

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 ³ /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 ² . s ⁻¹ |
| 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

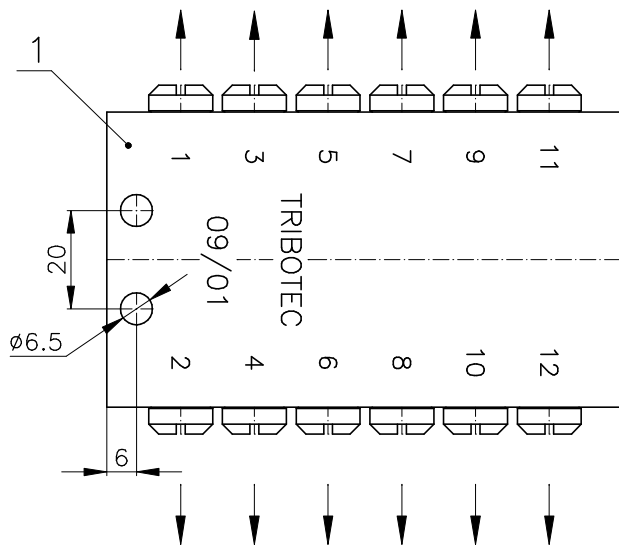
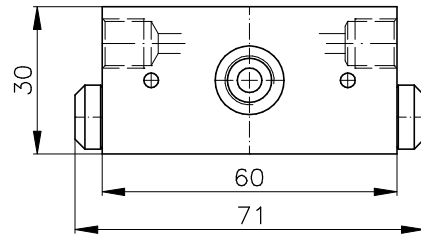
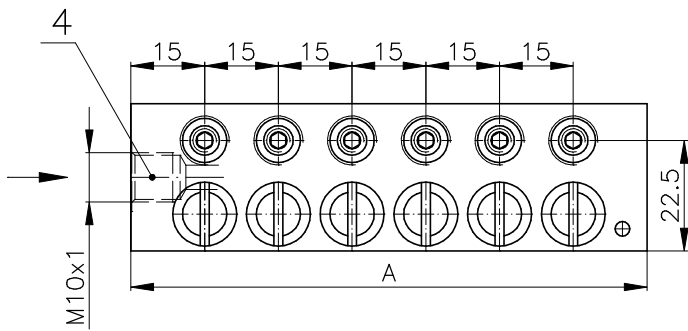
- x** - number of working pistons
- e.g. BVA-N 5 - 5 working pistons (max. 10 outlets), no signalling

BVA-N xV

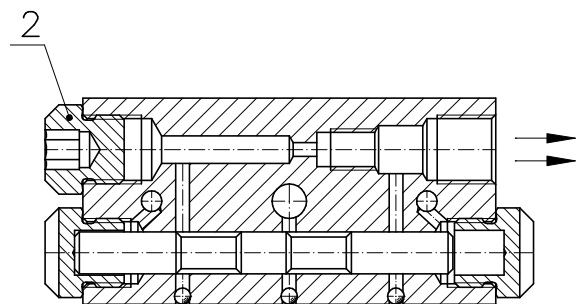
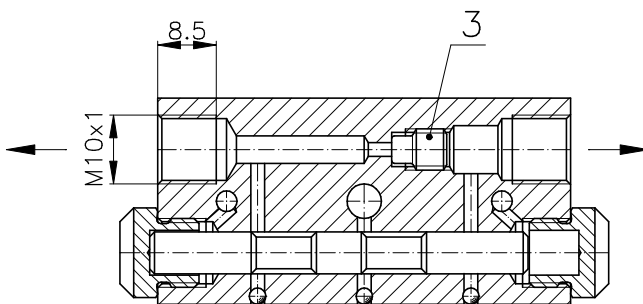
- x** - number of working pistons
- V** - visual signalling (signalling pin)
- e.g. BVA-N 5V - 5 working pistons (max. 10 outlets), visual signalling

