PSG2 Modular Feeder
for use in oil or grease lubrication systems

Application
Modular feeders of the PSG2 series are used in oil and grease lubrication systems. Fields of application include, for example, paper machinery, tunnel driving machinery, metal-forming machinery (presses) and general engineering.

Advantages
- Easily serviceable modular construction. The outlets are located in the baseplate.
- Outlet quantities are especially easy to allocate, because the lubricant outlets are located directly below the metering piston.
- Flexible system design due to metering sections with volumes per cycle and outlets of 60, 120, 240, 360, 480, 600, 720 and 840 mm³
- High operational reliability due to standard installation of check valves
- High metering accuracy; the integrated check valves are located directly after the metering pistons.
- Flow limiters, flow regulators, gear-type flow indicator and directional solenoid valves can be attached.
- Low pressure loss due to generously sized control borings
- Up to 20 outlets
- Measurement connectors for system pressure and feeder outlets
- Retrofitting with piston detectors for monitoring is possible at any time
- The metering volume of opposite outlets can be connected internally, that of neighboring outlets, externally, using bridges.
- Basic design in galvanized steel, available as an option in corrosion-resistant chemically nickel-plated design
Modular Feeder PSG2

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Overview of progressive feeders - types and frame sizes

See important product usage information on the back cover.
**General information**

The PSG2 Modular Feeder (Progressive Feeder) can be used for an inlet volume flow of up to 2.5 l/min. The inlet and all outlets of the feeder are located in the baseplate. The functional sections are attached to the baseplate and can be replaced without loosening tubing.

The volumetric flow which is sent via a tube is forcibly distributed in a predetermined ratio to the outlets, i.e. to the lubrication points or the downstream progressive feeders. Pistons, which are aligned in series, meter the lubricant for two opposite outlets each and control the function of the neighboring piston. This way, the function of the modular feeder can be checked by monitoring any piston (with a cycle indicator or piston detector) or the inlet volume flow (with gear-type flow indicator) can be monitored.

High operational reliability (at high or different back pressures) offered by the standard check valves. These valves provide an accurate and safe blocking behavior, even for internal and external combinations.

**Mode of operation**

Observation of the movements beginning with the moment that all three pistons (A, B, C) on the left end stop shows that the lubricant and operating pressure reach from the inlet through the through-duct to the pistons C-right, B-right and A-left; that is, while pistons C and B retain their positions, the A piston is pushed right. The lubricant volume specified by the piston diameter and stroke is pressed into a duct on whose end (outlet 4) the same quantity exits. This stroke movement of piston A opens or closes multiple control ducts. Control duct 2, through which the lubricant reaches piston B-left and shifts it right, is now open. The corresponding metering volume is pressed into the outlet duct and exits at outlet 2. The stroke movement of piston B has now closed or opened control ducts. Control duct 3 is now open. The lubricant pressure moves piston C to the right, pushing the corresponding metering volume into the duct to outlet 3. This movement of piston C opens, among others, the reversing duct that reconnects the through-duct with piston A-right.

Analogous to the piston movement just described, pistons A, B and C now move consecutively back to the left.

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Example of a circulating-oil lubrication system with modular feeders
**Modular Feeder PSG2**

**Operating pressure**
The maximum permissible operating pressure of the modular feeder depends on the monitoring type or the upstream attachments and is between 85 and 200 bar.

**Operating temperature**
The respective operating temperature range specified under the parameters has to be maintained.

**Internal crossporting**
The volumetric flow of an outlet can be doubled by internal consolidation of two opposite outlets. To do this, the threaded pin G in the baseplate – the right input as seen from the feeder inlet – must be screwed out. The outlet in the baseplate that is no longer needed is to be closed using a washer D and a screw plug V.

Adjacent outlets can be consolidated using external bridges (crossporting). One bridge can consolidate either two or three outlets.

**Dummy section**
Dummy and functional sections can be varied as desired within the frame size (a minimum of three functional sections are required per feeder). If dummy sections are installed, two lubricant outlets each must be closed in the baseplate (under the dummy section). Increased pressure loss must be expected if two dummy sections are installed side-by-side or if dummy sections are used as the start or end section.

**External crossporting**
Bridges with or without an outlet can be utilized to allow combinations between an internal consolidation and a bridge. It is still possible to use bridges with (a) check valve(s) (see page 17).

