

## PROGRESSIVE BLOCK DISTRIBUTOR

# BVA

### APPLICATION

The BVA progressive block distributors are lubricating elements of central grease lubricating systems that are subsequently called circuits with progressive distributors. They are recommended for use even in higher range lubrication circuits, i.e. even for circuits with several dozens of lubricated points.

Lubrication circuits with progressive distributors are usually applied for permanent regular lubrication of various machines, machine technologies and equipment. Furthermore, they are applied for lubrication of mobile machines and equipment, e.g. for the chassis of trucks, buses, construction and earthmoving machines, semi-trailers, trailers etc.

The BVA progressive distributors are block distributors with uniform nominal weight of lubricant of 0.2 cm<sup>3</sup>/stroke and outlet. The maximum operation pressure is 350 bar.

### DESCRIPTION

The BVA 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. If progressive distributor is equipped with electric signalling, competent piston has shaft shoulder. Shoulder of sliding piston performs contactless switching electrical 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 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 de-aerated 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		24
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 - 34V DC, 100mA
Lubricant		grease
		oil
Working environment temperature		-25 to 80°C
Weight	BVA 3	0.75 kg
	BVA 4	1.00 kg
	BVA 5	1.25 kg
	BVA 6	1.50 kg
	BVA 7	1.70 kg
	BVA 8	1.85 kg
	BVA 9	2.00 kg
	BVA 10	2.25 kg
	BVA 11	2.50 kg
	BVA 12	2.75 kg

## TYPE IDENTIFICATION KEY

### BVA x

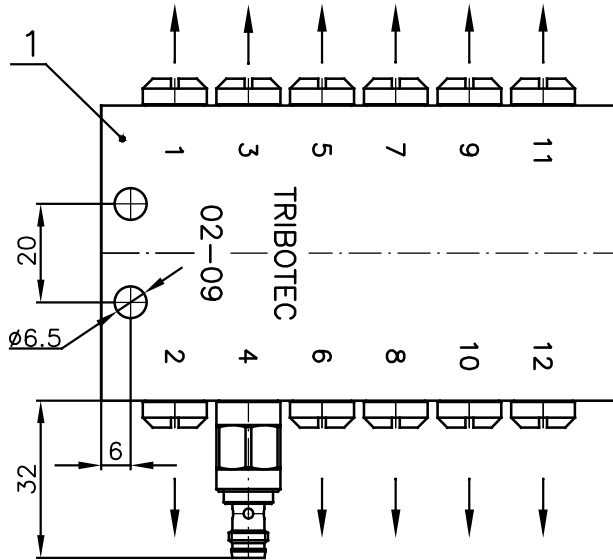
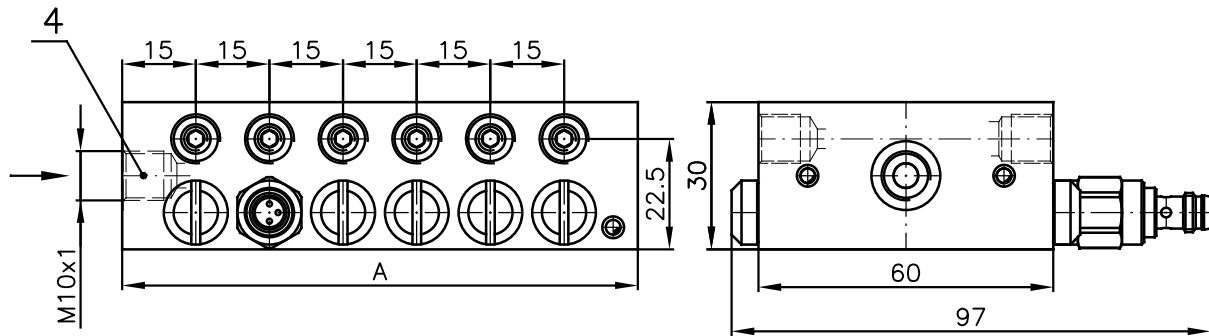
- x** - number of working pistons
- e.g. BVA 5 - 5 working pistons (max. 10 outlets), no signalling

