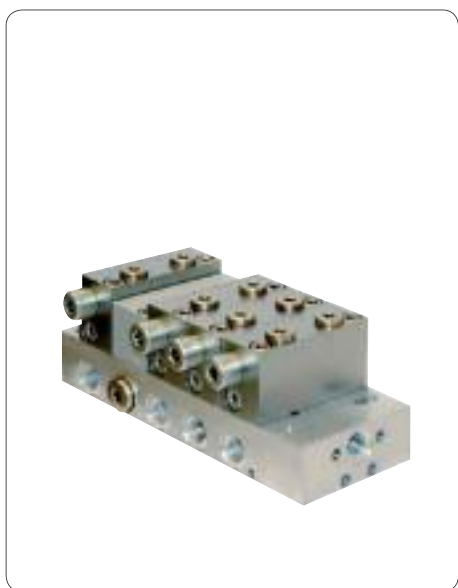


# PSG2 Modular Feeder

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.

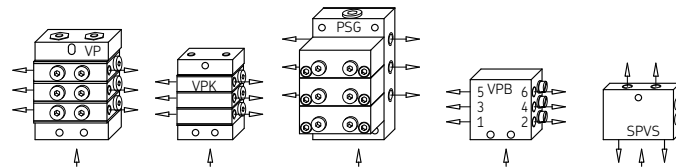
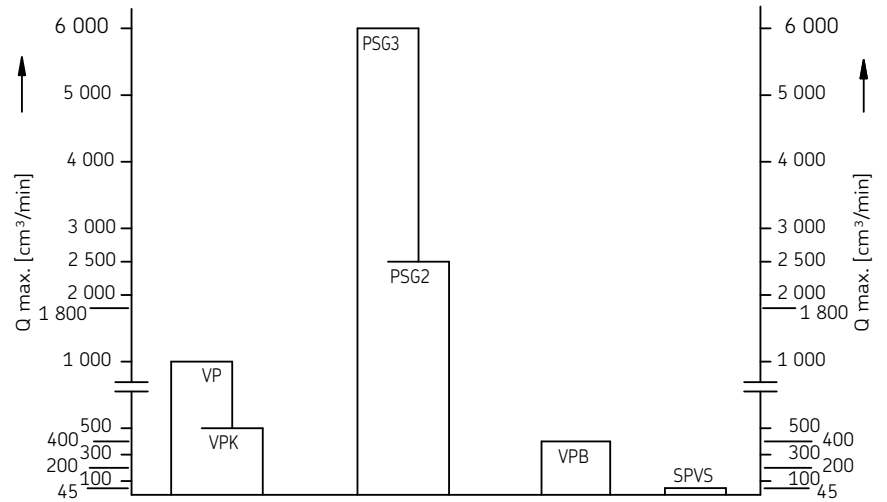
## Advantages

- 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 mm<sup>3</sup>
- 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

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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.

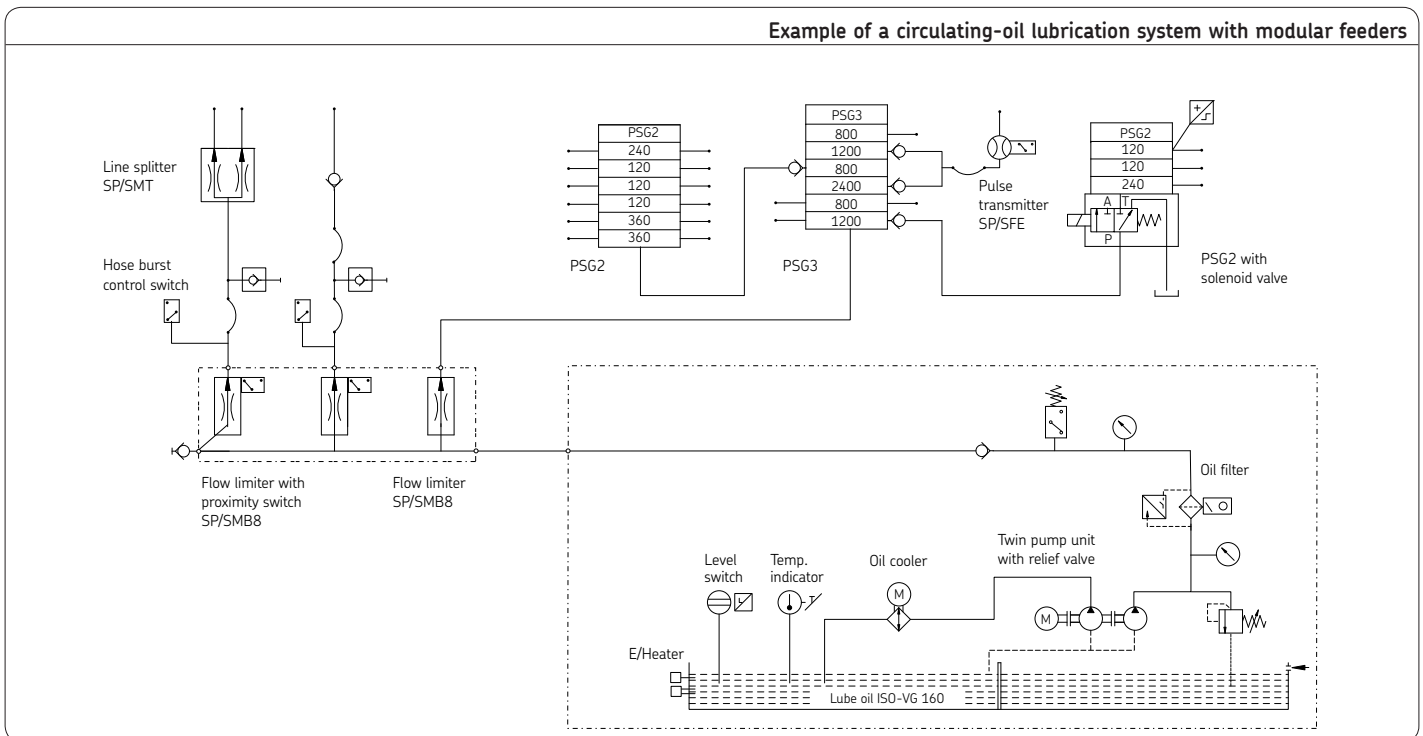
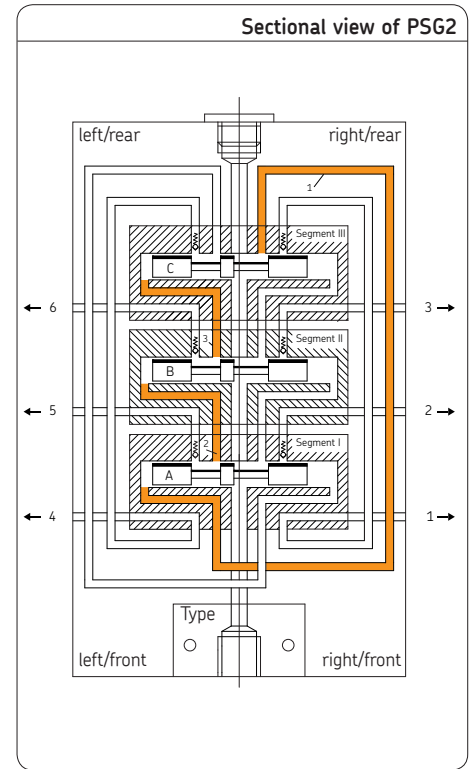
The volumetric flow which is sent via a tube is forcibly distributed in a predetermined ratio to the outlets, i.e. to the lubrication points or the downstream progressive feeders. Pistons, which are aligned in series, meter the lubricant for two opposite outlets each and control the function of the neighboring 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.



