

| KOMPETENZ, DIE ANTREIBT

Handsteuerventil LMBV-4/ Manual control valve LMBV-4



HANDSTEUERVENTIL LMBV-4

MANUAL CONTROL VALVE LMBV-4

Merkmale

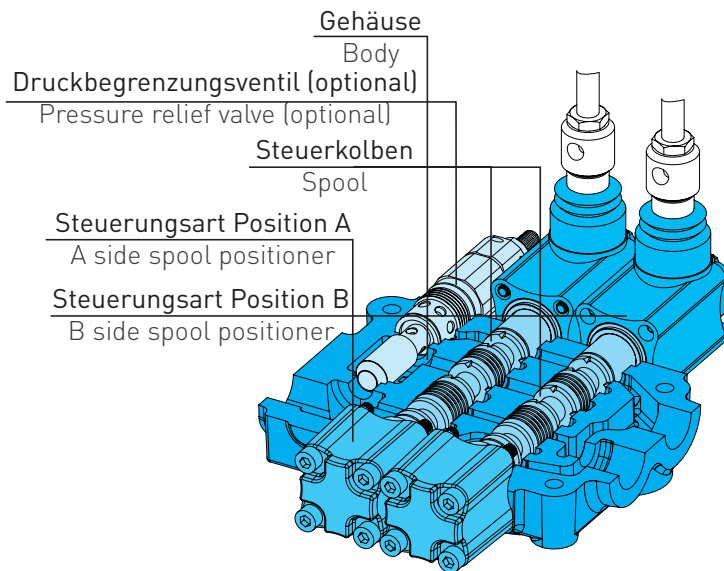
- Kompakte Bauweise
- Geringe Druckverluste
- Lange Lebensdauer und hoher Leistungsgrad
- Verschiedene Anschlussmöglichkeit und Schaltbilder
- Langfristige Präzision

Characteristics

- Compact construction
- Low pressure drop
- Long service life and efficiency
- Various ports and circuits
- Long term accuracy

| | | | |
|--|---------------------------------------|--------------|---|
| Max. Ölstrom Flow rate | | lpm [GPM] | 60 [16] |
| Max. Betriebsdruck Max. operating pressure | Parallelschaltung Parallel circuit | bar [PSI] | 315 [4600] |
| | Reihenschaltung Series circuit | bar [PSI] | 210 [3050] |
| Max. Gegendruck am Anschluss T Max. back pressure on port T | | bar [PSI] | 25 [360] |
| Temperaturbereich Betriebsmedium (Dichtungsmaterial) Fluid temperature range (Sealing material) | | °C [°F] | -20 - 80 (NBR) / -20 - 100 (FPM) [-4 - 176 (NBR) / -4 - 212 (FPM)] |
| Viskosität Viscosity | Empfohlen Recommended | | 15 - 75 |
| | Min. | | 12 |
| | Max. | | 400 |
| Umgebungstemperatur Ambient temperature | | °C [°F] | -40 - 60 [-40 - 140] |

AUFBAU CONSTRUCTION



HANDSTEUERVENTIL LMBV-4

MANUAL CONTROL VALVE LMBV-4

| | | | | | | | |
|------|---|---|---|---|---|---|---|
| LMBV | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|------|---|---|---|---|---|---|---|

| | |
|--------|---|
| Pos. 1 | Gehäuse * Body * |
| ... S | Anzahl Sektionen (max. 6 Sektionen) Number of sections (max. 6 sections) |

| | |
|--------|--|
| Pos. 2 | Druckbegrenzungsventil Pressure relief valve |
| 2 | 40 bis 80 bar [580 - 1150 PSI], Standardeinstellung 80 bar [1150 PSI] 40 to 80 bar [580 - 1150 PSI], standard setting 80 bar [1150 PSI] |
| 3 | 63 bis 200 bar [900 - 2900 PSI], Standardeinstellung 120 bar [1750 PSI] 63 to 200 bar [900 - 2900 PSI], standard setting 120 bar [1750 PSI] |
| 4 | 160 bis 315 bar [2300 - 4600 PSI], Standardeinstellung 220 bar [3200 PSI] 160 to 315 bar [2300 - 4600 PSI], standard setting 220 bar [3200 PSI] |
| VS | Ohne / mit Verschlussstopfen Without / with blanking plug |

| | |
|--------|---|
| Pos. 3 | Schaltbild Graphic symbol |
| 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-T connected |
| 3 | 3 Positionen, einfachwirkend an A 3 positions, single acting on A |
| 4 | 3 Positionen, einfachwirkend an B 3 positions, single acting on B |
| 5 | 3 Positionen, doppeltwirkend, B-T verbunden, A-P geschlossen 3 positions, double acting, B-T connected, A-P closed |
| 6 | 3 Positionen, doppeltwirkend, A-T verbunden, B-P geschlossen 3 positions, double acting, A-T connected, B-P closed |
| 7 | 3 Positionen, einfachwirkend an A, A-T verbunden, B geschlossen 3 positions, single acting on A, A-T connected, B closed |
| 8 | 3 Positionen, einfachwirkend an B, B-T verbunden, A geschlossen 3 positions, single acting on B, B-T connected, A closed |
| 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 verbunden, P geschlossen 3 positions, double acting, A-B-T connected, P closed |
| DY | 4 Positionen, doppeltwirkend, Schwimmstellung in Pos. 3 (A-B-T verbunden) 4 positions, double acting, floating circuit in Pos. 3 (A-B-T connected) |
| PYX | 4 Pos., doppeltwirkend, Schwimmstellung in Pos. 3 (A-B-T verbunden) + RSV 4 pos., double acting, floating circuit in Pos. 3 (A-B-T connected)+ check valve |
| PY | 4 Positionen, doppeltwirkend, Schwimmstellung in Pos. 3 (A-B-T verbunden) 4 positions, double acting, floating circuit in Pos. 3 (A-B-T connected) |
| Z41 | 4 Positionen, doppeltwirkend, Eilgang, Nullstellung in Position 1 4 positions, double acting, regenerative circuit, rest in position 1 |
| Z42 | 4 Positionen, doppeltwirkend, Eilgang, Nullstellung in Position 0 4 positions, double acting, regenerative circuit, rest in position 0 |