### BVA xV

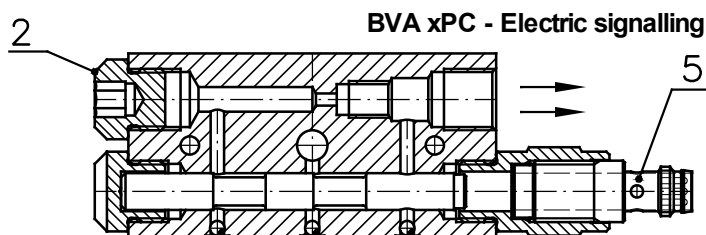
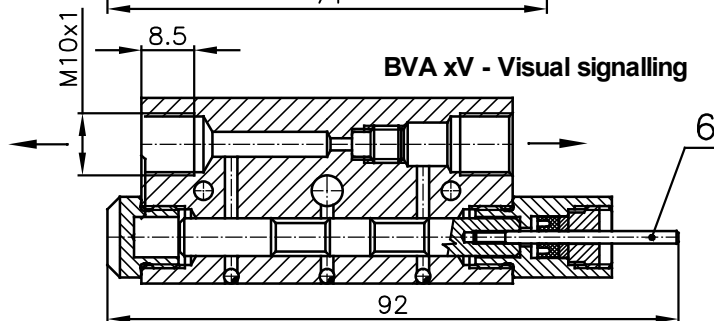
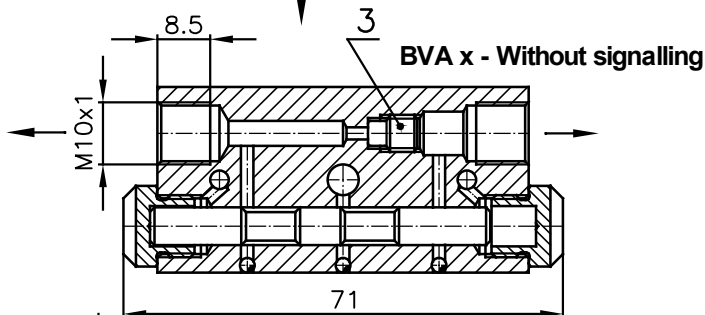
- x** - number of working pistons
- V** - visual signalling (signalling pin)
- e.g. BVA 5V - 5 working pistons (max. 10 outlets), visual signalling

### BVA xPC

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

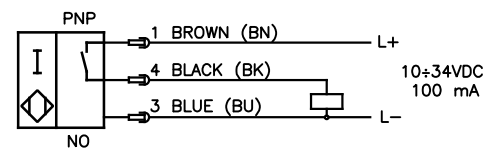


Type	Code Zn	Code ZnNi	No. of pistons	No. of outlets	A
BVA 3	9 43 0305	9 43 0386	3	6	60
BVA 4	9 43 0306	9 43 0387	4	8	75
BVA 5	9 43 0307	9 43 0388	5	10	90
BVA 6	9 43 0308	9 43 0389	6	12	105
BVA 3V	9 43 0301	9 43 0390	3	6	60
BVA 4V	9 43 0302	9 43 0391	4	8	75
BVA 5V	9 43 0303	9 43 0392	5	10	90
BVA 6V	9 43 0304	9 43 0393	6	12	105
BVA 3PC	9 43 0317	9 43 0394	3	6	60
BVA 4PC	9 43 0318	9 43 0395	4	8	75
BVA 5PC	9 43 0319	9 43 0396	5	10	90
BVA 6PC	9 43 0320	9 43 0397	6	12	105