### 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).

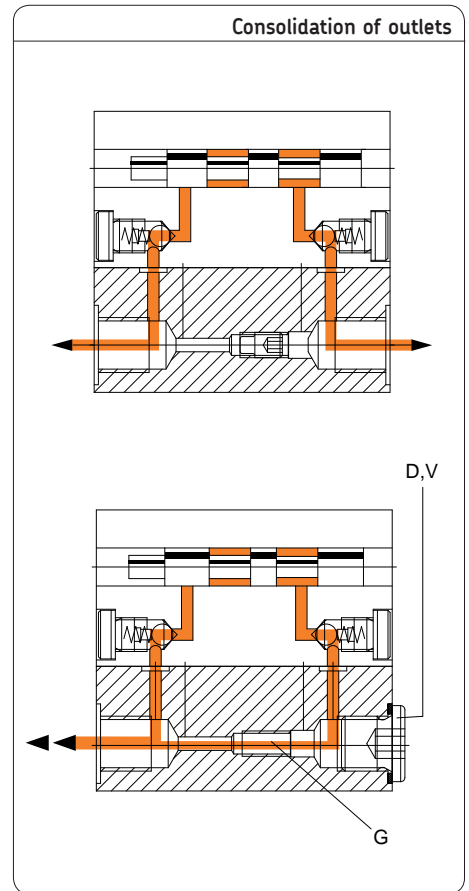
### Information on the design

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 mm<sup>3</sup>/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

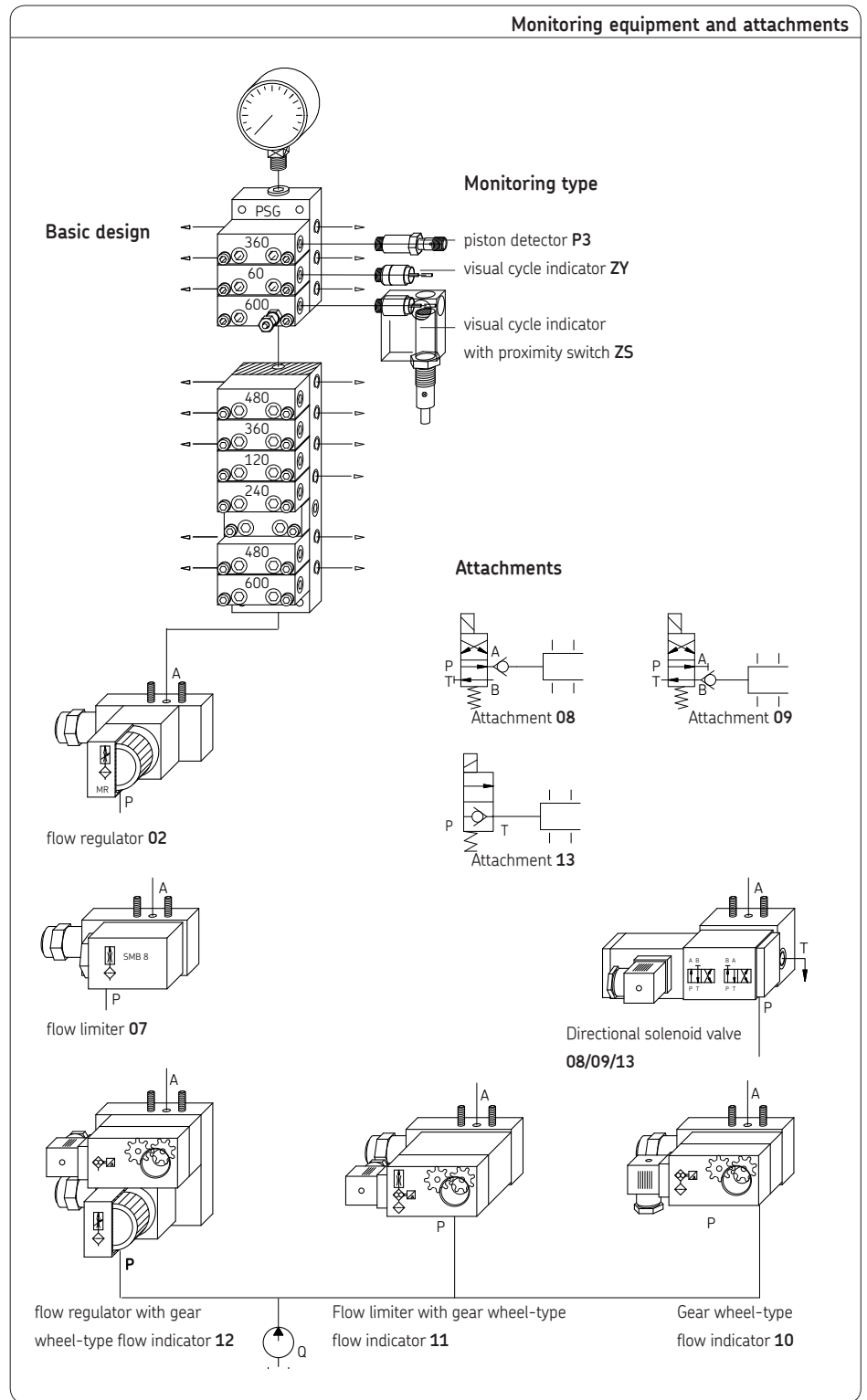
All standard sections can be directly monitored by means of a piston detector (compare parameters for piston detector, monitoring type **P3**) and can be retrofitted. If piston movement is recorded using a cycle indicator (visual stroke monitoring, monitoring type **ZY**) with proximity switch (monitoring type **ZS**), the sections intended for this purpose are to be used. (Exception: section 60 mm<sup>3</sup>/stroke)