| | |
|----------|--|
| Pos. 4 | Steuerungsart Position B B side spool positioner |
| 6-1 | 3 Positionen, Rastung in Position 1-0-2 3 positions, detent in position 1-0-2 |
| 6-2 | 2 Positionen, Rastung in Position 0-2 2 positions, detent in position 0-2 |
| 6-3 | 2 Positionen, Rastung in Position 1-0 2 positions, detent in position 1-0 |
| 8 | 3 Positionen, Federzentriert 3 positions, spring centered |
| 8-1 | 2 Positionen, Federzentriert 2 positions, spring centered |
| 8-2 | 2 Positionen, Federzentriert 2 positions, spring centered |
| 9-1 | 3 Positionen, Rastung in Position 1-2, Federzentriert 3 positions, detent in position 1-2, spring centered |
| 9-2 | 3 Positionen, Rastung in Position 2, Federzentriert 3 positions, detent in position 2, spring centered |
| 9-3 | 3 Positionen, Rastung in Position 1, Federzentriert 3 positions, detent in position 1, spring centered |
| D2 | 3 Positionen, Federzentriert und M8-Gewinde 3 positions, spring centered and M8 male thread |
| EP3 | 3 Positionen, Elektro-pneumatische Steuerung 3 positions, electro-pneumatic actuator |
| P | 3 Positionen, Pneumatische Steuerung 3 positions, pneumatic actuator |
| MG1 (NO) | 3 Positionen, Mikroschalter in Pos. 1, stromlos offen 3 positions, Microswitch in pos. 1, normally open |
| MG2 (NO) | 3 Positionen, Mikroschalter in Pos. 2, stromlos offen 3 positions, Microswitch in pos. 2, normally open |
| MG3 (NO) | 3 Positionen, Mikroschalter in Pos. 1+2, stromlos offen 3 positions, Microswitch in pos. 1+2, normally open |
| MG1 (NC) | 3 Positionen, Mikroschalter in Pos. 1, stromlos geschlossen 3 positions, Microswitch in pos. 1, normally closed |
| MG2 (NC) | 3 Positionen, Mikroschalter in Pos. 1, stromlos geschlossen 3 positions, Microswitch in pos. 1, normally closed |
| MG3 (NC) | 3 Positionen, Mikroschalter in Pos. 1, stromlos geschlossen 3 positions, Microswitch in pos. 1, normally closed |
| ES ... | Elektro-Hydraulische Steuerung (12/24V DC) Electro-hydraulic control (12/24V DC) |

| | |
|--------|---|
| Pos. 5 | Steuerungsart Position A A side spool positioner |
| L | Standardhebel Standard lever box |
| SL | Ohne Handhebel Without any cover |
| SPL | Staubschutzplatte, ohne Handhebel With dust-proof plate, without lever |
| TQ | Flexible Kabelverbindung Flexible cable connection |
| LCB | Joystick Joystick |

*Bei Bestellung ab 2 Sektionen bitte folgendes beachten:
Wenn ein unterschiedliche Sektionen benötigt werden, müssen die Positionen 3, 4 und 5 erneut angegeben werden!

*Please note for orders starting from 2 sections:
If different sections needed, please indicate positions 3, 4 and 5 again!

| Pos. 6 | Anschlüsse Ports |
|-----------|---------------------|
| G-3 | G 3/8" BSPP |
| G-4 | G 1/2" BSPP |
| G-6 | G 3/4" BSPP |
| E8 | 3/4-16 UNF-2B |
| E10 | 7/8-14 UNF-2B |
| E12 | 1 1/16-12 UNF-2B |

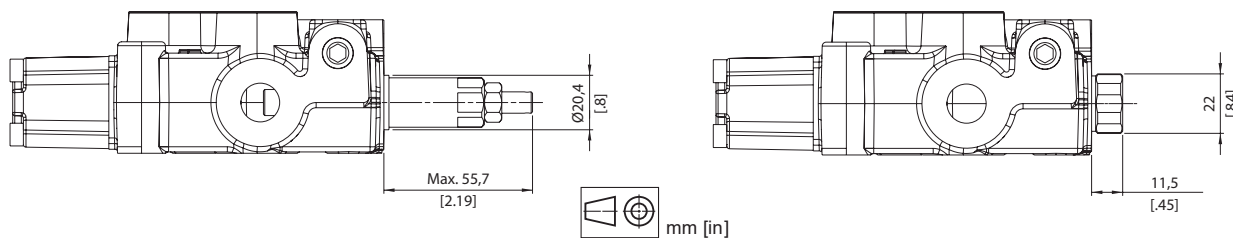
| | |
|-----|------------------|
| E16 | 1 5/16-12 UNF-2B |
| M18 | M18x1,5 |

| Pos. 7 | Druckweiterführungsstopfen Power beyond conversion plug |
|-----------|--|
| M8 | Mit Stopfen With plug |
| M3 | Ohne Stopfen Without plug |

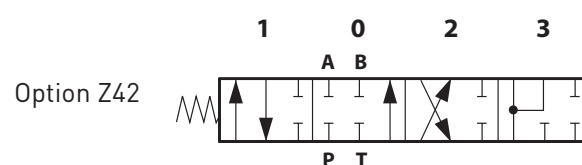
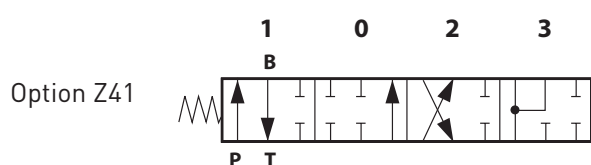
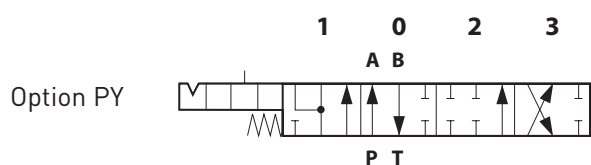
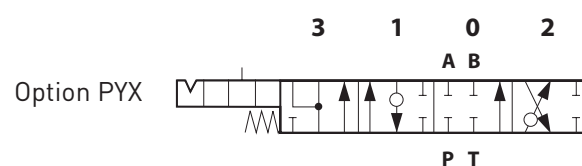
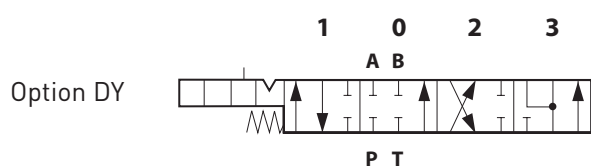
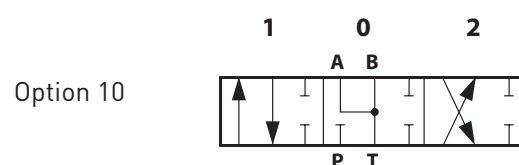
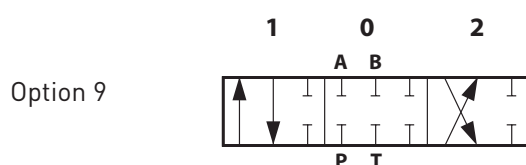
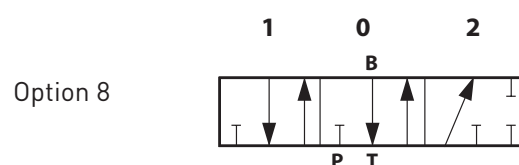
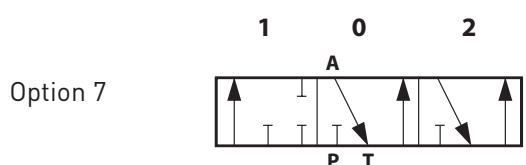
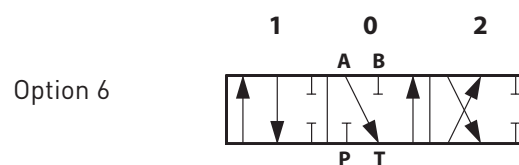
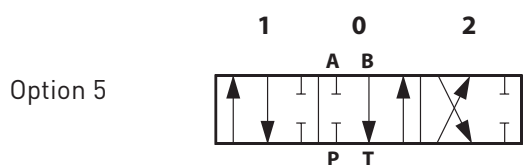
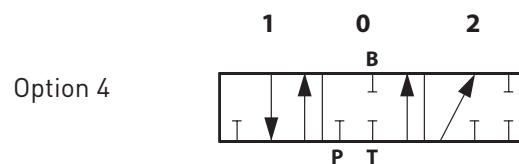
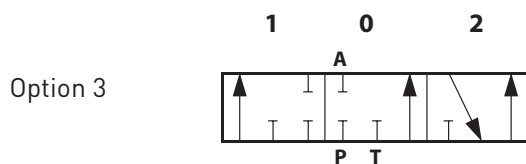
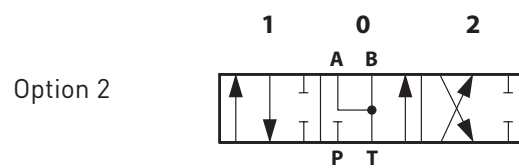
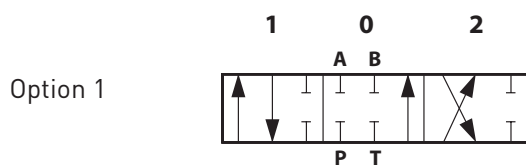
DRUCKBEGRENZUNGSVENTIL PRESSURE RELIEF VALVE