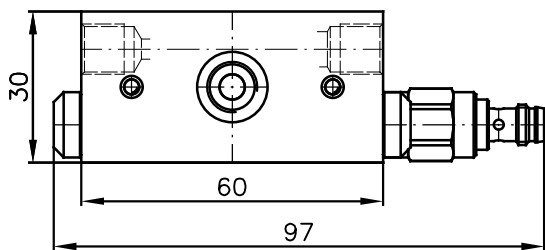
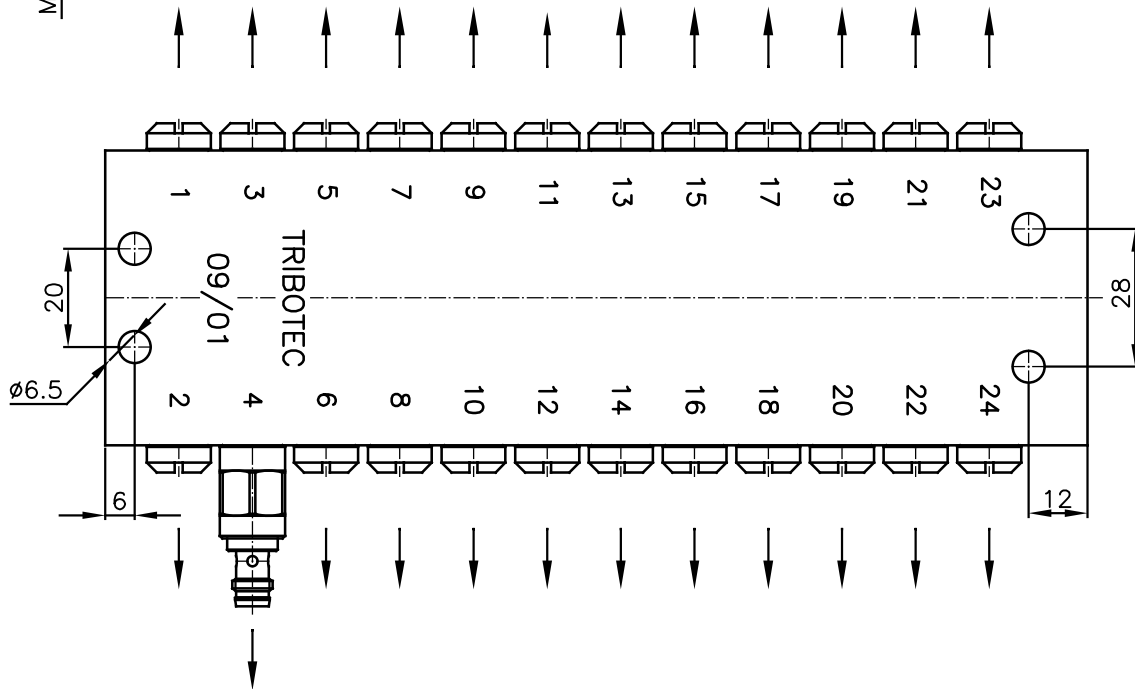
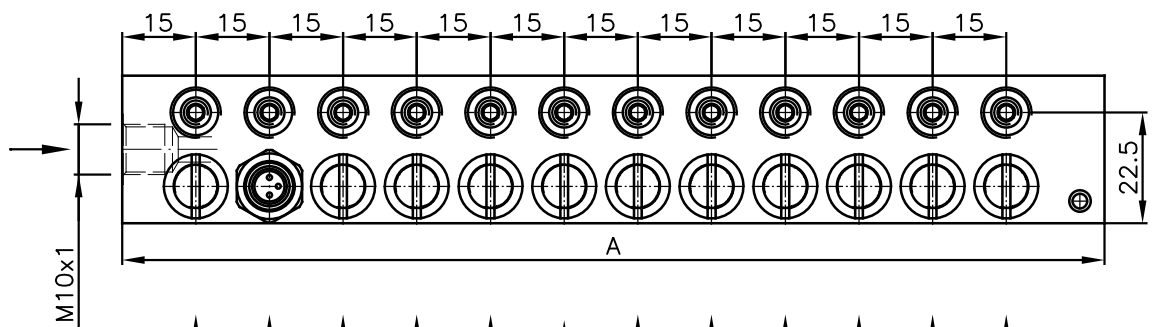


Pos	Name
1	Distributor body
2	Plug
3	Distribution screw
4	Lubricant inlet
5	Inductive switch
6	Signalling pin

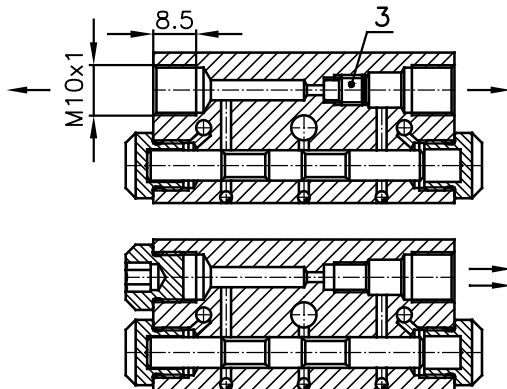
#### WIRING DIAGRAM



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 3 ÷ BVA 6, BVA 3V ÷ BVA 6V, BVA 3PC ÷ BVA 6PC</b>	
Code		