**Information on the design**
The general criteria for the design of progressive feeders also apply without restrictions to the PSG2 modular feeder. The stroke rate is the most important criterion. It should be held as low as possible by selecting high-volume sections. This reduces pressure losses and noise levels. For the sake of self-venting, the 60 mm³/stroke section should not be placed in the first position (as viewed from the inlet).

In case of an installation on movable machine parts or in case of strong vibrations (e.g. on presses), the piston position of the feeder must not correspond with the direction of movement of the machine part.

**Tightening torque of the sections**
When installing PSG2 sections on the baseplate, the following tightening torque must be complied with:
**Damping torque: 23 Nm**
Monitoring
All standard sections can be directly monitored by means of a piston detector (compare parameters for piston detector, monitoring type P3) and can be retrofitted. If piston movement is recorded using a cycle indicator (visual stroke monitoring, monitoring type ZY) with proximity switch (monitoring type ZS), the sections intended for this purpose are to be used. (Exception: section 60 mm³/stroke)

Attachments
The modular structure of the modular feeder becomes particularly helpful in the range of attachments. It can be equipped with an upstream:

- flow regulator (attachment 02)
- flow limiter (attachment 07)
- 4/2-directional solenoid valve (attachment 08/09)
- 2/2-directional solenoid valve (attachment 13)

The attachments can be supplied with or without a gear wheel-type flow indicator. If the inlet volume flow should be visually and electrically controlled, an upstream gear-wheel-type flow indicator (attachments 10, 11 and 12) can be used.
Modular Feeder PSG2

PSG2 modular feeder, basic design
for oil and grease, without attachments, without monitoring

Technical Data

General information
Type .................................................. hydraulically controlled
Mounting position .................................. discretionary
Ambient temperature range ...................... -15 to +110 °C
Baseplate with .................................... 6, 8, 10, 12, 14, 16, 18, 20 outlets
working outlets without bridges ................. 3 to 20
working outlets with bridges ................... 1 to 19

Material
Baseplate ............................................. Al Cu Mg Pb F 38
Sections ............................................. GGC 25

Hydraulic
Operating pressure max. .......................... 200 bar
Inlet volume flow ................................. up to 2.5 l/min
Volume per outlet and cycle ..................... 60, 120, 240, 360, 480, 600, 720, 840 mm³
Piston stroke rate .................................. max. 200/min
Dividing ratio ...................................... 1 : 1 to 1 : 14
Pressure difference .............................. 5 to 15 bar
Lubricant ........................................... Mineral oils, greases based on mineral oil,
environmentally friendly and synthetic oils and greases
Operating viscosity .............................. > 12 mm²/s
Worked penetration .............................. ≥ 265 x 0.1 mm (up to NLGI Grade 2)

1) In case of attachments on movable machine parts or in case of strong vibrations (e.g. on pressing machines), the piston position of the feeder must not correspond with the direction of movement of the machine part.
2) Also available in corrosion-resistant design (chemically nickel-plated).
3) Larger dividing ratios are possible when consolidated.
4) Depending on volume index and viscosity or penetration and volumetric flow.

Dimensions

<table>
<thead>
<tr>
<th>Number of Sections</th>
<th>dimension A [mm]</th>
<th>dimension B [mm]</th>
<th>dimension C [mm]</th>
<th>complete weight [kg]</th>
</tr>
</thead>
<tbody>
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<td>131</td>
<td>103</td>
<td>2 x 28 = 56</td>
<td>2.24</td>
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<td>4</td>
<td>159</td>
<td>131</td>
<td>3 x 28 = 84</td>
<td>2.85</td>
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<tr>
<td>5</td>
<td>187</td>
<td>159</td>
<td>4 x 28 = 112</td>
<td>3.49</td>
</tr>
<tr>
<td>6</td>
<td>215</td>
<td>187</td>
<td>5 x 28 = 140</td>
<td>4.10</td>
</tr>
<tr>
<td>7</td>
<td>243</td>
<td>215</td>
<td>6 x 28 = 168</td>
<td>4.78</td>
</tr>
<tr>
<td>8</td>
<td>271</td>
<td>243</td>
<td>7 x 28 = 196</td>
<td>5.42</td>
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<tr>
<td>9</td>
<td>299</td>
<td>271</td>
<td>8 x 28 = 224</td>
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</tr>
<tr>
<td>10</td>
<td>327</td>
<td>299</td>
<td>9 x 28 = 252</td>
<td>6.73</td>
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</table>
PSG2 modular feeder with piston detector
for oil and grease, monitoring type P3