## Attachments

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

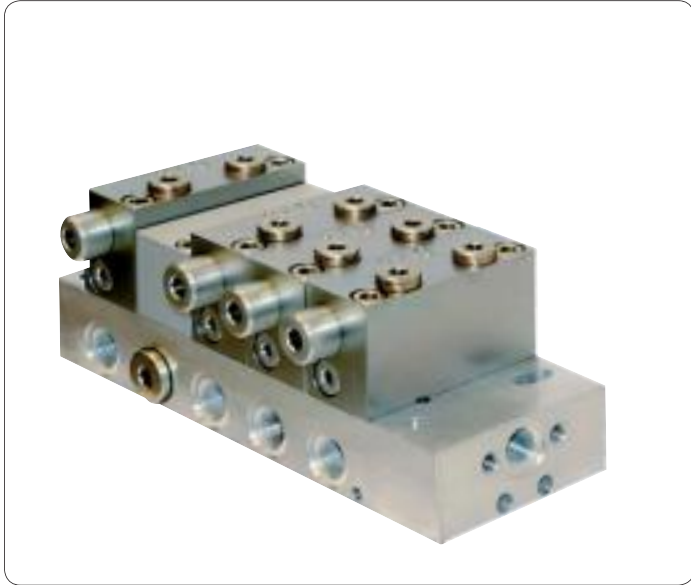
- flow regulator (attachment **02**)
- flow limiter (attachment **07**)
- 4/2-directional solenoid valve (attachment **08/09**)
- 2/2-directional solenoid valve (attachment **13**)

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.

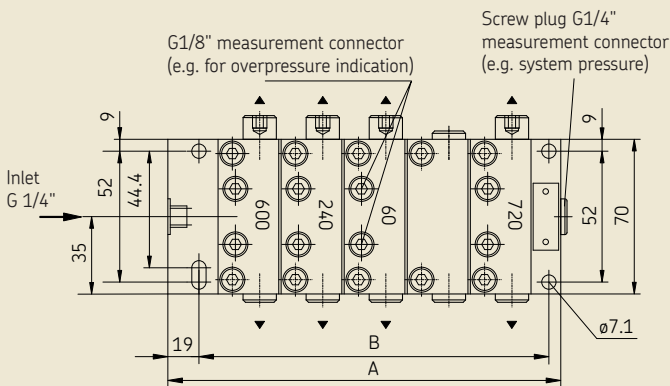
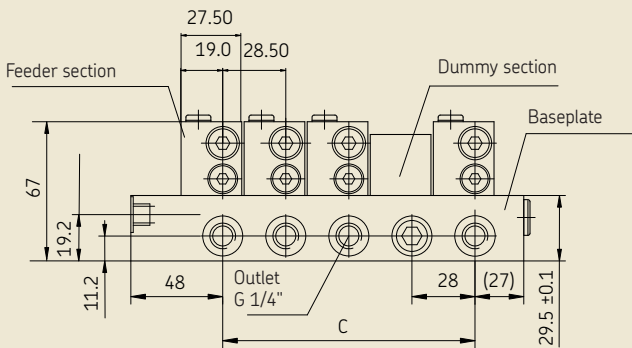


# PSG2 modular feeder, basic design

for oil and grease, without attachments, without monitoring



PSG2 modular feeder, basic design



## Technical Data

### General information

Type ..... hydraulically controlled  
 Mounting position ..... discretionary<sup>1)</sup>  
 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 <sup>2)</sup>

### 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 mm<sup>3</sup>

Piston stroke rate ..... max. 200/min  
 Dividing ratio ..... 1 : 1 to 1 : 14<sup>3)</sup>  
 Pressure difference ..... 5 to 15 bar <sup>4)</sup>  
 Lubricant ..... Mineral oils, greases based on mineral oil,  
 environmentally friendly and  
 synthetic oils and greases

Operating viscosity ..... > 12 mm<sup>2</sup>/s  
 Worked penetration ..... ≥ 265 x 0.1 mm (up to NLGI Grade 2)

<sup>1)</sup> 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.

<sup>2)</sup> Also available in corrosion-resistant design (chemically nickel-plated).

<sup>3)</sup> Larger dividing ratios are possible when consolidated.

<sup>4)</sup> Depending on volume index and viscosity or penetration and volumetric flow.

## Dimensions

Number of Sections	dimension A [mm]	dimension B [mm]	dimension C [mm]	complete weight [kg]
3	131	103	2 x 28 = 56	2.24
4	159	131	3 x 28 = 84	2.85
5	187	159	4 x 28 = 112	3.49
6	215	187	5 x 28 = 140	4.10
7	243	215	6 x 28 = 168	4.78
8	271	243	7 x 28 = 196	5.42
9	299	271	8 x 28 = 224	6.06
10	327	299	9 x 28 = 252	6.73

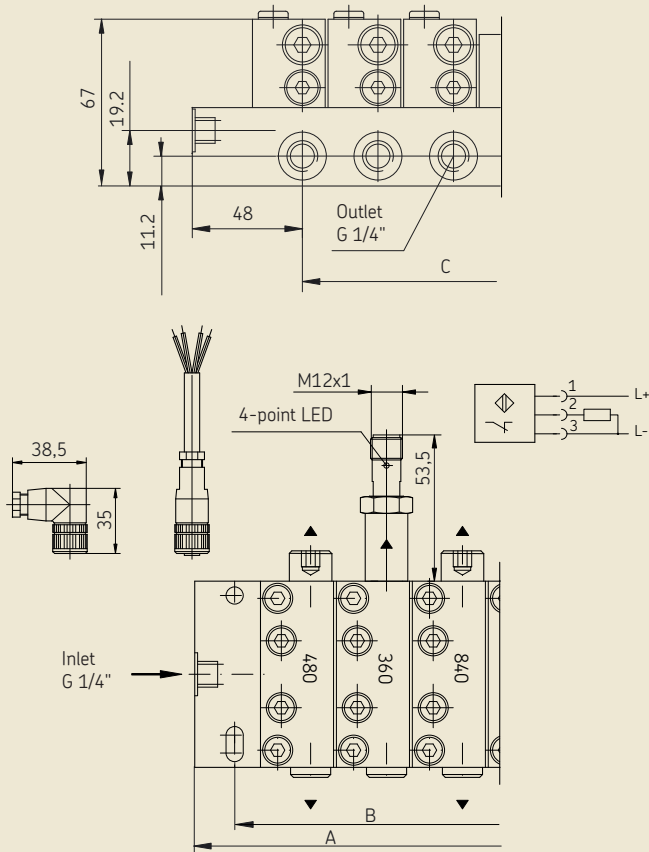
# PSG2 modular feeder with piston detector

for oil and grease, monitoring type P3



## PSG2 modular feeder with piston detector

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 mm<sup>2</sup>/s  
 Worked penetration ..... ≥ 265 × 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

