

# PROGRESSIVE BLOCK DISTRIBUTOR **BVA-N**

## APPLICATION

The BVA-N progressive block distributors are lubricating elements of central grease and oil lubricating systems. BVA-N series is made of stainless steel AISI 303 (1.4305).

They are recommended to use in even higher range of lubrication circuits, i.e. even for circuits with several dozens of lubricated points. They are usually applied for permanent regular lubrication of various machines, machine technologies and equipment, especially in food and beverage industry, breweries, chemical industry etc.

The BVA-N progressive distributors are block distributors with uniform nominal weight of lubricant of  $0,2 \text{ cm}^3$  / stroke and outlet. The maximum operation pressure is 350 bar.

## DESCRIPTION

The BVA-N progressive block distributor is a compact lubricating element formed by a body with fitted-in working pistons. Each working piston is provided with 2 outlet holes. Opposite outlets belonging to one piston can be joined inside the distributor body into one outlet by unscrewing the distribution screw and stopping one of the opposite outlets with a plug. With this adjustment, you achieve double feeding amount at the second of the opposite outlets. The outlets situated next to each other can further be connected by external connecting bridges, thus achieving sums of nominal doses of the connected outlets.

The lubricant ejected by the respective working piston comes out through the outlet located at the preceding working piston in the direction towards the distributor inlet. Only in the first piston (at the distributor inlet) is the lubricant from the right side of the piston fed to the left outlet located at the last piston, and the lubricant from the left side of the piston is fed to the right outlet at the last piston.

The progressive distributor can be equipped with operation signalling, namely visual (signalling pin) or electric (contactless switch), normally placed at the outlet no. 4.

## OPERATION

By taking the force-feed lubricant to the progressive distributor inlet, the individual pistons in the body are gradually shifted to their stop positions and at the same time the lubricant located under the pistons is forced out the outlets. This function is repeated for as long as the lubricant is fed to the progressive distributor. The progressive distributor equipped with electric signalling of operation has the relevant piston fitted with a pin that moves together with the piston and provides contactless switching of the electric control circuit. When designing a lubrication circuit, it is recommended that the outlets of one distributor be connected to lubricated points with similar back-pressures to ensure minimum fluctuation of the nominal dose.

## SERVICE AND MAINTENANCE

The BVA-N progressive distributor can be mounted in any position to a flat surface. After fixing the distributor to the designated place, air-free feeding piping is attached and the lubricant is fed through the distributor. If the lubricant ejects from the distributor outlets regularly and without air bubbles, the outlets are closed by attaching them to the outlet pipes. If the lubrication circuit is branched, each branch pipe has to be deaerated in a similar way. It is necessary to keep the pipes clean during the assembly, i.e. to rid the pipes of burrs and other impurities. With permanent operation, it is recommended to check the tightness of the lubrication circuit and connection to progressive distributors once a month.

To ensure long lifetime of the progressive distributor, it is recommended to include in the lubrication circuit a flow-through grease filter with a replaceable strainer screen (type FLT 150).

## TECHNICAL DATA

Maximum working pressure	350 bar	
Operation pressure	250 bar	
Max. differential pressure between 2 outlets	100 bar	
Nominal feed rate	0,2 cm <sup>3</sup> /stroke/outlet	
Minimum number of outlets	2 (when using a connecting bridge)	
Maximum number of outlets	12	
Inlet threaded joint	M10x1, for tube dia. 6 mm	
Outlet threaded joint	M10x1, for tube dia. 4, 6 mm	
Nominal voltage of the contactless switch	10 - 34 V DC, 200 mA	
Lubricant	grease	max. NLGI - 2
	oil	min. 50 mm <sup>2</sup> . s <sup>-1</sup>
Working environment temperature	- 25 až 80 °C	
Weight	BVA-N 3	0,80 kg
	BVA-N 4	1,00 kg
	BVA-N 5	1,24 kg
	BVA-N 6	1,50 kg

