



## ⚠ Caution

Be sure to read before handling.

- ① Refer to back cover for Safety Instructions and "Handling Precautions for SMC Product" (M-E03-3) for Actuators and Auto Switches Precautions.
- ② This product should not be used as a stopper.
- ③ Use the PF thread fittings for this cylinder.

## Theoretical Output



Unit: N

| Bore size (mm) | Operating direction | Operating pressure (MPa) |      |      |
|----------------|---------------------|--------------------------|------|------|
|                |                     | 0.3                      | 0.5  | 0.7  |
| 20             | IN                  | 71                       | 118  | 165  |
|                | OUT                 | 94                       | 157  | 220  |
| 25             | IN                  | 113                      | 189  | 264  |
|                | OUT                 | 147                      | 245  | 344  |
| 32             | IN                  | 181                      | 302  | 422  |
|                | OUT                 | 241                      | 402  | 563  |
| 40             | IN                  | 317                      | 528  | 739  |
|                | OUT                 | 377                      | 628  | 880  |
| 50             | IN                  | 495                      | 825  | 1150 |
|                | OUT                 | 589                      | 982  | 1370 |
| 63             | IN                  | 841                      | 1400 | 1960 |
|                | OUT                 | 935                      | 1560 | 2180 |
| 80             | IN                  | 1360                     | 2270 | 3180 |
|                | OUT                 | 1510                     | 2520 | 3520 |
| 100            | IN                  | 2150                     | 3580 | 5010 |
|                | OUT                 | 2360                     | 3930 | 5500 |

## Mounting Bracket Part No.

| Bore size (mm) | Foot     | Flange   | Single clevis |
|----------------|----------|----------|---------------|
| 20             | C55-L020 | C55-F020 | C55-C020      |
| 25             | C55-L025 | C55-F025 | C55-C025      |
| 32             | C55-L032 | C55-F032 | C55-C032      |
| 40             | C55-L040 | C55-F040 | C55-C040      |
| 50             | C55-L050 | C55-F050 | C55-C050      |
| 63             | C55-L063 | C55-F063 | C55-C063      |
| 80             | C55-L080 | C55-F080 | C55-C080      |
| 100            | C55-L100 | C55-F100 | C55-C100      |

- Order two foot brackets per cylinder.
- Parts belonging to each bracket are as follows. Foot, Flange, Single clevis/Body mounting bolt

## Specifications

|                                          |                                                                                               |                |
|------------------------------------------|-----------------------------------------------------------------------------------------------|----------------|
| Type                                     | Pneumatic (Non-lube)                                                                          |                |
| Action                                   | Double acting, Single rod                                                                     |                |
| Fluid                                    | Air                                                                                           |                |
| Proof pressure                           | 1.5 MPa                                                                                       |                |
| Maximum operating pressure               | 1.0 MPa                                                                                       |                |
| Minimum operating pressure               | 0.05 MPa (ø20 to ø63), 0.03 MPa (ø80, ø100)                                                   |                |
| Ambient and fluid temperature            | Without auto switch: -10 to 70°C (No freezing)<br>With auto switch: -10 to 60°C (No freezing) |                |
| Cushion                                  | Rubber bumper on both end                                                                     |                |
| Stroke length tolerance <sup>Note)</sup> | +1.0<br>0 mm                                                                                  |                |
| Mounting                                 | Through-hole/Both ends tapped common                                                          |                |
| Piston speed                             | ø20 to ø63                                                                                    | 50 to 500 mm/s |
|                                          | ø80, ø100                                                                                     | 50 to 300 mm/s |

Note) Stroke length tolerance dose not include the amount of bumper change.

