

MB-4 MONOBLOCK VALVE



MB-4 HANDSTEUERVENTIL

HYDROMOT
Hydraulic solutions.

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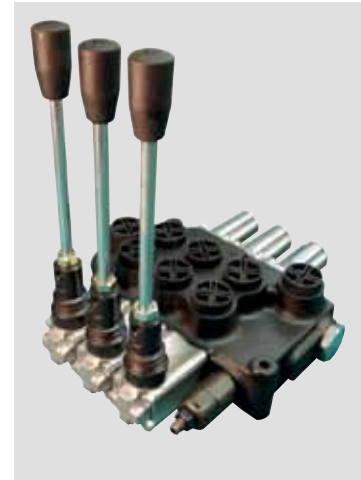
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Handsteuerventile MB-4

- kompakte Bauweise
- geringe Druckverluste
- hohe Lebensdauer und Wirtschaftlichkeit
- verschiedene Anschlussmöglichkeiten und Kreislaufsteuerungen
- langanhaltende Steuerungspräzision

Monoblock Valve MB-4

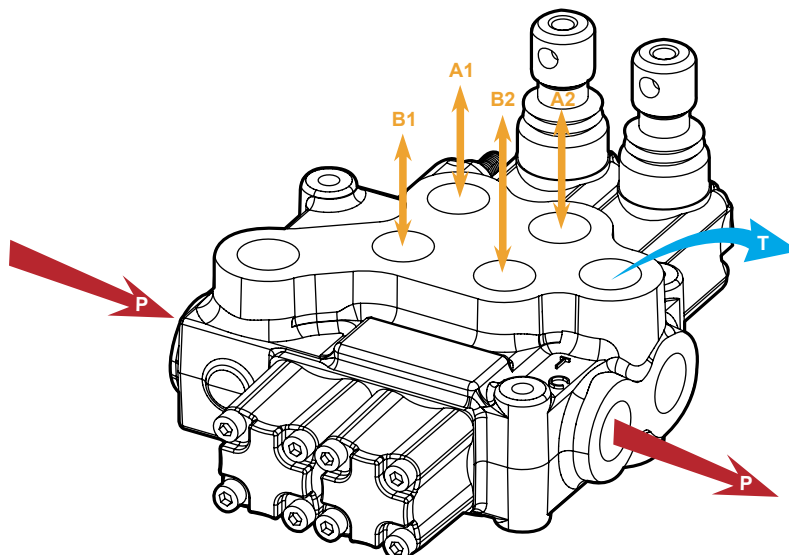
- compact construction
- low pressure drop
- long service life and efficiency
- various ports and circuits
- long term accuracy



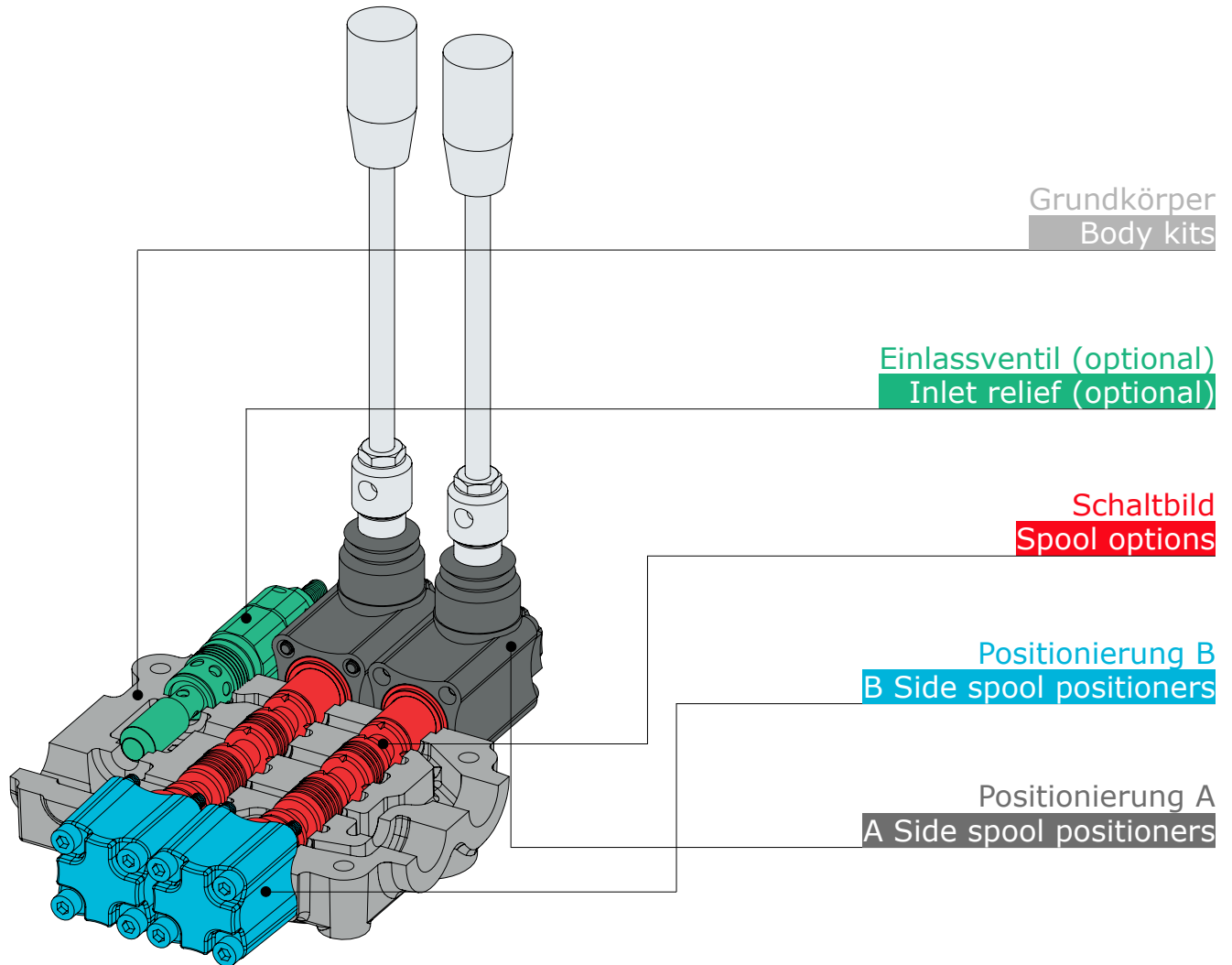
Technische Daten | Technical Data

| | | |
|--|---|---------------------------|
| Volumenstrom [l/min] Flow rate | | 60 |
| Max. Arbeitsdruck [bar] Max. Operating pressure | Parallel oder Reihenschaltung Parallel or tandem circuit | 315 |
| | Reihenschaltung Series circuit | 210 |
| Max. Gegendruck an Tankanschluss T [bar] Max. back pressure on outletport T | | 25 |
| Temperaturbereich Einsatzmittel [°C] Fluid temperature range | NBR (BUNA-N) Dichtung NBR (BUNA-N) seal | -20 bis 80 -20 to 80 |
| | FPM (Viton) Dichtung FPM (Viton) seal | -20 bis 100 -20 to 100 |
| Viskosität [mm²/s] Viscosity | Arbeitsbereich Operating range | 15 bis 75 15 to 75 |
| | Min. | 12 |
| | Max. | 400 |
| Umgebungstemperatur [°C] Ambient temperature | | -40 bis 60 -40 to 60 |