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

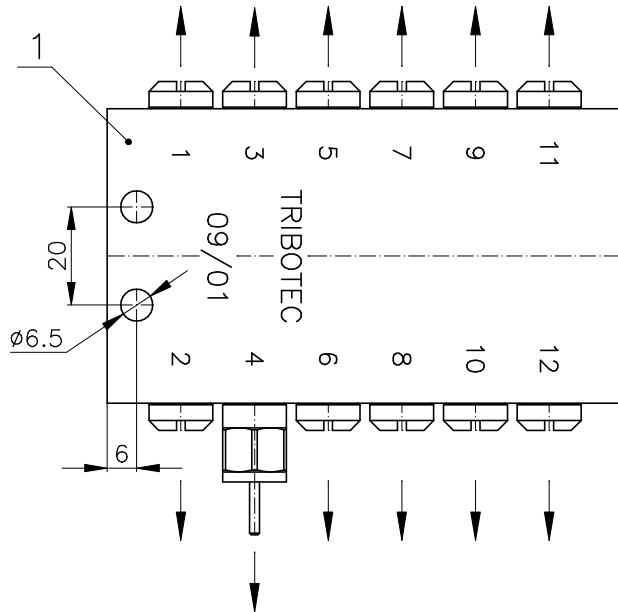
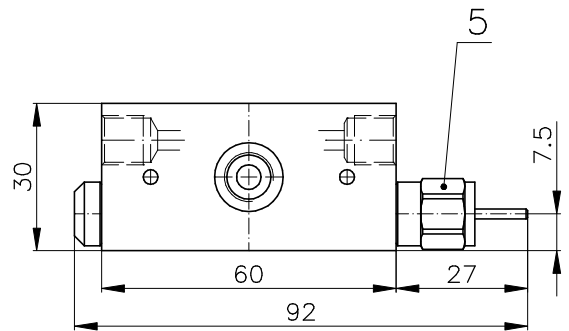
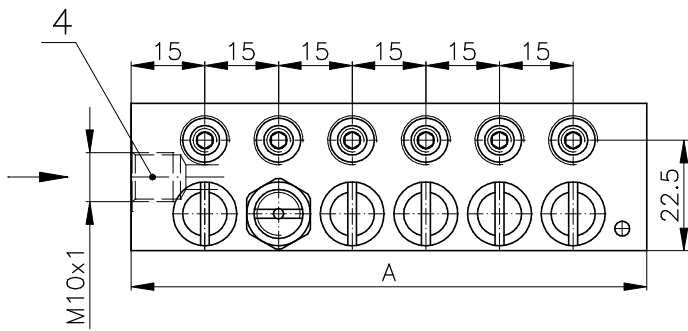


| Type | Code | No. of pistons | No. of outlets | A |
|---------|-----------|----------------|----------------|-----|
| BVA-N 3 | 9 43 0321 | 3 | 6 | 60 |
| BVA-N 4 | 9 43 0322 | 4 | 8 | 75 |
| BVA-N 5 | 9 43 0323 | 5 | 10 | 90 |
| BVA-N 6 | 9 43 0324 | 6 | 12 | 105 |

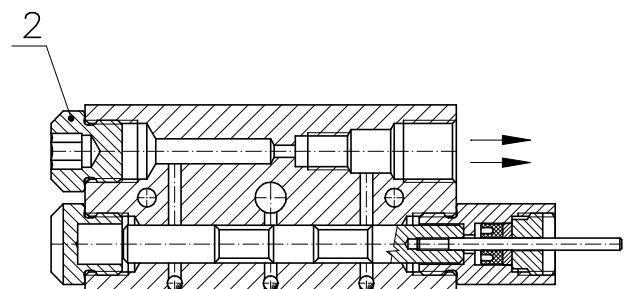
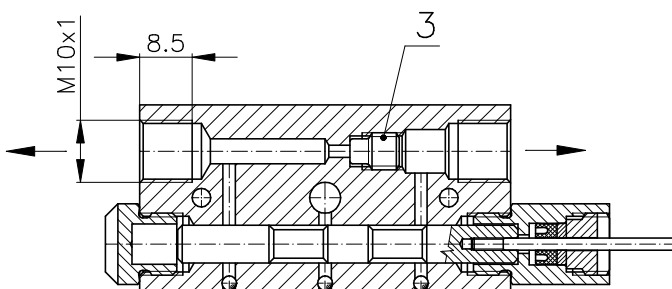


| Pos | Name |
|-----|--------------------|
| 1 | Distributor body |
| 2 | Plug |
| 3 | Distribution screw |
| 4 | Lubricant inlet |

