

# Series variation



# Medium bore size cylinder SCA2 Series

\* For the environment-resistant/valve, refer to pages 560 to 597.

- SCP\*3
- CMK2
- CMA2
- SCM
- SCG
- SCA2**
- SCS2
- CKV2
- CAV2/  
COVPIN2
- SSD2
- SSG
- SSD
- CAT
- MDC2
- MVC
- SMG
- MSD/  
MSDG
- FC\*
- STK
- SRL3
- SRG3
- SRM3
- SRT3
- MRL2
- MRG2
- SM-25
- ShkAbs
- FJ
- FK
- Spd  
Contr
- Ending

| Variation   | Model No. | Bore size (mm) | Standard stroke length (mm) |    |    |     |     |     |     |     |     |     |     | Min. stroke length (mm) | Max. stroke length (mm) | Available stroke length (mm) | Custom stroke length (per mm) | Basic |     |
|---|-----------|----------------|-----------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-------------------------|-------------------------|------------------------------|-------------------------------|-------|-----|
|   |           |                | 25                          | 50 | 75 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 |                         |                         |                              |                               |       | 500 |
|   |           |                |                             |    |    |     |     |     |     |     |     |     |     |                         |                         |                              |                               |       | 00  |
| Double acting   | SCA2      | φ40/φ50        | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●                       | 1                       | 600                          | 1600<br>2000                  | 1     | ●   |
|   |           | φ63            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●                       | 1                       | 700                          | 2500                          | 1     | ●   |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●                       | 1                       | 800                          |                               | 1     | ●   |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●                       | 1                       | 800                          |                               | 1     | ●   |
| Double acting/stroke adjustable (push)                          | SCA2-P    | φ40 to φ63     | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 25                      | 600                     | 600                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 25                      | 700                     | 700                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 25                      | 800                     | 800                          | 1                             | ●     |     |
| Double acting/stroke adjustable (pull)                          | SCA2-R    | φ40 to φ63     | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 25                      | 600                     | 600                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 25                      | 700                     | 700                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 25                      | 800                     | 800                          | 1                             | ●     |     |
| Double acting/heat resistant                                    | SCA2-T    | φ40 to φ63     | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 600                     | 600                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 700                     | 700                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 800                     | 800                          | 1                             | ●     |     |
| Double acting/position locking                                  | SCA2-Q2   | φ40 to φ63     | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 5                       | 600                     | 600                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 5                       | 700                     | 700                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 5                       | 800                     | 800                          | 1                             | ●     |     |
| Double acting/low friction (low pressure (≤ 0.2 MPa))           | SCA2-O    | φ40 to φ63     | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 600                     | 600                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 700                     | 700                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 800                     | 800                          | 1                             | ●     |     |
| Double acting/low friction (constant friction when pressurized) | SCA2-U    | 40 to φ63      | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 600                     | 600                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 700                     | 700                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 800                     | 800                          | 1                             | ●     |     |
| Double acting/double rod  | SCA2-D    | φ40 to φ63     | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 600                     | 800                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 700                     | 800                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 800                     | 800                          | 1                             | ●     |     |
| Double acting/back to back                                      | SCA2-B    | φ40 to φ63     | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 600                     | 600                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 700                     | 700                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 800                     | 800                          | 1                             | ●     |     |
| Double acting/two-stage   | SCA2-W    | φ40 to φ63     | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 2                       | 600                     | 600                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 2                       | 700                     | 700                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 2                       | 800                     | 800                          | 1                             | ●     |     |
| Double acting/steel tube  | SCA2-K    | φ40            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 600                     | 1600                         | 1                             | ●     |     |
|   |           | φ50            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 700                     | 1900                         | 1                             | ●     |     |
|   |           | φ63            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 800                     |                              | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 800                     |                              | 1                             | ●     |     |
| Double acting/low hydraulic                                     | SCA2-H    | φ40 to φ63     | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 600                     | 600                          | 1                             | ●     |     |
|   |           | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 700                     | 700                          | 1                             | ●     |     |
|   |           | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 1                       | 800                     | 800                          | 1                             | ●     |     |