Installationshinweis | Mounting Instruction



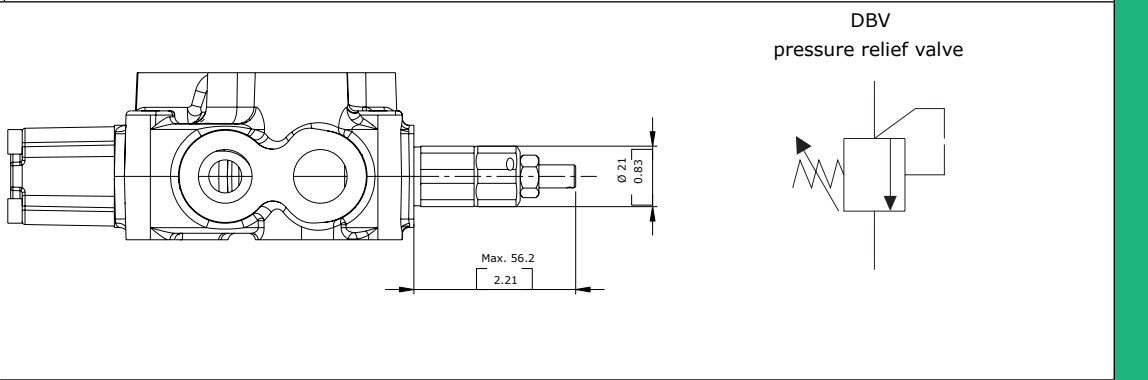
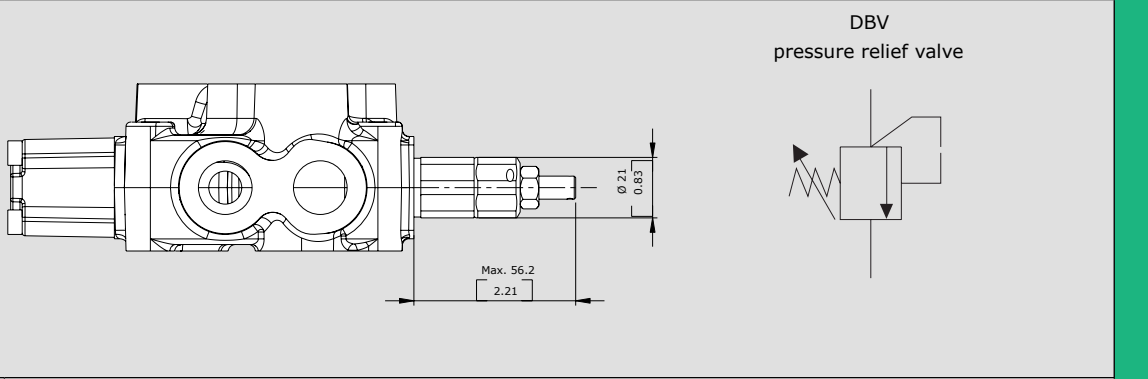
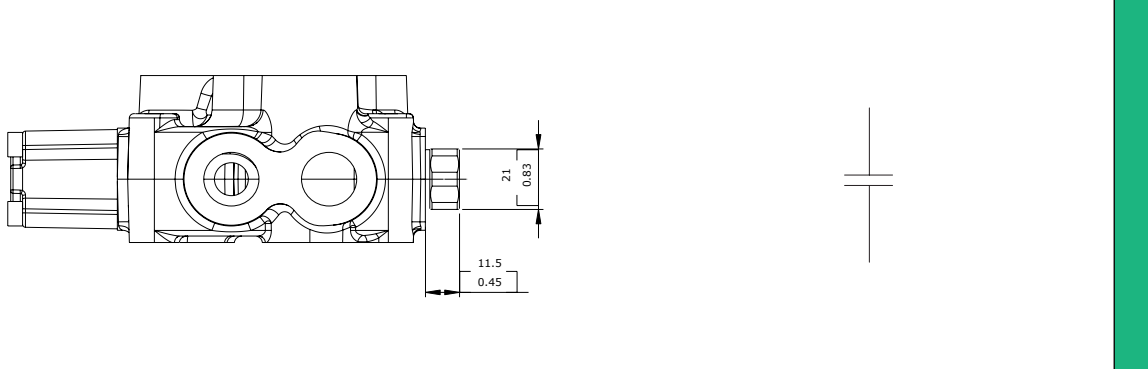
Prinzipieller Aufbau | Basic Construction




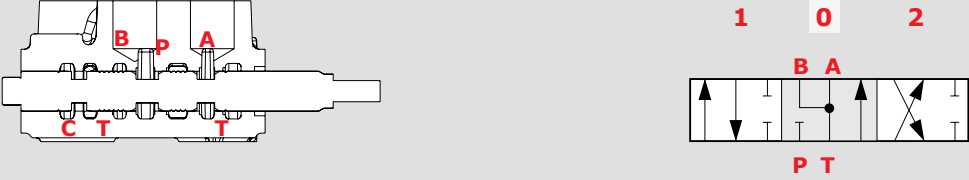

Grundkörper | Body Kits

| Typ Type | Beschreibung Description |
|-------------|-----------------------------|
| 1S | 1 Sektion 1 Section |
| 2S | 2 Sektion 2 Section |
| 3S | 3 Sektion 3 Section |
| 4S | 4 Sektion 4 Section |
| 5S | 5 Sektion 5 Section |
| 6S | 6 Sektion 6 Section |

