Downward face mounting for L-shaped piping adapter



# Modular Adapter

# E210/310/410 Series

## How to Order

**E310** - **U** **03**

Size

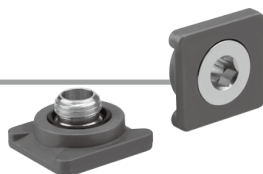
|     |
|-----|
| 210 |
| 310 |
| 410 |

Thread

|          |            |
|----------|------------|
| <b>U</b> | Uni thread |
|----------|------------|

Piping port size

| Symbol | Port size<br>Uni thread | Size |     |     |
|--------|-------------------------|------|-----|-----|
|        |                         | 210  | 310 | 410 |
| 01     | 1/8                     | ●    | —   | —   |
| 02     | 1/4                     | ●    | ●   | —   |
| 03     | 3/8                     | —    | ●   | ●   |
| 04     | 1/2                     | —    | —   | ●   |



## Specifications

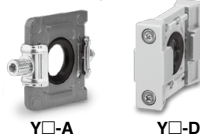
| Model                         | E210                     |     | E310 |     | E410 |     |     |
|-------------------------------|--------------------------|-----|------|-----|------|-----|-----|
| Port size                     | 1/8                      | 1/4 | 1/4  | 3/8 | 1/4  | 3/8 | 1/2 |
| Piping I.D.                   | ø6                       | ø8  | ø8   | ø10 | ø8   | ø10 | ø12 |
| Fluid                         | Air                      |     |      |     |      |     |     |
| Ambient and fluid temperature | -5 to 60°C (No freezing) |     |      |     |      |     |     |
| Proof pressure                | 1.5 MPa                  |     |      |     |      |     |     |
| Maximum operating pressure    | 1.0 MPa                  |     |      |     |      |     |     |
| Weight (g)                    | 26                       | 25  | 38   | 38  | 60   | 62  | 68  |

## Applicable Attachment Part Number

| Applicable models   | E210               | E310               | E410               |
|---------------------|--------------------|--------------------|--------------------|
| Spacer              | Y200-A<br>Y200-D   | Y300-A<br>Y300-D   | Y400-A<br>Y400-D   |
| Spacer with bracket | Y200T-A<br>Y200T-D | Y300T-A<br>Y300T-D | Y400T-A<br>Y400T-D |

\* Refer to pages 916 and 916-1 for detailed dimensions.

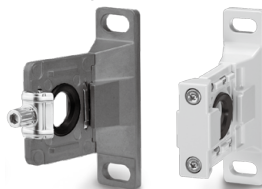
Spacer



Y□-A

Y□-D

Spacer with bracket



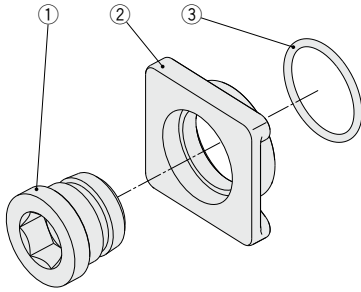
Y□T-A

Y□T-D

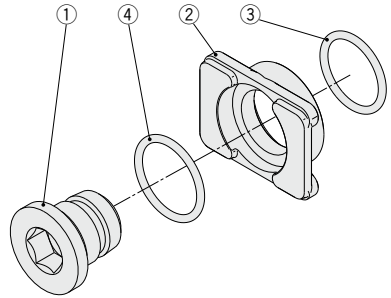
# E210/310/410 Series

## Construction

E210-U01  
E310-U02, U03  
E410-U02, U03, U04



E210-U02



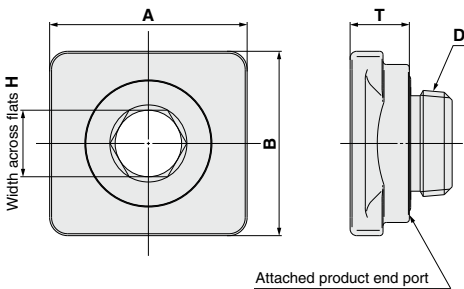
### Component parts

| No. | Description  | Material      |
|-----|--------------|---------------|
| 1   | Joint nipple | Brass         |
| 2   | Adapter      | Zinc die-cast |

