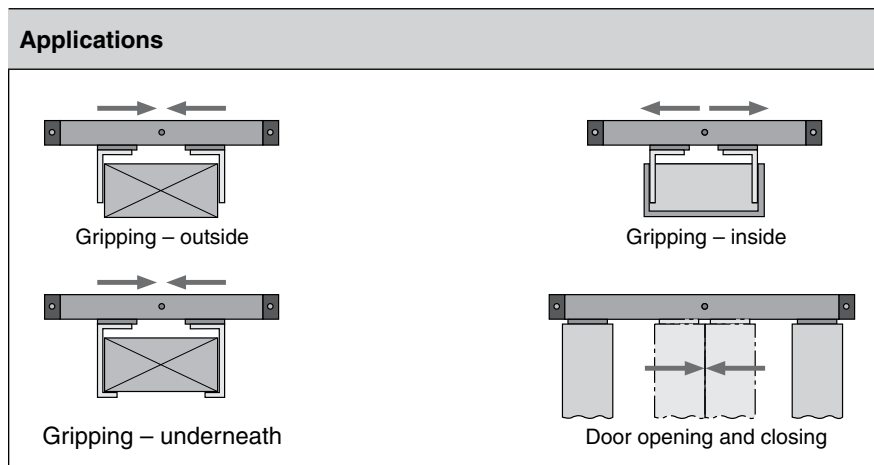


Characteristics			
Characteristics	Symbol	Unit	Description
<b>General Features</b>			
Type			Rodless cylinder for synchronized bi-parting movements
Series			OSP-P
System			Double acting with end cushioning. For contactless position sensing
Guide			Slideline SL40
Synchronization			Toothed belt
Mounting			See drawings
Ambient temperature range	$T_{min}$ $T_{max}$	°C °C	-10 +60
Weight (Mass)		kg	see table page B36
Medium			Filtered, unlubricated compressed air (other media on request)
Lubrication			Special slow speed grease – additional oil mist lubrication not required
Material			
Toothed Belt			Steel-corded polyurethane
Belt wheel			Aluminum
Operating pressure range	$p_{max}$	bar	6
Cushioning middle position			Elastic buffer
Max. Speed	$v_{max}$	m/s	0.2
Max. stroke of each stroke		mm	500
Max. mass per guide carrier		kg	25
Max. moments on guide carrier			
lateral moment	$M_{x_{max}}$	Nm	25
axial moment	$M_{y_{max}}$	Nm	46
rotating moment	$M_{z_{max}}$	Nm	46
<b>For more technical information see pages B41</b>			



# Rodless Cylinder

## Ø 40 mm

for synchronized  
bi-parting movements

Type OSP-P40-SL-BP

**B**



**Features:**

- Accurate bi-parting movement through toothed belt synchronization
- Optimum slow speed performance
- Increased action force
- Anodized aluminum guide rail with prism-form slideway arrangement
- Adjustable polymer slide units
- Combined sealing system with polymer and felt elements to remove dirt and lubricate the slideway
- Integrated grease nipples for guide lubrication

**Applications:**

- Opening and closing operations
- Gripping of workpieces – outside
- Gripping of hollow workpieces – inside
- Gripping underneath larger objects
- Clamping force adjustable via pressure regulator



**Weight (mass) kg**

Cylinder series (Basic cylinder)	Weight (Mass) kg	
	At 0 mm stroke	per 100 mm stroke
OSP-P40-SL-BP	10.334	2.134

**Function:**

The OSP-P40-SL-BP bidirectional linear drive is based on the OSP-P40 rodless pneumatic cylinder and adapted SLIDELINE SL40 polymer plain-bearing guides.

Two pistons in the cylinder bore are connected via yokes and carriers to the SLIDELINE guide carriers, which handle the forces and moments generated.

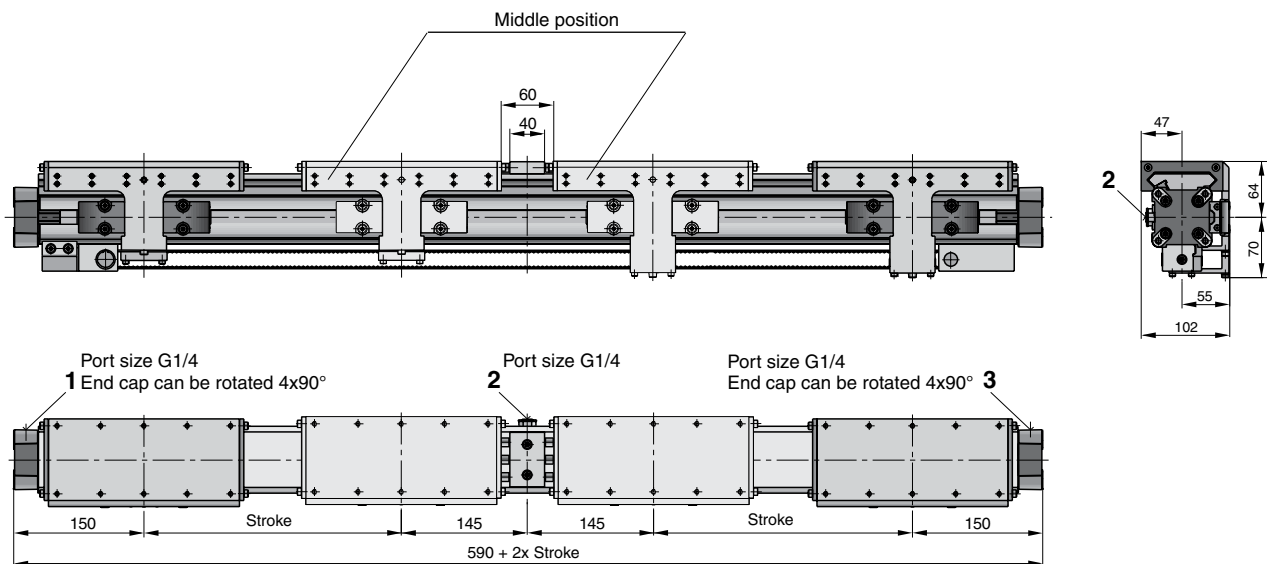
The bi-parting movements of the guide carriers are accurately synchronized by a recirculating toothed belt.

