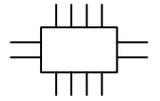




## DOUBLE LINE Distributors

VZ00

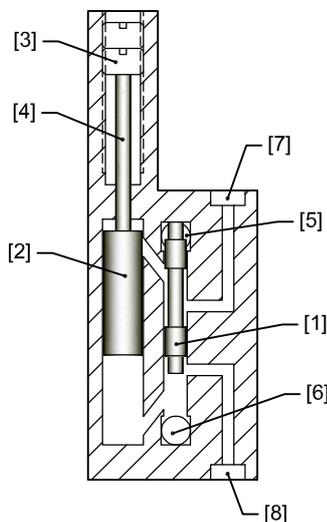
370.000.000



- For oil and grease.
- Flow rates depending on model and size:
  - Variable 0,15 ÷ 0,6 cm<sup>3</sup>/stroke
  - Variable 0,20 ÷ 1,5 cm<sup>3</sup>/stroke
  - Variable 0,20 ÷ 3 cm<sup>3</sup>/stroke
  - Variable 0,25 ÷ 5 cm<sup>3</sup>/stroke
  - Fixed 0,6 - 1,5 - 3 - 5 cm<sup>3</sup>/stroke

### Basic principles

Double line dosers are intermediate distribution organs that operate based on the pressure difference created alternatively between the two main conduits that feed them.



Each distributor consists of a rectangular body that comes with accommodation for the following:

- [1] Reversing plunger
- [2] Dosing plunger
- [3] Adjustment nut
- [4] Control rod
- [5] Lubricant top inlet
- [6] Lubricant bottom inlet
- [7] Lubricant top outlet
- [8] Lubricant bottom outlet

The rod control is connected to the dosing plunger in such a way that they move together with each lubricant transfer allowing for the visual control of the operation.

On request the same system can be put together with a proximity detector allowing us to design electrically the control of the operation.

Similarly through adjustment nut [3] we can adjust the travel of the dosing plunger by varying the dosed flow.