For further measurements, see "basic design", page 6

Technical Data

General information
For additional measurements, see "basic design", page 6

Type ................................................... hydraulically controlled
Ambient temperature range .......................... - 15 to + 75 °C
Piston detector weight ............................... 0.04 kg

Hydraulic
Operating pressure max. ............................. 200 bar
Inlet volume flow ................................ up to 2.5 l/min
Lubricant ........................................ Mineral oils, greases based on mineral oil,
environmentally friendly and synthetic oils and greases
Operating viscosity ............................... > 12 mm²/s
Worked penetration ............................... ≥ 265 x 0.1 mm (up to NLGI Grade 2)

Electric
Piston detector
Design ........................................ with 4-point LED, 3-pin connection
Rated voltage .................................... 10 to 36 V DC
Residual ripple .................................... ≤ 10%
Load current ..................................... max. 100 mA
Protection class ................................... IP 67
Outlet function ................................... PNP contact

Note
The piston detector is designed for a service life of approx. 10-15 million cycles. This value may be significantly exceeded depending on the application, external environmental influences, medium, pressure, and cycle speed.

Please consult the manufacturer if you have questions in this regard.

Accessories

<table>
<thead>
<tr>
<th>Designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable socket M12 x 1, 4-pin, without LED, without cable</td>
<td>179-990-371</td>
</tr>
<tr>
<td>with 5 m cable</td>
<td>179-990-600</td>
</tr>
<tr>
<td>with 10 m cable</td>
<td>179-990-603</td>
</tr>
<tr>
<td>angled, without cable</td>
<td>179-990-372</td>
</tr>
<tr>
<td>angled, with 5 m cable</td>
<td>179-990-601</td>
</tr>
</tbody>
</table>

The cable socket is ordered separately. For technical data, please refer to leaflet no. 1-1730-EN, "Electrical Plug-In Connections".

Spare parts

<table>
<thead>
<tr>
<th>Designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piston detector</td>
<td>177-300-094</td>
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<tr>
<td>O-ring for piston detector</td>
<td>WVN532-12x1.5</td>
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</tbody>
</table>
PSG2 modular feeder with cycle indicator
for oil and grease, monitoring type ZY

Technical Data

**General**
For further measurements, see "basic design", page 6

- **Type**: hydraulically controlled
- **Ambient temperature range**: -15 to +90 °C
- **Cycle indicator weight**: 0.05 kg

**Hydraulic**
- **Operating pressure max.**: 150 bar
- **Inlet volume flow**: up to 2.5 l/min
- **Lubricant**: Mineral oils, greases based on mineral oil, environmentally friendly and synthetic oils and greases
- **Operating viscosity**: > 12 mm²/s
- **Worked penetration**: ≥ 265 × 0.1 mm (up to NLGI Grade 2)

The feeder section 60 mm³ cannot be equipped with visual cycle indicator.

For further measurements, see "basic design", page 6
PSG2 modular feeder with proximity switch
for oil and grease, monitoring type ZS

Technical Data

**General**
For further measurements, see "basic design", page 6

- Type: hydraulically controlled
- Ambient temperature range: -15 to +70 °C
- Proximity switch weight: 0.17 kg

**Hydraulic**
- Operating pressure max.: 150 bar
- Inlet volume flow: up to 2.5 l/min
- Lubricant: Mineral oils, greases based on mineral oil, environmentally friendly and synthetic oils and greases
- Operating viscosity: > 12 mm²/s
- Worked penetration: ≥ 265 x 0.1 mm (up to NLGI Grade 2)

**Electrical**
**Proximity switch**
- Design: PNP with LED
- Rated voltage: 10 to 30 V DC
- Load current: max. 130 mA
- Protection class: IP 67
- Outlet function: NO, NO-contact (electricity flows if switch damped)

Further designs available on request

**Accessories**

<table>
<thead>
<tr>
<th>Designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable socket M12 x 1, 4-pin, without LED</td>
<td>179-990-371</td>
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<tr>
<td>with 5 m cable</td>
<td>179-990-600</td>
</tr>
<tr>
<td>with 10 m cable</td>
<td>179-990-603</td>
</tr>
<tr>
<td>angled, without cable</td>
<td>179-990-372</td>
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<tr>
<td>angled, with 5 m cable</td>
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**Spare parts**

