Hybrid rotary/linear module DSL-16-...-SA

Rotary and screwing processes

The universally suitable DSL-16-...-SA is just the right module when it comes to tackling demanding rotary/lifting processes in the smallest of spaces. Boasting a compact design and offering a high level of functionality and extremely flexible handling, it combines pneumatic stroke and gripping motions with precisely adjustable and monitored electrical rotation, making laboratory processes safe and reproducible.

The operating principle
The DSL-16-...-SA can perform high-precision vertical motions and rotations with presettable torque while simultaneously executing a superimposed and preconfigurable vertical motion. A gripper integrated in the vertical axis ensures reliable and gentle rotary and lifting processes.

Drive and controller package
The optional controller SFC-DC from Festo makes commissioning quick and simple and module operation safe and reliable.

Maximum communication
Communication interfaces such as PROFIBUS, CANopen and DeviceNet are available via the controller.

Area of application
Ideal for handling processes for specimen identification and evaluation, e.g. reliably opening and closing various caps on round-necked laboratory vials with or without a thread.

Highlights
- Slim and compact
- Universal operation
- High torques, individually adjustable
- Indirect torque monitoring
- High gripping force
- Adaptive and highly dynamic stroke
- Number and speed of rotations can be freely selected
- Defined interfaces for mechanical, electrical and pneumatic components
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Potential applications in laboratory automation

Applications in all three sub-areas of the analytical process, from pre-analytics, detection and analysis to post-analytics.

- Controlled positioning of specimen vials
- Filling processes
- Mechanical support for the identification of specimen vials and the optical evaluation of the specimen condition
- Opening and closing laboratory vials with a round neck and sealing cap or lid (with or without screw thread)

Potential applications in other industry segments

For general filling processes and press-in operations during production and when bottling drinks and cosmetic products

- Controlled positioning
- Bottle filling and labelling
- Handling screw tops and plug closures
- Lip gloss
- Toothpaste
- Cosmetic bottles
- Beverage bottles
- Press-in operations in roll-on deodorant production
- Opening and closing laboratory vials with a round neck and sealing cap or lid (with or without screw thread)

Pistron rod, retracted

<table>
<thead>
<tr>
<th>DSL-16-...-SA</th>
<th></th>
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<tbody>
<tr>
<td>Stroke, Z-axis</td>
<td>60 mm</td>
</tr>
<tr>
<td>Max. torque</td>
<td>1.7 Nm</td>
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<tr>
<td>Max. speed</td>
<td>210 rpm</td>
</tr>
<tr>
<td>Max. gripping force</td>
<td>50 N</td>
</tr>
<tr>
<td>Feed/pulling force</td>
<td>103/73.3 N</td>
</tr>
<tr>
<td>Travel speed, Z-axis</td>
<td>500 mm/s</td>
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<tr>
<td>Pressure range, Z-axis</td>
<td>4 ... 8 bar</td>
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<tr>
<td>Power supply, axis of rotation</td>
<td>24 V DC</td>
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<tr>
<td>Weight</td>
<td>1.9 kg</td>
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<tr>
<td>Dimensions (L x W x H)</td>
<td>135 x 74 x 381 mm</td>
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</tbody>
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