

SINGLE PISTON PUMP AB-P

1. DESCRIPTION OF APPLICATION

The single piston pump AB-P is a robust pneumatic pump. The single-piston pump is available without level control, with float switch for oil or with capacitive level control for oil or fluid grease. It is suitable for automated lubrication tasks that require lubrication several times a day up to a maximum of once a minute. The single-piston pump AB-P is a pneumatic pump whose lubrication piston is driven by a pneumatic piston. This means that it has a fixed transmission ratio ($p_{\text{Pneu}} / p_{\text{Fluid}}$).

2. STRUCTURE

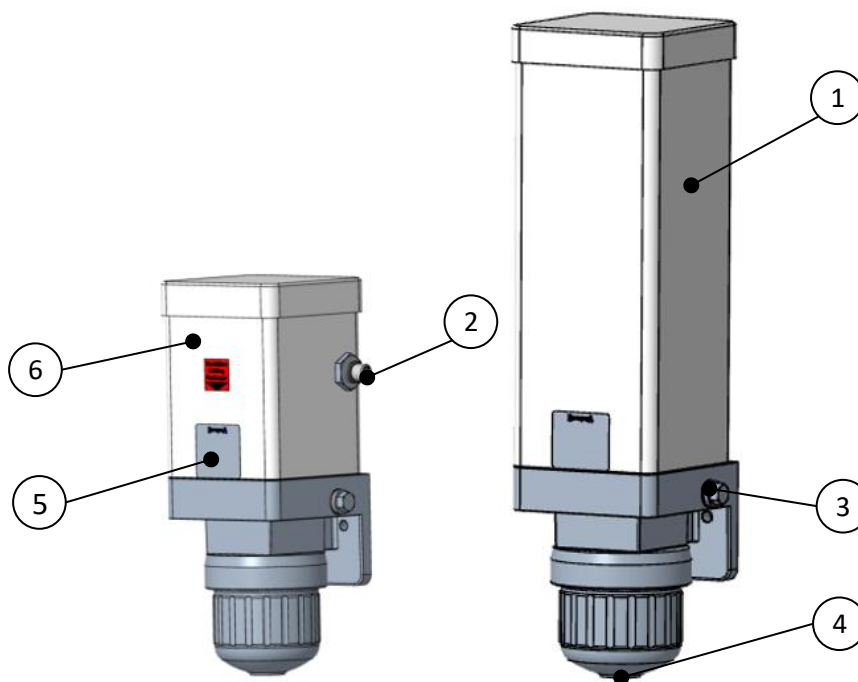


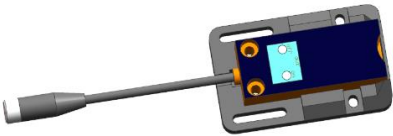
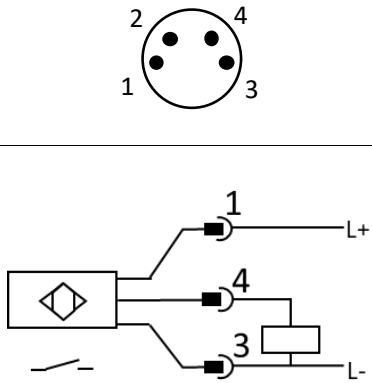
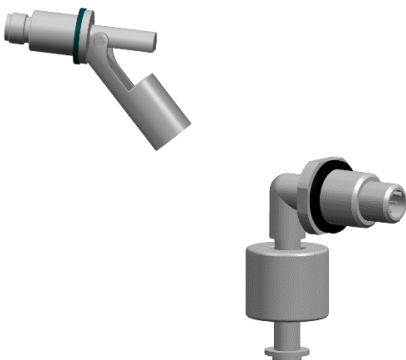
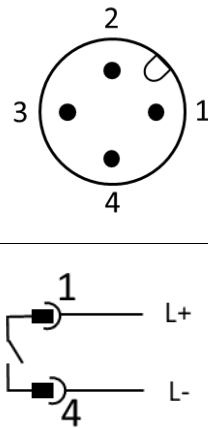
Figure 1: Example of single-piston pump AB-P

- | | |
|--------------------------------|------------------------------|
| 1. Container, large | 2. Level control connection |
| 3. Lubrication line connection | 4. Compressed air connection |
| 5. Rating plate | 6. Container, small |

The AB-P pump has an internal pressure limiting valve as well as a pressure release valve. The lubrication line connection can be either on the left or right. The connection for the pneumatic supply is located on the underside. For actuation, the pump is usually combined with a 3/2-way valve. The pump with the capacitive level control can reliably detect both oil and flowing grease.

