### Stopper Cylinder

**Series RSA**

 ø50, ø63, ø80

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**How to Order**

<table>
<thead>
<tr>
<th>Bore size</th>
<th>Cylinder stroke</th>
<th>Number of auto switches</th>
<th>Auto switch</th>
<th>Option 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>ø50, ø63, ø80</td>
<td>50mm, 63mm, 80mm</td>
<td>Nil, 2 pcs., 1 pc.</td>
<td>Without auto switch (Built-in magnet)</td>
<td><em>(Options can be combined. However, indicate in the order of D, C.)</em></td>
</tr>
</tbody>
</table>

#### Roller material

- **L**: Resin
- **M**: Rolled steel

#### Action

- **D**: Double acting
- **B**: Double acting with spring
- **T**: Single acting, Spring extend

#### Option 1

- **D**, **C**: Without option
- **B**: With lock mechanism
- **T**: With cancel cap

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**Applicable Auto Switch**

Refer to page 10-20-1 for further information on auto switches.

<table>
<thead>
<tr>
<th>Type</th>
<th>Special function</th>
<th>Electrical entry</th>
<th>Indicator light</th>
<th>Wiring (Output)</th>
<th>Load voltage</th>
<th>Auto switch model</th>
<th>Lead wire length (m)</th>
<th>Applicable load</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reed switch</td>
<td>—</td>
<td>Grommet</td>
<td>Yes</td>
<td>3-wire, 2-wire</td>
<td>DC, AC</td>
<td>5V, 12V, 5V, 12V</td>
<td>—</td>
<td>IC circuit</td>
</tr>
<tr>
<td>Solid state switch</td>
<td>—</td>
<td>Grommet</td>
<td>Yes</td>
<td>3-wire (NPN), 3-wire (PNP)</td>
<td>DC, AC</td>
<td>5V, 12V</td>
<td>Y69A, Y9A, Y7PV, Y7P</td>
<td>—</td>
</tr>
</tbody>
</table>

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* Lead wire length symbols: 0.5 m — Nil (Example) Y69B 3 m — L (Example) Y698L 5 m — Z (Example) Y698Z

**Solid state switches marked with a "°" symbol are produced upon receipt of order.**

**Types D-A7, D-A8, D-F7 and D-J7 can be mounted with options.**

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10-9-18
Operating Range

(Example) Load weight 300kg, Transfer speed 20m/min, Coefficient of friction $\mu = 0.1$

(Viewing the graphs)

From Graph (2), find the intersection of load weight 300kg on the vertical axis and transfer speed 20m/min. on the horizontal axis. Select bore size ø63 from within the cylinder operating range.

Graph (1)
Bore size ø50, ø63, ø80/$\mu = 0$

Graph (2)
Bore size ø50, ø63, ø80/$\mu = 0.1$

Lateral Load and Operating Pressure

The larger the lateral load, the higher the pressure required to operate the stopper cylinder. Set the operating pressure using the graph below as a guide.

Graph (3)
Operating pressure $P$ [MPa]
Lateral load $F$ [N]
## Dimensions

### Bore size (mm) | Stroke | A      | B      | CD | CT | CZ | D  | E  | FT | FX | FZ | G  | H  | I  | L  | N  | O  | P  | Q  | R  
|------------|--------|--------|--------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|  
50         | 30     | 225.5  | 103.5  | 20 | 8  | 35.5| 32 | 64 | 20 | 73 | 93 | 16 | 122| 85 | 44 | 9  | 1/8 | 10 | 36  
63         | 30     | 246    | 106    | 20 | 10 | 44.5| 40 | 77 | 25 | 90 | 114| 24 | 140| 103| 53 | 11 | 1/4 | 12.5| 43 
80         | 40     | 299.5  | 135    | 25 | 10 | 44.5| 50 | 98 | 25 | 130| 138| 28 | 164.5| 132| 54 | 13 | 1/4 | 12.5| 49 

### Bore size (mm) | S      | T      | U      | V      | W      | WB     | X    | Y    | θ°  
|------------|--------|--------|--------|--------|--------|--------|------|------|------|  
50         | 16     | 3.1    | 7.2    | 15.5   | 72     | 32     | 5    | 10   | 24°  
63         | 18.5   | 3      | 8.8    | 16     | 87.5   | 38.5   | 5    | 10   | 24.5° 
80         | 21     | 3.7    | 9      | 19     | 109    | 49     | 5    | 12.5 | 24.5°