### Accessories

Designation	Order number
Cable socket M12 x 1, 4-pin, without LED, without cable	179-990-371
with 5 m cable	179-990-600
with 10 m cable	179-990-603
angled, without cable	179-990-372
angled, with 5 m cable	179-990-601

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

### Spare parts

Designation	Order number
Piston detector	177-300-094
O-ring for piston detector	WVN532-12x1.5

#### 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.

# 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

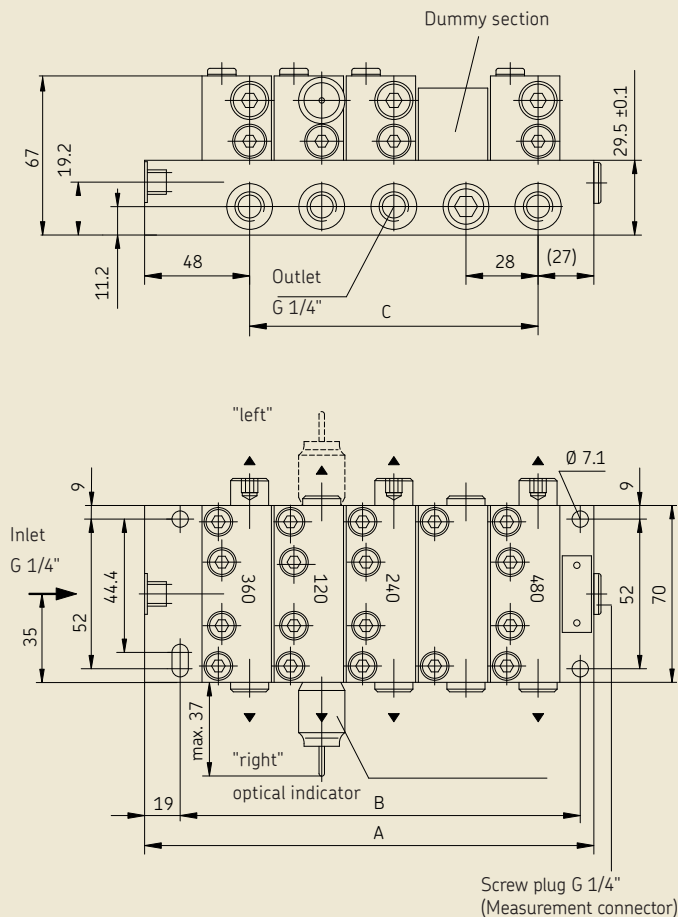
#### Hydraulic

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 mm<sup>2</sup>/s  
 Worked penetration . . . . . ≥ 265 x 0.1 mm (up to NLGI Grade 2)

*The feeder section 60 mm<sup>3</sup> cannot be equipped with visual cycle indicator.*

### PSG2 modular feeder with cycle indicator

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





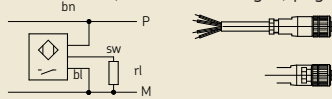
# PSG2 modular feeder with proximity switch

for oil and grease, monitoring type ZS

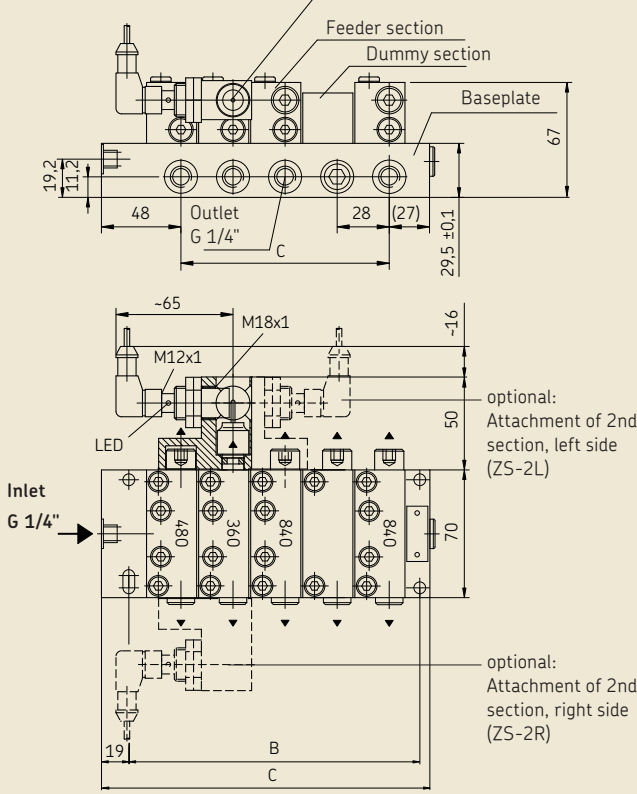


### PSG2 modular feeder with proximity switch

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



Attachment is made on left or right from the second to second-to-last section



### 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 mm<sup>2</sup>/s  
 Worked penetration . . . . . ≥ 265 x 0.1 mm (up to NLGI Grade 2)

#### Electrical

##### Proximity switch <sup>1)</sup>

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)

1) Further designs available on request

### Accessories

Designation	Order number
Cable socket M12 x 1, 4-pin, without LED	
without cable	179-990-371
with 5 m cable	179-990-600
with 10 m cable	179-990-603
angled, without cable	179-990-372
angled, with 5 m cable	179-990-601