## TYPE IDENTIFICATION KEY

### BVA-N x

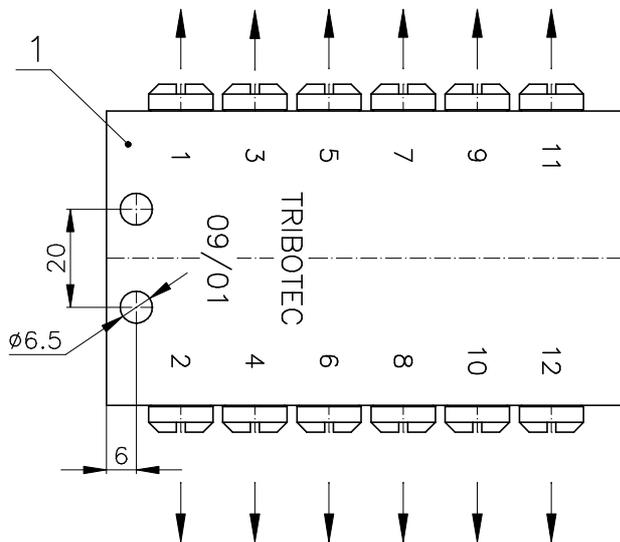
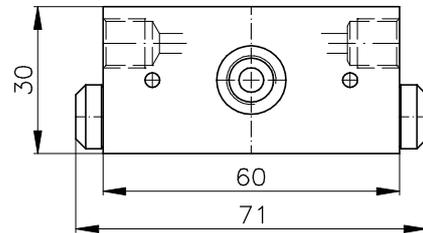
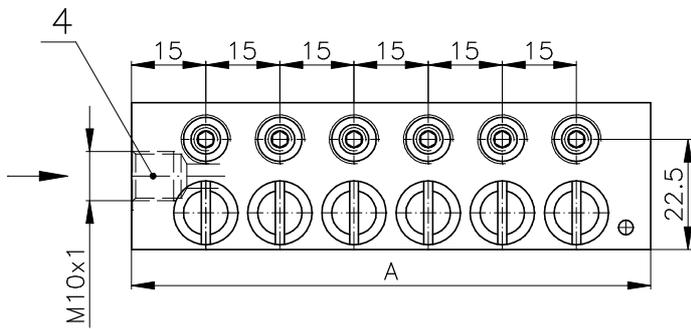
- x** - number of working pistons
- e.g. BVA-N 5 - 5 working pistons (max. 10 outlets), no signalling

### BVA-N xV

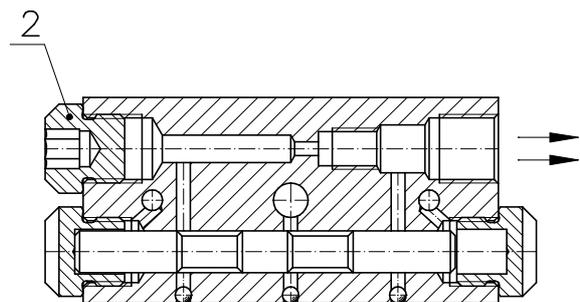
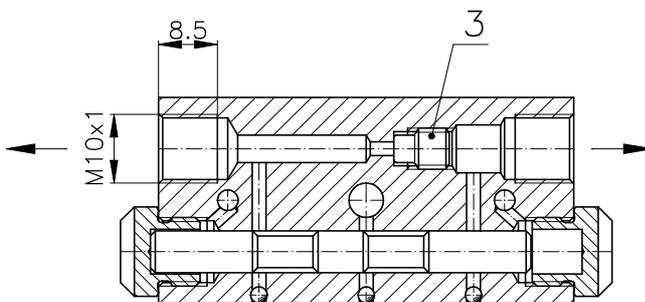
- x** - number of working pistons
- V** - visual signalling (signalling pin)
- e.g. BVA-N 5V - 5 working pistons (max. 10 outlets), visual signalling

### BVA-N xPC

- x** - number of working pistons
- PC** - electric signalling (contactless switch) for a connector
- e.g. BVA-N 5PC - 5 working pistons (max. 10 outlets), electric signalling