<table>
<thead>
<tr>
<th>Designation</th>
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<tbody>
<tr>
<td>Proximity switch</td>
<td>24-1884-2316</td>
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<tr>
<td>Housing proximity switch</td>
<td>44-0711-2592</td>
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**Note**
The cable socket is ordered separately. For technical data, please refer to leaflet no. 1-1730-EN, "Electrical Plug-In Connections".
PSG2 modular feeder with gear-type flow indicator
for oil, with gear-type flow indicator and interchangeable strainer, attachment 10

Technical Data

General
For further measurements, see “basic design”, page 6

- Type: Gear-type flow indicator
- Ambient temperature range: -15 to +70 °C
- Gear-type flow indicator weight: 0.9 kg

Hydraulic
- Operating pressure max.: 85 bar
- Inlet volume flow: up to 2.5 l/min
- Lubricant: Mineral oils, environmentally friendly and synthetic oils
- Operating viscosity: 20 to 1000 mm²/s
- Filtering unit/interchangeable strainer: 0.3 mm

Electrical sensor
- Type: Hall sensor (PNP technology)
- Rated voltage: 24 V DC
- Residual ripple: ≤ 10%
- Protection class: IP 67
- Proportionality factor: 4.6 cm³/pulse

Accessories

<table>
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<td>Cable socket, DIN 43 650 type A (ISO 4400)</td>
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<td>without cable and LED</td>
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Spare parts

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<th>Order number</th>
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<tr>
<td>Gear-type flow indicator with baseplate G 1/4”</td>
<td>24-1883-2224</td>
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Note
The cable socket is ordered separately. For technical data, please refer to leaflet no. 1-1730-EN, "Electrical Plug-In Connections".
PSG2 modular feeder with flow regulator
for oil, attachments 02

Technical Data

**General**
For further measurements, see "basic design", page 6

- Type: 2-way flow control valve, pressure compensated
- Ambient temperature range: -15 to +75 °C
- Flow regulator weight: 1.3 kg

**Hydraulic**
- Operating pressure max: 200 bar
- Settings range: 0.1 to 2.5 l/min
- Lubricant: Mineral oils, environmentally friendly and synthetic oils
- Operating viscosity: 12 - 350 mm²/s
- Filtering unit/interchangeable strainer: 0.3 mm
- Scale graduation: 1 - 10

Spare parts

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<td>Baseplate G 1/4&quot; for flow regulator</td>
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<td>Flow regulator up to 0.6 l/min</td>
<td>24-1883-2211</td>
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<td>Flow regulator up to 1.6 l/min</td>
<td>24-1883-2201</td>
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<tr>
<td>Flow regulator up to 2.5 l/min</td>
<td>24-1883-2024</td>
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For further measurements, see "basic design", page 6
PSG2 modular feeder with SP/SMB8 flow limiter
for oil, attachment 07

For further measurements, see "basic design", page 6

Technical Data

General
For further measurements, see "basic design", page 6

Type .................................................. 2-way flow control valve, pressure compensated
Ambient temperature range .......................... 0 to +100 °C
Flow limiter weight .................................... 0.5 kg

Hydraulic
Operating pressure max. ............................... 200 bar
Inlet volume flow ....................................... 0.09 to 2.5 l/min
Lubricant ...... mineral oils, environmentally friendly and synthetic oils
Operating viscosity .................................... 20 to 600 mm²/s
Filtering unit/interchangeable strainer ................. 0.3 mm

Spare parts

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<td>Flow limiter with baseplate 9/16-18UNF</td>
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See plug-in nozzle table for SP/SMB8 flow limiter

<table>
<thead>
<tr>
<th>Nominal flow 1) [l/min]</th>
<th>Nozzle [Ø mm]</th>
<th>Nozzle index</th>
<th>Spare part complete plug-in nozzle D₁</th>
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1) at a service viscosity of 300 mm²/s
**PSG2 modular feeder with 4/2-directional solenoid valve**

for oil, attachments 08 and 09

---

**Technical Data**

### General

For further measurements, see "basic design", page 6

- **Type**: Directional solenoid valve
- **Ambient temperature range**: -15 to +75 °C
- **Directional solenoid valve weight**: 1.6 kg

### Hydraulic

- **Operating pressure max.**: 150 bar
- **Inlet volume flow**: up to 2.5 l/min
- **Lubricant**: mineral oils, environmentally friendly and synthetic oils
- **Operating viscosity**: > 12 mm²/s

### Electric

- **Ordering code 08**: with 4/2-directional solenoid valve, de-energized, continuity to feeder closed
- **Ordering code 09**: with 4/2-directional solenoid valve, de-energized, continuity to feeder open
- **Type**: NG6
- **Connection dimensions**: as per DIN 24 340
- **System voltage**: 24 V DC 1)