### Replacement parts

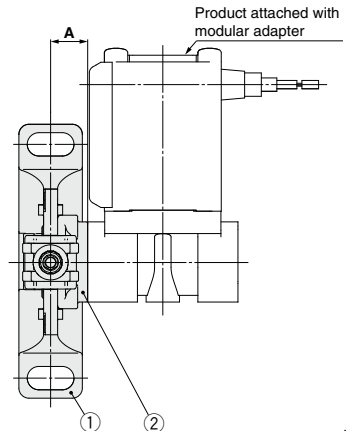
| No. | Description | Material | Part no.   |            |                      |                      |            |
|-----|-------------|----------|------------|------------|----------------------|----------------------|------------|
|     |             |          | E210-U01   | E210-U02   | E310-U02<br>E410-U02 | E310-U03<br>E410-U03 | E410-U04   |
| 3   | O-ring      | NBR      | E210P-040S | E210P-030S | E210P-030S           | E310P-030S           | E410P-030S |
| 4   | O-ring      | NBR      | —          | E210P-050S | —                    | —                    | —          |

## Dimensions



| Part no. | D<br>Uni thread | A  | B  | T | Unit: mm           |   |
|----------|-----------------|----|----|---|--------------------|---|
|          |                 |    |    |   | Width across flats | H |
| E210-U01 | 1/8             | 28 | 21 |   | 6                  |   |
| E210-U02 | 1/4             |    |    |   | 8                  |   |
| E310-U02 | 1/4             | 30 | 28 |   | 8                  |   |
| E310-U03 | 3/8             |    |    | 9 | 10                 |   |
| E410-U02 | 1/4             |    |    |   | 8                  |   |
| E410-U03 | 3/8             | 36 | 36 |   | 10                 |   |
| E410-U04 | 1/2             |    |    |   | 12                 |   |

## Mounting Dimensions



| ① Spacer with bracket | ② Modular adapter | A    | Unit: mm |
|-----------------------|-------------------|------|----------|
| Y200T-A/Y200T-D       | E210-U01 to U02   | 10.6 |          |
| Y300T-A/Y300T-D       | E310-U02 to U03   | 11.1 |          |
| Y400T-A/Y400T-D       | E410-U02 to U04   | 11.6 |          |

Note) Y200(-D) to Y400(-D) spacers share the same dimensions.

## Option

### Modular Plug

#### How to Order

**E310** - P

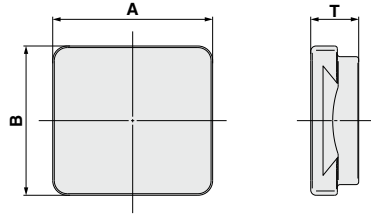
Size

|     |
|-----|
| 210 |
| 310 |
| 410 |

Modular plug



#### Dimensions



Unit: mm

| Part no. | A  | B  | T | Applicable spacer |                     |
|----------|----|----|---|-------------------|---------------------|
|          |    |    |   | Spacer            | Spacer with bracket |
| E210-P   | 28 | 21 | 9 | Y200-A/Y200-D     | Y200T-A/Y200T-D     |
| E310-P   | 30 | 28 |   | Y300-A/Y300-D     | Y300T-A/Y300T-D     |
| E410-P   | 36 | 36 |   | Y400-A/Y400-D     | Y400T-A/Y400T-D     |