Option 2, 3 + 4: Mit Druckbegrenzungsventil
Option 2, 3 + 4: With pressure relief valve

Option VS: Ohne Druckbegrenzungsventil
Option VS: Without pressure relief valve

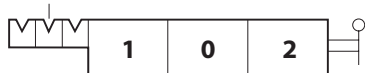


SCHALTBILD GRAPHIC SYMBOL

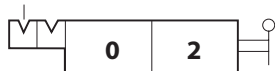


STEUERUNGSART POSITION B B SIDE SPOOL POSITIONER

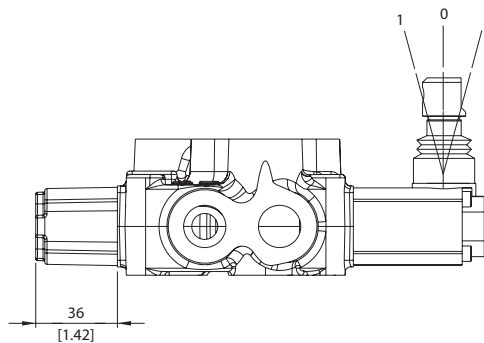
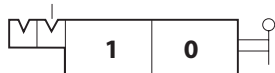
Option 6-1



Option 6-2



Option 6-3



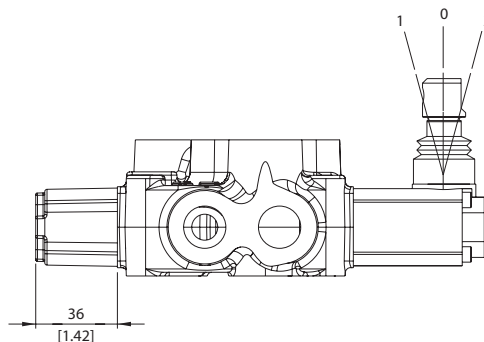
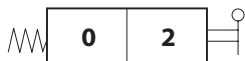
Option 8



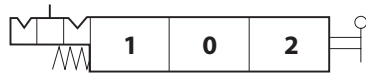
Option 8-1



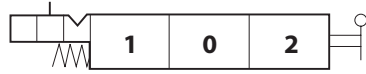
Option 8-2



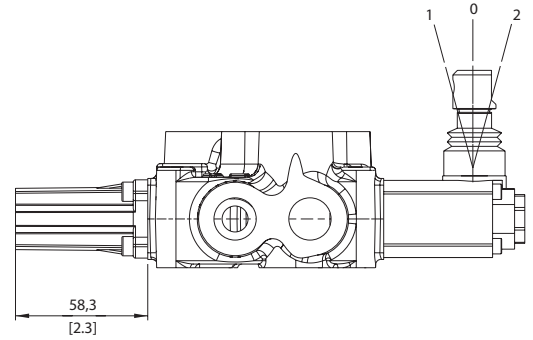
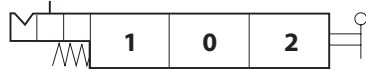
Option 9-1



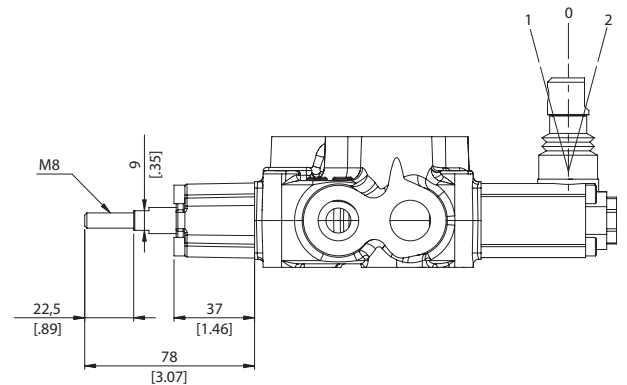
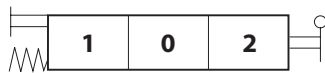
Option 9-2



