

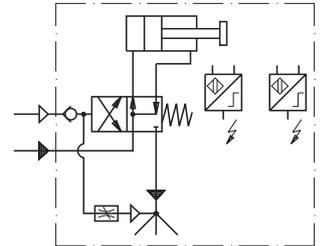


- Subject to modifications -



Spraying device

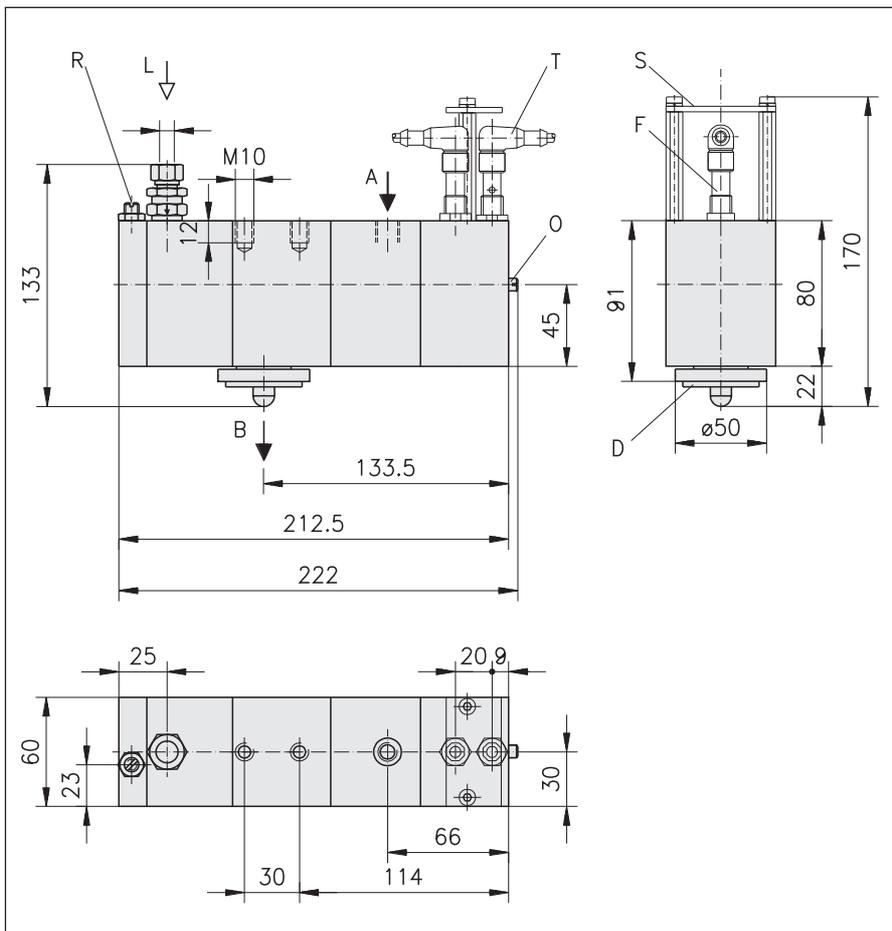
SBD-B



Application:

In open pinion gears of mills, furnaces, drums etc.

- Electrical flow rate monitoring
- Suitable for spraying of graphitic adhesive lubricants (pinion gears)
- Large spraying width with fine atomized fan jet
- Proximity switch with light-emitting diode



Technical data:

