

Pump unit

KFG



Description

The electrically operated KFG pump includes a drive shaft with an eccentric that drives up to three pump elements. It is comprised of four main components: housing with pump elements, reservoir with fill-level monitoring, internal control units and attachments. The pump is available in eight sizes and two variants for stationary use or with grease follower plate technology for utilization in any position. A variety of attachments permit reservoir filling, protect the pump (pressure-limitation valve) or enable the uncomplicated connection of the pump to a centralized lubrication system.

Features and benefits

- Durable and reliable components designed for extreme conditions (with positively driven pump elements)
- Versatile; can be used with single-line and progressive systems
- Fill-level and lubrication system monitoring
- Pin code protection of control unit available

Applications

- On- and off-road vehicles
- Renewable energy (wind)



NOTE

Further technical information, technical drawings, accessories, spare parts or product function descriptions are available on SKF.com/lubrication:

12649 EN; 951-170-211; 951-170-212; 951-170-213



3D

skf-lubrication.partcommunity.com/3d-cad-models

Technical data

Function principle	electrically operated piston pump
Operating temperature	-30 to +70 °C; -22 to +158 °F depending on type of pump element
Operating pressure	200 to 300 bar; 2 900 to 4 350 psi depending on type and size of pump element
Lubricant	grease NLGI 000 to 2, compatible with plastics, NBR elastomers, copper and copper alloys
Outlets	up to 3
Metering quantity	per pump element: 0,8; 1,3; 1,8; 2,5; 5,0 cm ³ /min 0.049, 0.079, 0.11, 0.15, 0.31 in ³ /min
Reservoir	2, 4, 6, 8, 10 ¹⁾ , 12 ¹⁾ , 15 ¹⁾ and 20 ¹⁾ kg 4.4, 8.8, 13.2, 17.6, 22 ¹⁾ , 26.5 ¹⁾ , 33 ¹⁾ and 44 ¹⁾ lbs
Material	aluminum-silicon cast alloy, PMMA, PA 6I
Connection	outlet pump element: M14 × 1,5 female thread
Power supply	12 V DC, 24 V DC, 230 V AC (100 – 273 V AC; ± 10%)
Dimensions	min. 266 × 208 × 229 mm max. 268 × 227 × 1,170 mm min. 10.47 × 8.19 × 9.01 in max. 10.55 × 8.93 × 46.06 in
Protection class	IP56
Mounting position	any, installation possible also in rotating machines, e.g. wind turbines
with follower plate	upright
without follower plate	

¹⁾ available on request

Accessories

KFG

Pump elements

Pump elements deliver the lubricant to the lubrication points or distributors through lubrication lines. Five pump elements for delivery rates of from 0,8 to 5,0 cm³/min are available for selection in two designs: with spring-return piston or with positively driven piston.

In many application instances, the pump element with spring-return piston is the correct choice. The pump element with positively driven piston was developed for use in extremely cold environments (up to -30 °C), or for high-viscosity lubricants. Up to three pump elements can be installed in the KFG pump unit. The possible attachment positions are located on the left, at the front and on the right on the pump housing. The lubricant outlet on the pump element has an M14x1.5 female thread for connecting lubrication lines or valves. If no pump element is installed, then the outlet of the pump housing is sealed with a screw.

KFG 1.U1



Pump elements KFG

Order number	Description	Nominal output 6)		Operating pressure max.	
		cm ³ /min	in ³ /min	bar	psi
KFG 1.U0	pump element with spring-return piston	5,0	0,31	200	2 900
KFG 1.U1	pump element with spring-return piston	2,5	0,15	300	4 850
KFG 1.U2	pump element with spring-return piston	1,8	0,11	300	4 850
KFG 1.U3	pump element with spring-return piston	1,3	0,079	300	4 850
KFG 1.U4	pump element with spring-return piston	0,8	0,049	300	4 850
KFG 1.U0-E	pump element with positively driven piston	5,0	0,31	200	2 900
KFG 1.U1-E	pump element with positively driven piston	2,5	0,15	300	4 850
KFG 1.U2-E	pump element with positively driven piston	1,8	0,11	300	4 850
KFG 1.U3-E	pump element with positively driven piston	1,3	0,079	300	4 850

Pressure relief valve

In order to prevent an excessive operating pressure in the system, a pivoted pressure relief valve should be attached. If the operating pressure exceeds the cracking pressure of the pressure restriction valve, then the valve will open and the lubricant can escape. The pressure restriction valve is used primarily in progressive systems. One can select among variants with SKF quick connectors, straight connector and with G1/4 female thread.

Pressure relief valve

Order number	Description	Operating pressure max.		Tube
		bar	psi	Ø mm
161-210-063	straight connector	200	2 900	8
161-210-061	SKF quick connector	200	2 900	8
161-210-065	straight connector	200	2 900	10
161-210-062	straight connector	200	2 900	12
161-210-012	straight connector	300	4 850	6
161-210-024	straight connector	300	4 850	8
161-210-066	straight connector	300	4 850	10
161-210-021	SKF quick connector	300	4 850	6
161-210-034	SKF quick connector	300	4 850	8
161-210-036	female thread G1/4	300	4 850	-

161-210-063



Accessories

KFG

Filling coupling set

One of the three lubricant outlets of the pump can, as an option, be equipped with one suitable filler socket instead of with one pump element, in order to fill the unit using a filling cylinder (cartridge).

A filling cylinder can also be optionally used to fill the pump unit through one of the lubricant outlets. To accomplish this, a filler socket must be configured in the order code in place of a lubricant outlet.



169-000-174

Filler coupling

Order number	Description
169-000-174	filler coupling



169-000-171

Filler cylinder

Order number	Description
169-000-171	filler cylinder
24-9909-0241	filler socket G 1/4-kit

Filling coupling kit

As an alternative to a conical head nipple, the units for industrial or vehicle applications can also be equipped with a filler socket in order to fill it with a filling pump, e.g. the manual drum pump. A corresponding coupling socket and a hose socket must be mounted on the filling pump.



24-9909-0244

Filler coupling kit

Order number	Description
24-9909-0244	KFG filler coupling kit G 1/4



857-760-...

Filler hose socket

Order number	Description
857-760-007	hose socket Ø 13 mm
857-870-002	hose socket Ø 16 mm



995-001-500

Filler coupling socket

Order number	Designation
995-001-500	coupling socket