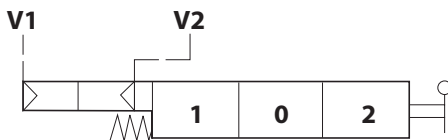
Option 9-3



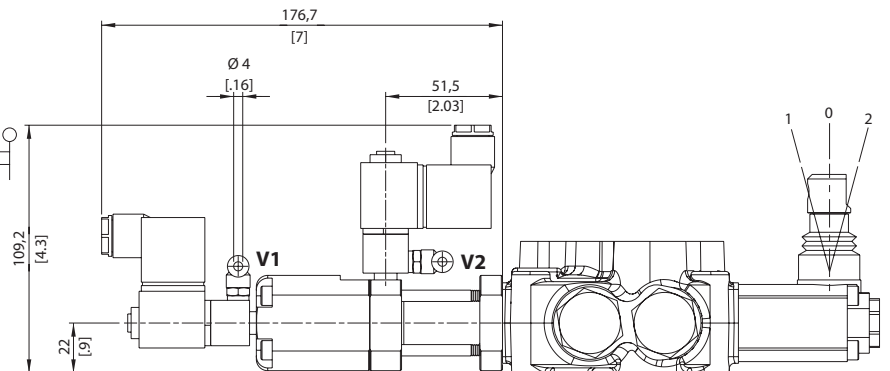
Option D2



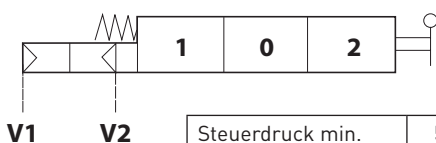
Option EP3



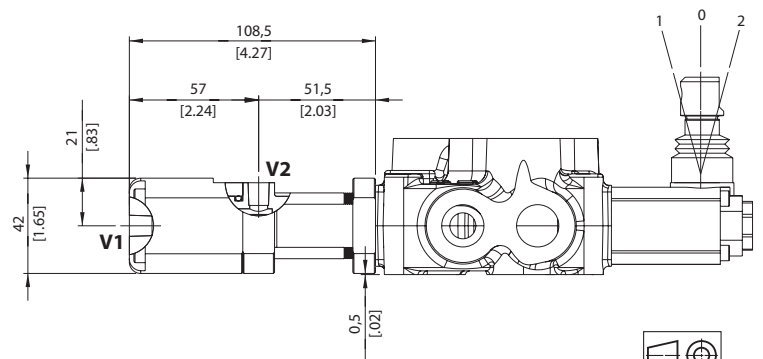
| | |
|---------------------------------|--------|
| Nennspannung Nominal Voltage | 24V DC |
| Toleranz Tolerance | ± 10% |
| Nennleistung Power rating | 5W |



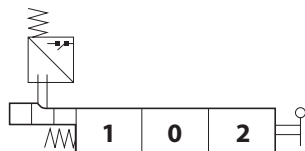
Option P



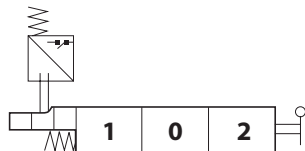
| | |
|--|-------------------|
| Steuerdruck min. Pilot pressure min. | 5,5 bar 80 PSI |
| Steuerdruck max. Pilot pressure max. | 10 bar 145 PSI |
| Anschlussgröße V1, V2 Port size V1, V2 | 1/8-27 NPT |



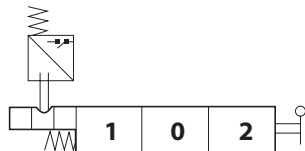
Option MG1(N0)



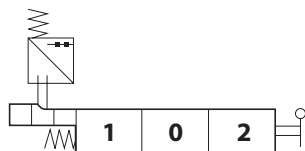
Option MG2(N0)



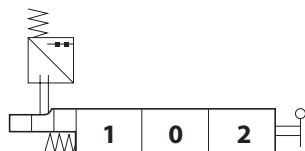
Option MG3(N0)



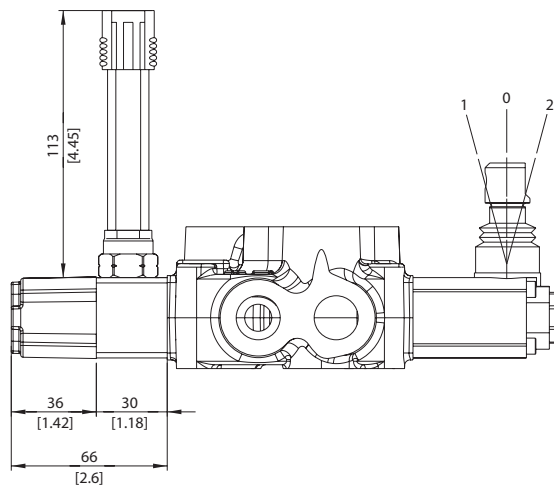
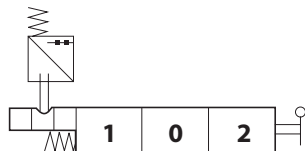
Option MG1(NC)



Option MG2(NC)

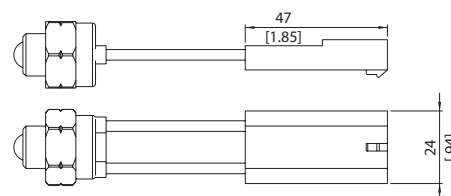


Option MG3(NC)

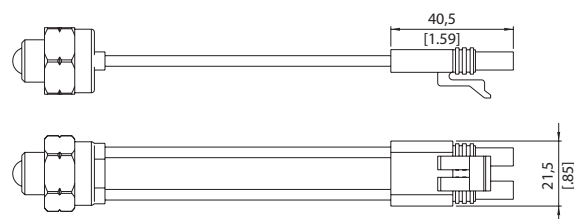


Induktive Belastung 7A/13,5V DC - 10A / 12V DC - 3A / 28V DC
Resistive load

NO-Kontakt (weiblicher Verbinder mit männlichem Ende)
NO-contact (female connector with male end)

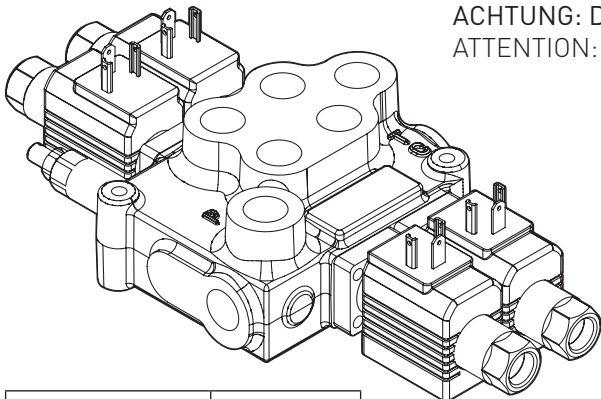


NC-Kontakt (männlicher Verbinder mit weiblichem Ende)
NC-contact (male connector with female end)



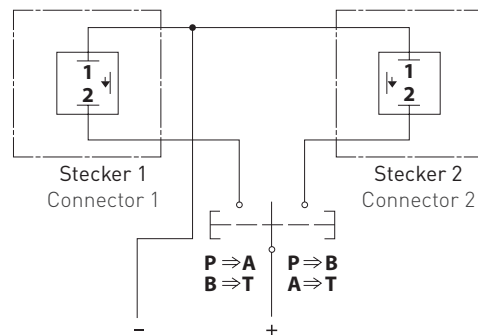
Option ES ...

