

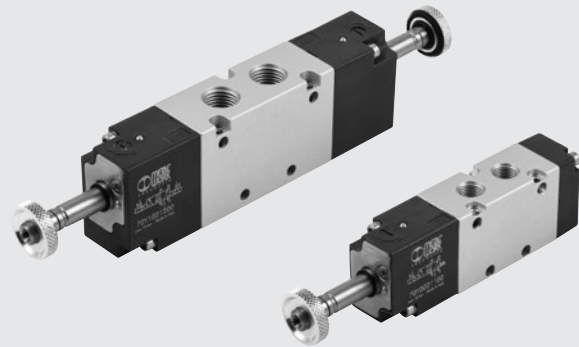
## VALVES SERIES 70 BTY (for the production of batteries)

The Series BTY is designed to meet the requests of the battery production process, which requires avoiding copper (Cu) and zinc (Zn) contamination. These elements could compromise the quality of the batteries or even render them unusable.

The construction features of the Series 70 BTY valves make them ideal for battery production lines: they feature an anodized aluminum body and stainless steel clamping screws, spring, and operator. The Series 70 BTY valves are available in sizes 1/4" and 1/8", in 3/2 normally closed, 5/2 monostable, and 5/2 bistable versions.

All 22 mm coils available for the Series 70 valves can be mounted, powered via a dedicated BTY connector with a stainless steel fixing screw. They can also be mounted in series on multi-position bases, using stainless steel fixing screws.

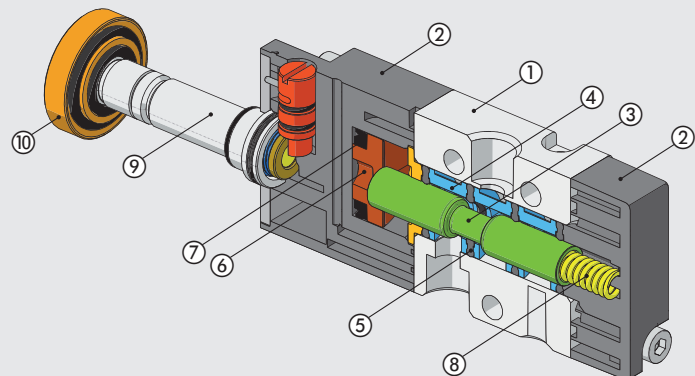
Considering the materials and surface treatments used for the components, the series 70 BTY valves are more resistant to external aggression than the standard series.



| TECHNICAL DATA                |              | 1/8"   | 1/4"       |
|-------------------------------|--------------|--|------------|
| Operating pressure:           |              |  |            |
| • monostable                  | bar          |  | 2.5 to 10  |
| • bistable                    | bar          |  | 1 to 10    |
| Operating temperature range   | °C           |  | -10 to +60 |
| Nominal diameter              | mm           | 5  | 7.5        |
| Conductance C                 | Nl/min · bar | 121.43   | 264.26     |
| Critical ratio b              | bar/bar      | 0.32   | 0.27       |
| Flow rate at 6 bar ΔP 0.5 bar | Nl/min       | 400  | 750        |
| Flow rate at 6 bar ΔP 1 bar   | Nl/min       | 550  | 1100       |
| TRA / TRR monostable at 6 bar | ms           | 20/35  | 25/53      |
| TRA / TRR bistable at 6 bar   | ms           | 20/20  | 20/20      |
| Coil voltage values           |              | 12; 24 VDC - 24; 110; 220V AC 50/60Hz  |            |
| Power                         |              | 2 W (DC) 3.5VA (AC)  |            |
| Voltage tolerance             | %            | -10 to +15   |            |
| Insulation class              |              | F 155  |            |
| Class of protection           |              | IP65 with coil and connector mounted   |            |
| Maximum coil nut torque       | Nm           | 1  |            |
| Hand operator                 |              | Bistable   |            |
| Installation                  |              | Installation In any position (vertical assembly is not recommended for bistable valves subjected to vibration) |            |
| Fluid                         |              | Fluid Filtered air without lubrication; lubrication, if used, must be continuous                               |            |
| Compatibility with oils       |              | See chapter Z1   |            |