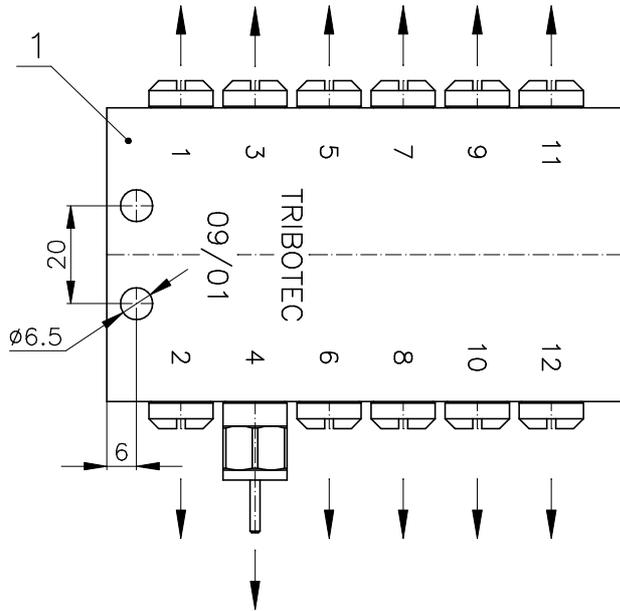
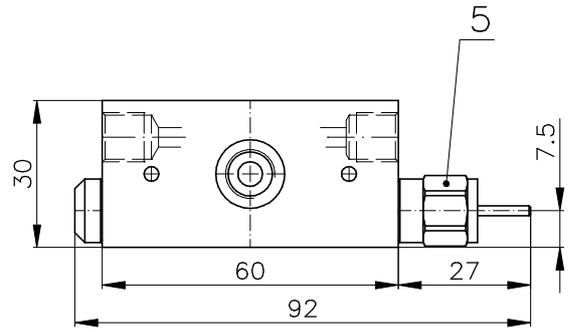
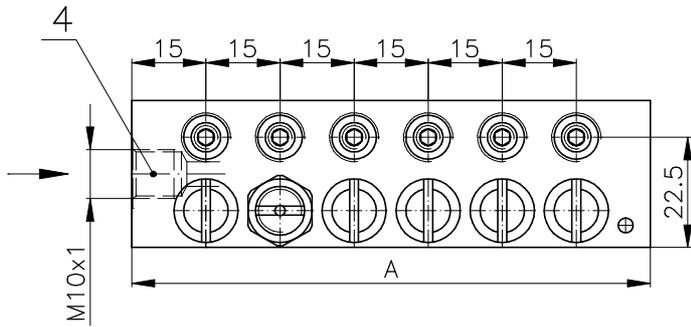


Type	Code	No. of pistons	No. of outlets	A
BVA-N 3	9 43 0321	3	6	60
BVA-N 4	9 43 0322	4	8	75
BVA-N 5	9 43 0323	5	10	90
BVA-N 6	9 43 0324	6	12	105

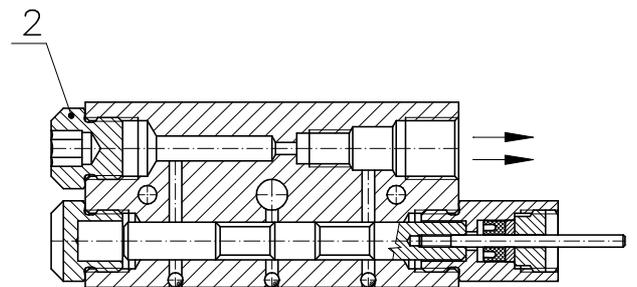
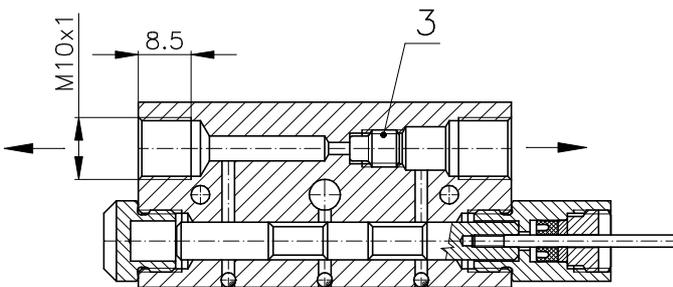