ACHTUNG: Dieses Ventil ist nur mit Schaltbild Option 1 und 2 erhältlich
 ATTENTION: This valve is only available with graphic symbol option 1 and 2



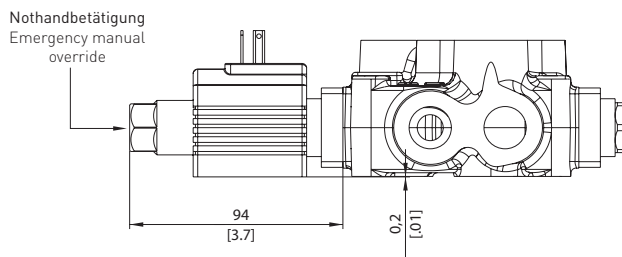
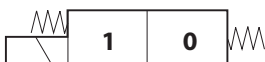
| | |
|-------------------------------------|-------------|
| Standardspannung Nominal Voltage | 12 / 24V DC |
| Toleranz Tolerance | ± 10% |
| Nennleistung Power rating | 36W |

Verkabelungsbeispiel
 Electric wiring example



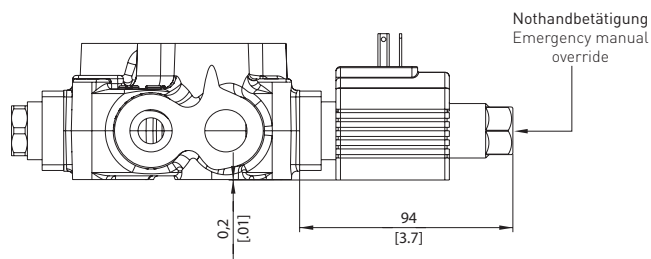
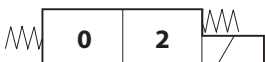
Bestellcode: ES-1

Ordercode: ES-1



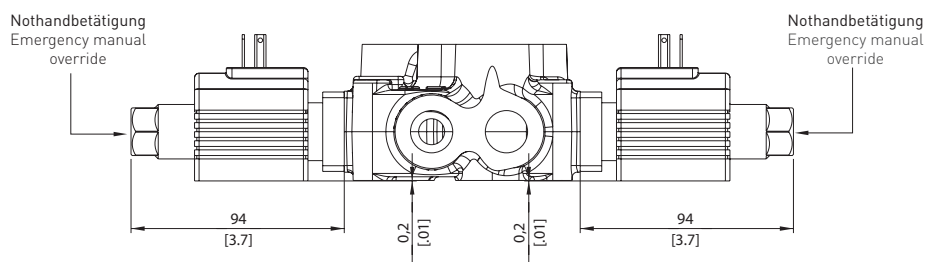
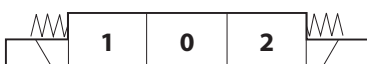
Bestellcode: ES-2

Ordercode: ES-2



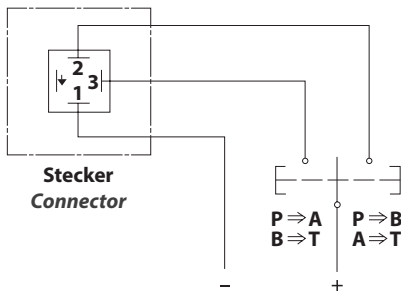
Bestellcode: ES-3

Ordercode: ES-3

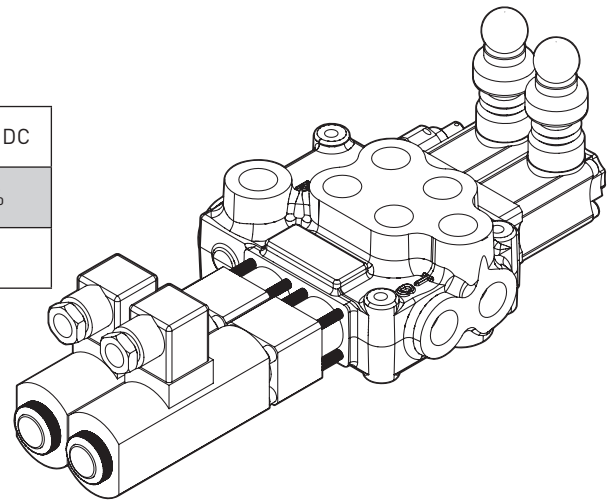


Option ESN ...

Verkabelungsbeispiel
Electric wiring example

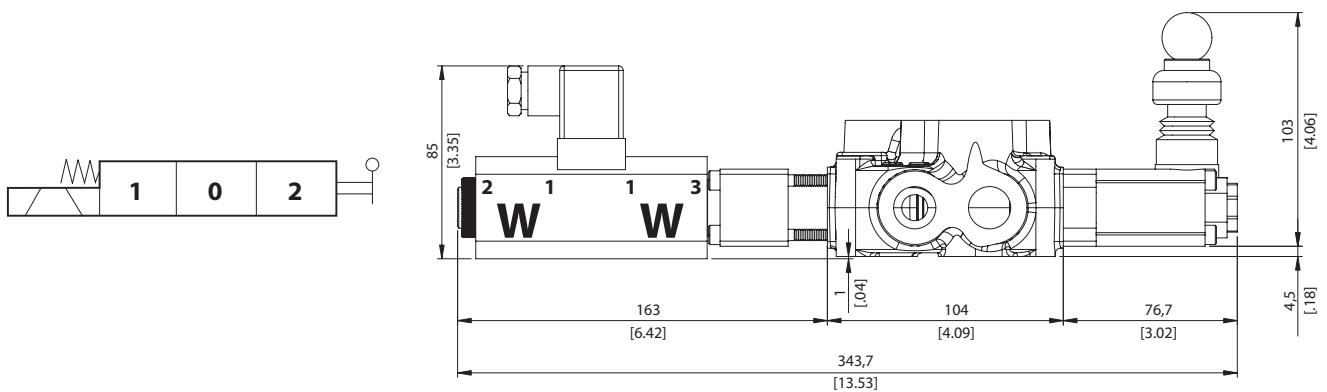


| | |
|-------------------------------------|-------------|
| Standardspannung Nominal Voltage | 12 / 24V DC |
| Toleranz Tolerance | ± 10% |
| Nennleistung Power rating | 60W |

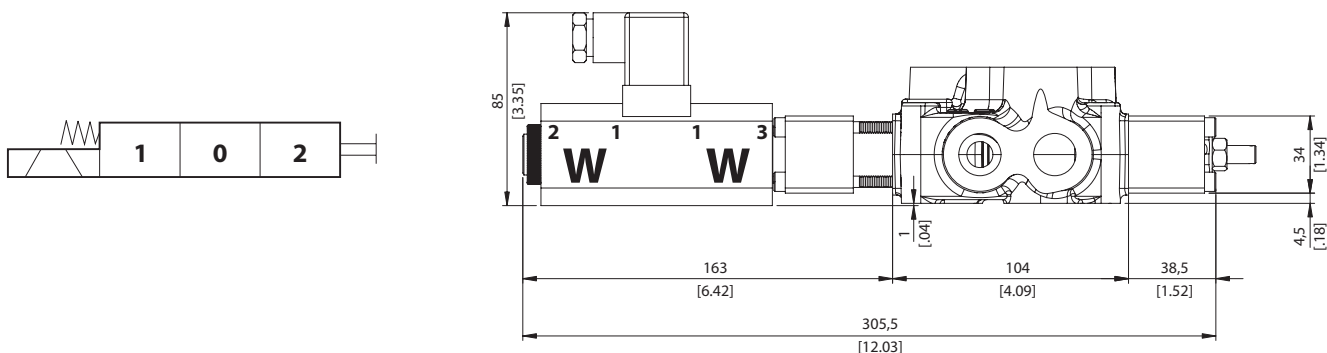


ACHTUNG: Dieses Ventil ist nur mit Schaltbild Option 1 und 2 erhältlich
ATTENTION: This valve is only available with graphic symbol option 1 and 2