### COMPONENTS

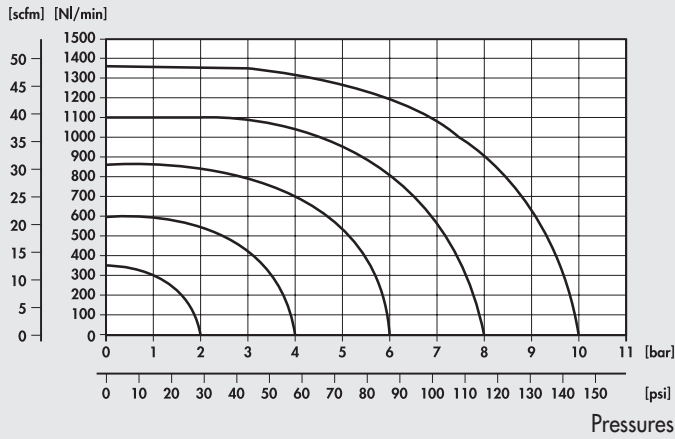
- ① VALVE BODY: anodized aluminium
- ② CONTROL/END CAP: plastic
- ③ SPOOL: chemically nickel-plated aluminium
- ④ DISTANCE PLATES: plastic
- ⑤ GASKETS: NBR
- ⑥ PISTONS: Hostaform®
- ⑦ PISTON GASKET: NBR
- ⑧ SPRING: stainless steel
- ⑨ OPERATOR: stainless steel pipe and core
- ⑩ IP65 KIT: passivated aluminium ring nut and NBR gasket



FLOW CHARTS

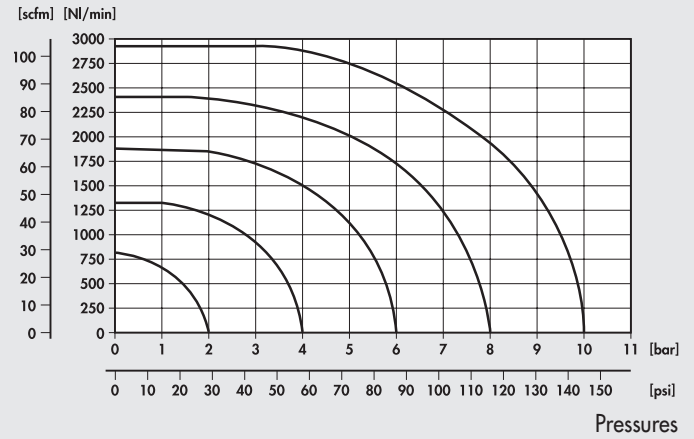
VALVES SERIES 70 BTY 1/8"

Flow rates



VALVES SERIES 70 BTY 1/4"

Flow rates

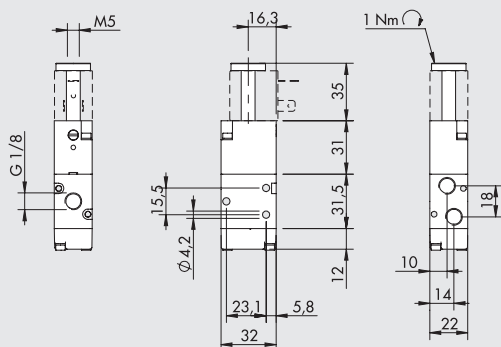


SYNOPTIC, SIZES AND VERSIONS

| SO V FAMILY |                      | 2 DIMENSIONS |      | 3 FUNCTION |     | SO OPERATORS 14 |          | S RESETTING (12) |                    | OO FURTHER DETAILS |                 | BTY |                                 |
|-------------|----------------------|--------------|------|------------|-----|-----------------|----------|------------------|--------------------|--------------------|-----------------|-----|---------------------------------|
| SOV         | solenoid / pneumatic | 2            | 1/8" | 3          | 3/2 | SO              | solenoid | S                | mechanical springs | OO                 | no indication   | BTY | for the production of batteries |
|             |                      | 3            | 1/4" | 5          | 5/2 |                 |          | B                | bistable           | NC                 | normally closed |     |                                 |

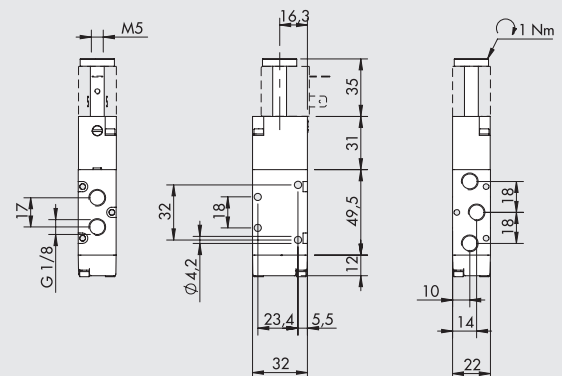
VALVES SERIES 70 BTY, 1/8"

MONOSTABLE 3/2 NC 1/8"



| Symbol | Code       | Abbrev.           | Weight [g] |
|--------|------------|-------------------|------------|
|        | 70Y0020200 | SOV 23 SOS NC BTY | 98         |

MONOSTABLE 5/2 1/8"