Pos	Name
1	Distributor body
2	Plug
3	Distribution screw
4	Lubricant inlet

Name	<b>PROGRESSIVE BLOCK DISTRIBUTOR</b>	<b>©Tribotec s.r.o.</b> Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	<b>BVA-N 3 + BVA-N 6</b>	
Code	<b>9 43 0321 + 9 43 0324</b>	

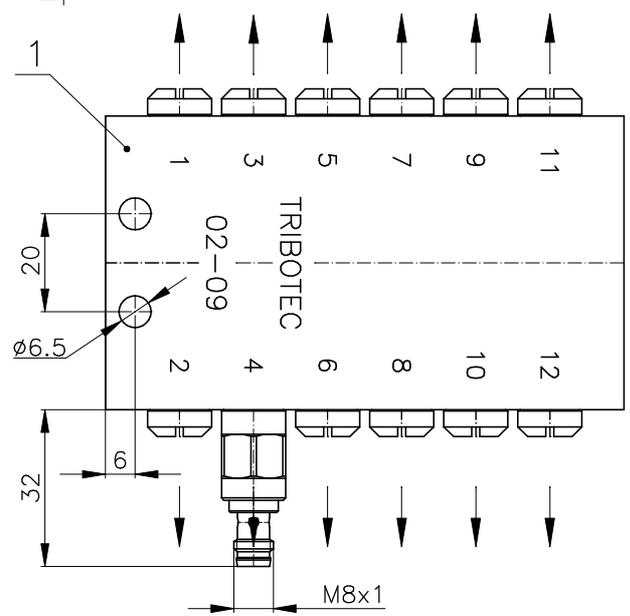
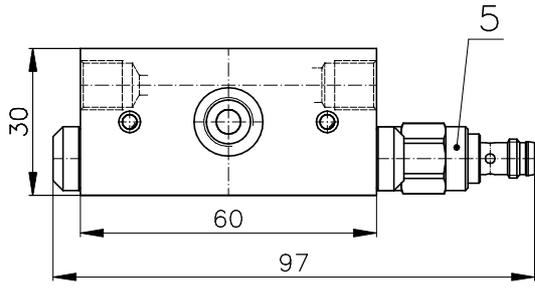
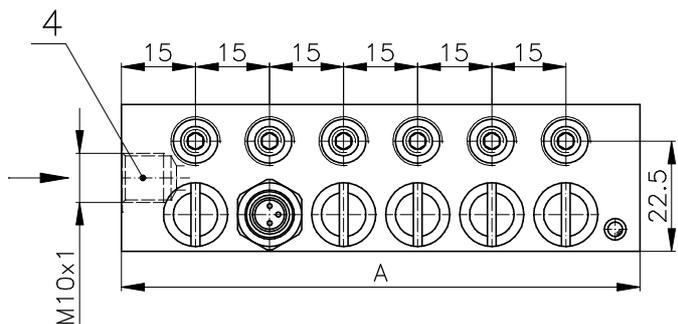


Type	Code	No. of pistons	No. of outlets	A
BVA-N 3V	9 43 0325	3	6	60
BVA-N 4V	9 43 0326	4	8	75
BVA-N 5V	9 43 0327	5	10	90
BVA-N 6V	9 43 0328	6	12	105

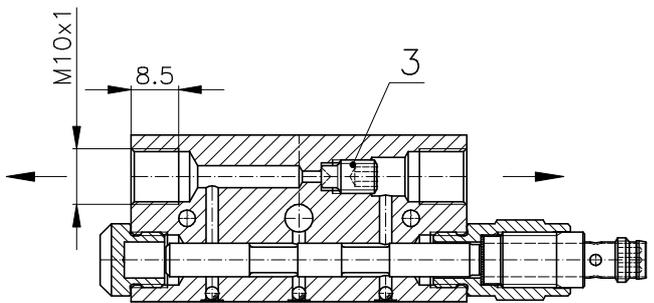


Pos	Name
1	Distributor body
2	Plug
3	Distribution screw
4	Lubricant inlet
5	Visual signalling