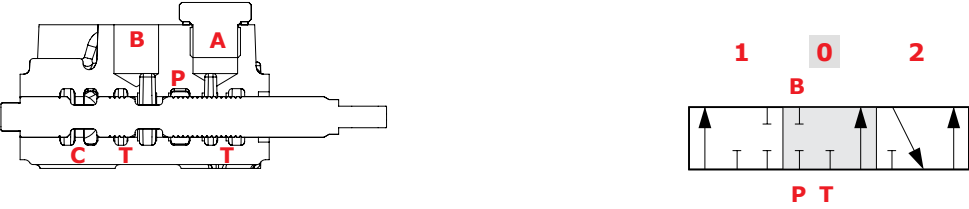
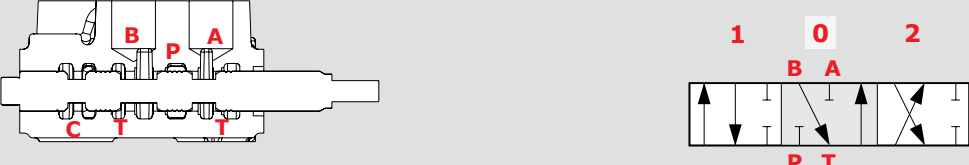

Einlassventil | Inlet Relief

| Typ Type | Beschreibung Description |
|--|---|
| 3 | Arbeitsbereich von 63 bis 200 Bar, Standardeinstellung 120 Bar Range 63 to 200 Bar, standard setting 120 Bar |
|  | |
| 4 | Arbeitsbereich von 160 bis 315 Bar, Standardeinstellung 220 Bar Range 160 to 315 Bar, standard setting 220 Bar |
|  | |
| VS | Verschlussstopfen Blanking plug |
|  | |


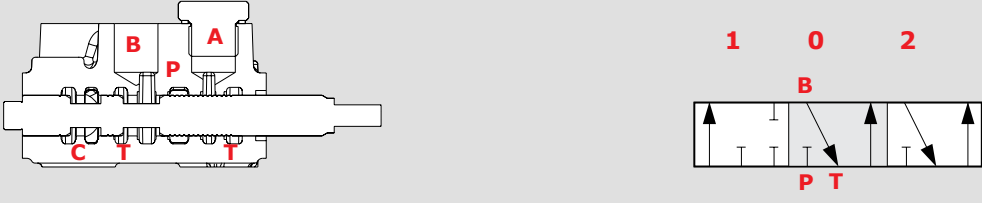

Schaltbilder | Spool Options

| Typ Type | Beschreibung Description |
|--|---|
| 1 | 3 Positionen, doppelwirkend, A-B-P-T geschlossen in Nullstellung 3 Positions, double acting, with A-B-P-T closed in neutral position |
|  <p>The diagram for valve type 1 shows a cross-section on the left and a schematic on the right. The cross-section labels ports B, P, A, C, and T. The schematic shows three positions: 1 (P to A, B to T), 0 (neutral, all closed), and 2 (P to B, A to T).</p> | |
| 2 | 3 Positionen, doppelwirkend, A-B-T verbunden in Nullstellung, P geschlossen 3 Positions, double acting, with A-B open to T in neutral position, P closed |
|  <p>The diagram for valve type 2 shows a cross-section on the left and a schematic on the right. The cross-section labels ports B, P, A, C, and T. The schematic shows three positions: 1 (P to A, B to T), 0 (neutral, A-B connected to T, P closed), and 2 (P to B, A to T).</p> | |
| 3 | 3 Positionen, einfachwirkend an A, A-P-T geschlossen, B verschlossen 3 Positions, single acting on A, A-P-T closed in neutral position, B plugged |
|  <p>The diagram for valve type 3 shows a cross-section on the left and a schematic on the right. The cross-section labels ports B, P, A, C, and T. The schematic shows three positions: 1 (P to A, B closed), 0 (neutral, A-P-T closed, B closed), and 2 (P to A, B closed).</p> | |


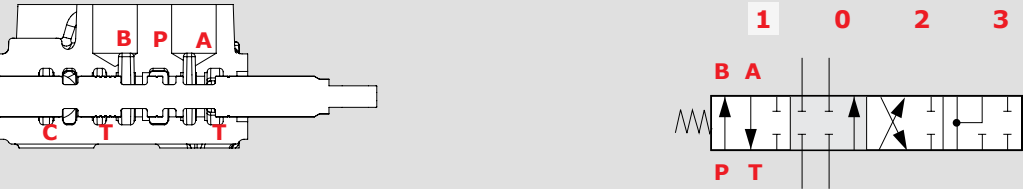

Schaltbilder | Spool Options

| Typ Type | Beschreibung Description |
|---|--|
| 4 | 3 Positionen, einfachwirkend an B, B-P-T geschlossen, A verschlossen 3 Positions, single acting on B, B-P-T closed in neutral position, A plugged |
|  <p>The diagram for valve type 4 shows a cross-section on the left and a schematic on the right. The cross-section labels ports B, P, A, C, and T. The schematic shows three positions: 1 (B to C), 0 (B, P, T closed, A plugged), and 2 (B to T). Arrows indicate flow direction: up for B to C, down for B to T, and a diagonal arrow for A to T in position 0.</p> | |
| 5 | 3 Positionen, doppeltwirkend, B-T verbunden in Nullstellung, A und P geschlossen 3 Positions, double acting, with B open to T in neutral position, A and P closed |
|  <p>The diagram for valve type 5 shows a cross-section on the left and a schematic on the right. The cross-section labels ports B, P, A, C, and T. The schematic shows three positions: 1 (B to C), 0 (B to T, A and P closed), and 2 (B to A). Arrows indicate flow direction: up for B to C, down for B to T, and a diagonal arrow for B to A in position 0.</p> | |
| 6 | 3 Positionen, doppeltwirkend, A-T verbunden in Nullstellung, B und P geschlossen 3 Positions, double acting, with A open to T in neutral position, B and P closed |
|  <p>The diagram for valve type 6 shows a cross-section on the left and a schematic on the right. The cross-section labels ports B, P, A, C, and T. The schematic shows three positions: 1 (B to C), 0 (A to T, B and P closed), and 2 (B to A). Arrows indicate flow direction: up for B to C, down for A to T, and a diagonal arrow for B to A in position 0.</p> | |


