

Motor-driven pump AS

Piston pump, change-over by overpressure,
for dual-line centralized grease lubrication system



The AS pumps are designed for the automatic feeding of dual-line lubrication systems.

These pumps are robust, completely leak-proof and need no maintenance. Therefore they are perfectly suitable for installations operating under adverse conditions.

The pump is able to deliver precise quantities of lubricant under high pressure and is equipped with large reservoir. Therefore they are particularly recommended for continuous or cyclic lubrication systems for industrial installations where numerous points need to be lubricated or precise volumes of lubricant are required.

Advantages

- A wide range of delivery-rate settings to meet the respective needs of the lube points
- Hundreds of lube points with distances up to some 100 m (stretched line length) from the pump
- Pump operating pressure up to 175 bars
- Great reliability of the pump due to the numerous safety devices

Design

The motor-driven pump unit AS has a lubricant reservoir of 5, 15 or 30 kg directly mounted on the pump housing. It is equipped with a follower plate in order to prevent any dirt or air penetration and cavitation. According to the model it has different level controls (min. level, min. and max. level). The user refills the reservoir with the filler coupling on the back side of the pump housing. This coupling has a filter to ensure the cleanliness of the lubricant.

The high resistance wheel and worm couple permit to have a ratio of 1/40. The pump cannot discharge until the drive shaft has carried out a number of revolutions at least equal to the reduction.

A standard changeover block is mounted on the pump housing. It is relatively compact but it is the core of the AS unit. The standard changeover block consists of a pump, changeover valve, filter element and pressure control valve.

The pump is a double-action piston pump with one piston and 2 automatically actuated valves. The changeover valve is activated by overpressure. It has 2 pilot pistons serving the main piston, thus avoiding a dead point. The delivery filter protects the system. It is located on the circuit before the changeover unit. This fine filter is very easy to remove and clean up. The pressure regulator makes it possible to set the pressure in the two lines.

In order to ensure the security of the system, the pressure regulator can be sealed in order to avoid any accidental modification.

It is possible to control the good operation of the changeover unit by means of two different control devices: a visual (indicating rod) or electric (switch with LED) half cycle indicator.

Technical data

Pump

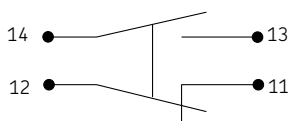
Flow rate	65 cm ³ /min 1,9 cm ³ /stroke
Pressure max.	175 bars
Changeover pressure adjustable and with seal secured	50 to 175 bar
Filter	0,8 mm
Outlets	G 3/8 ¹⁾
Filler coupling	G 1/2 male
Operating temperature	-25 to +50 °C
Lubricant (grease)	up to NLGI grade 2

1) Connectors to be ordered separately

Motor (CE marking)

Voltage	230/400 V AC – 50 Hz
Power	0,75 kW
Speed	1 500 min ⁻¹
Protection	IP55
Insulation class	F

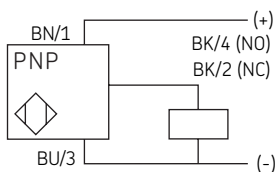
Wiring diagram of the level switch



Level switch

Minimal level	when the lubricant drops to minimal level the switch trips and gets to its starting position when reservoir filling begins.
Minimal and maximum levels	when the lubricant is drops to minimal level the switch trips and gets to its starting position when max. filling level is reached.
Type	NO + NC
Voltage/Current max.	240 V AC, 3 A / 250 V DC, 0,27 A
Ambient temperature	-25 to +50 °C
Protection	IP65