Bestellcode: ESNLES
Ordercode: ESNLES

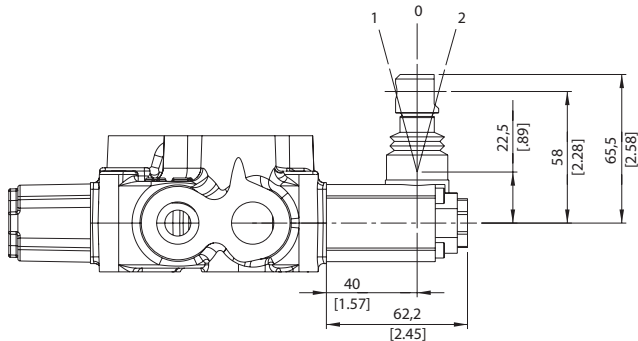


Bestellcode: ESNCAE
Ordercode: ESNCAE

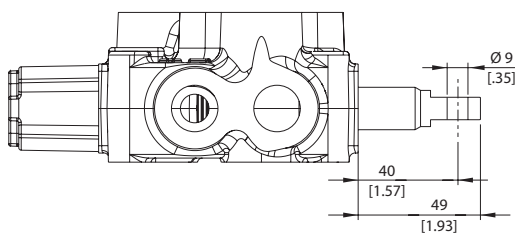


STEUERUNGSART POSITION A A SIDE SPOOL POSITIONER

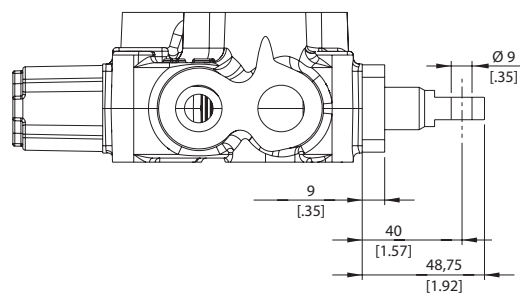
Option L: Standardhandhebel
Option L: Standard lever box



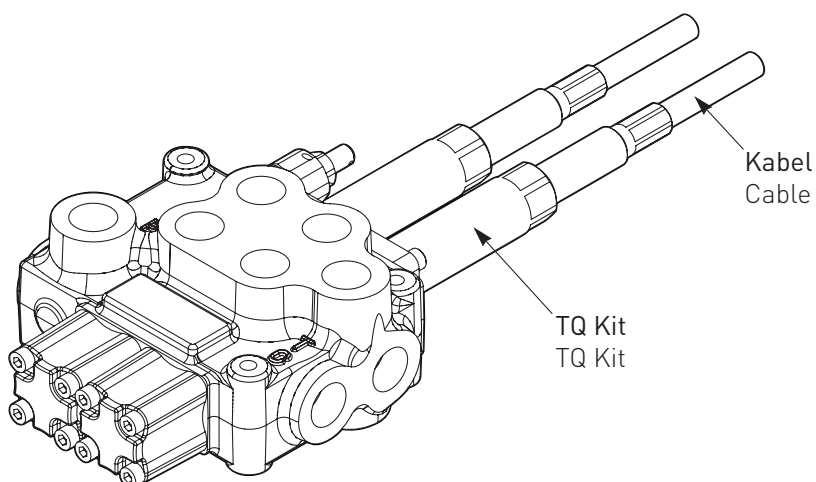
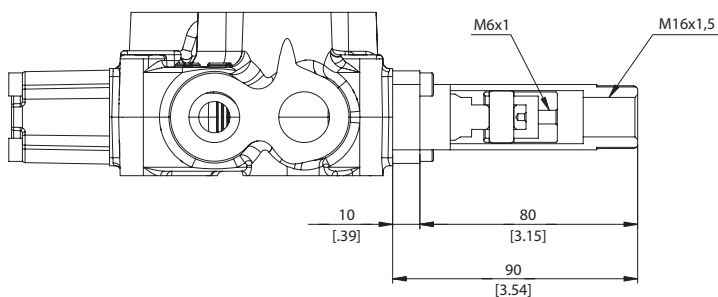
Option SL: Ohne Handhebel
Option SL: Without any cover



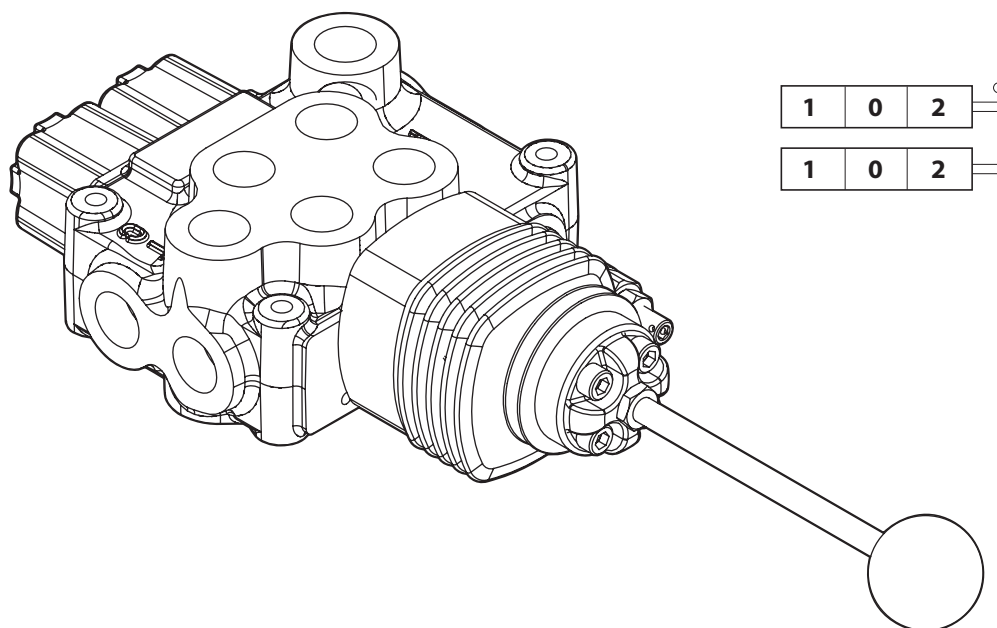
Option SPL: Staubschutzplatte, ohne Handhebel
Option SPL: With dust-proof plate, without lever