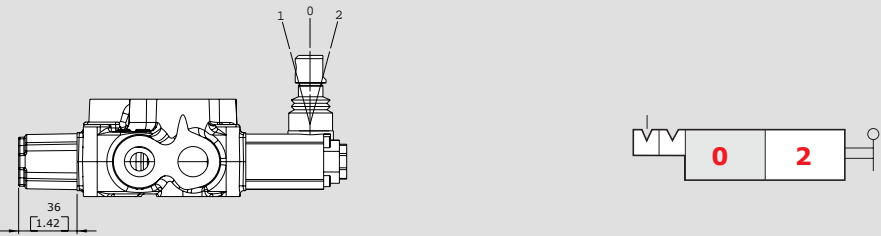
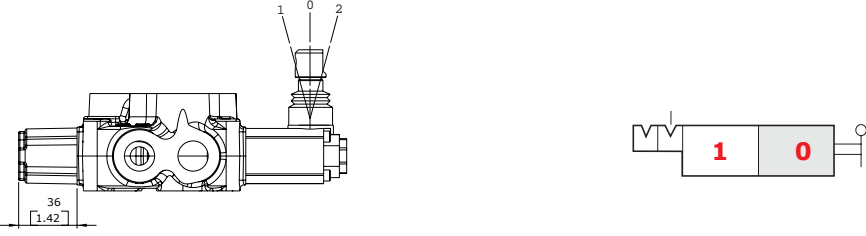
Schaltbilder | Spool Options

| Typ Type | Beschreibung Description |
|--|--|
| 7 | 3 Positionen, einfachwirkend an A, A-T verbunden, P geschlossen, B verschlossen 3 Positions, single acting on A, A open to T in neutral position, P closed, B plugged |
|  <p>The diagram for valve type 7 shows a cross-section of the valve with ports labeled B, P, A, C, and T. The schematic to the right shows three positions: 1 (P to T), 0 (A to T, P closed, B plugged), and 2 (A to T, P closed, B plugged).</p> | |
| 8 | 3 Positionen, einfachwirkend an B, B-T verbunden, P geschlossen, A verschlossen 3 Positions, single acting on B, B open to T in neutral position, P closed, A plugged |
|  <p>The diagram for valve type 8 shows a cross-section of the valve with ports labeled B, P, A, C, and T. The schematic to the right shows three positions: 1 (B to T, P closed, A plugged), 0 (B to T, P closed, A plugged), and 2 (B to T, P closed, A plugged).</p> | |
| 9 | 3 Positionen, doppelwirkend, A-B-P-T geschlossen in Nullstellung 3 Positions, double acting, with A-B-P-T closed in neutral position (Closed center) |
|  <p>The diagram for valve type 9 shows a cross-section of the valve with ports labeled B, P, A, C, and T. The schematic to the right shows three positions: 1 (A to B, P to T), 0 (A-B-P-T closed), and 2 (A to B, P to T).</p> | |




Schaltbilder | Spool Options

| Typ Type | Beschreibung Description |
|--|--|
| 10 | 3 Positionen, doppeltwirkend, A-B-T verbunden, P geschlossen 3 Positions, double acting, A-B open to T, P closed (Closed center) |
|  | |
| Z41 | 4 Positionen, doppeltwirkend, Eilgang in Pos. 3 mit A-B-P verbunden (verbleib in Pos. 1) 4 Positions, double act., regenerative circuit in pos. 3 with P open to A-B (Rest in pos. 1) |
|  | |
| Z42 | 4 Positionen, doppeltwirkend, Eilgang in Pos. 3 mit A-B-P verbunden (verbleib in Pos. 0) 4 Positions, double act., regenerative circuit in pos. 3 with P open to A-B (Rest in pos. 0) |
|  | |


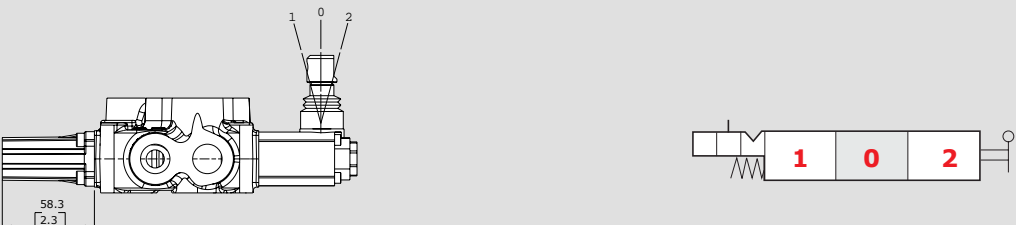

Positionierer B | B Side Spool Positioners

| Typ Type | Beschreibung Description |
|--|--|
| 6-1 | 3 Positionen, Rastung in Pos. 1-0-2, ohne Federzentrierung 3 Positions, detent in pos. 1-0-2, without spring centered |
|  | |
| 6-2 | 2 Positionen, Rastung in Pos. 0-2, ohne Federzentrierung 2 Positions, detent in pos. 0-2, without spring centered |
|  | |
| 6-3 | 2 Positionen, Rastung in Pos. 1-0, ohne Federzentrierung 2 Positions, detent in pos. 1-2, without spring centered |
|  | |

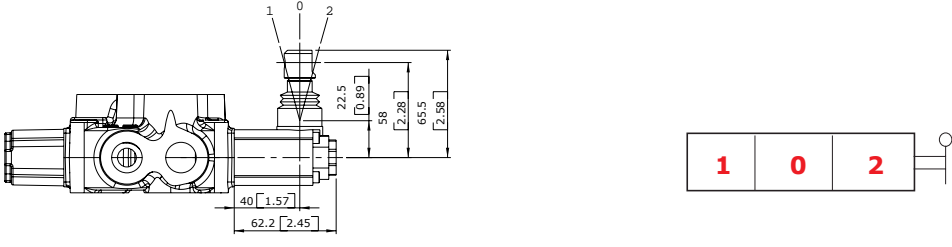
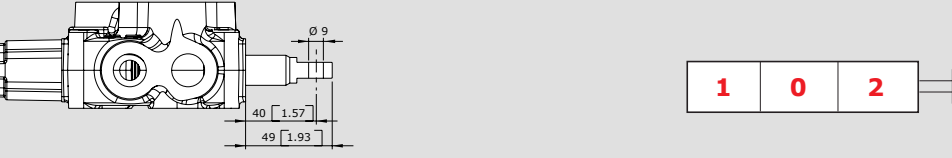

Positionierer B | B Side Spool Positioners

| Typ Type | Beschreibung Description |
|---|---|
| 8 | 3 Positionen, Federzentrierung zur Neutralstellung 3 Positions, spring return to neutral |
|  <p>The technical drawing shows a side view of the valve with dimensions 36 and 1.42. The hand lever is labeled with positions 1, 0, and 2. The schematic shows a spring return to position 0, with positions 1 and 2 highlighted in red.</p> | |
| 8-1 | 2 Positionen, Federzentrierung zur Neutralstellung 2 Positions, spring return to neutral |
|  <p>The technical drawing shows a side view of the valve with dimensions 36 and 1.42. The hand lever is labeled with positions 1, 0, and 2. The schematic shows a spring return to position 0, with positions 1 and 0 highlighted in red.</p> | |
| 8-2 | 2 Positionen, Federzentrierung zur Neutralstellung 2 Positions, spring return to neutral |
|  <p>The technical drawing shows a side view of the valve with dimensions 36 and 1.42. The hand lever is labeled with positions 1, 0, and 2. The schematic shows a spring return to position 0, with positions 0 and 2 highlighted in red.</p> | |