### Spare parts

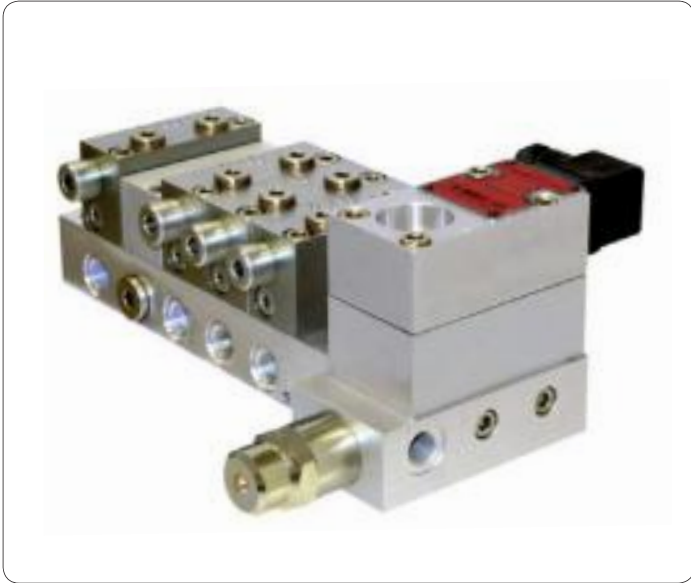
Designation	Order number
Proximity switch	24-1884-2316
Housing proximity switch	44-0711-2592

### Note

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

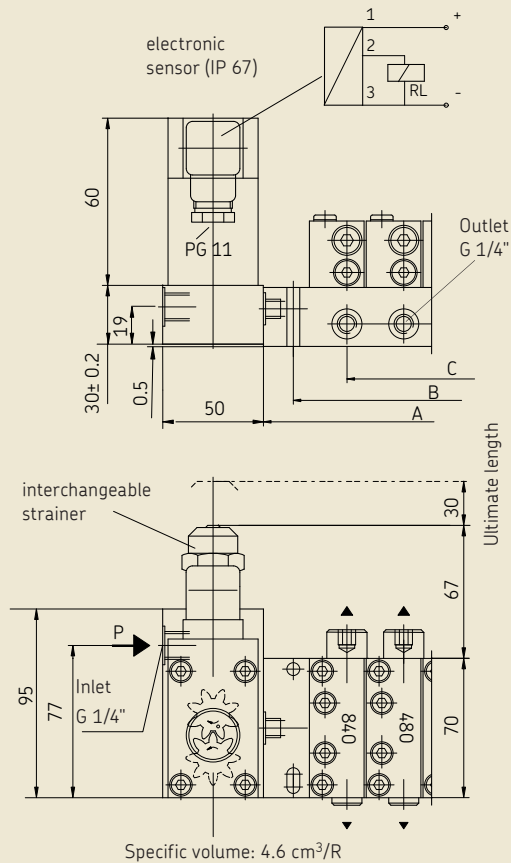
# PSG2 modular feeder with gear-type flow indicator

for oil, with gear-type flow indicator and interchangeable strainer, attachment 10



**PSG2 modular feeder with gear-type flow indicator**

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



## 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 mm<sup>2</sup>/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 cm<sup>3</sup>/pulse

## Accessories

### Designation

Cable socket, DIN 43 650 type A (ISO 4400)  
 without cable and LED

### Order number

**179-990-034**

## Spare parts

### Designation

Gear-type flow indicator with baseplate G 1/4"

### Order number

**24-1883-2224**

## 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

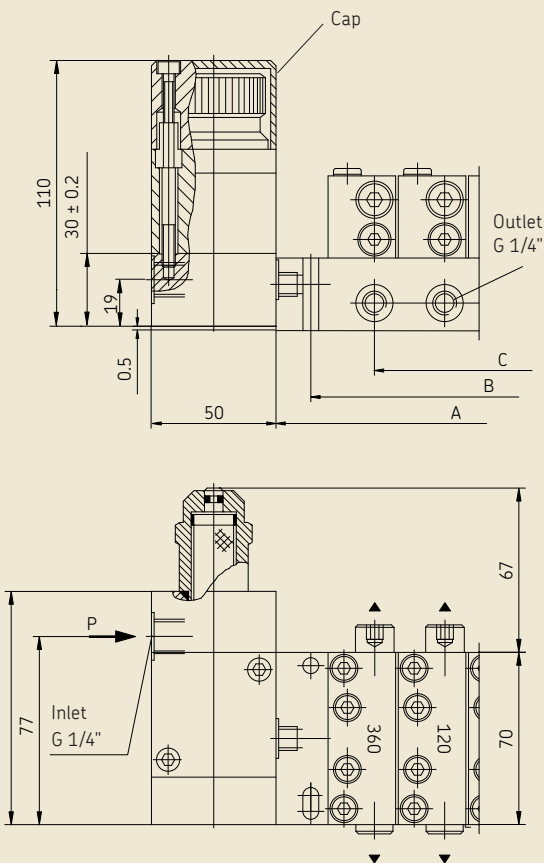
#### Hydraulic

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 mm<sup>2</sup>/s  
 Filtering unit/interchangeable strainer ..... 0.3 mm  
 Scale graduation ..... 1 - 10

### Spare parts

#### PSG2 modular feeder with flow regulator

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



#### Designation

#### Order number

Baseplate G 1/4" for flow regulator	24-1883-2228
Flow regulator up to 0.6 l/min	24-1883-2211
Flow regulator up to 1.6 l/min	24-1883-2201
Flow regulator up to 2.5 l/min	24-1883-2024

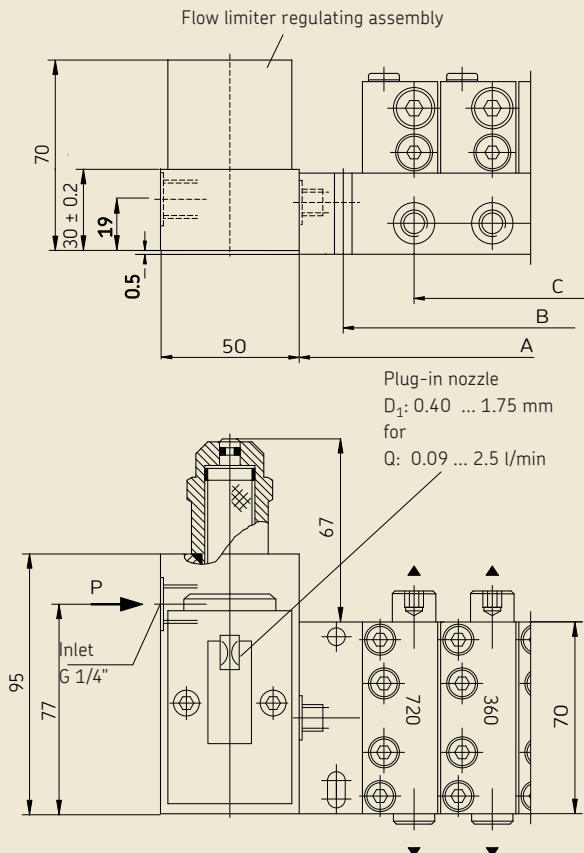
# PSG2 modular feeder with SP/SMB8 flow limiter

for oil, attachment 07



PSG2 modular feeder with SP/SMB8 flow limiter

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 mm<sup>2</sup>/s  
 Filtering unit/interchangeable strainer . . . . . 0.3 mm