● : Standard, ◎ : Option, ○ : Custom order, ■ : Not available

|   | Mounting   |                 |                  |                          |             |                |                       |                   |                    |                                       |                        |                         | Cushion         |                      |                    |                     | Option          |                 |                                       |                           |                           |                      | Accessory |            |             |                |             |                        | Switch | Page |     |
|---|------------|-----------------|------------------|--------------------------|-------------|----------------|-----------------------|-------------------|--------------------|---------------------------------------|------------------------|-------------------------|-----------------|----------------------|--------------------|---------------------|-----------------|-----------------|---------------------------------------|---------------------------|---------------------------|----------------------|-----------|------------|-------------|----------------|-------------|------------------------|--------|------|-----|
|   | Axial foot | Rod side flange | Head side flange | Head side special flange | Eye bracket | Clevis bracket | Intermediate trunnion | Rod side trunnion | Head side trunnion | Intermediate supporting hole trunnion | Rod side hole trunnion | Head side hole trunnion | Without cushion | Both sides cushioned | Rod side cushioned | Head side cushioned | Bellows (100°C) | Bellows (250°C) | Piston rod material (stainless steel) | Cushion needle position S | Cushion needle position T | Copper and PTFE free | Rod eye   | Rod clevis | Eye bracket | Clevis bracket | Eye bracket | Trunnion No. 2 bracket |        |      |     |
|   | LB         | FA              | FB               | FC                       | CA          | CB             | TC                    | TA                | TB                 | TF                                    | TD                     | TE                      | N               | B                    | R                  | H                   | J               | L               | M                                     | S                         | T                         | P6                   | I         | Y          | B1          | B2             | B3          | B4                     |        |      |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 434 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 456 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 464 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 472 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 478 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 510 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 518 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 524 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 532 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 540 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 548 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    | 552 |
| ● | ●          | ●               | ●                | ●                        | ●           | ●              | ●                     | ●                 | ●                  | ●                                     | ●                      | ●                       | ●               | ●                    | ●                  | ●                   | ○               | ○               | ○                                     | ○                         | ○                         | ○                    | ○         | ○          | ○           | ○              | ○           | ○                      | ○      | ◎    |     |

Note: φ40 is not available for hole trunnion (TF, TD and TE).  
 Note: TA mounting with R position locking mechanism is not available.  
 Note: TB mounting with H position locking mechanism is not available.




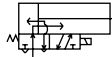
|              |
|--------------|
| SCP*3        |
| CMK2         |
| CMA2         |
| SCM          |
| SCG          |
| <b>SCA2</b>  |
| SCS2         |
| CKV2         |
| CAV2/COVP/N2 |
| SSD2         |
| SSG          |
| SSD          |
| CAT          |
| MDC2         |
| MVC          |
| SMG          |
| MSD/MSDG     |
| FC*          |
| STK          |
| SRL3         |
| SRG3         |
| SRM3         |
| SRT3         |
| MRL2         |
| MRG2         |
| SM-25        |
| ShkAbs       |
| FJ           |
| FK           |
| Spd Contr    |
| Ending       |

# Series variation



# Medium bore size cylinder SCA2 Series

- SCP\*3
- CMK2
- CMA2
- SCM
- SCG
- SCA2**
- SCS2
- CKV2
- CAV2/  
COVPIN2
- SSD2
- SSG
- SSD
- CAT
- MDC2
- MVC
- SMG
- MSD/  
MSDG
- FC\*
- STK
- SRL3
- SRG3
- SRM3
- SRT3
- MRL2
- MRG2
- SM-25
- ShkAbs
- FJ
- FK
- Spd  
Contr
- Ending