Wiring diagram of the half-cycle indicator



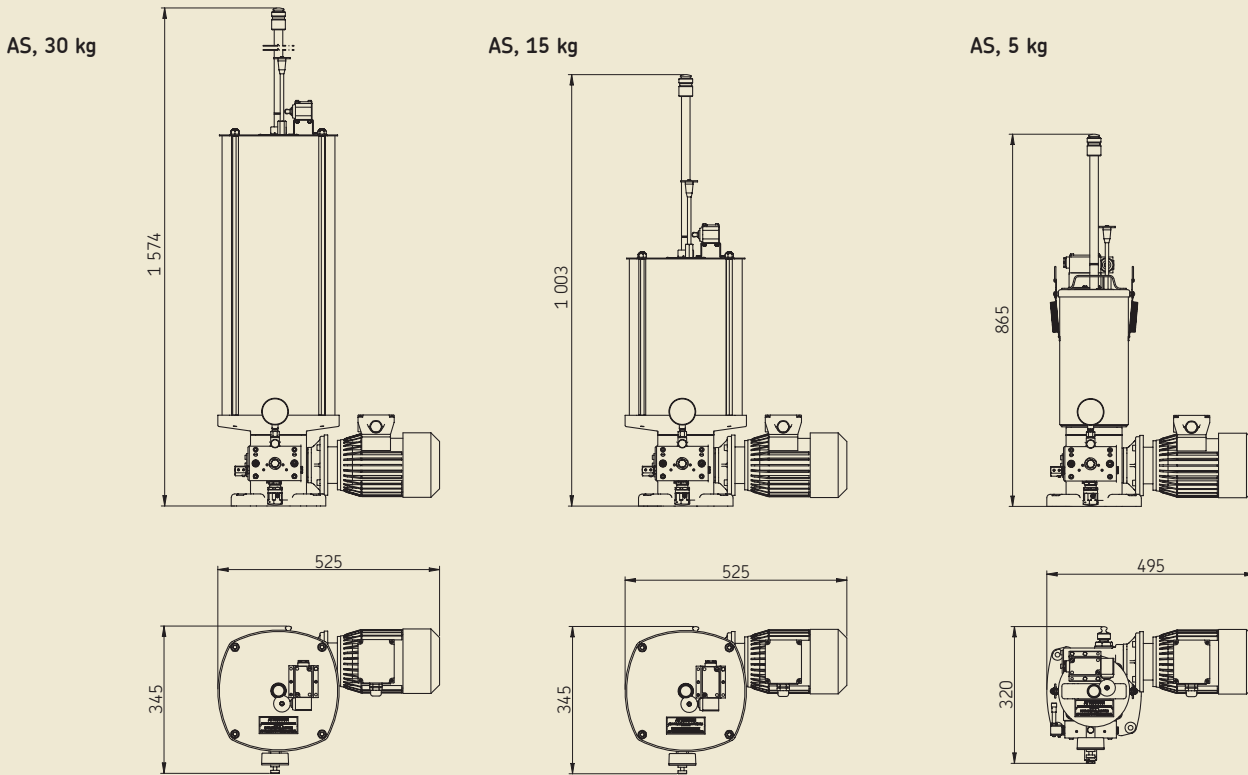
Half-cycle indicator

Function	opens and closes at every half cycle
Type	inductive proximity switch NO, PNP
Voltage	12 – 48 V DC
Current max.	200 mA
Short-circuit protection	
LED for output status	
Body	tubular, Ø 8
Connection	M 12

See important product usage information on the back cover.
See operating instruction 951-130-400.

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Order information

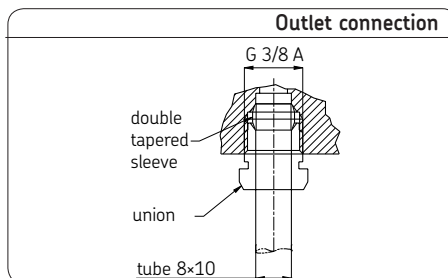
Order No.	Half-cycle indicator	Reservoir capacity	Level monitoring
AS-1Q-1T05KA4+140	visual	5	min.
AS-1Q-1T05KB4+140	visual	5	min. + max.
AS-1Q-1R15KA4+140	visual	15	min.
AS-1Q-1R15KB4+140	visual	15	min. + max.
AS-1Q-1R30KA4+140	visual	30	min.
AS-1Q-1R30KB4+140	visual	30	min. + max.
AS-1Q-3T05KA4+140	electric	5	min.
AS-1Q-3T05KB4+140	electric	5	min. + max.
AS-1Q-3R15KA4+140	electric	15	min.
AS-1Q-3R15KB4+140	electric	15	min. + max.
AS-1Q-3R30KA4+140	electric	30	min.
AS-1Q-3R30KB4+140	electric	30	min. + max.

Accessories*

Flow regulator (to reduce the flow rate from 0% to 50% per pump stroke)
Order No. **AS.200**

Connection for outlet ports
Connector **RM010**
Double tapered sleeve **410-001**

*) to be ordered separately



Order No.: 1-4000-EN

Subject to change without notice! (04/2009)

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.

Further brochures

1-9201-EN Transport of Lubricants in Centralized Lubrication Systems

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