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

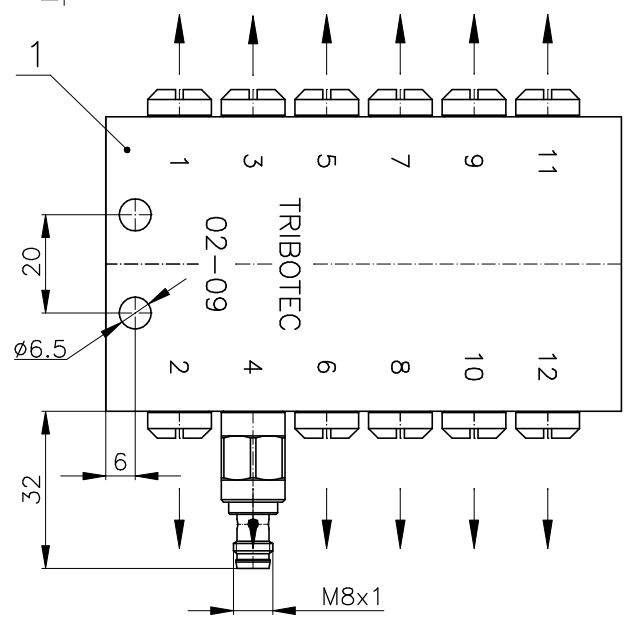
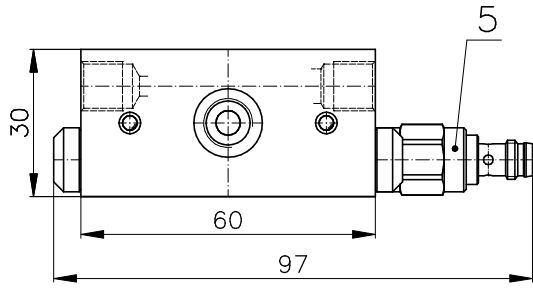
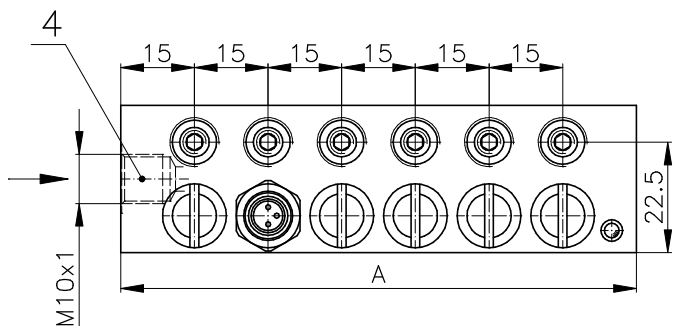


| Type | Code | No. of pistons | No. of outlets | A |
|----------|-----------|----------------|----------------|-----|
| BVA-N 3V | 9 43 0325 | 3 | 6 | 60 |
| BVA-N 4V | 9 43 0326 | 4 | 8 | 75 |
| BVA-N 5V | 9 43 0327 | 5 | 10 | 90 |
| BVA-N 6V | 9 43 0328 | 6 | 12 | 105 |

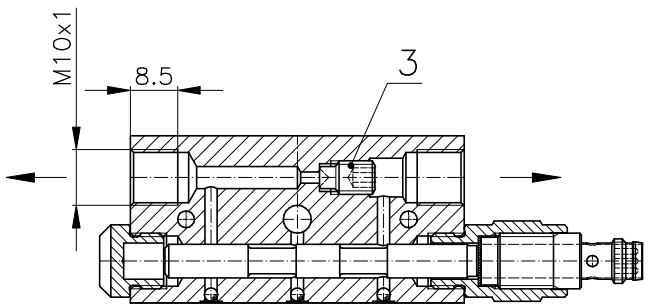


| Pos | Name |
|-----|--------------------|
| 1 | Distributor body |
| 2 | Plug |
| 3 | Distribution screw |
| 4 | Lubricant inlet |
| 5 | Visual signalling |

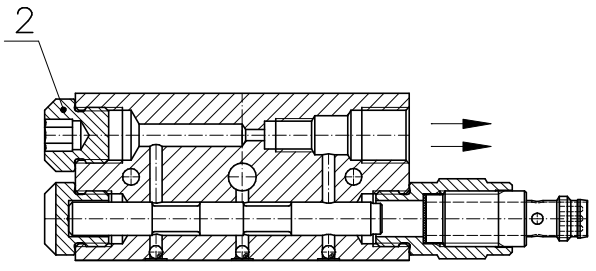
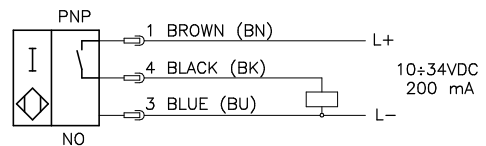
| | | |
|------|--------------------------------------|--|
| Name | PROGRESSIVE BLOCK DISTRIBUTOR | Tribotec s.r.o. Košuličova 4 Brno www.tribotec.cz +420 543 425 611 |
| Type | BVA-N 3V + BVA-N 6V | |
| Code | 9 43 0325 + 9 43 0328 | |