| Variation   | Model No.<br><br>JIS symbol   | Bore size (mm) | Standard stroke length (mm) |    |    |     |     |     |     |     |     |     |     |     | Min. stroke length<br>(mm) | Max. stroke length<br>(mm) | Available stroke length<br>(mm) | Custom stroke length<br>(per mm) | Basic |     |
|---|---|----------------|-----------------------------|----|----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------------|----------------------------|---------------------------------|----------------------------------|-------|-----|
|   |   |                | 25                          | 50 | 75 | 100 | 150 | 200 | 250 | 300 | 350 | 400 | 450 | 500 |                            |                            |                                 |                                  |       |     |
|   |   |                |                             |    |    |     |     |     |     |     |     |     |     |     |                            |                            |                                 |                                  |       | 00  |
| Double acting/<br>rubber scraper  | SCA2-G<br>       | φ40            |                             |    |    |     |     |     |     |     |     |     |     |     | 1                          | 600                        | 1600                            | 1                                | ●     |     |
|   |   | φ50            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |                            |                            | 2000                            |                                  | ●     |     |
|   |   | φ63            |                             |    |    |     |     |     |     |     |     |     |     |     |                            |                            | 700                             |                                  | 2500  | ●   |
|   |   | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |                            |                            |                                 |                                  |       | ●   |
|   |   | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |                            |                            |                                 |                                  |       | 800 |
| Double acting/<br>coolant proof   | SCA2-G2/G3<br> | φ40            |                             |    |    |     |     |     |     |     |     |     |     | 1   | 600                        | 1600                       | 1                               | ●                                |       |     |
|   |   | φ50            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |                            | ●                          |                                 | 2000                             | ●     |     |
|   |   | φ63            |                             |    |    |     |     |     |     |     |     |     |     |     |                            |                            |                                 | 700                              | 2500  | ●   |
|   |   | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |                            | ●                          |                                 |                                  |       | ●   |
|   |   | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |                            | ●                          |                                 |                                  |       | 800 |
| Double acting/<br>coil scraper<br>Double acting/<br>anti-spatter<br>adherence | SCA2-G1/G4<br> | φ40            |                             |    |    |     |     |     |     |     |     |     |     | 1   | 600                        | 1600                       | 1                               | ●                                |       |     |
|   |   | φ50            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |                            | ●                          |                                 | 2000                             | ●     |     |
|   |   | φ63            |                             |    |    |     |     |     |     |     |     |     |     |     |                            |                            |                                 | 700                              | 2500  | ●   |
|   |   | φ80            | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |                            | ●                          |                                 |                                  |       | ●   |
|   |   | φ100           | ●                           | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |                            | ●                          |                                 |                                  |       | 800 |
| Double acting/<br>with valve  | SCA2-V<br>     | φ40 to φ63     |                             | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   | 50  | 600                        | 600                        | 1                               | ●                                |       |     |
|   |   | φ80            |                             | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |                            | ●                          |                                 | 700                              | 700   | ●   |
|   |   | φ100           |                             | ●  | ●  | ●   | ●   | ●   | ●   | ●   | ●   | ●   | ●   |     |                            | ●                          |                                 | 800                              | 800   | ●   |



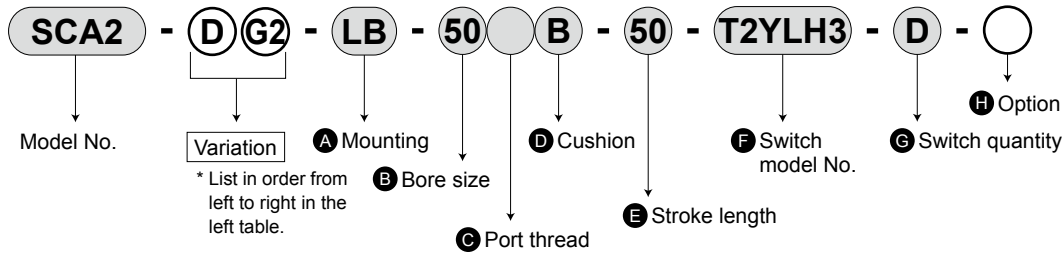
## Variation and option combination selection table

- : Standard
- ◎ : Option
- : Available (custom order product)
- △ : Available depending on conditions (Contact CKD.)
- × : Not available
- H : Head side position locking only (custom order product)
- R : Rod side position locking only (custom order product)