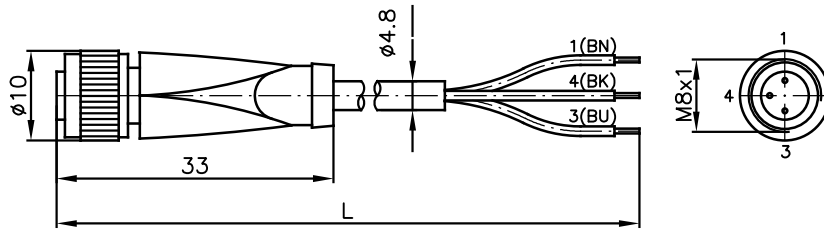
In the case of plugging of outlet grease (double dose) is necessary for the correct operation of the distribution to remove the screw - position 3.



Type	Code Zn	Code ZnNi	No. of pistons	No. of outlets	A
BVA 7	9 43 0337	9 43 0398	7	14	125
BVA 8	9 43 0338	9 43 0399	8	16	140
BVA 9	9 43 0339	9 43 0400	9	18	155
BVA 10	9 43 0340	9 43 0401	10	20	170
BVA 11	9 43 0341	9 43 0402	11	22	185
BVA 12	9 43 0342	9 43 0403	12	24	200
BVA 7V	9 43 0361	9 43 0404	7	14	125
BVA 8V	9 43 0362	9 43 0405	8	16	140
BVA 9V	9 43 0363	9 43 0406	9	18	155
BVA 10V	9 43 0364	9 43 0407	10	20	170
BVA 11V	9 43 0365	9 43 0408	11	22	185
BVA 12V	9 43 0366	9 43 0409	12	24	200
BVA 7PC	9 43 0367	9 43 0410	7	14	125
BVA 8PC	9 43 0368	9 43 0411	8	16	140
BVA 9PC	9 43 0369	9 43 0412	9	18	155
BVA 10PC	9 43 0370	9 43 0413	10	20	170
BVA 11PC	9 43 0371	9 43 0414	11	22	185
BVA 12PC	9 43 0372	9 43 0415	12	24	200

Name	<b>PROGRESSIVE BLOCK DISTRIBUTOR</b>	s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	<b>BVA 7 ÷ BVA 12, BVA 7V ÷ BVA 12V, BVA 7PC ÷ BVA 12PC</b>	
Code		

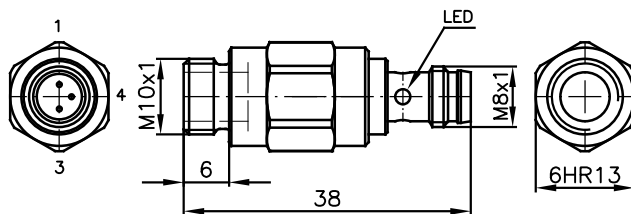
## STRAIGHT CONNECTOR WITH CABLE



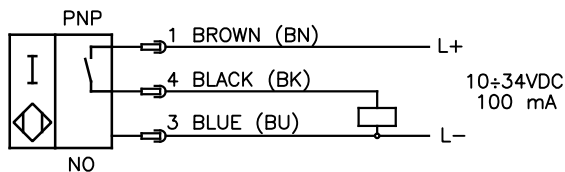
Technical data	
Number of poles	3
Threading	M8x1
Operating voltage	max. 60V DC
Operating current	max. 4 A
Ambient temperature	-25...+100°C
Material of contacts	CuSn/Au
Cable sheathing	PUR
Cable cores	3x0,34mm <sup>2</sup>
Protection degree	IP 67

Name	Type	Length 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)