### L-Shaped Piping Adapter

#### How to Order

**E300P** - 070S - **03**

Size

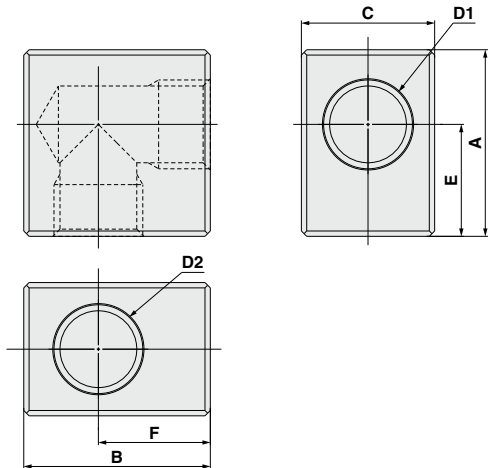
|     |
|-----|
| 300 |
| 400 |

Port size

| Symbol | Port size<br>Rc | Size |     |
|--------|-----------------|------|-----|
|        |                 | 300  | 400 |
| 02     | 1/4             | ●    | —   |
| 03     | 3/8             | ●    | ●   |
| 04     | 1/2             | —    | ●   |



#### Dimensions

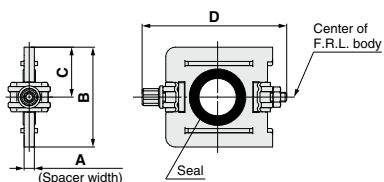
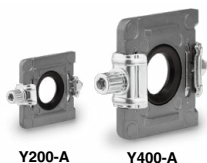


(mm)

| Part no.      | D1    | D2    | A  | B  | C  | E    | F    |
|---------------|-------|-------|----|----|----|------|------|
| E300P-070S-02 | Rc1/4 | Rc1/4 | 32 | 32 | 20 | 21   | 21   |
| E300P-070S-03 | Rc3/8 | Rc3/8 | 35 | 35 | 25 | 21   | 21   |
| E400P-070S-03 | Rc3/8 | Rc3/8 | 45 | 45 | 25 | 27.5 | 27.5 |
| E400P-070S-04 | Rc1/2 | Rc1/2 | 45 | 45 | 30 | 27.5 | 27.5 |

# E210/310/410 Series

## Spacer (Y□-A)

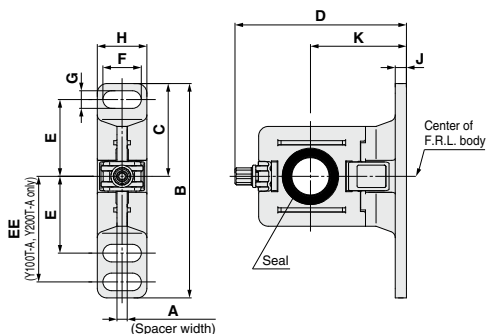
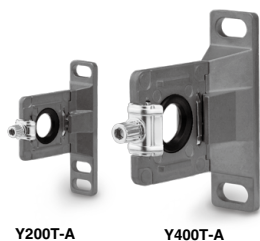


| Model  | A   | B    | C    | D    | Applicable model | Applicable modular model |
|--------|-----|------|------|------|------------------|--------------------------|
| Y200-A | 3.2 | 31.2 | 15.6 | 44.9 | E210             | AC-A, AC-B               |
| Y300-A | 4.2 | 43.4 | 21.7 | 57.9 | E310             |                          |
| Y400-A | 5.2 | 53   | 26.5 | 68.5 | E410             |                          |

### Replacement parts

| Description | Material | Part no.   |            |            |
|-------------|----------|------------|------------|------------|
|             |          | Y200-A     | Y300-A     | Y400-A     |
| Seal        | HNBR     | Y220P-050S | Y320P-050S | Y420P-050S |

## Spacer with Bracket (Y□T-A)



| Model   | A   | B  | C  | D    | E  | EE | F  | G   | H    | J   | K  | Applicable model | Applicable modular model |
|---------|-----|----|----|------|----|----|----|-----|------|-----|----|------------------|--------------------------|
| Y200T-A | 3.2 | 67 | 29 | 53.4 | 24 | 33 | 12 | 5.5 | 15.5 | 3.5 | 30 | E210             | AC-A, AC-B               |
| Y300T-A | 4.2 | 82 | 41 | 71.5 | 35 | —  | 14 | 7   | 19   | 4   | 41 | E310             |                          |
| Y400T-A | 5.2 | 96 | 48 | 86.1 | 40 | —  | 18 | 9   | 26   | 5   | 50 | E410             |                          |