3. TECHNICAL DATA

| General | |
|---------------------------------|--|
| Type | Single piston pump |
| Lubrication line connection | Pipe connection Ø 6mm |
| Ambient temperature | 0° to 80°C |
| Filling | manual or filling device |
| Installation position | vertical |
| Protection class as per EN60529 | IP 67 |
| Weight | 3.2 kg (1.2 l + 1.5 l container) 3.3 kg (3.0 l container) |
| Application | single line lubrication systems |
| Hydraulic system | |
| Operating pressure | 60 bar |
| Transmission | $p_{Fluid} = 9.5 \times (p_{Air} - 1.2)$ |
| Conveyor volume | 10.5 cm ³ /Hub |
| Operating medium | Mineral oil, fluid grease |
| Viscosity range | 50 bis 750 mm ² /s, NLGI 000-0 (according to fluid grease release list) |
| Drive | |
| Type of drive | pneumatic |
| Supply pressure | 4 to 6 bar |
| Supply connection | G 1/4 |

| Sensor level control | | | |
|--|----------------------------------|-----------------------|---|
| <p>Capacitive level control</p>  | Nominal voltage | 24 V DC | |
| | Switching current | $\leq 100 \text{ mA}$ | |
| | Current consumption(idle) | $\leq 17 \text{ mA}$ | |
| | Connection | M8x1 |  |
| <p>Float switch</p>  | Nominal voltage | 24 V DC | |
| | Switching current | $\leq 100 \text{ mA}$ | |
| | Connection | M12x1 |  |
| | | | |

4. DIMENSION

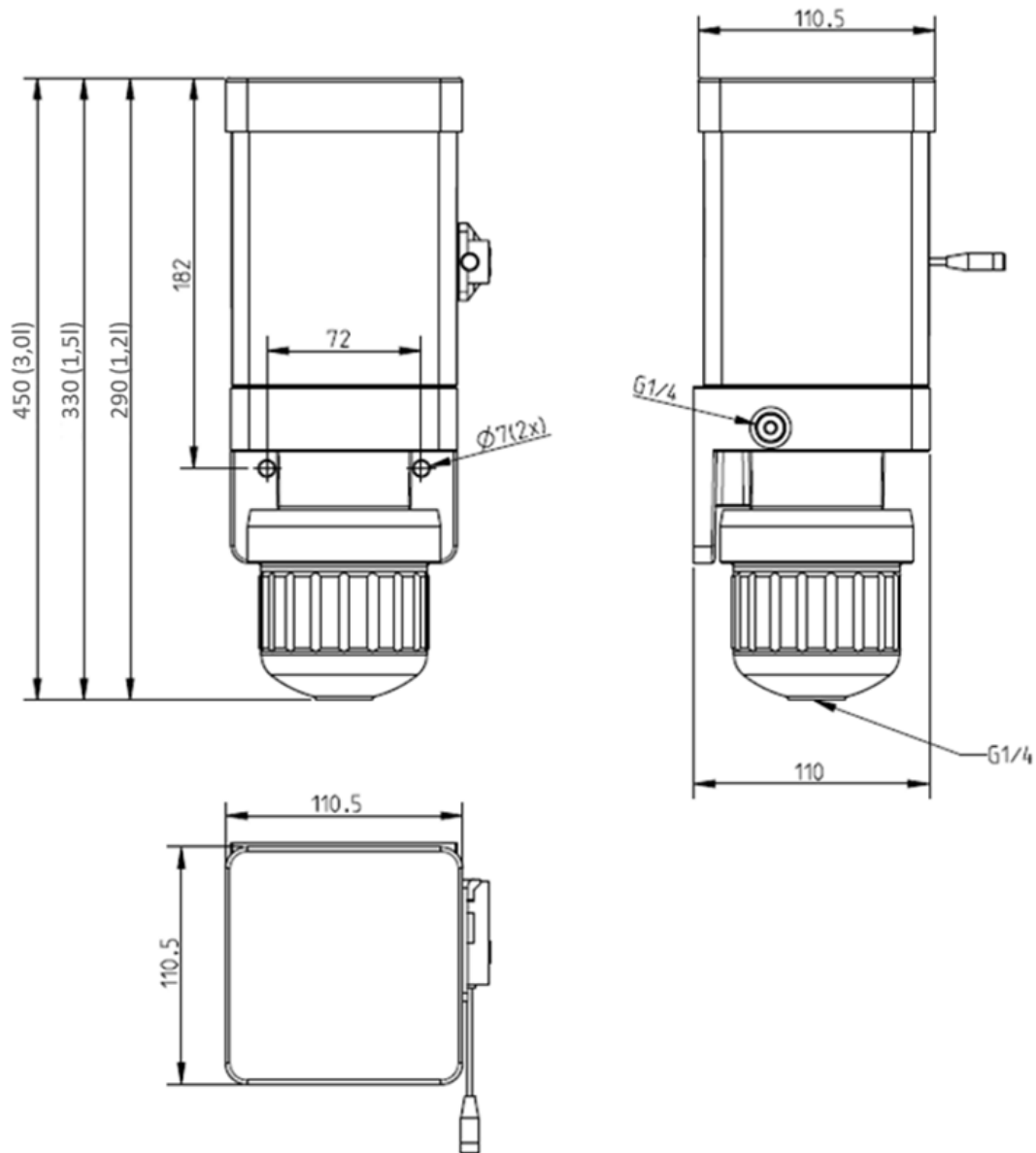
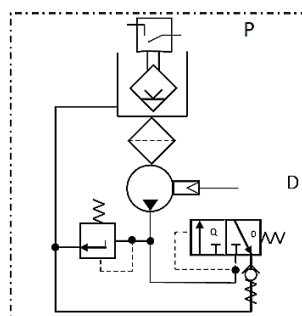