| Category | Code          | Variation           |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              | Port thread                 |                             | Option                 |                      |   |                                     |     |   |                         |                              |                                       |                                       |                      |                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
|----------|---------------|---------------------|--------------------------|--------------|---------------|------------------------|------------------------|------------------|------------|--------------------------|---------------|-------------------------|--------------------------------|---------------------------------|----------------|--------------|-----------------------------|-----------------------------|------------------------|----------------------|---|-------------------------------------|-----|---|-------------------------|------------------------------|---------------------------------------|---------------------------------------|----------------------|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
|          |               | Double acting basic | Double acting double rod | Back to back | Double piston | Adjustable stroke Push | Adjustable stroke Pull | Position locking | With valve | Cylinder tube Steel pipe | Low hydraulic | Heat resistance (120°C) | Low friction (at low pressure) | Low friction (when pressurized) | Rubber scraper | Coil scraper | Coolant proof scraper (NBR) | Coolant proof scraper (FKM) | Anti-spatter adherence | With cylinder switch | Strong magnetic field proof/cylinder switch | Heat resistant with cylinder switch | NPT | G | Polyolefin with bellows | Silicone rubber with bellows | Piston rod material (stainless steel) | Cushion needle position specification | Copper and PTFE free | Specify piston rod end form |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SSG      | D             | ×                   | *1                       | ×            | ×             | ○                      | △                      | ○                | △          | △                        | *2            | *2                      | ○                              | ○                               | ○              | ○            | ○                           | ○                           | ○                      | ●                    | ○   | ○                                   | ○   | ○ | ○                       | ○                            | ○                                     | ○                                     | ○                    | ○                           | ○ | ○ | ○ | ○ | ○ | ○ | ○ |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SSD      | W             |                     |                          | ×            | ×             | ×                      | *3                     | ○                | ○          | ○                        | *4            | *4                      | ○                              | ○                               | ○              | ○            | ○                           | ○                           | ○                      | ●                    | ○   | ○                                   | ○   | ○ | ○                       | ○                            | ○                                     | ○                                     | ○                    | ○                           | ○ | ○ | ○ | ○ | ○ | ○ | ○ |   |   |   |   |   |   |   |   |   |   |   |   |   |
| CAT      | R             |                     |                          |              |               | ×                      | R                      | ○                | ○          | ×                        | △             | ○                       | ○                              | ○                               | ○              | ○            | ○                           | ○                           | ○                      | ●                    | ○   | ○                                   | ○   | ○ | ○                       | ○                            | ○                                     | ○                                     | ○                    | ○                           | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |   |   |   |   |   |   |   |   |   |   |   |   |
| MVC      | H             |                     |                          |              |               |                        |                        | ○                | ×          | ×                        | ×             | ×                       | ×                              | ×                               | ×              | ×            | ×                           | ×                           | ×                      | ○                    | ○   | ×                                   | ○   | ○ | ○                       | ○                            | ○                                     | ○                                     | ○                    | ○                           | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |   |   |   |   |   |   |   |   |   |   |   |
| SMG      | O             |                     |                          |              |               |                        |                        |                  |            |                          |               | ×                       | ×                              | ×                               | ×              | ×            | ×                           | ×                           | ×                      | ○                    | ○   | ×                                   | ○   | ○ | ○                       | ○                            | ○                                     | ○                                     | ○                    | ○                           | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |   |   |   |   |   |   |   |   |   |   |   |
| FC*      | G1            |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        | ●                    | ○   | ×                                   | ○   | ○ | ○                       | ○                            | ○                                     | ○                                     | ○                    | ○                           | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |   |   |   |   |   |   |   |   |   |   |
| STK      | G4            |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        | ●                    | ○   | ×                                   | ○   | ○ | ○                       | ○                            | ○                                     | ○                                     | ○                    | ○                           | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |   |   |   |   |   |   |   |   |   |
| SRL3     | L2            |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        | ○                    | ○   | ×                                   | ○   | ○ | ○                       | ○                            | ○                                     | ○                                     | ○                    | ○                           | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |   |   |   |   |   |   |   |   |
| SRG3     | L2T           |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        | ○                    | ○   | ×                                   | ○   | ○ | ○                       | ○                            | ○                                     | ○                                     | ○                    | ○                           | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ | ○ |   |   |   |   |   |   |   |
| SRM3     | N             |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        |                      |   |                                     |     |   |                         |                              |                                       |                                       |                      |                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SRM3     | G             |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        |                      |   |                                     |     |   |                         |                              |                                       |                                       |                      |                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SRT3     | J             |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        |                      |   |                                     |     |   |                         |                              |                                       |                                       |                      |                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SRT3     | L             |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        |                      |   |                                     |     |   |                         |                              |                                       |                                       |                      |                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| SRT3     | M             |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        |                      |   |                                     |     |   |                         |                              |                                       |                                       |                      |                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| MRL2     | R, S, T       |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        |                      |   |                                     |     |   |                         |                              |                                       |                                       |                      |                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| MRL2     | P6            |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        |                      |   |                                     |     |   |                         |                              |                                       |                                       |                      |                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| MRG2     | N**           |                     |                          |              |               |                        |                        |                  |            |                          |               |                         |                                |                                 |                |              |                             |                             |                        |                      |   |                                     |     |   |                         |                              |                                       |                                       |                      |                             |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |   |
| MRG2     | Separate list | ◎                   | ◎                        | ◎            | ◎             | ◎                      | ◎                      | ◎                | ◎          | ◎                        | ◎             | ◎                       | ◎                              | ◎                               | ◎              | ◎            | ◎                           | ◎                           | ◎                      | ◎                    | ◎   | ◎                                   | ◎   | ◎ | ◎                       | ◎                            | ◎                                     | ◎                                     | ◎                    | ◎                           | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |   |
| SM-25    | I             | ◎                   | ◎                        | ◎            | ◎             | ◎                      | ◎                      | ◎                | ◎          | ◎                        | ◎             | ◎                       | ◎                              | ◎                               | ◎              | ◎            | ◎                           | ◎                           | ◎                      | ◎                    | ◎   | ◎                                   | ◎   | ◎ | ◎                       | ◎                            | ◎                                     | ◎                                     | ◎                    | ◎                           | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | △ |   |   |
| SM-25    | Y             | ◎                   | ◎                        | ◎            | ◎             | ◎                      | ◎                      | ◎                | ◎          | ◎                        | ◎             | ◎                       | ◎                              | ◎                               | ◎              | ◎            | ◎                           | ◎                           | ◎                      | ◎                    | ◎   | ◎                                   | ◎   | ◎ | ◎                       | ◎                            | ◎                                     | ◎                                     | ◎                    | ◎                           | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | △ |   |   |
| ShkAbs   | B1            | ◎                   | ×                        | ×            | ◎             | ×                      | ×                      | ◎                | ◎          | ◎                        | ◎             | ◎                       | ◎                              | ◎                               | ◎              | ◎            | ◎                           | ◎                           | ◎                      | ◎                    | ◎   | ◎                                   | ◎   | ◎ | ◎                       | ◎                            | ◎                                     | ◎                                     | ◎                    | ◎                           | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |   |
| ShkAbs   | B2            | ◎                   | ×                        | ×            | ◎             | ×                      | ×                      | ◎                | ◎          | ◎                        | ◎             | ◎                       | ◎                              | ◎                               | ◎              | ◎            | ◎                           | ◎                           | ◎                      | ◎                    | ◎   | ◎                                   | ◎   | ◎ | ◎                       | ◎                            | ◎                                     | ◎                                     | ◎                    | ◎                           | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |
| FJ       | B3            | ◎                   | ×                        | ×            | ◎             | ×                      | ×                      | ◎                | ◎          | ◎                        | ◎             | ◎                       | ◎                              | ◎                               | ◎              | ◎            | ◎                           | ◎                           | ◎                      | ◎                    | ◎   | ◎                                   | ◎   | ◎ | ◎                       | ◎                            | ◎                                     | ◎                                     | ◎                    | ◎                           | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |
| FJ       | B4            | ◎                   | ◎                        | ◎            | ◎             | ◎                      | ◎                      | ◎                | ◎          | ◎                        | ◎             | ◎                       | ◎                              | ◎                               | ◎              | ◎            | ◎                           | ◎                           | ◎                      | ◎                    | ◎   | ◎                                   | ◎   | ◎ | ◎                       | ◎                            | ◎                                     | ◎                                     | ◎                    | ◎                           | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ | ◎ |