| 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 |



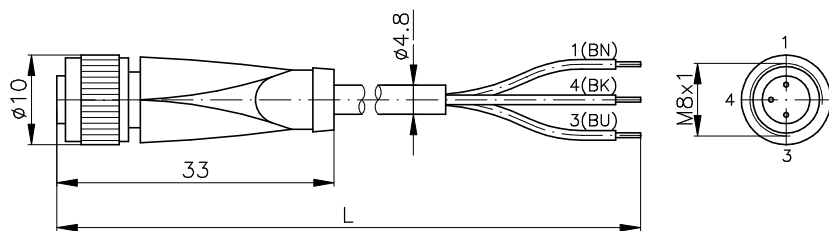
WIRING DIAGRAM



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

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

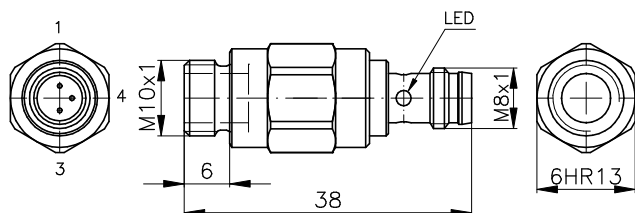
STRAIGHT CONNECTOR WITH CABLE



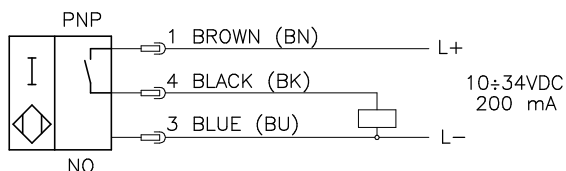
| Technical data | |
|----------------------|-----------------------|
| Number of poles | 3 |
| Threading | M8x1 |
| Operating voltage | max. 60V DC |
| Operating current | max. 4 A |
| Ambient temperature | -25...+100°C |
| Material of contacts | CuSn/Au |
| Cable sheathing | PUR |
| Cable cores | 3x0,34mm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

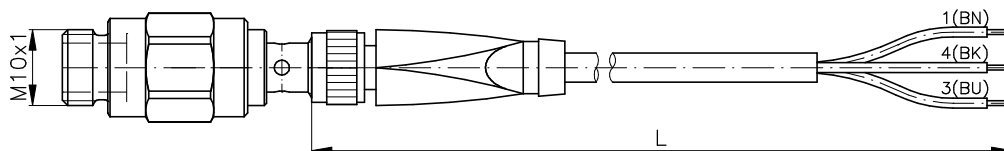


WIRING DIAGRAM



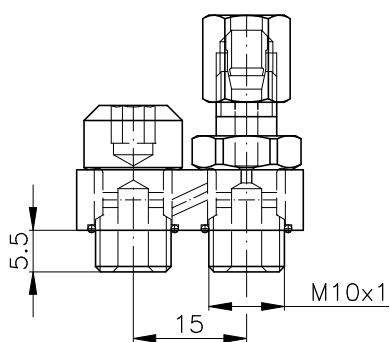
| | |
|-----------------------------|--|
| Code | 8 43 0111 |
| Rated operating distance | 1,8 mm |
| Installation | embeddable |
| Make function | PNP |
| Operating voltage | 10...34 V DC |
| Operating current | 200 mA |
| Switching frequency | 0+3000 Hz |
| No-load supply current | 2 mA |
| Voltage 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 |

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



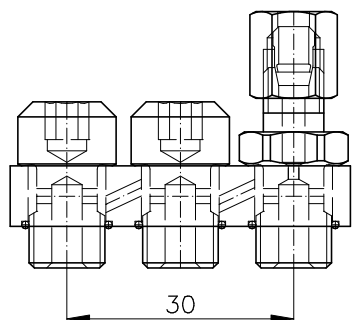
| Name | Code |
|--|-----------|
| Complete inductive switch with cable PUR L=2m | 8 43 0113 |
| Complete inductive switch with cable PUR L=3m | 8 43 0114 |
| Complete inductive switch with cable PUR L=5m | 8 43 0115 |
| Complete inductive switch with cable PUR L=10m | 8 43 0116 |

| | | |
|------|--|--|
| 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 |

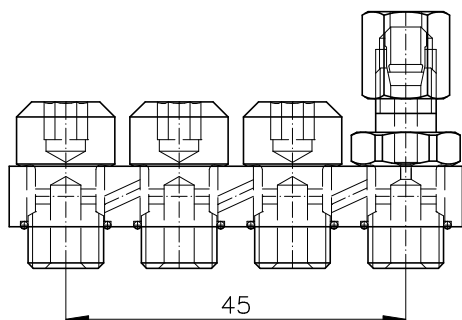


| Identification | Code |
|------------------------------|-----------|
| Connecting bridge 2-N-TR4 | 8 43 0125 |
| Connecting bridge 2-N-TR6 | 8 43 0096 |
| Connecting bridge 2-N-SV-TR6 | 8 43 0121 |

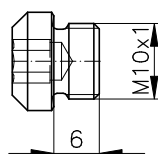
*SV - check-valve



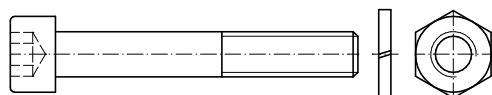
| Identification | Code |
|------------------------------|-----------|
| Connecting bridge 3-N-TR4 | 8 43 0126 |
| Connecting bridge 3-N-TR6 | 8 43 0097 |
| Connecting bridge 3-N-SV-TR6 | 8 43 0122 |



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