## Simple Specials: <br> -XC15: Change of Tie-rod Length

These changes are dealt with Simple Specials System. Refer to the front matter pages for details.

## 9 Change of Tie-rod Length

Symbol

Cylinder with M dimension for tie-rod length changed from the standard length.

| Series | Description | Model | Action | Note |
| :---: | :---: | :---: | :---: | :---: |
| CA2 | Standard type | CA2-Z | Double acting, Single rod |  |
|  |  | CA2W-Z | Double acting, Double rod |  |
|  | Non-rotating rod type | CA2K | Double acting, Single rod | Applicable to $\varnothing 40$ to $\varnothing 63$ |
|  |  | CA2KW | Double acting, Double rod | Applicable to $\varnothing 40$ to $\varnothing 63$ |
|  | Air-hydro cylinder | CA2H | Double acting, Single rod |  |
|  | End lock cylinder | CBA2 | Double acting, Single rod |  |
|  | Smooth cylinder | CA2Y-Z | Double acting, Single rod |  |
| CS1 | Standard type | CS1 | Double acting, Single rod |  |
|  |  | CS1W | Double acting, Double rod |  |
|  | Low friction type | CS1 $\square$ Q | Double acting, Single rod |  |
| CS2 | Standard type | CS2 | Double acting, Single rod |  |
|  |  | CS2W | Double acting, Double rod |  |
|  | Smooth cylinder | CS2Y | Double acting, Single rod |  |
| CNA2 | Cylinder with lock | CNA2 | Double acting, Single rod |  |
|  |  | CNA2W | Double acting, Double rod |  |
| CV | Valve mounted cylinder | CV3 | Double acting, Single rod |  |
|  |  | CV3K | Double acting, Single rod | Applicable to ø40 to ø63 |
|  |  | CVS1 | Double acting, Single rod |  |
|  |  | CVS1K | Double acting, Single rod | Applicable to $\varnothing 40$ to ø63 |

CA2, CNA2, CV series


CS1, CS2 series


## $\triangle$ Precautions

1. To order, specify the M dimension as well as the part number.
2. SMC will make appropriate arrangements if no dimension, tolerance, or finish instructions are given in the diagram.
3. Tie-rod length changeable range is described in the below.
4. The $M$ dimension of the bracket mounting side of Flange (F, G), Clevis (C, D) types cannot be specified.

Tie-rod Length Changeable Range

| Model | CA2, CNA2, CV | CS1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bore size (mm) | All bore size | 125 | 140 | 160 | 180 | 200 | 250 | 300 |
| M Min. | 0 | 15 |  | 18 | 20.5 | 22 | 26 | 32.5 |
| M Max. | $300{ }^{(1)}$ | 270 |  |  |  |  |  |  |

Note 1) The maximum value of $M$ on the rod side for the CNA2 series is 50 .
Tie-rod Length Changeable Range
(mm)

| Model | CS2 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bore size (mm) | $\mathbf{1 2 5}$ | 160 |  |  |  |  |
| Mounting bracket | L | B, F, G, C, D, T | L | B, F, G, C, D, T | L | B, F, G, C, D, T |
| M Min. | 20 | 12 | 21 | 12 | 23 | 14 |
| M Max. | 270 |  |  |  |  |  |