Positionierer B | B Side Spool Positioners

| Typ Type | Beschreibung Description |
|--|---|
| 9-1 | 3 Positionen, Rastung in Pos. 1-2, Federzentrierung 3 Positions, detent in pos. 1-2, spring centered |
|  | |
| 9-2 | 3 Positionen, Rastung in Pos. 2, Federzentrierung 3 Positions, detent in pos. 2, spring centered |
|  | |
| 9-3 | 3 Positionen, Rastung in Pos. 1, Federzentrierung 3 Positions, detent in pos. 1, spring centered |
|  | |

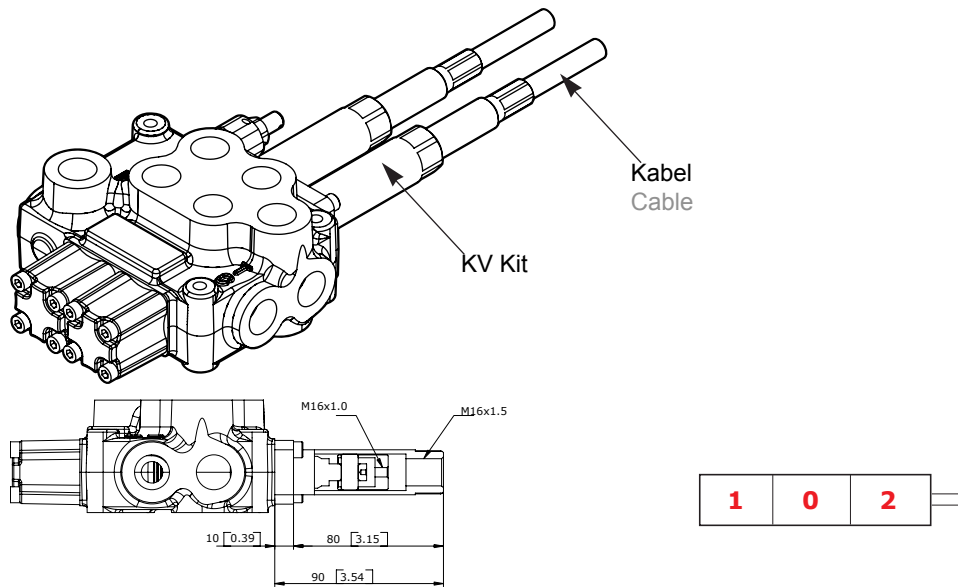
Positionierer A | A Side Spool Positioners

| Typ Type | Beschreibung Description |
|--|--|
| L | Standardhandhebel Standard lever box |
|  <p>Technical drawing of the standard lever box (L) showing dimensions and a 1-0-2 position indicator. Dimensions include: 22.5 [0.89], 58 [2.28], 65.5 [2.58], 40 [1.57], and 62.2 [2.45]. The indicator shows positions 1, 0, and 2.</p> | |
| SL | Ohne Handhebel Without any cover |
|  <p>Technical drawing of the lever box without cover (SL) showing dimensions and a 1-0-2 position indicator. Dimensions include: 40 [1.57], 49 [1.93], and 9 [0.35]. The indicator shows positions 1, 0, and 2.</p> | |
| SPL | Staubschutzplatte, ohne Handhebel With dust-proof plate |
|  <p>Technical drawing of the lever box with dust-proof plate (SPL) showing dimensions and a 1-0-2 position indicator. Dimensions include: 9 [0.35], 40 [1.57], and 48.75 [1.92]. The indicator shows positions 1, 0, and 2.</p> | |

Positionierer A | A Side Spool Positioners

| Typ Type | Beschreibung Description |
|-------------|-----------------------------|
|-------------|-----------------------------|

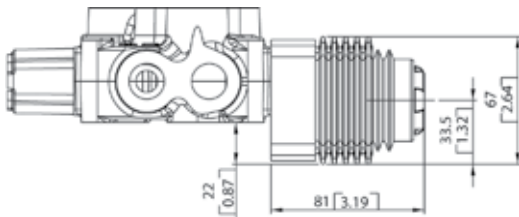
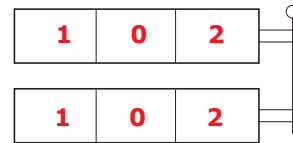
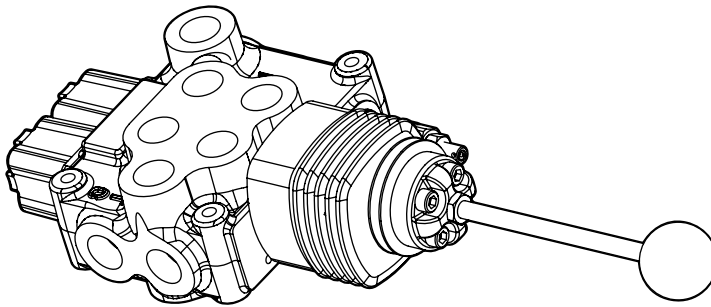
| | |
|-----------|--|
| KV | Flexible Kabelverbindung (beinhaltet keine Kabel) Flexible cable connection (not include cable) |
|-----------|--|



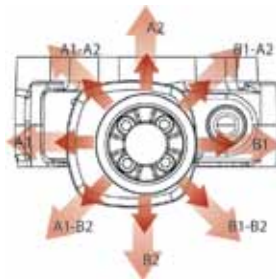
Positionierer A | A Side Spool Positioners

| Typ Type | Beschreibung Description |
|-------------|-----------------------------|
|-------------|-----------------------------|

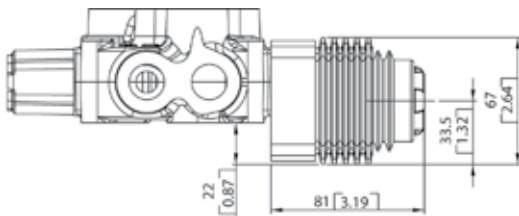
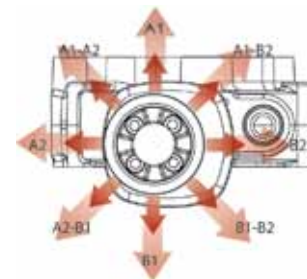
| | |
|------------|----------------------|
| LCB | Joystick Joystick |
|------------|----------------------|