### Operation sequence:

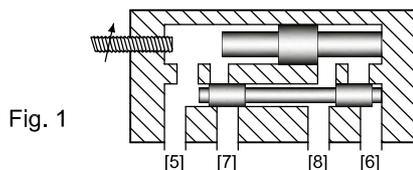


Fig. 1

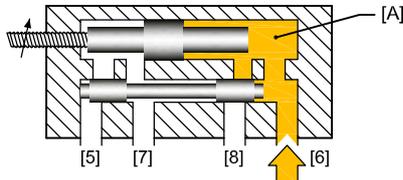


Fig. 2

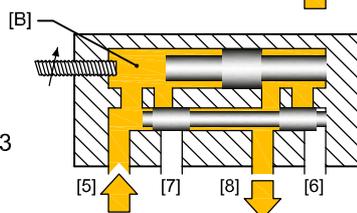


Fig. 3

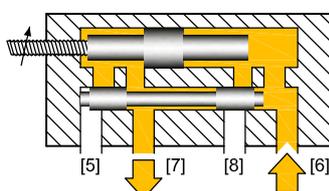


Fig. 4

### Operation

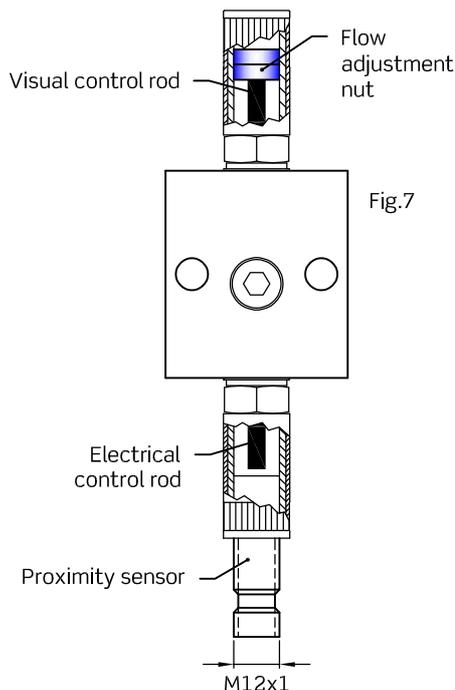
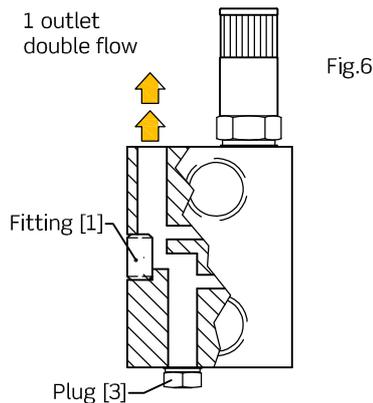
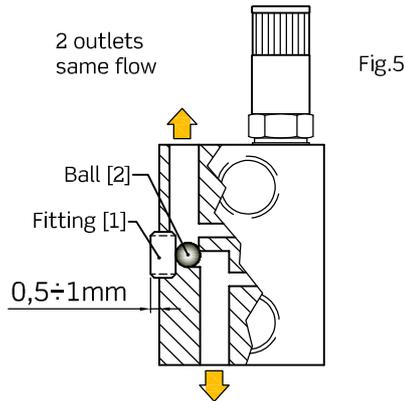
The pump creates pressure that is transmitted through the reverse plunger to the distributor. It is transmitted alternatively through the two main conduits that feed the distributor.

Fig.1: the distributor is on resting position without lubricant. Both reversing and dosing plungers are all on the right position.

Fig.2: the delivery of lubricant through the bottom inlet [6] creates pressure moving the reversing and dosing plungers and filling up chamber [A] with lubricant and leaving it free.

Fig.3: the delivery of lubricant through the top inlet [5] moves again the reversing and dosing plungers filling up chamber [B] and transferring outside the lubricant accumulated in chamber [A] during the previous movement.

Fig.4: the pressure that comes in through the bottom inlet [6] moves again the reversing and dosing plungers causing the movement of the accumulated lubricant in chamber [B] during the previous movement, and so on.



### Outlet combination

If it is necessary to plug an outlet because of installation requirements, the following needs to be done:

- Release the clamping fitting [1]
- Remove the ball [2]
- Re-assemble the clamping fitting [1]
- Plug the unwanted outlet opening on the base plate with a cover plug [3]

When the ball is removed the internal communication between outlets is open resulting in a single outlet with double flow.

To regain the outlet proceed in the reverse order.

Before starting up check the following:

- With 2 outlets plug [1] protrudes beyond the body of the distributor (~ 1 mm). See fig. 5
- With 1 outlet (double flow) plug [1] remains at same level as the body. See fig. 6

### Flow adjustment

We can adjust the travel of the plunger from the adjusting nut by varying the dosed flow

### Operation surveillance

#### Visual control

The control rod is connected to the dosing plunger. The rod moves with each movement of the dosing plunger allowing for the visual control of the lubrication cycles (fig. 7)

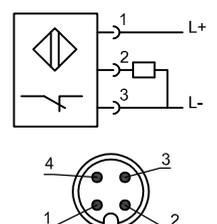
#### Electrical control

It is situated opposite to the visual control. The operation of the electrical control is identical to the visual control: each dosing plunger movement moves the two connected rods on both sides.

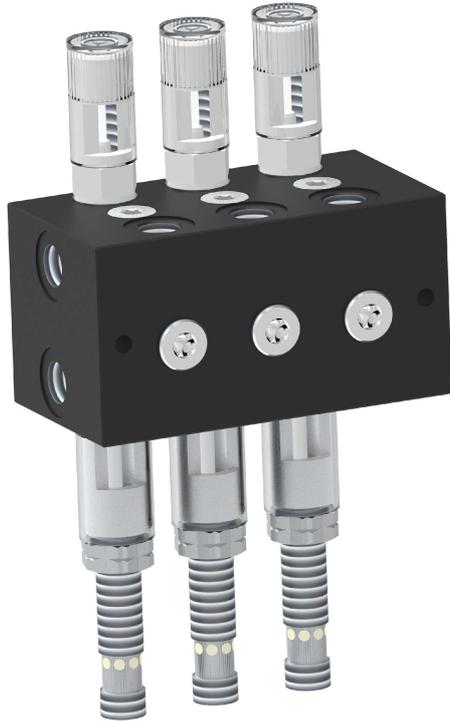
A proximity detector positioned at the end enables electrical signal changes every two lubrication cycles.