Option TQ: Flexible Kabelverbindung (ohne Kabel)
Option TQ: Flexible cable connection (cable not included)

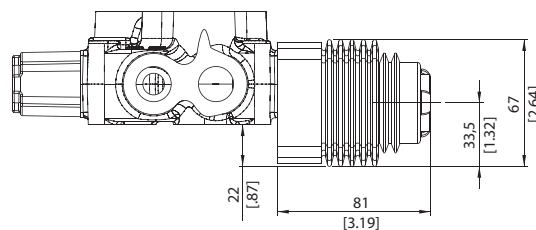
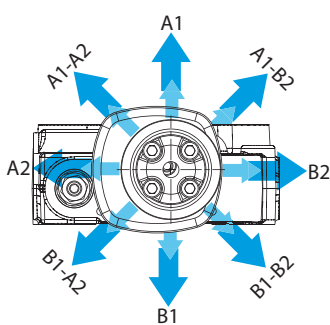
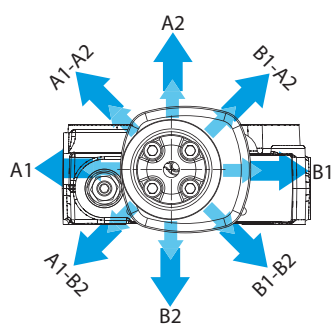


Option LCB: Joystick
 Option LCB: Joystick



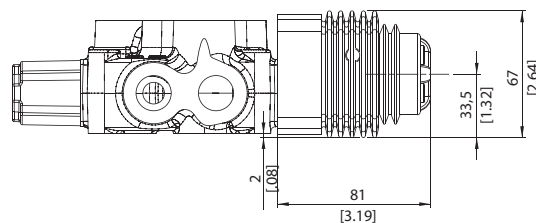
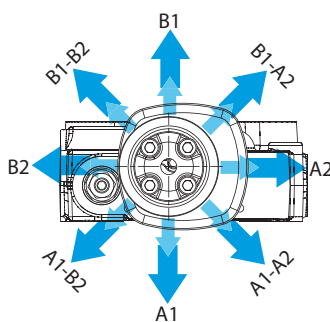
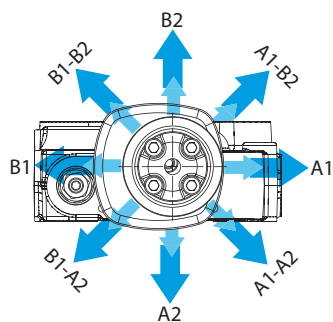
Bestellcode: LCB 1
 Ordercode: LCB 1

Bestellcode: LCB 2
 Ordercode: LCB 2



Bestellcode: LCB 3
 Ordercode: LCB 3

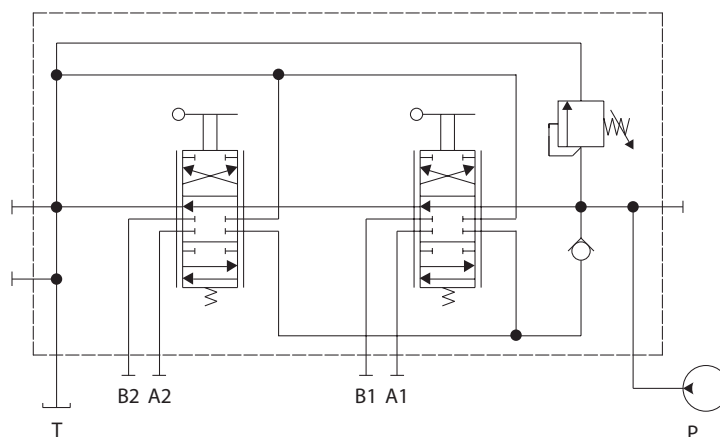
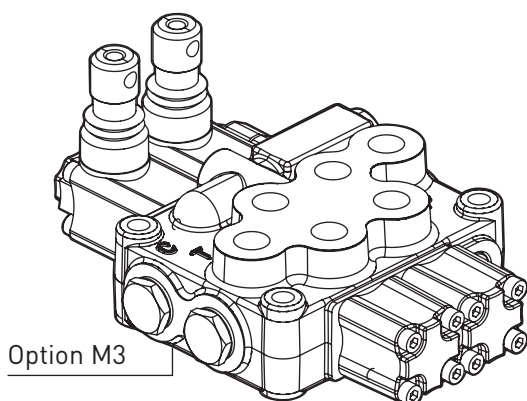
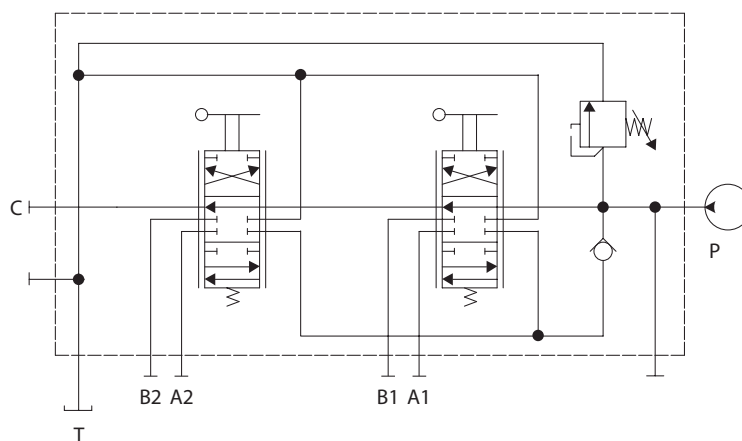
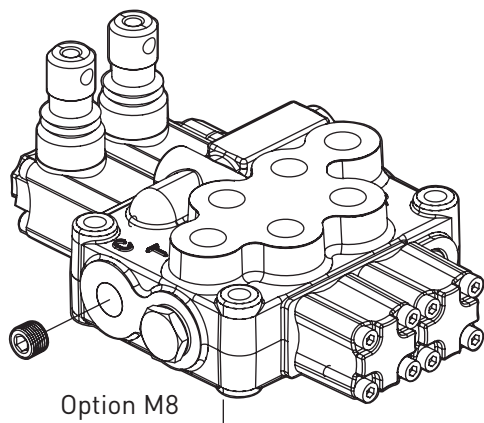
Bestellcode: LCB 4
 Ordercode: LCB 4