1) Other specification available on request

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## Accessories

<table>
<thead>
<tr>
<th>Designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable socket, DIN 43 650 type A (ISO 4400) without cable and LED</td>
<td>179-990-034</td>
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</tbody>
</table>

---

## Spare parts

<table>
<thead>
<tr>
<th>Designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>4/2-directional solenoid valve, (NC), 24 V DC</td>
<td>24-1254-2396</td>
</tr>
<tr>
<td>Base plate for 4/2-directional solenoid valve G 1/4”</td>
<td>24-1254-2223</td>
</tr>
<tr>
<td>4/2-directional solenoid valve, (NO), 24 V DC</td>
<td>24-1254-2396</td>
</tr>
<tr>
<td>Base plate for 4/2-directional solenoid valve G 1/4”</td>
<td>24-1254-2222</td>
</tr>
</tbody>
</table>

---

**Note**

The cable socket is ordered separately. For technical data, please refer to leaflet no. 1-1730-EN, "Electrical Plug-In Connections".
PSG2 modular feeder with 2/2-directional solenoid valve
for oil and grease, attachment 13

For further measurements, see "basic design", page 6

Technical Data

General
For further measurements, see "basic design", page 6

Type ........................................ Directional solenoid valve
Ambient temperature range ........................... - 15 to + 75 °C
Directional solenoid valve weight ................. 1.6 kg

Hydraulic
Operating pressure max. ......................... 200 bar
Inlet volume flow ................................. up to 2.5 l/min
Lubricant ..................................... Mineral oils, greases based on mineral oil,
environmentally friendly and synthetic oils and greases
Operating viscosity ................................ > 12 mm²/s
Worked penetration ................................. ≥ 265 x 0.1 mm (up to NLGI Grade 2)

Electrical
Ordering code 13 ................................. with 2/2-directional solenoid valve,
de-energized, continuity to feeder closed
Size .............................................. NG6
Connection dimensions ............................. as per DIN 24 340
Electrical connection values ....................... specify when ordering

Accessories

<table>
<thead>
<tr>
<th>Designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable socket, DIN 43 650 type A (ISO 4400)</td>
<td>179-990-034</td>
</tr>
<tr>
<td>without cable and LED</td>
<td></td>
</tr>
</tbody>
</table>

Spare parts

<table>
<thead>
<tr>
<th>Designation</th>
<th>Order number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ordering code 13</td>
<td></td>
</tr>
<tr>
<td>2/2-directional solenoid valve, 24 V DC</td>
<td>24-1883-2246</td>
</tr>
<tr>
<td>Base plate for 2/2-directional solenoid valve G 1/4”</td>
<td>24-1883-2246</td>
</tr>
<tr>
<td>Base plate for 2/2-directional solenoid valve 9/16-18UNF</td>
<td></td>
</tr>
</tbody>
</table>

Note
The cable socket is ordered separately. For technical data, please refer to leaflet no. 1-1730-EN, "Electrical Plug-In Connections".
## Modular Feeder PSG2