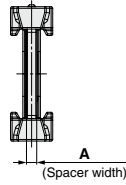
### Replacement parts

| Description | Material | Part no.   |            |            |
|-------------|----------|------------|------------|------------|
|             |          | Y200T-A    | Y300T-A    | Y400T-A    |
| Seal        | HNBR     | Y220P-050S | Y320P-050S | Y420P-050S |

## Spacer (Y□-D)



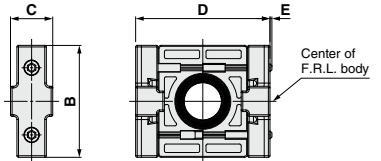
Y□-D



| Model         | A   | B  | C    | D  | E   | Applicable model | Applicable modular model |
|---------------|-----|----|------|----|-----|------------------|--------------------------|
| <b>Y200-D</b> | 3.2 | 35 | 13.2 | 42 | 0.6 | <b>E210</b>      | <b>AC-D</b>              |
| <b>Y300-D</b> | 4.2 | 43 | 16.2 | 53 | —   | <b>E310</b>      |                          |
| <b>Y400-D</b> | 5.2 | 51 | 19.2 | 71 | —   | <b>E410</b>      |                          |

### Replacement parts

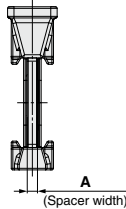
| Description | Material | Part no.   |            |            |
|-------------|----------|------------|------------|------------|
|             |          | Y200-D     | Y300-D     | Y400-D     |
| Seal        | HNBR     | Y220P-050S | Y320P-050S | Y420P-050S |



## Spacer with Bracket (Y□T-A)



Y□T-D

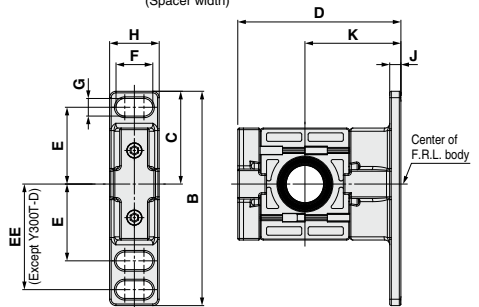


| Model          | A   | B   | C    | D    | E  | EE | F    | G   | H    |
|----------------|-----|-----|------|------|----|----|------|-----|------|
| <b>Y200T-D</b> | 3.2 | 67  | 29   | 51   | 24 | 33 | 11.5 | 5.5 | 15.5 |
| <b>Y300T-D</b> | 4.2 | 85  | 42.5 | 67.5 | 35 | —  | 14   | 7   | 20   |
| <b>Y400T-D</b> | 5.2 | 115 | 50   | 85.5 | 40 | 55 | 18   | 9   | 26   |

| Model          | J   | K  | Applicable model | Applicable modular model |
|----------------|-----|----|------------------|--------------------------|
| <b>Y200T-D</b> | 3.5 | 30 | <b>E210</b>      | <b>AC-D</b>              |
| <b>Y300T-D</b> | 6   | 41 | <b>E310</b>      |                          |
| <b>Y400T-D</b> | 7   | 50 | <b>E410</b>      |                          |

### Replacement parts

| Description | Material | Part no.   |            |            |
|-------------|----------|------------|------------|------------|
|             |          | Y200T-D    | Y300T-D    | Y400T-D    |
| Seal        | HNBR     | Y220P-050S | Y320P-050S | Y420P-050S |









# E210/310/410 Series Specific Product Precautions

Be sure to read this before handling the products.  
Refer to page 9 for safety instructions.