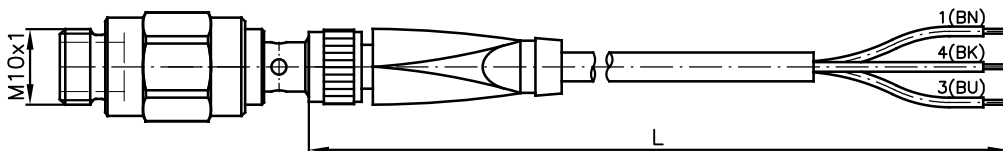


### WIRING DIAGRAM



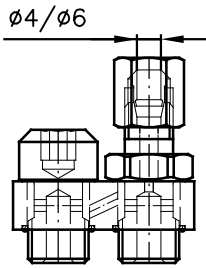
Code	8 43 0076
Rated operating distance	1,8 mm
Installation	embeddable
Make function	PNP
Operating voltage	10...34 V DC
Operating current	100 mA
Switching frequency	0÷3000 Hz
No-load supply current	2 mA
Voltage drop	2 V
Protection	short-circuit reversing of polarity
	yes yes
Indication	LED, yellow
Connection 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

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



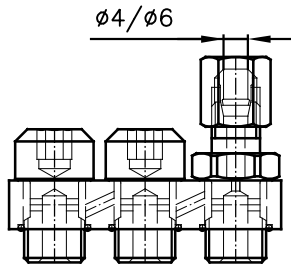
Name	Code
Complete inductive switch with cable PUR L=2m	8 43 0067
Complete inductive switch with cable PUR L=3m	8 43 0068
Complete inductive switch with cable PUR L=5m	8 43 0069
Complete inductive switch with cable PUR L=10m	8 43 0070

Name	<b>INDUCTIVE SWITCH AND CONNECTORS</b>	<b>TriboTec</b> s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611
Type	<b>FOR PROGRESSIVE DISTRIBUTORS BVA 3PC÷BVA 6PC</b>	

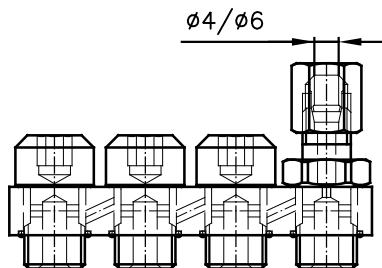


Identification	Code Zn	Code ZnNi
Connecting bridge 2 - TR4	8 43 0037	8 43 0416
Connecting bridge 2 - TR6	8 43 0041	8 43 0417
Connecting bridge 2 - SV - TR4	8 43 0023	8 43 0418
Connecting bridge 2 - SV - TR6	8 43 0032	8 43 0419

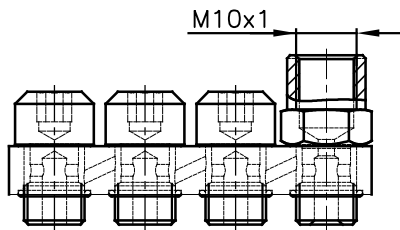
\*SV - check-valve



Identification	Code Zn	Code ZnNi
Connecting bridge 3 - TR4	8 43 0038	8 43 0420
Connecting bridge 3 - TR6	8 43 0042	8 43 0421
Connecting bridge 3 - SV - TR4	8 43 0028	8 43 0422
Connecting bridge 3 - SV - TR6	8 43 0035	8 43 0423



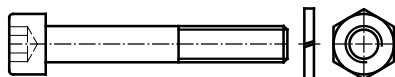
Identification	Code Zn	Code ZnNi
Connecting bridge 4 - TR4	8 43 0039	8 43 0424
Connecting bridge 4 - TR6	8 43 0043	8 43 0425
Connecting bridge 4 - SV - TR4	8 43 0030	8 43 0426
Connecting bridge 4 - SV - TR6	8 43 0036	8 43 0427



Identification	Code Zn	Code ZnNi
Connecting bridge 2 - M10x1	8 43 0334	8 43 0428
Connecting bridge 3 - M10x1	8 43 0335	8 43 0429
Connecting bridge 4 - M10x1	8 43 0336	8 43 0430



Identification	Code Zn	Code ZnNi
Outlet plug	43 0022	43 0431



Identification	Code	
Screw M6 x 40	309543000624	
Screw M6 x 50	309543000628	
Screw M6 x 60	309543000632	
Nut M6	311120500060	
Flexible washer 6	311214500061	

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 3÷BVA 12 - ACCESSORIES</b>	
Code		