- \*1 : S2 side only
- \*2 : Increasing rod sealant and bearings leads to a larger resistance and thus causes a change in the min. starting pressure.
- \*3 : The valve installation position differs from that of the standard.
- \*4 : The min. starting pressure on the S2 side will be larger than that of the standard value of the low friction. Contact CKD for details.
- \*5 : The min. starting pressure is larger due to the resistance of expansion and contraction of the bellows. Contact CKD for details.
- \*6 : For P7 and P71 New Fine, refer to "Components for clean room specifications" (catalog No. CB-033SA). For G2 and G3 coolant proof scraper, refer to "Guide of pneumatic devices compatible with coolants" (CC-N-375A).
- \*7 : The max. stroke length available for  $\phi 63$  to  $\phi 100$  bore size models with bellows is 2000 mm.

### [How to order]



### Model No.: Medium bore size cylinder

- Variation : Double rod/coolant proof scraper
- A Mounting : Axial foot
- B Bore size :  $\phi 50$  mm
- C Port thread : Rc thread
- D Cushion : Both sides cushioned
- E Stroke length : 50 mm
- F Switch model No. : Coolant proof switch, 3 m lead wire
- G Switch quantity : 2
- H Option : None

- \*1: The back to back includes two cylinders. Specify the model No. as below when ordering variation.
  - For S1 variations only, insert the variation code before the stroke length of S1.  
(Example) SCA2-B-40-O100-150: Only S1 is the low friction.
  - For S2 variations only, insert the variation code before the stroke length of S2.  
(Example) SCA2-B-40-100-O150: Only S2 is the low friction.
  - When ordering the same variation for S1 and S2, insert the variation code before the bore size.  
(Example) SCA2-BO-40-100-150: Both S1 and S2 are the low friction.

|                  |
|------------------|
| SCP*3            |
| CMK2             |
| CMA2             |
| SCM              |
| SCG              |
| SCA2             |
| SCS2             |
| CKV2             |
| CAV2/<br>COVP/N2 |
| SSD2             |
| SSG              |
| SSD              |
| CAT              |
| MDC2             |
| MVC              |
| SMG              |
| MSD/<br>MSDG     |
| FC*              |
| STK              |
| SRL3             |
| SRG3             |
| SRM3             |
| SRT3             |
| MRL2             |
| MRG2             |
| SM-25            |
| ShkAbs           |
| FJ               |
| FK               |
| Spd<br>Contr     |
| Ending           |