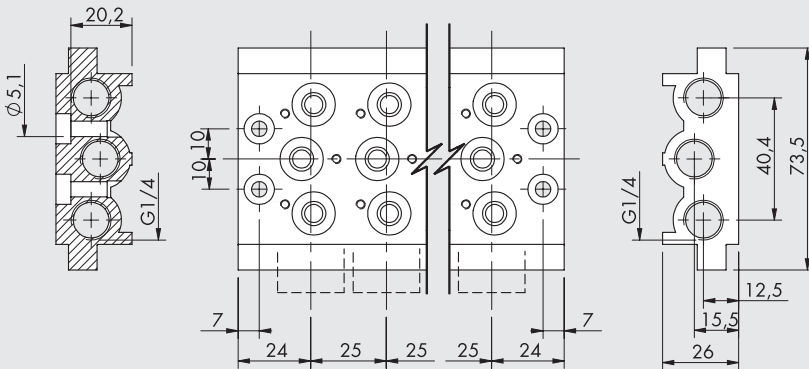
| Symbol | Code       | Abbrev.           | Weight [g] |
|--------|------------|-------------------|------------|
|        | 70Y0021100 | SOV 25 SOS OO BTY | 124        |



## ACCESSORIES

To ensure compatibility with battery production lines, it is not possible to use 70 series accessories other than those indicated in this page.

### MULTIPLE BASE 1/8"

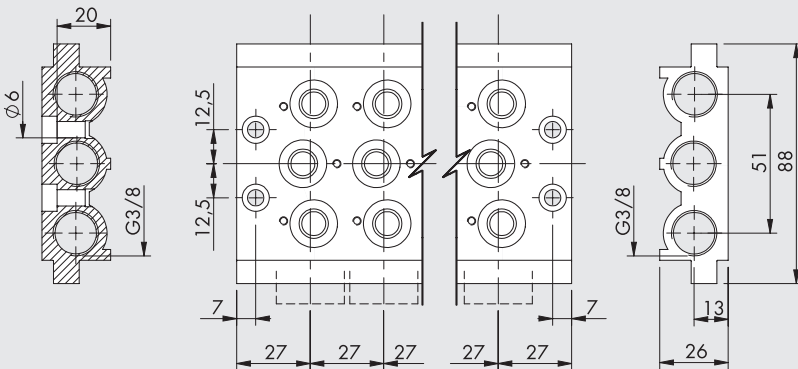


| Code       | Description                          | Weight [g] |
|------------|--------------------------------------|------------|
| 0223200201 | 2 positions multiple base BASIC 1/8  | 236        |
| 0223200301 | 3 positions multiple base BASIC 1/8  | 321        |
| 0223200401 | 4 positions multiple base BASIC 1/8  | 407        |
| 0223200501 | 5 positions multiple base BASIC 1/8  | 494        |
| 0223200601 | 6 positions multiple base BASIC 1/8  | 587        |
| 0223200701 | 7 positions multiple base BASIC 1/8  | 711        |
| 0223200801 | 8 positions multiple base BASIC 1/8  | 760        |
| 0223200901 | 9 positions multiple base BASIC 1/8  | 842        |
| 0223201001 | 10 positions multiple base BASIC 1/8 | 923        |

Note: Supplied complete with gaskets

To fix the valve to the base it is necessary to use the stainless steel screw kit code 0226004702, which can be purchased separately.

### MULTIPLE BASE 1/4"



| Code       | Description                          | Weight [g] |
|------------|--------------------------------------|------------|
| 0224200201 | 2 positions multiple base BASIC 1/4  | 296        |
| 0224200301 | 3 positions multiple base BASIC 1/4  | 406        |
| 0224200401 | 4 positions multiple base BASIC 1/4  | 515        |
| 0224200501 | 5 positions multiple base BASIC 1/4  | 624        |
| 0224200601 | 6 positions multiple base BASIC 1/4  | 733        |
| 0224200701 | 7 positions multiple base BASIC 1/4  | 845        |
| 0224200801 | 8 positions multiple base BASIC 1/4  | 956        |
| 0224200901 | 9 positions multiple base BASIC 1/4  | 1055       |
| 0224201001 | 10 positions multiple base BASIC 1/4 | 1086       |

Note: Supplied complete with gaskets

To fix the valve to the base it is necessary to use the stainless steel screws code 0226005702, which can be purchased separately.

### BTY STAINLESS STEEL FIXING SCREWS



| Code       | Description                                | Weight [g] |
|------------|--|------------|
| 0226004702 | TCE screw M3x35 stainless steel 1/8 BTY 20 |            |
| 0226005702 | TCE screw M3x40 stainless steel 1/4 BTY 25 |            |

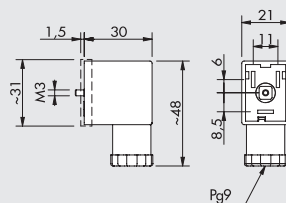
Note: Tightening torque M3 valve / base screws: 0.8 Nm  
Comes in 10-pc. packs

### COILS



Refer to page B1.64 for coils

### CONNECTOR SIDE 22 mm SERIES BTY FOR COILS DIN 43650 B-IND



| Code        | Type                                | Colour | Ø Cable |
|-------------|-------------------------------------|--------|---------|
| WY970510011 | Standard with stainless steel screw | Black  | PG9     |