### Spare parts

Designation	Order number
Flow limiter with baseplate G1/4"	24-1883-2220
Flow limiter with baseplate 9/16-18UNF	24-1883-2245

### See plug-in nozzle table for SP/SMB8 flow limiter

Nominal flow <sup>1)</sup> [l/min]	Nozzle [Ø mm]	Nozzle index	Spare part complete plug-in nozzle D <sub>1</sub> Order number
0.09	0.40	040	24-0455-2572
0.12	0.45	045	24-0455-2573
0.16	0.50	050	24-0455-2574
0.21	0.55	055	24-0455-2575
0.26	0.60	060	24-0455-2576
0.31	0.65	065	24-0455-2577
0.37	0.70	070	24-0455-2578
0.43	0.75	075	24-0455-2579
0.49	0.80	080	24-0455-2580
0.56	0.85	085	24-0455-2581
0.64	0.90	090	24-0455-2582
0.72	0.95	095	24-0455-2583
0.78	1.00	100	24-0455-2584
0.87	1.05	105	24-0455-2585
0.96	1.10	110	24-0455-2586
1.06	1.15	115	24-0455-2587
1.16	1.20	120	24-0455-2588
1.26	1.25	125	24-0455-2589
1.37	1.30	130	24-0455-2590
1.48	1.35	135	24-0455-2591
1.59	1.40	140	24-0455-2592
1.71	1.45	145	24-0455-2593
1.83	1.50	150	24-0455-2594
1.96	1.55	155	24-0455-2595
2.09	1.60	160	24-0455-2596
2.22	1.65	165	24-0455-2597
2.36	1.70	170	24-0455-2598
2.50	1.75	175	24-0455-2599

<sup>1)</sup> at a service viscosity of 300 mm<sup>2</sup>/s

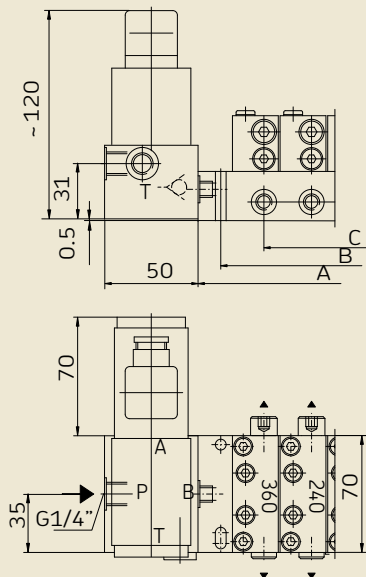
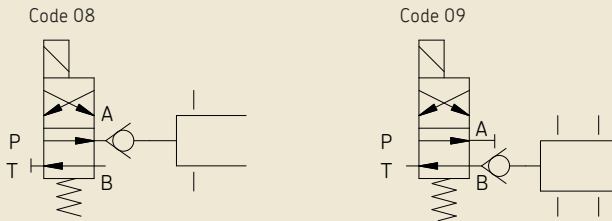
# PSG2 modular feeder with 4/2-directional solenoid valve

for oil, attachments 08 and 09



## PSG2 modular feeder, code 08 and 09

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. . . . . 150 bar  
 Inlet volume flow . . . . . up to 2.5 l/min  
 Lubricant . . . . . mineral oils, environmentally friendly and synthetic oils  
 Operating viscosity . . . . . > 12 mm<sup>2</sup>/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 <sup>1)</sup>

1) Other specification available on request

### Accessories

Designation	Order number
Cable socket, DIN 43 650 type A (ISO 4400) without cable and LED	<b>179-990-034</b>

### Spare parts

Designation	Order number
Ordering code <b>08</b>	
4/2-directional solenoid valve, (NC), 24 V DC	<b>24-1254-2396</b>
Base plate for 4/2-directional solenoid valve G 1/4"	<b>24-1254-2223</b>
Ordering code <b>09</b>	
4/2-directional solenoid valve, (NO), 24 V DC	<b>24-1254-2396</b>
Base plate for 4/2-directional solenoid valve G 1/4"	<b>24-1254-2222</b>

### Note

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

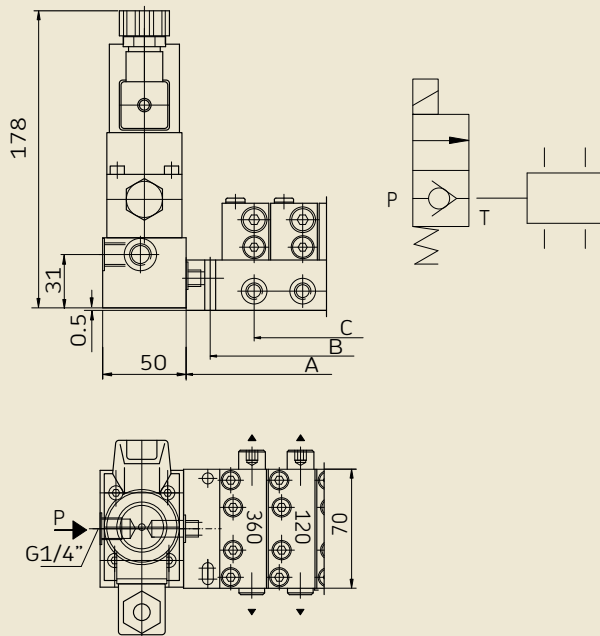
# PSG2 modular feeder with 2/2-directional solenoid valve

for oil and grease, attachment 13



PSG2 modular feeder, code 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 mm<sup>2</sup>/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

Designation	Order number
Cable socket, DIN 43 650 type A (ISO 4400) without cable and LED	<b>179-990-034</b>

### Spare parts

Designation	Order number
Ordering code <b>13</b>	
2/2-directional solenoid valve, 24 V DC	<b>24-1254-2500</b>
Base plate for 2/2-directional solenoid valve G 1/4"	<b>24-1883-2241</b>
Base plate for 2/2-directional solenoid valve 9/16-18UNF	<b>24-1883-2246</b>