### Accessories and spare parts, PSG2 modular feeder

<table>
<thead>
<tr>
<th>Designation</th>
<th>Number of Sections</th>
<th>Volume per outlet and cycle [mm³]</th>
<th>Order number</th>
<th>Weight [kg]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complete baseplate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inlet thread G 1/4&quot;</td>
<td>3</td>
<td>24-0714-3300</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>Outlet thread G 1/4&quot;</td>
<td>4</td>
<td>24-0714-3301</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>24-0714-3302</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>24-0714-3303</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>24-0714-3304</td>
<td>1.21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td>24-0714-3305</td>
<td>1.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>24-0714-3306</td>
<td>1.47</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>24-0714-3307</td>
<td>1.63</td>
<td></td>
</tr>
<tr>
<td>Complete baseplate</td>
<td>3</td>
<td>24-0714-2270</td>
<td>0.67</td>
<td></td>
</tr>
<tr>
<td>Inlet thread 9/16-18 UNF</td>
<td>4</td>
<td>24-0714-2271</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td>Outlet thread 9/16-18 UNF</td>
<td>5</td>
<td>24-0714-2272</td>
<td>0.94</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>24-0714-2273</td>
<td>1.07</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td>24-0714-2274</td>
<td>1.21</td>
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</tr>
<tr>
<td></td>
<td>8</td>
<td>24-0714-2275</td>
<td>1.34</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td>24-0714-2276</td>
<td>1.47</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>24-0714-2277</td>
<td>1.63</td>
<td></td>
</tr>
<tr>
<td>Complete feeder section</td>
<td>60</td>
<td>24-2151-4500</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>prepared for the</td>
<td>120</td>
<td>24-2151-4501</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>Piston detector assembly</td>
<td>240</td>
<td>24-2151-4502</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>Monitoring type P3</td>
<td>360</td>
<td>24-2151-4503</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>480</td>
<td>24-2151-4504</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>24-2151-4505</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>720</td>
<td>24-2151-4506</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td></td>
<td>840</td>
<td>24-2151-4507</td>
<td>0.50</td>
<td></td>
</tr>
<tr>
<td>Complete feeder section cycle indicator right 1)</td>
<td>120</td>
<td>24-2151-4230</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>Monitoring type ZY (attachment from the 2nd to second-to-last section)</td>
<td>240</td>
<td>24-2151-4231</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>360</td>
<td>24-2151-4232</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>480</td>
<td>24-2151-4233</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>600</td>
<td>24-2151-4234</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>720</td>
<td>24-2151-4300</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td></td>
<td>840</td>
<td>24-2151-4301</td>
<td>0.55</td>
<td></td>
</tr>
<tr>
<td>Complete dummy section without screw plug for baseplate</td>
<td>24-2151-4210</td>
<td>0.45</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1) Feeder section with cycle indicator is supplied with indicator fitted right.
Retooling to the cycle indicator from right to left is described on page 16.

<table>
<thead>
<tr>
<th>Designation</th>
<th>Part number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Piston stop screw, pin side</td>
<td>44-1855-2142</td>
</tr>
<tr>
<td>Piston stop screw, opposite pin side</td>
<td>44-1855-2143</td>
</tr>
<tr>
<td>Screw plug for baseplate outlet G 1/4</td>
<td>DIN 908-R1-4-5.8</td>
</tr>
<tr>
<td>Gasket for screw plugs G 1/4</td>
<td>DIN 7603-A14x18-CU</td>
</tr>
<tr>
<td>Screw plug for baseplate outlet with washer (9/16-18 UNF)</td>
<td>24-1855-2028</td>
</tr>
<tr>
<td>Threaded pin for feeder baseplate</td>
<td>95-0610-0915</td>
</tr>
<tr>
<td>Baseplate O-ring (9 O-rings are required for one section)</td>
<td>WVN 532-4.5x1.5</td>
</tr>
</tbody>
</table>
Retrofitting instructions for cycle indicator

Note!
To avoid damages pressure must not be applied to the feeder section during the retrofitting described below. Rotyping the feeder section from a right cycle indicator design to a left cycle indicator design should therefore be performed before mounting the feeder section on the baseplate.

- Loosen up and remove screw plug (1) (left)
- Push indicator pin (2) of visual stroke monitoring (right) into the housing (3) (using finger)
- Carefully remove piston (4) with indicator pin (2) from left side of section housing (5)
- Loosen up and remove indicator pin housing (hexagon socket screw SW4) (3) and install in left side
- During subsequent installation of piston (4) and indicator pin (2), do not bend or shear off O-rings!
- Turn the piston (4) (with indicator pin (2)) 180° and carefully install on the right side of the feeder housing (5)
- Carefully insert the indicator pin (2) into the housing (3)
- Install the screw plug (1) on the right side

Note!
Cycle indicator retrofitting from right to left pin design

C-C view
Cycle indicator attachment right

C-C view
Cycle indicator attachment left

Piston position (4) plunger rod (2) on right

Piston position (4) plunger rod (2) on left
Bridge design for PSG2 modular feeder

Crossporting options

- **Designation**: 3-bridge, with one outlet
  - **Order number**: G 1/4" 24-2151-3733

- **Designation**: 2-bridge, with one outlet
  - **Order number**: G 1/4" 24-2151-3732

- **Designation**: 3-bridge, without outlet
  - **Order number**: G 1/4" 24-2151-3731

- **Designation**: 2-bridge, without outlet
  - **Order number**: G 1/4" 24-2151-3730

- **Designation**: Bridge, installation position left
- **Designation**: Bridge, installation position right

- **Designation**: 4-bridge, with one outlet, with check valves
  - **Order number**: G 1/4" 24-2151-3739
  - **UNF**: 24-2151-3754

- **Designation**: 3-bridge, with one outlet, with check valves
  - **Order number**: G 1/4" 24-2151-3395
  - **UNF**: 24-2151-3755

- **Designation**: 2-bridge, with one outlet, with check valves
  - **Order number**: G 1/4" 24-2151-3394
  - **UNF**: 24-2151-3752

- **Designation**: 3-bridge, without outlet, with check valves
  - **Order number**: G 1/4" 24-2151-3397
  - **UNF**: 24-2151-3751

- **Designation**: 2-bridge, without outlet, with check valve
  - **Order number**: G 1/4" 24-2151-3390
  - **UNF**: 24-2151-3750
Example: PSG 2 /10 15 / P3-4R /07 A 1 - 600 - 480L - X -240 - 120L - 360 - 480 .......