#### Proximity detector characteristics

Function.....	NC
Voltage.....	10 ÷30 V
Working temp. ....	-10°C ÷+70°C
Max. load admitted.....	200 MA
Consumed power.....	20 MA
Protection.....	IP67





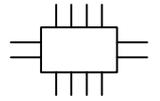


## DOUBLE LINE Distributors

**VZ02**

371.500.000

- For oil and grease
- Flow rates depending on model:
  - VZ02/B: 0.20 ÷ 1.5 cm<sup>3</sup>/stroke
  - VZ02/C: 0.20 ÷ 3 cm<sup>3</sup>/stroke
- Visual and electrical monitoring
- Body material: optional Steel / AISI316

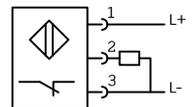


### Technical characteristics

Lubricant..... from 100 cSt up to NLGI 2  
Maximum pressure...with oil..... 200 bar  
with grease..... 400 bar  
Working temperature ..... -10°C ÷ +80°C  
Seal material..... FPM (viton)  
Flow adjustment..... 1 for 2 outlets

### Electric control

Function..... NC  
Voltage..... 10 ÷ 30 V  
Working temp. .... -10°C ÷ +80°C  
Max. admitted load..... 200 MA  
Consumed power..... 20 MA  
Protection..... IP67



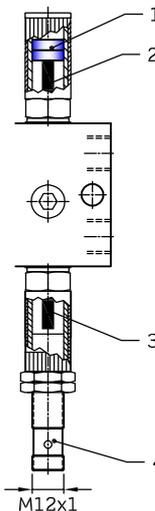
### Flow adjustment and visual control

The plunger travel is adjusted from adjustment nut 1 by varying the dosed flow.

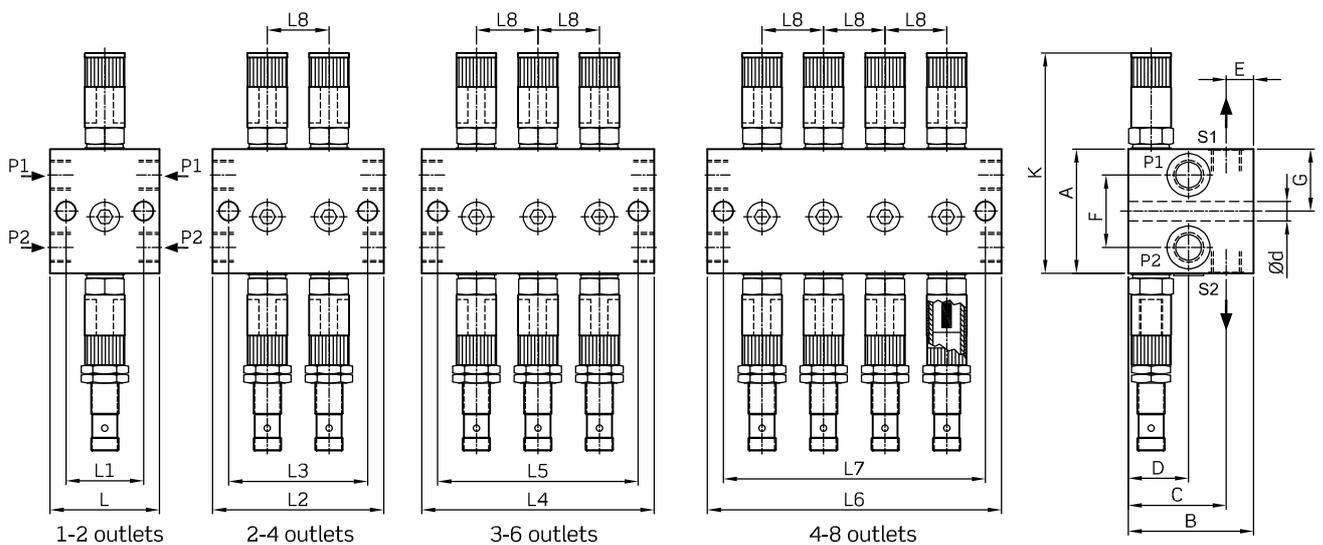
Also control rod 2 is connected to the dosing plunger allowing for the visual control of the lubrication cycles.