The two pistons are driven from the middle to the end positions via a common G1/4 air connection in the middle of the cylinder, and are driven from the end positions to the middle via an air connection in each end cap.

End position cushioning is provided by adjustable air cushioning in the end caps, and middle position cushioning by rubber buffers.

**B**

**Dimensions (mm)**



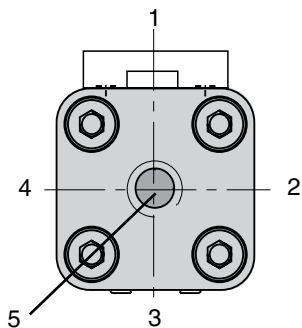
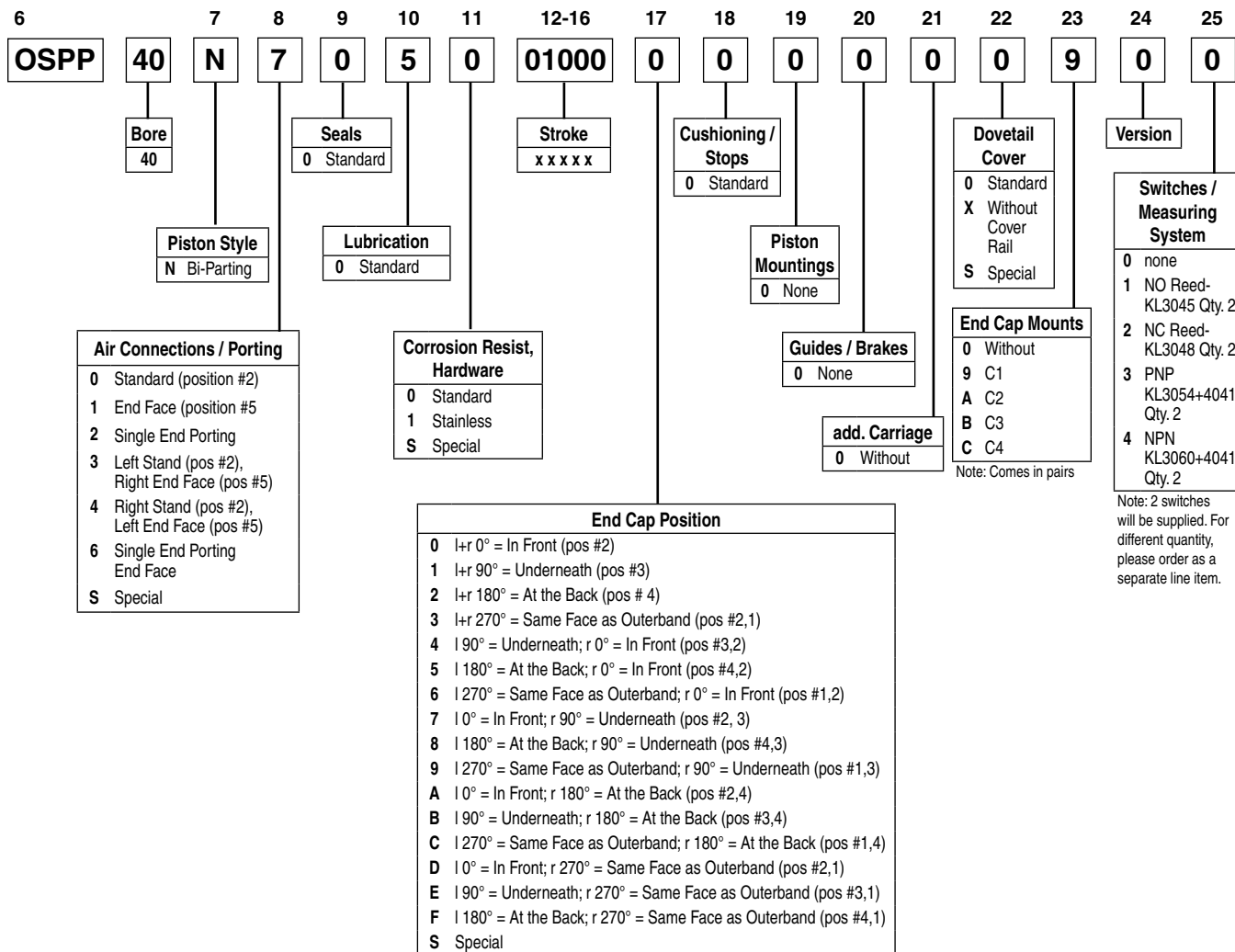
**Air connections:**

To drive the guide carriers to the middle position: pressurize ports 1 and 3.

To drive the guide carriers to the end positions: pressurize port 2.

For more dimensions see pages B11 and B42

# Ordering Instructions / Part Numbering System for OSP-P Bi-Parting Rodless Cylinders Series



**Note: Position #2 is the standard location.**



**B**