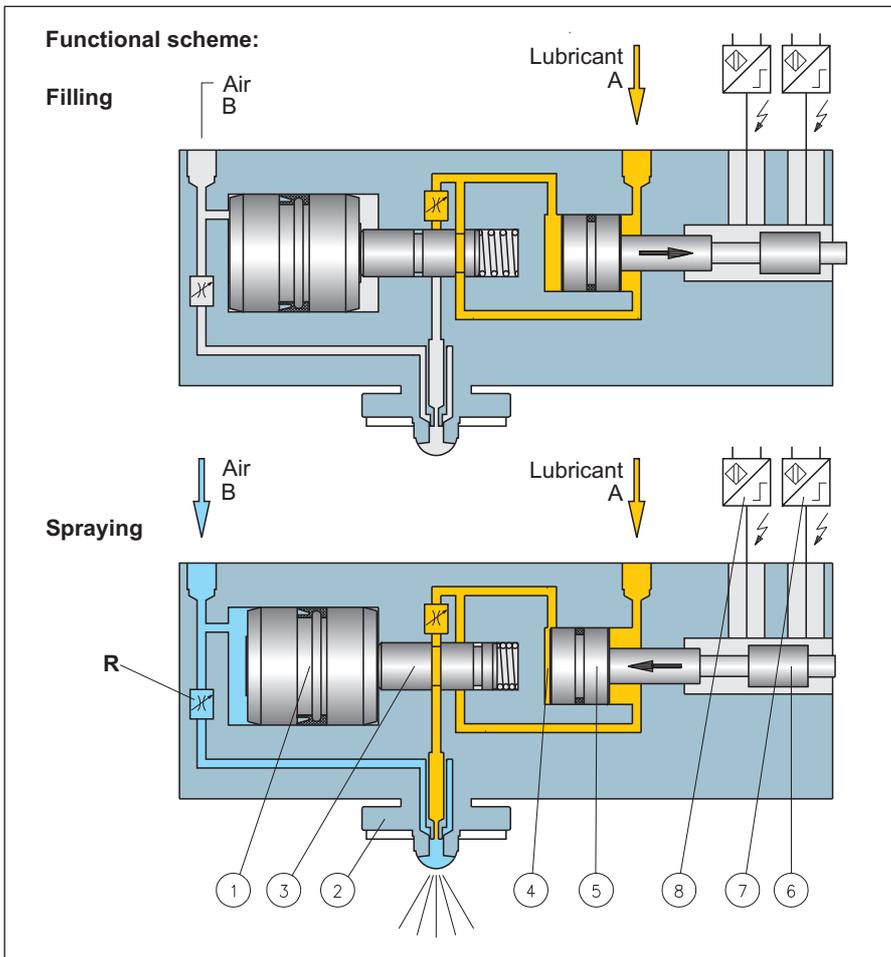
Spray medium: Grease up to NLGI-class 3
 Operating temperature: -20 ... +120 °C
 (also see admissible operating temperature for proximity switches)
 Dosage: 1 ... 5 cm³/stroke
 Spraying width max.: 350 mm
 (at 200 mm distance)
 Air pressure: 4 ... 8 bar
 Lubricant pressure: 8 ... 100 bar
 Air consumption: 0,5 ... 5 Nm³/h
 Weight: 3 kg

Notice:

In case of low temperatures it has to be taken notice of the operating penetration of the grease.

Explanation to dimensioned drawing:

- L = Air supply (pipe-AD 8)
- A = Inlet lubricant (G1/8)
- B = Spraying nozzle
- F = Proximity switch
- O = Functional check visual
- T = Cable socket with LED
- S = Protection for proximity switch
- D = Sealing
- R = air-core choke



Functional description:

In filling position (see upper illustration of functional scheme) a delivery piston (5) is placed in the right final position by means of the lubricant delivered at the connection (A).

If compressed air is being supplied to connection (B) the air piston (1) and the control piston (3) are pushed into the right final position. Doing so the control piston (3) is separating the dosage space (4) from the lubricant supply (A) connecting it with the spraying nozzle (2). As now the delivery piston (5) is only pressurized from the right side with the inlet pressure, the lubricant being in the dosage space is transported to spraying nozzle (2) (see lower illustration of functional scheme).

After cutting off the compressed air the pistons (1 and 3) are pushed back to their initial position by a pressure spring. The dosage space (4) is connected again with the lubricant supply (A). A new spraying cycle can be started.

Electrical monitoring of dosing quantity:

A monitoring piston (6) is fixed to the dosing piston (5). The monitoring piston is damping the according final position of a proximity switch (7 or 8).

Adjustment of the grease throttle:

If two or more spraying devices are at the same time supplied from a pump with lubricant, the different line resistances can be compensated with the grease throttle (a).