### Electrical control

Each dosing plunger movement moves the two connected rods 2 and 3 positioned on both sides. The proximity sensor 4 enables electrical signal changes every two lubrication cycles.



Size cm <sup>3</sup> /str.	X	Material	X	N° of outlets	X	Monitoring
0,20 ÷ 1,5	B	Steel	2	1-2	1	Only bracket
	B6	AISI 316	4	2-4	2	Bracket and sensor
0,20 ÷ 3	C	Steel	6	3-6		
	C6	AISI 316	8	4-8		



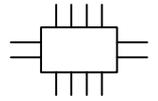
Size	A	B	C	D	E	F	G	Ød	K	L	L1	L2	L3	L4	L5	L6	L7	L8	P1-P2 DIN3852	S1-S2 DIN3852
B - B6	55	55	43	26,5	12	32	27	8,5	98	48	34	75	61	102	88	129	115	27	G1/4	G1/4
C - C6	80	55	43	26,5	12	57	27	8,5	136	50	31	80	62	112	94	145	126	32	G3/8	G1/4



**DOUBLE LINE  
Distributors**

**VZ04**

372.500.000



-For oil and grease.

-**FIXED Flow rate** depending on model:

• VZ04/B: 1.5 cm<sup>3</sup>/stroke

• VZ04/C: 3 cm<sup>3</sup>/stroke

-Body material: optional Steel / AISI316

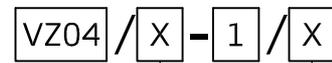
**Technical characteristics**

Lubricant..... from 100 cSt up to NLGI 2

Max. pressure..... with oil..... 200 bar

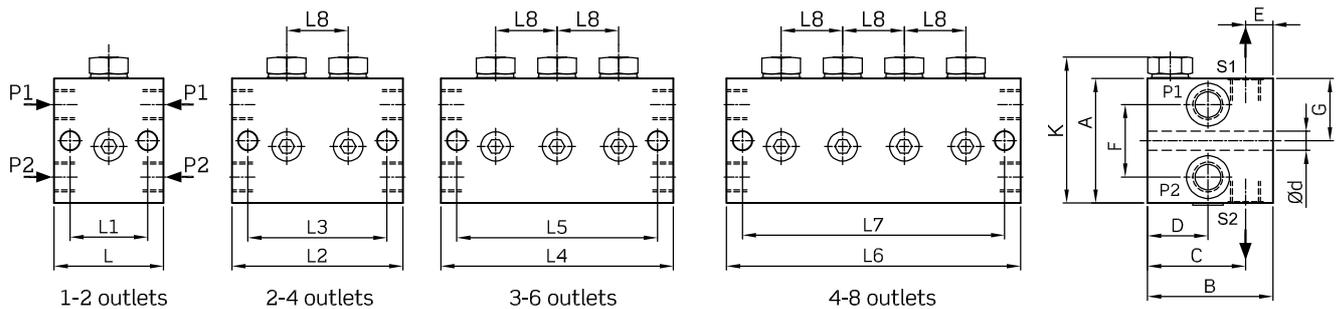
with grease..... 400 bar

Working temperature..... -10°C ÷ + 200°C



Size cm <sup>3</sup> /str	X	Material	X	N° of outlets
1,5	B	Steel	2	1-2
	B6	AISI 316	4	2-4
3	C	Steel	6	3-6
	C6	AISI 316	8	4-8

Other flows are available on request



Size	A	B	C	D	E	F	G	Ød	K	L	L1	L2	L3	L4	L5	L6	L7	L8	P1-P2 DIN3852	S1-S2 DIN3852
B - B6	55	55	43	26,5	12	32	27	8,5	65	48	34	75	61	102	88	129	115	27	G1/4	G1/4
C - C6	80	55	43	26,5	12	57	27	8,5	90	50	31	80	62	112	94	145	126	32	G3/8	G1/4