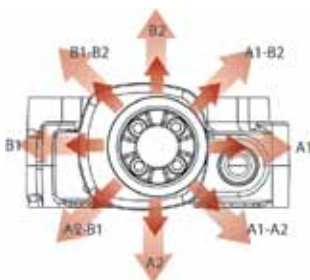
LCB 1



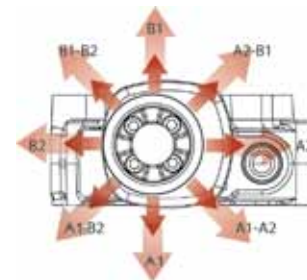
LCB 2



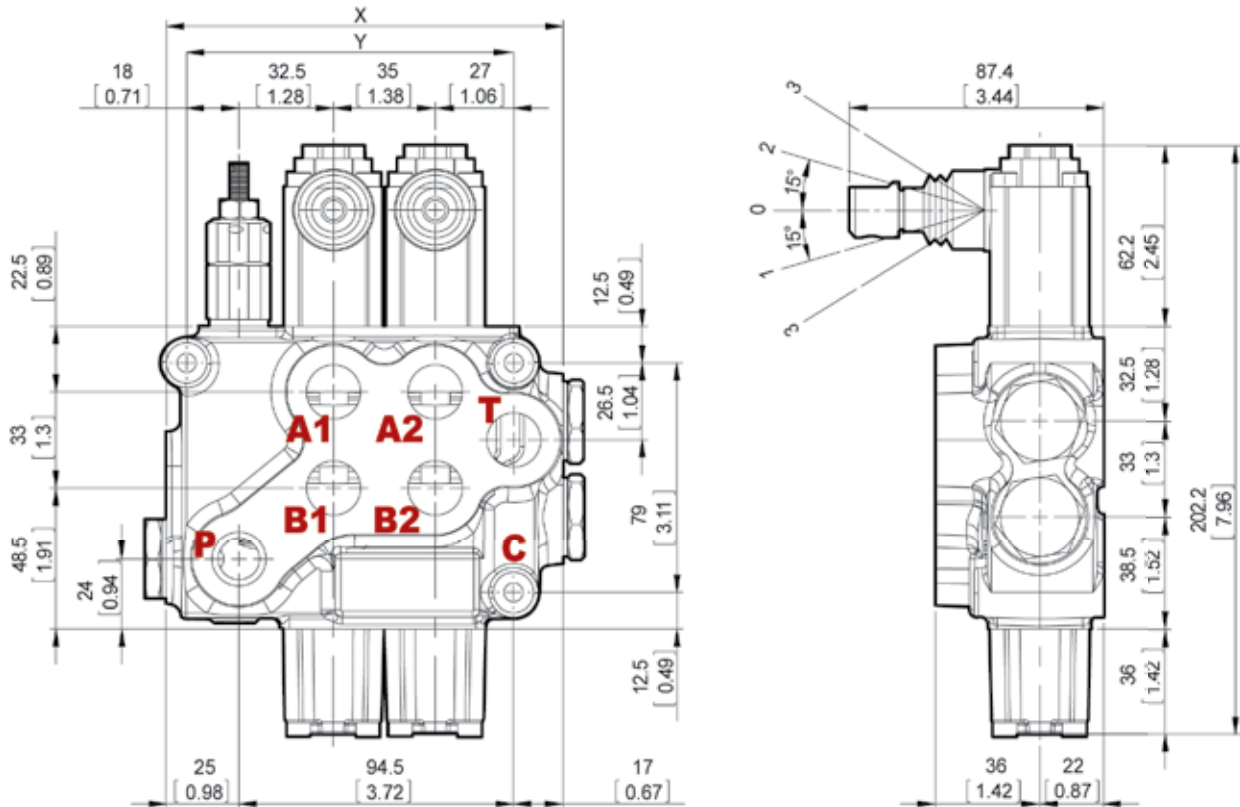
LCB 3



LCB 4



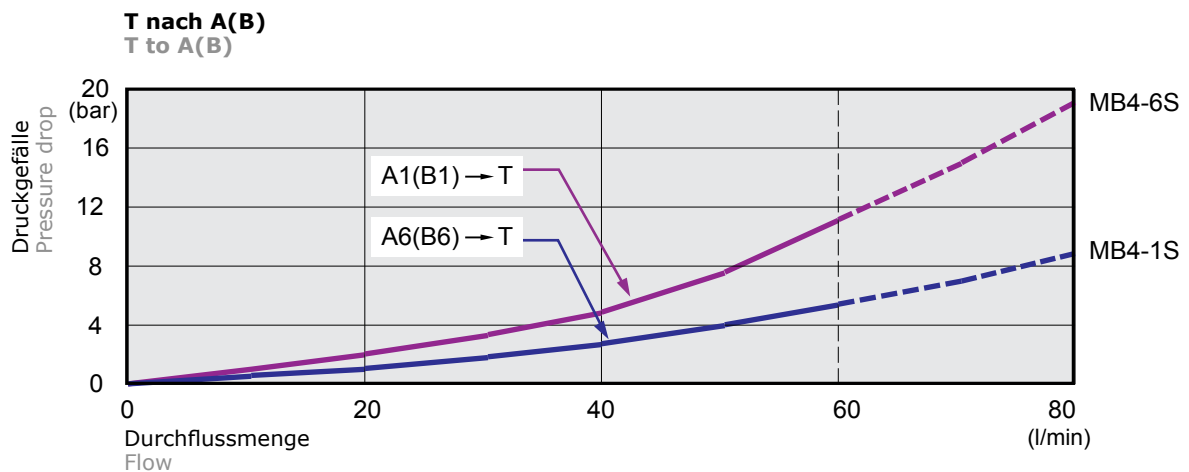
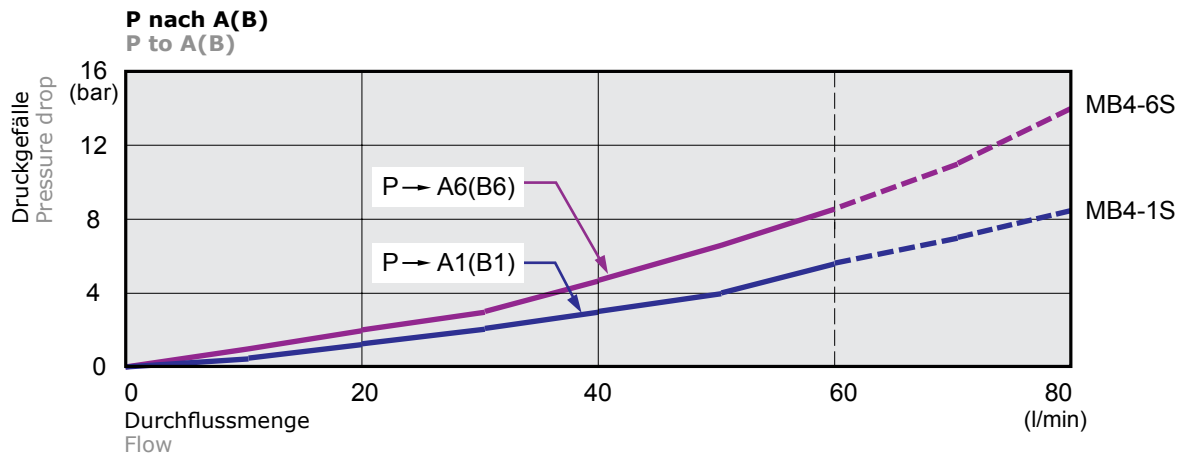
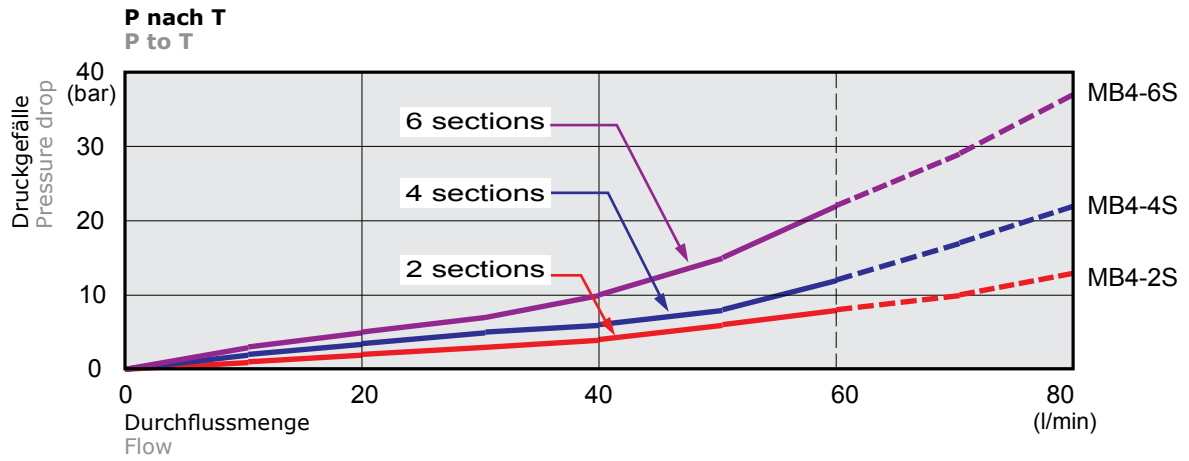
Einbaumaße MB-4 | Dimensions MB-4