This will be necessary, if all devices have to spray at the same time.

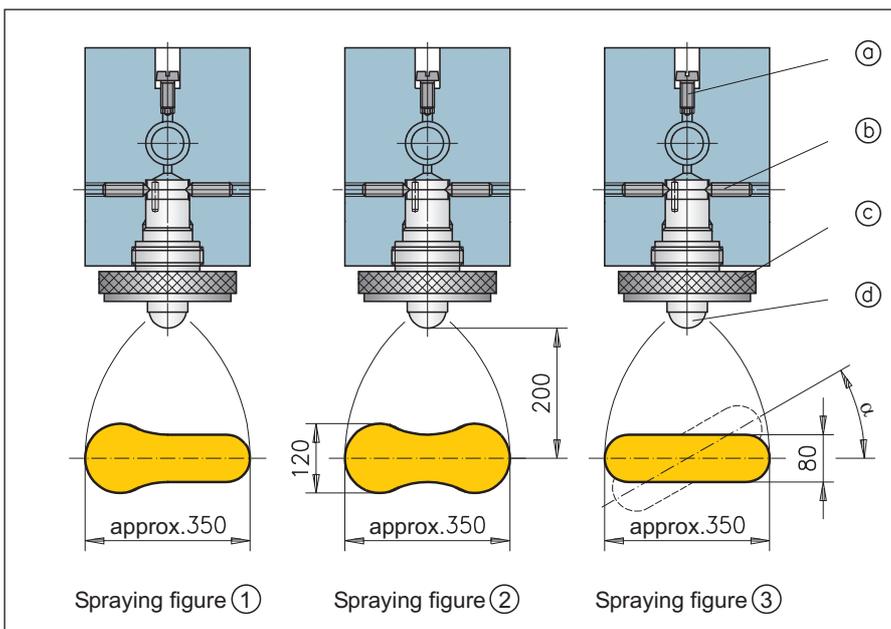
Adjustment of the spraying jet:

After having loosened the knurled screw (c) and the stop screw (b) the position of the spraying figure (angle α) can be set by turning the nozzle (d).

In order to fix the nozzle insert it will be sufficient, if only one stop screw is turned off.

When cleaning or replacing the nozzle insert the adjustment will be maintained.

Spray width and medium distribution depend on the medium, medium pressure, air pressure, and air-core choke setting (R).



- Subject to modifications -



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Proximity switch	Execution "H"	Execution "K"
Wiring diagram (Proximity switch)		
Residual ripple: Load: Residual tension: Switching mode:	≤10[%] 250[mA] ≈0,8[V] PNP	≤15[%] 200[mA] ≈1[V] NPN
Cable socket: ¹⁾		
Order-no.:	913.404-19	913.404-28
Wiring diagram (Cable socket)		

Technical data:

Proximity switch M12x1:

Operating voltage: 10 ... 30 V
Switch distance: 2 mm
Protective system: IP 67
Ambient temperature: -25 ... +70 °C
Light-emitting diode: yes

Cable socket with LED:

Cable: 3 x 0,34 mm²
3 m long
Operating voltage: 10 ... 30 VDC
Protective system: IP 68
Ambient temperature: -40 ... +90 °C

¹⁾ Included in execution "HS" resp. "KS".

Order-

designation: Spraying device



Dosage quant./stroke [cm ³]	Spray figure	Proximity switch	Protection for proximity switch	Sealing material
1,0 (1)		without (0) Execution "H"		
2,0 (2)	(1)	with cable socket (HS)	without (0)	FPM (Viton) (V)
3,0 (3)	(2)	without cable socket (HO)		
4,0 (4)	(3)	Execution "K"		
5,0 (5)		with cable socket (KS) without cable socket (KO)	with (S)	NBR (e.g. perbunan) (P)

Ordering-example:

Spraying device SBD-D with a dosage quantity 5 cm³, spraying figure 2, with proximity switch "HS", with protection and sealing material perbunan.

Order-designation:

Spraying device SBD-B/5/2/HS/S/P