### Note

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

## Accessories and spare parts, PSG2 modular feeder

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

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

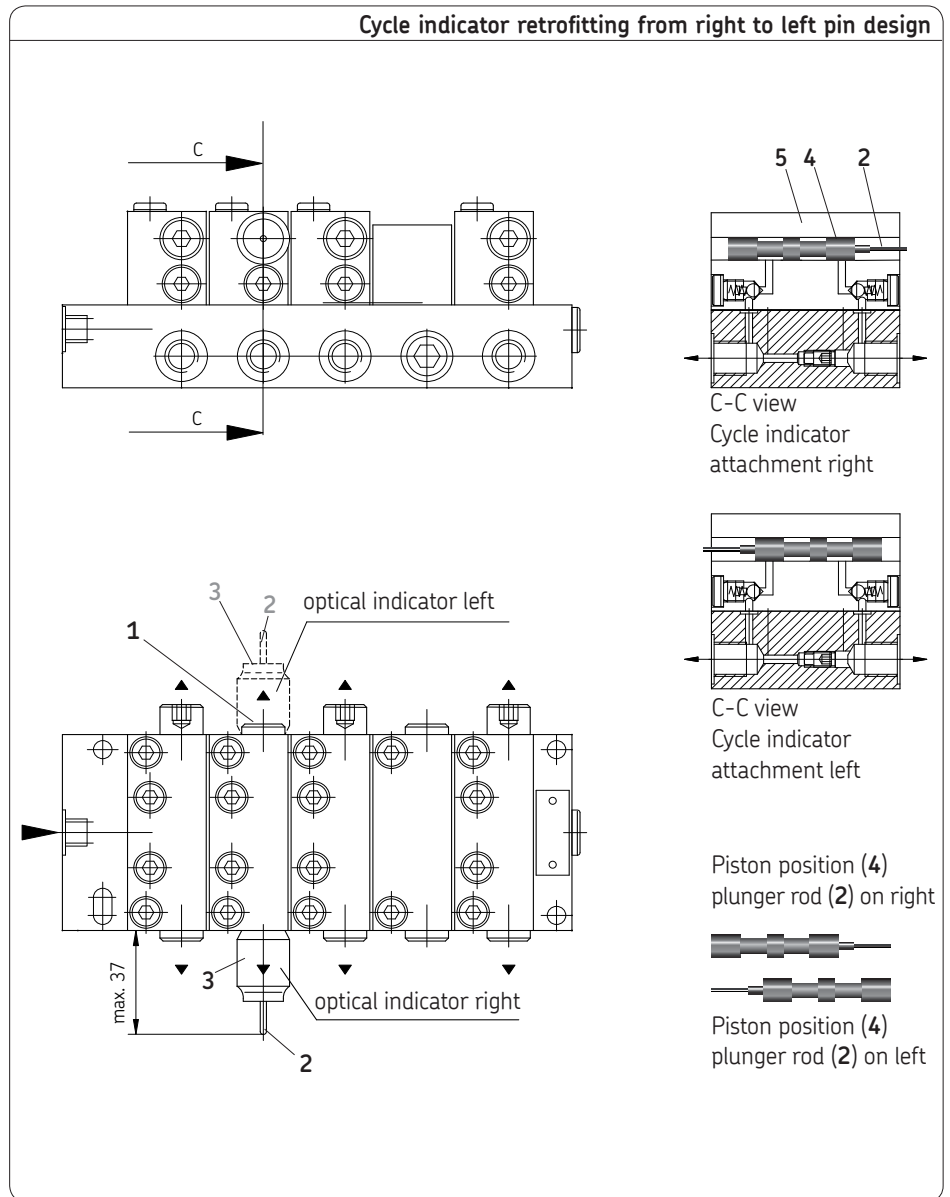
		Spare parts
Designation		Part number
<b>Piston stop screw</b> , pin side		44-1855-2142
<b>Piston stop screw</b> , opposite pin side		44-1855-2143
<b>Screw plug</b> for baseplate outlet G 1/4		DIN 908-R1-4-5.8
<b>Gasket for screw plugs</b> G 1/4		DIN 7603-A14x18-CU
<b>Screw plug</b> for baseplate outlet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

## Retrofitting instructions for cycle indicator

### Note!

To avoid damages pressure must not be applied to the feeder section during the retrofitting described below. Retrofitting 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.

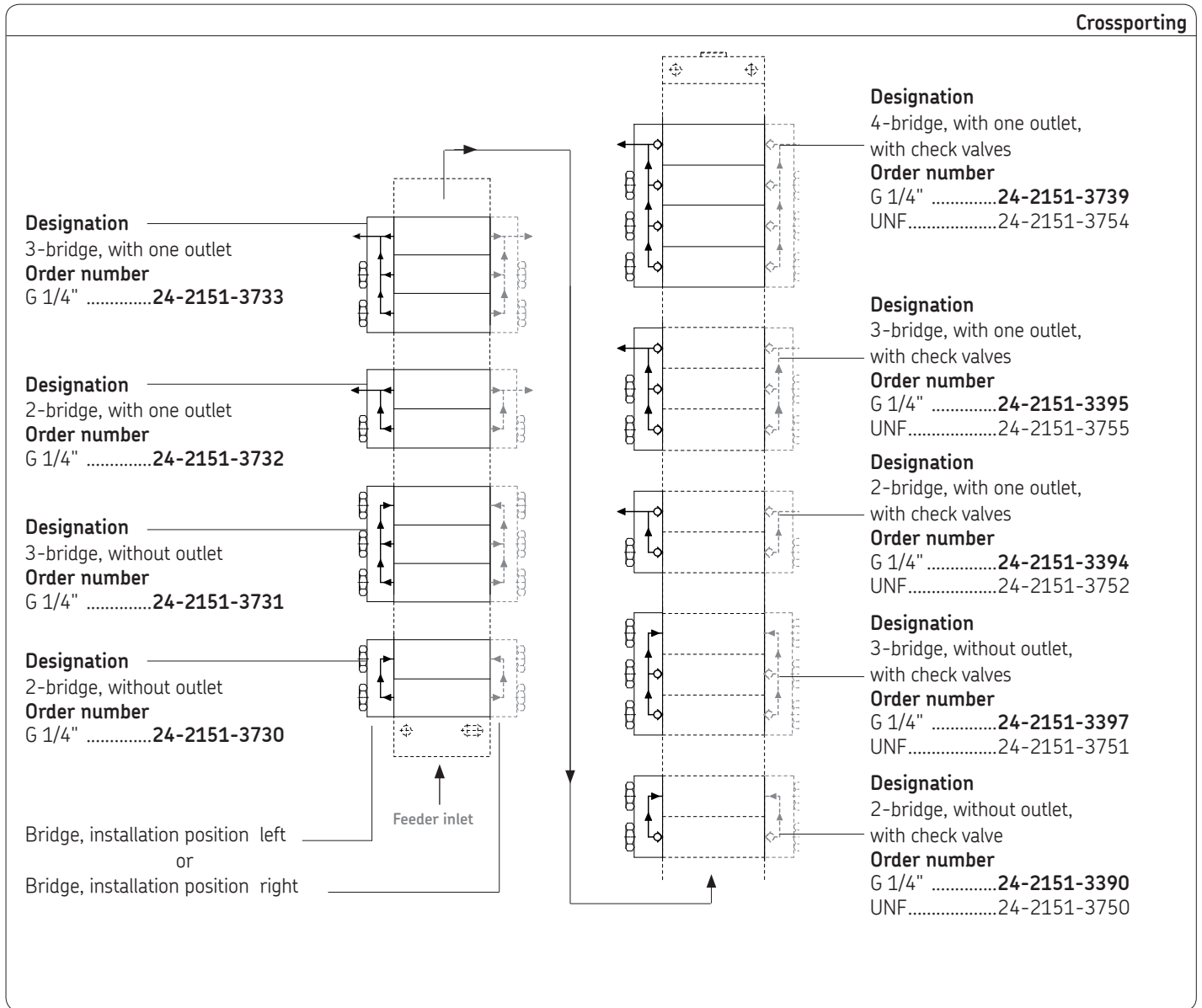
- Loosen up and remove screw plug (1) (left)
- **Push** indicator pin (2) of visual stroke monitoring (right) **into the housing (3)** (using finger)
- Carefully remove piston (4) with indicator pin (2) from left side of section housing (5)
- Loosen up and remove indicator pin housing (hexagon socket 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