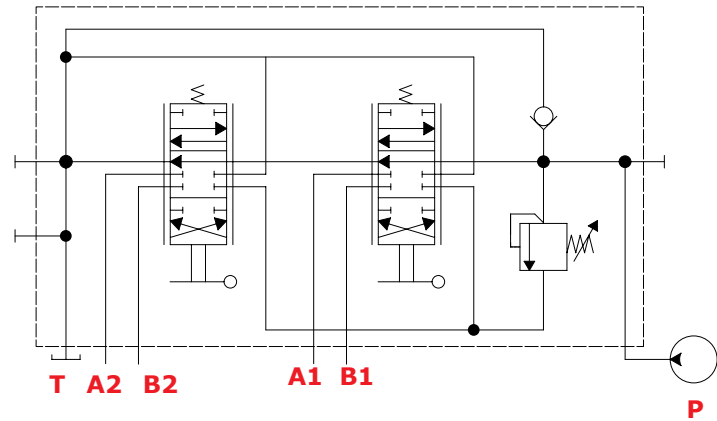
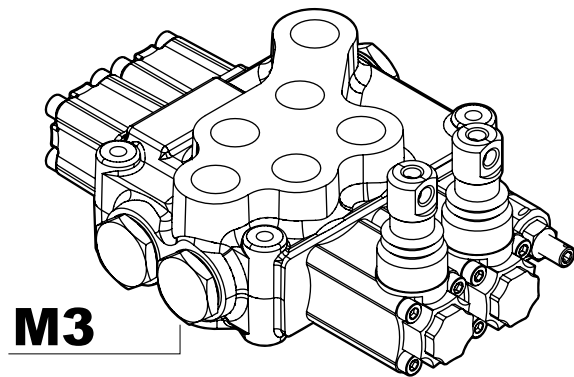
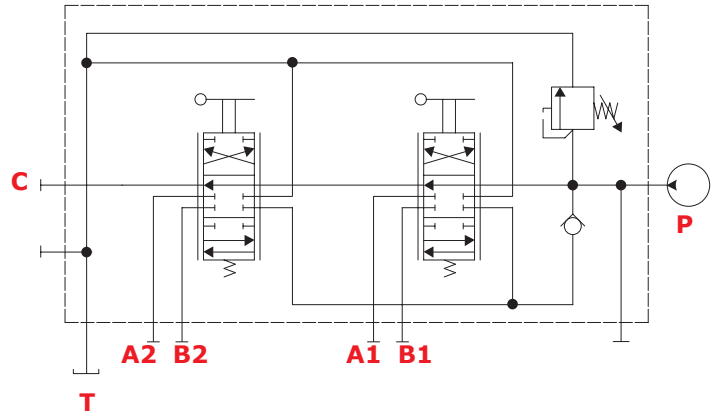
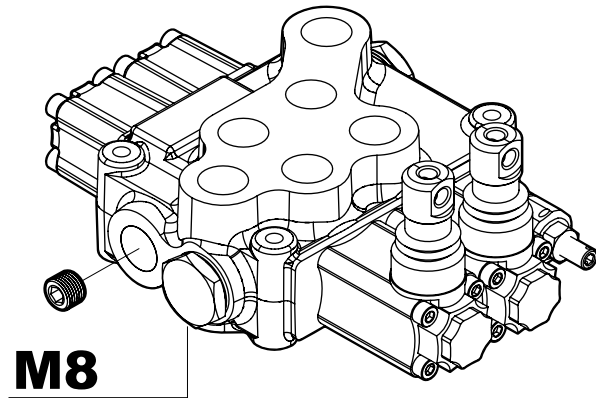
| Typ Type | X | | Y | |
|-------------|-------|-------|-------|------|
| | mm | in | mm | in |
| MB-4/1S | 101.5 | 4 | 73 | 2.87 |
| MB-4/2S | 136.5 | 5.37 | 112.5 | 4.33 |
| MB-4/3S | 171.5 | 6.75 | 147.5 | 5.81 |
| MB-4/4S | 206.5 | 8.13 | 182.5 | 7.19 |
| MB-4/5S | 241.5 | 9.51 | 217.5 | 8.56 |
| MB-4/6S | 276.5 | 10.89 | 252.5 | 9.94 |

| Anschlüsse Ports | P | A / B | T |
|---------------------|-----------------------|-----------------------|-----------------------|
| BSP (standard) | G1/2 | G1/2 | G1/2 |
| UN-UNF | 3/4-16 UNF-2B (SAE 8) | 3/4-16 UNF-2B (SAE 8) | 3/4-16 UNF-2B (SAE 8) |
| Metrisch Metric | M18x1.5 | M18x1.5 | M18x1.5 |