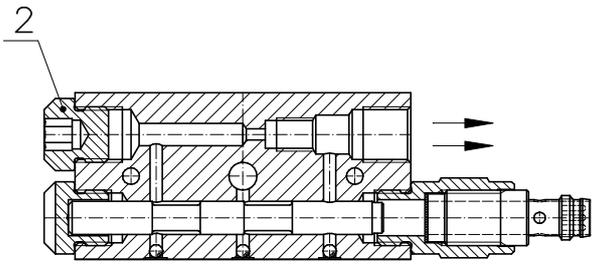
Name	<b>PROGRESSIVE BLOCK DISTRIBUTOR</b>	<b>Tribotec</b> s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	<b>BVA-N 3V + BVA-N 6V</b>	
Code	<b>9 43 0325 + 9 43 0328</b>	



Type	Code	No. of pistons	No. of outlets	A
BVA-N 3PC	9 43 0329	3	6	60
BVA-N 4PC	9 43 0330	4	8	75
BVA-N 5PC	9 43 0331	5	10	90
BVA-N 6PC	9 43 0332	6	12	105



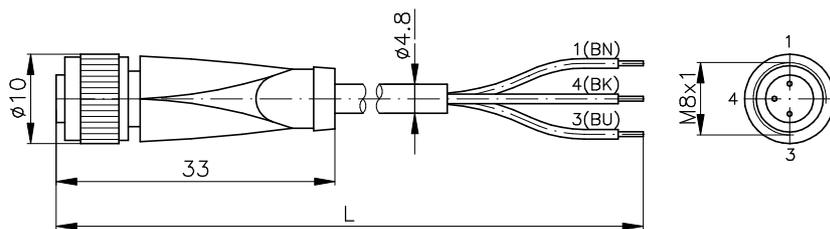
WIRING DIAGRAM



Pos	Name
1	Distributor body
2	Plug
3	Distribution screw
4	Lubricant inlet
5	Induktive switch

Name	<b>PROGRESSIVE BLOCK DISTRIBUTOR</b>	<b>Tribotec</b> s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	<b>BVA-N 3PC + BVA-N 6PC</b>	
Code	<b>9 43 0329 + 9 43 0332</b>	

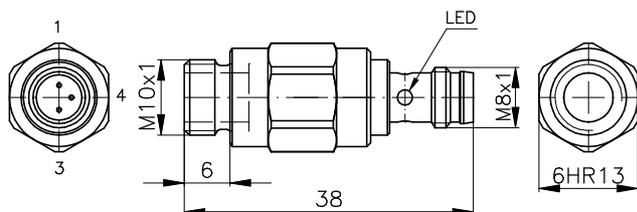
## STRAIGHT CONNECTOR WITH CABLE



Technical data	
Number of poles	3
Threading	M8x1
Operating voltage	max. 60V DC
Operating current	max. 4 A
Ambient temperature	-25...+100°C
Material of contacts	CuSn/Au
Cable sheating	PUR
Cable cores	3x0,34mm <sup>2</sup>
Protection degree	IP 67

Name	Type	Lenght L	Code
Straight connector with cable	V3-GM-2M-PUR	2m	425 531 116 460
Straight connector with cable	V3-GM-3M-PUR	3m	425 531 193 750
Straight connector with cable	V3-GM-5M-PUR	5m	425 531 024 772
Straight connector with cable	V3-GM-10M-PUR	10m	425 531 116 462