**Key to order codes**

**Design**

- **PSG2 Progressive modular feeder on baseplate**
  - **Size 2:** max. 2.5 l/min

**Baseplate size**
- 03 = for 3 sections (max. 6 outlets)
- 04 = for 4 sections (max. 8 outlets)
- 05 = for 5 sections (max. 10 outlets)
- 06 = for 6 sections (max. 12 outlets)
- 07 = for 7 sections (max. 14 outlets)
- 08 = for 8 sections (max. 16 outlets)
- 09 = for 9 sections (max. 18 outlets)
- 10 = for 10 sections (max. 20 outlets)

**Number of occupied outlets**
- 03 = 3 outlets open
- 20 = 20 outlets open (1 outlet usable with bridges)

**Monitoring type**
- 00 = without
- P3 = piston detector, 3-pin connection
- ZY = cycle indicator 1) 2)
- ZS = cycle indicator with proximity switch 1) 2)

**Installation position of the monitoring system**
- -1R = right side on first section
- -1L = left side on first section
- -2R = right side on second section
- -2L = left side on second section
- -0R = right side on 10th section
- -0L = left side on 10th section

**Attachments**
- 00 = without attachments
- 02 = with flow regulator, 2.5 l/min
- 07 = with SPSMBB flow limiter, please order plug-in nozzle separately
- 08 = with 4/2-directional solenoid valve, (NO)
- 09 = with 4/2-directional solenoid valve, (NC)
- 10 = with gear-type flow indicator
- 11 = with flow limiter and gear-type flow indicator
- 12 = with flow regulator and gear-type flow indicator
- 13 = with 2/2-directional solenoid valve for grease, (NC)

1) PSG2 sections from 120 mm³/stroke
2) The sections are available in volumes per outlet and cycle of 60, 120, 240, 360, 480, 600, 720 and 840 mm³ (volume index).
3) Attachment is made on the left or right from the second to second-to-last section.

**Description of the example**

Progressive feeder, type PSG2 (PSG2), baseplate for 10 sections (10), with 15 occupied outlets (15), with monitoring by 3-pin piston detector (P3), installed on the right side of the 4th section (4R), with upstream flow limiter (07), change version A (A), G1/4” inlet thread (1), 1st section with 600 mm³/stroke (600), 2nd section 480 mm³/stroke, right outlet closed (480L), dummy section (X), 4th section with 240 mm³/stroke (240), 5th section with 120 mm³/stroke, right outlet closed (120L), 6th section with 360 mm³/stroke (360), the further sections (section 7 to 10) with 480, 600 and 360 mm³/stroke (±480-600-60-360). The following bridges, check valves, screw unions as well as test or measurement connector have been allocated to the progressive feeder, as seen from the inlet (see page 19).
Key to order codes

Attachments and screw unions

---

**Connections - left feeder side**
Outlet open ↔ / outlet closed
Bridge B
Check valve RV
Overpressure indicator [bar] 50 / 100 / 150 / 200
Outlet screw union
Outlet-Ø mm 6 / 8 / 10 / 12
customer-specific screw unions or bridges

**Connections - right feeder side**
Outlet open ↔ / outlet closed
Bridge B
Check valve RV
Overpressure indicator [bar] 50 / 100 / 150 / 200
Outlet screw union
Outlet-Ø mm 6 / 8 / 10 / 12
customer-specific screw unions or bridges

**Order No.**
8
8
8
12
100
8
12
8

**Test and measurement connector** (pressure in inflow)
Measurement connector MA or Pressure gauge max. pressure indication [bar] 160