## Mounting

### ⚠ Caution

The seal surface of the product to be attached requires the modular adapter O-ring seal surface as shown in Table 1.

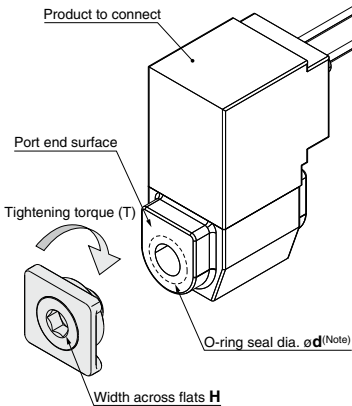
In addition, when tightening the modular adapter please refer to table 2 for the proper tightening torque.

Table 1: Required O-ring seal diameter for the mating product

| Part no. | Port size | ød        |
|----------|-----------|-----------|
| E210-U01 | 1/8       | Over 14.5 |
| E210-U02 | 1/4       | Over 18   |
| E310-U02 | 1/4       | Over 18   |
| E310-U03 | 3/8       | Over 22   |
| E410-U02 | 1/4       | Over 18   |
| E410-U03 | 3/8       | Over 22   |
| E410-U04 | 1/2       | Over 27   |

Table 2: Hexagonal hole dim. & tightening torque

| Part no. | Port size | Width across flats H | Recommended tightening torque (N·m) |
|----------|-----------|----------------------|-------------------------------------|
| E210-U01 | 1/8       | 6                    | 9 to 11                             |
| E210-U02 | 1/4       | 8                    | 14 to 16                            |
| E310-U02 | 1/4       | 8                    | 14 to 16                            |
| E310-U03 | 3/8       | 10                   | 24 to 26                            |
| E410-U02 | 1/4       | 8                    | 14 to 16                            |
| E410-U03 | 3/8       | 10                   | 24 to 26                            |
| E410-U04 | 1/2       | 12                   | 30 to 32                            |

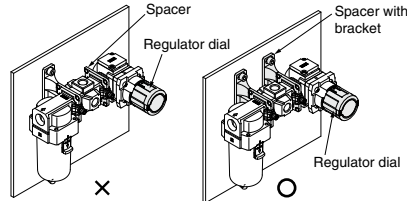


(Note) The surface roughness of the seal surface of the product to be mated to the modular adapter must be less than Rz25.

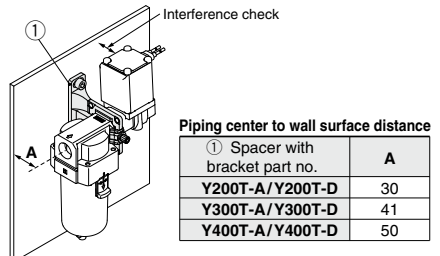
## Selection

### ⚠ Warning

- When utilizing a regulator or a pressure relief 3 port valve with an operator (dial, etc), assure that a large moment is not exerted on the bracket spacer when placing the product. Be sure to utilize a T-Bracket (Y200T-A/Y300T-A/Y400T-A/Y200T-D/Y300T-D/Y400T-D) in the appropriate space in order to alleviate this.

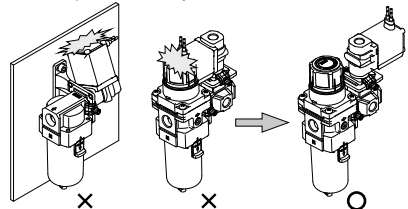


- When making the product selection and mounting to a wall, determine the distance to the wall from the center of pipe (A dimension) and make your selection of the product so that, when attached, the product selected does not run into the wall.



- Give careful thought to the attachment angle, and assure that the attached product does not run into the wall mount prior to product selection.

In addition, assure that the product selected will not interfere with other products nearby.



- In the event that the customer is unable to determine the interference prior to product selection, please contact SMC.

### ⚠ Caution

- If products of brands other than SMC's are connected, this product is no longer guaranteed.