## INDUCTIVE SWITCH FOR CONNECTOR (as a spare part only)

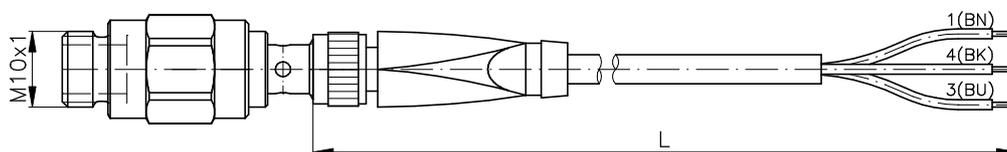


Code	8 43 0111
Rated operating distance	1,8 mm
Installation	embeddable
Make function	PNP
Operating voltage	10...34 V DC
Operating current	200 mA
Switching frequency	0+3000 Hz
No-load supply current	2 mA
Voltage drop	2 V
Protection	short-circuit reversing of polarity
	yes yes
Indication	LED, yellow
Connection type	connector M8x1
Housing material	stainless steel
Protection degree	IP 67
Ambient temperature	-25...+70°C
Max.tightening torque M8x1	2 Nm
Max.tightening torque M10x1	10 Nm

## WIRING DIAGRAM

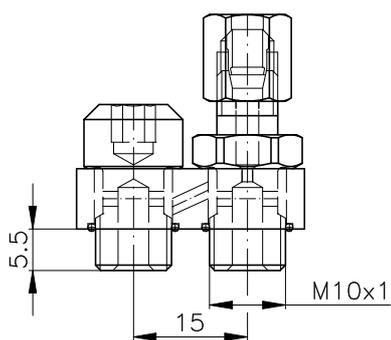


## COMPLETE INDUCTIVE SWITCH WITH CABLE (as a spare part only)



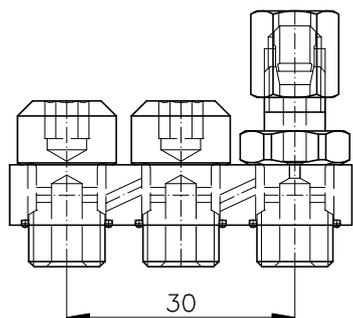
Name	Code
Complete inductive switch with cable PUR L=2m	8 43 0113
Complete inductive switch with cable PUR L=3m	8 43 0114
Complete inductive switch with cable PUR L=5m	8 43 0115
Complete inductive switch with cable PUR L=10m	8 43 0116

Name	INDUCTIVE SWITCH AND CONNECTORS	
Type	FOR PROGRESSIVE DISTRIBUTORS BVA-N 3PC+BVA-N 6PC	©Tribotec s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611

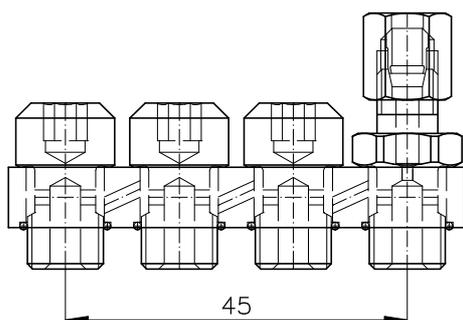


Identification	Code
Connecting bridge 2-N-TR4	8 43 0125
Connecting bridge 2-N-TR6	8 43 0096
Connecting bridge 2-N-SV-TR6	8 43 0121

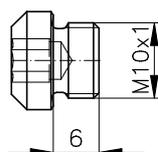
\*SV - check-valve



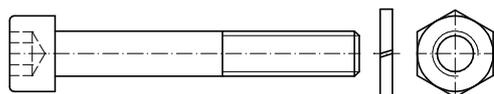
Identification	Code
Connecting bridge 3-N-TR4	8 43 0126
Connecting bridge 3-N-TR6	8 43 0097
Connecting bridge 3-N-SV-TR6	8 43 0122



Identification	Code
Connecting bridge 4-N-TR4	8 43 0127
Connecting bridge 4-N-TR6	8 43 0098
Connecting bridge 4-N-SV-TR6	8 43 0123



Identification	Code
Outlet plug M10x1	43 0095



Identification	Code
Screw M6 x 40	309543920640
Screw M6 x 50	309543920650
Screw M6 x 60	309543920660
Nut M6	311120500061
Flexible washer 6	311212920060

Name	<b>PROGRESSIVE BLOCK DISTRIBUTOR</b>	<b>Tribotec</b> s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	<b>BVA-N 3+BVA-N 6 - ACCESSORIES</b>	
Code		