**Description of the example**
Inlet screw union = with Ø 12 mm (12),
Attachments = with plug-in nozzle for the flow limiter for a volumetric flow of 2.09 l/min (24-0455-2596)
1st section = outlet screw union on both sides with Ø 10 mm (10), right side with additional check valve (RV)
2nd section = outlet screw union on left with Ø 12 mm (12), right side closed (480L),
3rd section = dummy section (X), closed on both sides,
4th section = outlet screw union on both sides with Ø 6 mm (6),
5th section = outlet left bridge (B) and check valve (RV) (bridge between 5th (120L) and 6th section (360)
(24-2151-3394) -see page 17), outlet right closed (120L),
6th section = outlet left bridge (B), outlet screw union with Ø 12 mm (12),
7th section = outlet screw union on both sides with Ø 12 mm (12),
8th section = outlet screw union on both sides with Ø 8 mm (8), right with overpressure indicator max. 100 bar (100),
9th-10th section = screw unions on both sides Ø 8 mm (8),
On baseplate outlet, pressure gauge with max. pressure indication 160 bar (160).
Configuration - order code PSG2

PSG2 /10 15 /P3- 4R/ 07A 1 - 600 - 480L - X - 240 - 120L - 360 - 480 - 600 - 60 -360

PSG2 / .. ... / ... / A .. - ..... - ..... - ..... - ..... - ..... - ..... - ..... - ..... - ..... - ...... - ....

Test and measurement connector (pressure in inflow)
Measurement connector MA or
Pressure gauge max. pressure indication [bar] 160

Connections - left feeder side
Outlet open ← / outlet closed →
Bridge B
Check valve RV
Overpressure indicator [bar] 50 / 100 / 150 / 200
Outlet screw union
Outlet-Ø mm 6 / 8 / 10 / 12
customer-specific screw unions or bridges

Connections - right feeder side
Outlet open ← / outlet closed →
Bridge B
Check valve RV
Overpressure indicator [bar] 50 / 100 / 150 / 200
Outlet screw union
Outlet-Ø mm 6 / 8 / 10 / 12
customer-specific screw unions or bridges

Comments

Company: .......................................................... Name: ..........................................................
Address: ................................................................ Function/dept.: ..............................................
Reference: ........................................................ Phone: ..........................................................
Fax/E-Mail: ........................................................

Note! When attaching a flow limiter, add the part number of the plug-in nozzle (see page 12).

Order number

Inlet screw union
Inlet-Ø mm 6 / 8 / 10 / 12
customer-specific screw unions
Modular Feeder PSG2

The configuration of a PSG2 progressive feeder is customer-specific. The most important data for the generation of an order number are summarized on pages 18 to 19. A sample order number is shown as an example.

Please read page 18 and 19 thoroughly!
An order / inquiry form is located on the inside of this leaflet.
Please fill this in according to the sample, whereby the blank line PSG2/... (configuration) must be completed according to the sample on page 18 and the graphic below according to the sample on page 19.

Note!
The configuration of a modular feeder (and thereby its order code) always starts at the baseplate inlet section.

Copy this order sheet, fill it out, and send it to the following address:
SKF Lubrication Systems Germany AG
2, Industriestrasse 4
68766 Hockenheim
Tel. +49 (0)62 05 27-0
Fax +49 (0)62 05 27-101
www.skf.com/lubrication

Please complete your address here:
Company:
Address:
Reference:
Name:
Function/dept.:
Phone:
Fax:
E-mail:

Additional amendments or remarks:
Order No. 1-3013-EN
Subject to change without notice! (07/2009)

Important product usage information
All products from SKF may be used only for their intended purpose as described in this brochure and in any instructions. If operating instructions are supplied with the products, they must be read and followed.
Not all lubricants are suitable for use in centralized lubrication systems. SKF does offer an inspection service to test customer supplied lubricant to determine if it can be used in a centralized system. SKF lubrication systems or their components are not approved for use with gases, liquefied gases, pressurized gases in solution and fluids with a vapor pressure exceeding normal atmospheric pressure (1013 mbars) by more than 0.5 bar at their maximum permissible temperature.
Hazardous materials of any kind, especially the materials classified as hazardous by European Community Directive EC 67/548/EEC, Article 2, Par. 2, may only be used to fill SKF centralized lubrication systems and components and delivered and/or distributed with the same after consulting with and receiving written approval from SKF.

Brochure note
1-3011-EN  Progressive modular feeder  PSG3(PM)
1-3014-EN  Progressive modular feeder  PSG3
1-3015-EN  Progressive sectional feeder  VP
1-3016-EN  Progressive sectional feeder  VPK
1-3017-EN  Progressive block feeder  VPB
1-3029-EN  Progressive block feeder  SPVS

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