## Standard Stroke

| Bore size (mm) | Standard stroke (mm)                                         |
|----------------|--------------------------------------------------------------|
| 20 to 63       | 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 80, 100, 125, 150 |
| 80, 100        | 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 80, 100, 125         |

## Manufacture of Intermediate Stroke

|              |                                                                                                   |
|--------------|---------------------------------------------------------------------------------------------------|
| Description  | Dealing with the stroke by the 1 mm interval by using an exclusive body with the specified stroke |
| Part no.     | Refer to "How to Order" for the standard model no. (page at left)                                 |
| Stroke range | 6 to 149                                                                                          |
| Example      | Part no.: C55B32-47                                                                               |
|              | Makes 47 stroke tube                                                                              |

## Weight

### Without Auto Switch

Unit: g

| Bore size (mm) | Cylinder stroke (mm) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                | 5                    | 10   | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   | 60   | 80   | 100  | 125  | 150  |
| 20             | 111                  | 124  | 137  | 150  | 163  | 176  | 189  | 202  | 215  | 228  | 254  | 306  | 357  | 422  | 487  |
| 25             | 152                  | 168  | 183  | 199  | 214  | 230  | 246  | 261  | 277  | 292  | 323  | 386  | 448  | 526  | 603  |
| 32             | 250                  | 273  | 295  | 317  | 339  | 362  | 384  | 406  | 428  | 451  | 495  | 584  | 673  | 785  | 896  |
| 40             | 315                  | 339  | 364  | 388  | 412  | 436  | 461  | 485  | 509  | 533  | 582  | 679  | 776  | 897  | 1018 |
| 50             | 497                  | 534  | 570  | 607  | 644  | 681  | 718  | 755  | 791  | 828  | 902  | 1049 | 1197 | 1381 | 1565 |
| 63             | 677                  | 717  | 757  | 797  | 837  | 877  | 917  | 957  | 997  | 1037 | 1117 | 1277 | 1437 | 1638 | 1838 |
| 80             | —                    | 1164 | 1223 | 1281 | 1339 | 1398 | 1456 | 1514 | 1573 | 1631 | 1748 | 1981 | 2214 | 2506 | —    |
| 100            | —                    | 2213 | 2295 | 2377 | 2459 | 2541 | 2623 | 2705 | 2787 | 2870 | 3034 | 3362 | 3690 | 4101 | —    |

### With Auto Switch (Built-in magnet)

Unit: g

| Bore size (mm) | Cylinder stroke (mm) |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
|----------------|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
|                | 5                    | 10   | 15   | 20   | 25   | 30   | 35   | 40   | 45   | 50   | 60   | 80   | 100  | 125  | 150  |
| 20             | 113                  | 126  | 139  | 152  | 165  | 178  | 191  | 204  | 216  | 229  | 255  | 307  | 359  | 424  | 489  |
| 25             | 154                  | 170  | 185  | 201  | 217  | 232  | 248  | 263  | 279  | 294  | 325  | 388  | 450  | 528  | 606  |
| 32             | 254                  | 277  | 299  | 321  | 343  | 366  | 388  | 410  | 432  | 455  | 499  | 588  | 677  | 788  | 900  |
| 40             | 319                  | 344  | 368  | 392  | 416  | 441  | 465  | 489  | 513  | 537  | 586  | 683  | 780  | 901  | 1022 |
| 50             | 502                  | 539  | 575  | 612  | 649  | 686  | 723  | 760  | 796  | 833  | 907  | 1054 | 1202 | 1386 | 1570 |
| 63             | 685                  | 725  | 765  | 805  | 845  | 885  | 925  | 965  | 1005 | 1045 | 1125 | 1285 | 1445 | 1645 | 1845 |
| 80             | —                    | 1188 | 1246 | 1305 | 1363 | 1421 | 1480 | 1538 | 1596 | 1654 | 1771 | 2004 | 2238 | 2529 | —    |
| 100            | —                    | 2248 | 2330 | 2412 | 2494 | 2577 | 2659 | 2741 | 2823 | 2905 | 3069 | 3397 | 3726 | 4136 | —    |

Add each weight of auto switches and mounting brackets when mounting an auto switches. Refer to pages 16 to 21 for auto switch weight.