Figure 2: Example of single-piston pump AB-P

Fluidplan



5. ORDER INFORMATION

5.1. WITHOUT LEVEL CONTROL

| Tank | Main line connection | Charging nipple | Level control | Type | Miscellaneous | Order number |
|-------------|----------------------|-----------------|---------------|---------------------------|-----------------------------|------------------|
| 1.2L | <i>left</i> | - | - | <i>oil + fluid grease</i> | - | P30011540 |
| | <i>left</i> | - | - | <i>oil + fluid grease</i> | <i>Screw cap with sieve</i> | P30011560 |
| | <i>right</i> | <i>front</i> | - | <i>oil + fluid grease</i> | - | P30011609 |
| | <i>right</i> | <i>front</i> | - | <i>oil + fluid grease</i> | - | P30011610 |
| 3.0L | <i>left</i> | - | - | <i>oil + fluid grease</i> | - | P30011541 |

Other versions are configured on request.

5.2. WITH FLOAT SWITCH

| Tank | Main line connection | Charging nipple | Level control | Type | Miscellaneous | Order number |
|-------------|----------------------|-----------------|---------------|------------|---|------------------|
| 1.2L | <i>left</i> | - | <i>right</i> | <i>oil</i> | - | P30011556 |
| | <i>left</i> | - | <i>right</i> | <i>oil</i> | <i>Screw cap with sieve</i> | P30011565 |
| 1.5L | <i>left</i> | - | <i>right</i> | <i>oil</i> | - | P30011569 |
| | <i>left</i> | - | <i>right</i> | <i>oil</i> | <i>Screw cap with sieve</i> | P30011606 |
| | <i>left</i> | - | <i>right</i> | <i>oil</i> | <i>Screw cap with Sieve and surge plate</i> | P30011611 |
| 3.0L | <i>left</i> | - | <i>right</i> | <i>oil</i> | - | P30011557 |



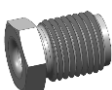
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5.3. WITH CAPACITIVE LEVEL CONTROL



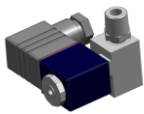

| Tank | Main line connection | Charging nipple | Level control | Type | Miscellaneous | Order number |
|-------------|----------------------|-----------------------|---------------|---------------------------|-----------------------------|------------------|
| 0.8L | <i>left</i> | - | <i>right</i> | <i>oil + fluid grease</i> | - | P30011613 |
| 1.2L | <i>left</i> | - | <i>left</i> | <i>oil + fluid grease</i> | - | P30011615 |
| | <i>left</i> | - | <i>right</i> | <i>oil + fluid grease</i> | - | P30011617 |
| | <i>left</i> | - | <i>right</i> | <i>oil + fluid grease</i> | <i>Screw cap with sieve</i> | P30011618 |
| | <i>right</i> | - | <i>left</i> | <i>oil + fluid grease</i> | <i>Screw cap</i> | P30011638 |
| | <i>left</i> | <i>Top of the cap</i> | <i>left</i> | <i>oil + fluid grease</i> | - | P30011652 |
| | <i>left</i> | <i>front</i> | <i>left</i> | <i>oil + fluid grease</i> | - | P30011659 |
| 3.0L | <i>left</i> | - | <i>left</i> | <i>oil + fluid grease</i> | - | P30011648 |
| | <i>left</i> | - | <i>left</i> | <i>oil + fluid grease</i> | <i>Screw cap with sieve</i> | P30011653 |

Other versions are configured on request.

6. SPARE PARTS

| | Designation | Description | Order number |
|---|-------------------|---------------------------------|--------------|
|  | cap | for tank | P30400600 |
|  | Double taper ring | for lubrication line connection | P30215201 |
|  | Cap screw | for lubrication line connection | P30256621 |

7. ACCESSORY PARTS

| | Designation | Description | Order number |
|---|--|------------------------|--------------|
|  | Fixing screw | M6x25 | P62004053 |
|  | Locking washer | for M6 | P62050004 |
|  | 3/2-way valve set, 24 V DC, 3W | compressed air control | P30023403 |
|  | Connecting cable 5m, M8x1 Cable box; | for level control | P67202099 |
| | Connecting cable 15m, M8x1 Cable box; | | P67660403 |
| | Connecting cable 5m, M12x1 Cable box; | for float switch | P67202034 |
| | Connecting cable 20m, M12x1 Cable box; | | P67202463 |