Leistungskurve MB-4 | Performance Curve Chart MB-4



Druckweiterführung MB-4 | Outlet MB-4



Bestellinformation MB-4 | Order Information MB-4

| MB-4 | / | 1 | - | 2 | / | 3 | 4 | 5 | / | 6 |
|------------|---|---|---|---|---|---|---|---|---|---|
| Pos. 1 | Grundkörper Body kits | | | | | | | | | |
| 1S | 1 Sektion 1 Section | | | | | | | | | |
| 2S | 2 Sektion 2 Section | | | | | | | | | |
| 3S | 3 Sektion 3 Section | | | | | | | | | |
| 4S | 4 Sektion 4 Section | | | | | | | | | |
| 5S | 5 Sektion 5 Section | | | | | | | | | |
| 6S | 6 Sektion 6 Section | | | | | | | | | |
| Pos. 2 | Einlassventil Inlet relief | | | | | | | | | |
| 3 | 63 bis 200 Bar, Standardeinstellung 120 Bar 63 to 200 Bar, standard setting 120 Bar | | | | | | | | | |
| 4 | 160 bis 315 Bar, Standardeinstellung 220 Bar 160 to 315 Bar, standard setting 220 Bar | | | | | | | | | |
| VS | Verschlussstopfen Blanking port | | | | | | | | | |
| Pos. 3* | Schaltbilder Spool options | | | | | | | | | |
| 1 | 3 Positionen, doppeltwirkend, A-B geschlossen 3 positions, double acting, A-B closed | | | | | | | | | |
| 2 | 3 Positionen, doppeltwirkend, A-B-T verbunden 3 positions, double acting, A-B open to T | | | | | | | | | |
| 3 | 3 Positionen, einfachwirkend an A, A geschl., B verschl. 3 positions, single action on A, A closed, B plugged | | | | | | | | | |
| 4 | 3 Positionen, einfachwirkend an B, B geschl., A verschl. 3 positions, single action on B, B closed, A plugged | | | | | | | | | |
| 5 | 3 Positionen, doppeltwirkend, B-T verbunden, A-P geschl. 3 positions, double acting, B open to T, A-P closed | | | | | | | | | |
| 6 | 3 Positionen, doppeltwirkend, A-T verbunden, B-P geschl. 3 positions, double acting, B open to T, A-P closed | | | | | | | | | |
| 7 | 3 Positionen, einfachwirkend an A, A-T verb., B geschl. 3 positions, single acting on A, A open to T, B plugged | | | | | | | | | |
| 8 | 3 Positionen, einfachwirkend an B, B-T verb., A verschl. 3 positions, single action on B, B open to T, A plugged | | | | | | | | | |
| 9 | 3 Positionen, doppeltwirkend, A-B-P-T geschlossen 3 positions, double acting, A-B-P-T closed | | | | | | | | | |
| 10 | 3 Positionen, doppeltwirkend, A-B-T verb., P geschl. 3 positions, double acting, A-B open to T, P closed | | | | | | | | | |
| Z41 | 4 Positionen, doppeltwirkend, Eilgang, Nullstellung in Pos. 1 4 positions, double acting, regenerative circuit, Rest in Pos. 1 | | | | | | | | | |
| Z42 | 4 Positionen, doppeltwirkend, Eilgang, Nullstellung in Pos. 0 4 positions, double acting, regenerative circuit, Rest in Pos. 0 | | | | | | | | | |

| | | | | | | | | | | |
|--------------|--|--|--|--|--|--|--|--|--|--|
| Pos. 4* | Positionierer B B Side spool positioners | | | | | | | | | |
| 6-1 | 3 Positionen, Rastung in Pos. 1-0-2 3 Positions, detent in pos. 1-0-2 | | | | | | | | | |
| 6-2 | 2 Positionen, Rastung in Pos. 0-2 2 Positions, detent in pos. 0-2 | | | | | | | | | |
| 6-3 | 2 Positionen, Rastung in Pos. 1-0 2 Positions, detent in pos. 1-0 | | | | | | | | | |
| 8 | 3 Pos., Federzentrierung zur Neutralstellung 3 Positions, spring return to neutral | | | | | | | | | |
| 8-1 | 2 Pos., Federzentrierung zur Neutralstellung 2 Positions, spring return to neutral | | | | | | | | | |
| 8-2 | 2 Pos., Federzentrierung zur Neutralstellung 2 Positions, spring return to neutral | | | | | | | | | |
| 9-1 | 3 Positionen, Rastung in Pos. 1-2, Federzentr. 3 Positions, detent in pos. 1-2, spring center | | | | | | | | | |
| 9-2 | 3 Positionen, Rastung in Pos. 2, Federzentr. 3 Positions, detent in pos. 2, spring center | | | | | | | | | |
| 9-3 | 3 Positionen, Rastung in Pos. 1, Federzentr. 3 Positions, detent in pos. 1, spring center | | | | | | | | | |
| Pos. 5* | Positionierer A A Side spool positioners | | | | | | | | | |
| L | Standardhebel Standard lever box | | | | | | | | | |
| SL | ohne Handhebel Without any cover | | | | | | | | | |
| SPL | Staubschutzplatte, ohne Handhebel With dust-proof plate | | | | | | | | | |
| KV | Flexible Kabelverbindung Flexible cable connection | | | | | | | | | |
| LCB | Joystick Joystick | | | | | | | | | |
| Pos. 6 | Anschluss Port | | | | | | | | | |
| G-4 | G1/2 G1/2 | | | | | | | | | |
| SAE 8 | 3/4-16 UNF-2B 3/4-16 UNF-2B | | | | | | | | | |
| M18 | M18x1.5 M18x1.5 | | | | | | | | | |

***Bei Bestellung ab 2 Sektionen bitte folgendes berücksichtigen:**

Wenn ein unterschiedlicher Aufbau der einzelnen Sektionen benötigt wird, muss Pos. 3 + Pos. 4 + Pos. 5 erneut angegeben werden!

***Please note for orders starting from 2 sections:**

If different sections needed, please indicate Pos. 3 + Pos. 4 + Pos. 5 again!