# Bridge design for PSG2 modular feeder

## Crossporting options



# Key to order codes

## Design

**Example:** **PSG 2 / 10 15 / P3-4R / 07 A 1 - 600 - 480L - X -240 - 120L - 360 - 480 .....**

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 <sup>1) 3)</sup>
- ZS = cycle indicator with proximity switch <sup>1) 3)</sup>

Installation position of the monitoring system

- 1R = right side on first section
- 1L = left side on first section
- 2R = right side on second section
- ↓
- OR = right side on 10th section
- OL = left side on 10th section

1- to max. 10 sections →

4<sup>th</sup> section <sup>2)</sup>  
-240 mm<sup>3</sup>/stroke  
left outlet: 240 mm<sup>3</sup>/cycle  
right outlet: 240 mm<sup>3</sup>/cycle

Dummy section (reserve position)  
left and right outlet closed

2<sup>nd</sup> Segment <sup>2)</sup>  
Baseplate:  
480 mm<sup>3</sup>/stroke  
left outlet: 2x480 mm<sup>3</sup>/cycle  
right outlet: closed

1<sup>st</sup> section <sup>2)</sup>  
Baseplate:  
600 mm<sup>3</sup>/stroke  
left outlet: 600 mm<sup>3</sup>/cycle  
right outlet: 600 mm<sup>3</sup>/cycle

- 1 = Basic design: Inlet/outlet - G 1/4" thread
- 2 = Basic design: Inlet/outlet - 9/16-18UNF - thread

A = change version

Attachments

- 00 = without attachments
- 02 = with flow regulator, 2.5 l/min
- 07 = with SP/SMB8 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 mm<sup>3</sup>/stroke
- 2) The sections are available in volumes per outlet and cycle of 60, 120, 240, 360, 480, 600, 720 and 840 mm<sup>3</sup> (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 mm<sup>3</sup>/stroke (600), 2nd section 480 mm<sup>3</sup>/stroke, right outlet closed (480L), dummy section (X), 4th section with 240 mm<sup>3</sup>/stroke (240), 5th section with 120 mm<sup>3</sup>/stroke, right outlet closed (120L), 6th section with 360 mm<sup>3</sup>/stroke (360), the further sections (section 7 to 10) with 480, 600, 60 and 360 mm<sup>3</sup>/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

**Test and measurement connector** (pressure in inflow)

Measurement connector MA or

Pressure gauge max. pressure indication [bar] 160

**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.							Order No.
10		8						
9		8						
8		8						
7		12						
6				B				
5	24-2151-3394			RV	B			
4		6						
3								
2		12						
1		10					RV	10

**Comments**

**Attachments**

**Note!**  
When attaching a flow limiter, add the part number of the plug-in nozzle (see page 12) e.g. for Q = 2.09 l/min

Order no. 24-0455-2596

12 Inlet screw union  
Inlet - Ø mm 6 / 8 / 10 / 12

customer-specific screw unions

**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).

Order Form     Inquiry Form

Please create the order code using the sample order code explanation below.  
**Note!** The actual order number will be created after the order has been placed.

### Configuration - order code PSG2

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

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

**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

Test and measurement connector (pressure in inflow)

Measurement connector MA or  
 Pressure gauge max. pressure indication [bar] 160

**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.	PSG	Order No.
10		⊕ ⊕ ⊕ ⊕	
9		⊕ ⊕ ⊕ ⊕	
8		⊕ ⊕ ⊕ ⊕	
7		⊕ ⊕ ⊕ ⊕	
6		⊕ ⊕ ⊕ ⊕	
5		⊕ ⊕ ⊕ ⊕	
4		⊕ ⊕ ⊕ ⊕	
3		⊕ ⊕ ⊕ ⊕	
2		⊕ ⊕ ⊕ ⊕	
1		⊕ ⊕ ⊕ ⊕	

**Attachments**

**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

**Comments**

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

## 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](http://www.skf.com/lubrication)**

**Please complete your address here:**

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Reference: \_\_\_\_\_

Name: \_\_\_\_\_

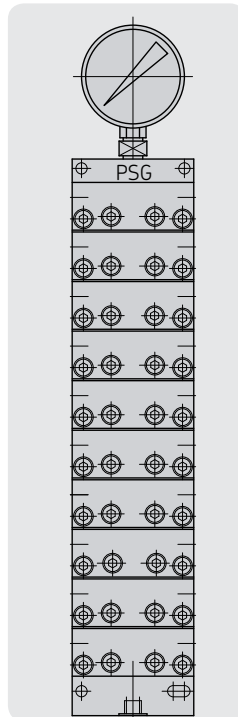
Function/dept.: \_\_\_\_\_

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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