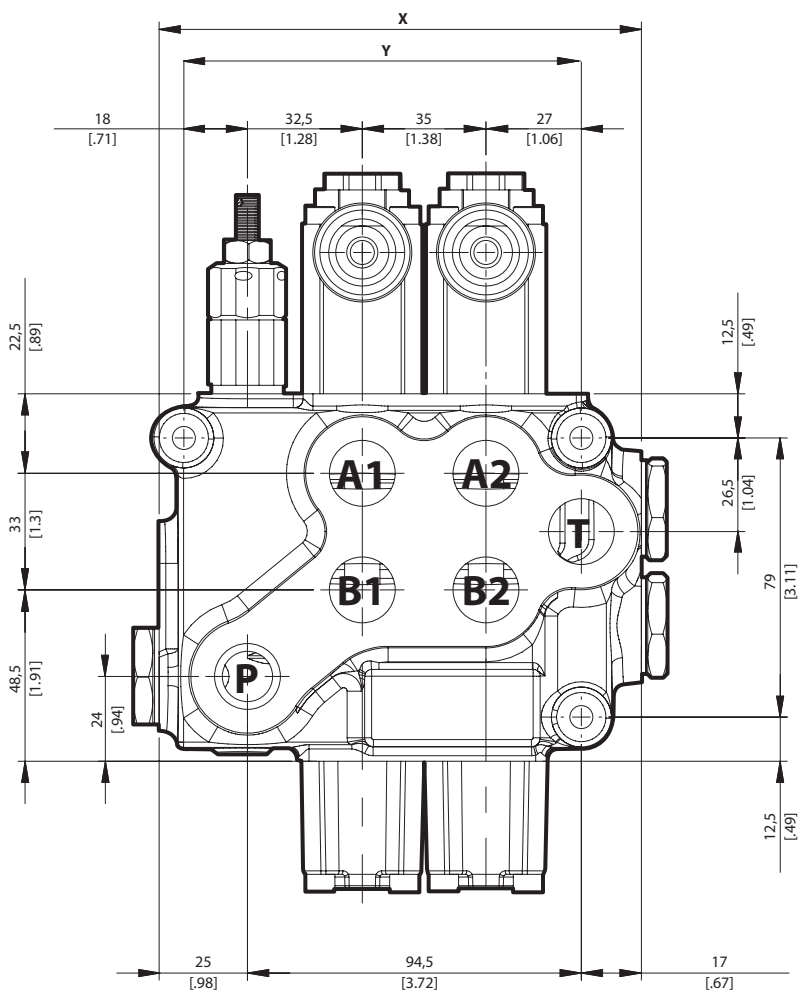
ANSCHLÜSSE PORTS

| Option Option | G-3 | G-4 | G-6 | E8 | E10 | E12 | E16 | M18 |
|------------------|--------|--------|--------|------------|------------|---------------|---------------|---------|
| A/B/P /T | G 3/8" | G 1/2" | G 3/4" | 3/4-16 UNF | 7/8-14 UNF | 1 1/16-12 UNF | 1 5/16-12 UNF | M18x1,5 |

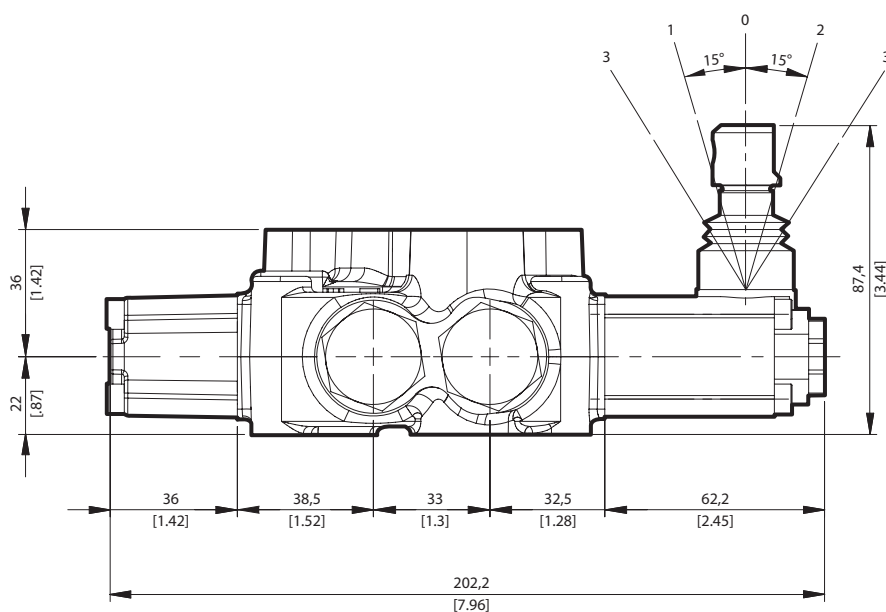
DRUCKWEITERFÜHRUNGSTOPFEN PORTS



Einbaumaße mm [in.]
 Dimensions mm [in.]

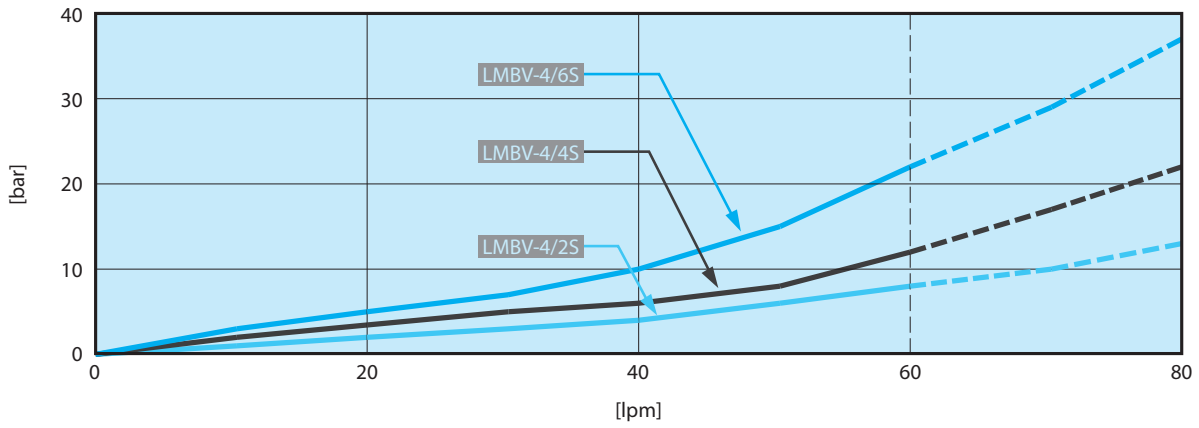


| Typ Type | X mm [in] | Y mm [in] |
|-------------|------------------|-----------------|
| LMBV-4/1S | 101,5 [4] | 77,5 [3.05] |
| LMBV-4/2S | 136,5 [5.37] | 112,5 [4.33] |
| LMBV-4/3S | 171,5 [6.75] | 147,5 [5.81] |
| LMBV-4/4S | 206,5 [8.13] | 182,5 [7.19] |
| LMBV-4/5S | 241,5 [9.51] | 217,5 [8.56] |
| LMBV-4/6S | 276,5 [10.89] | 252,5 [9.94] |

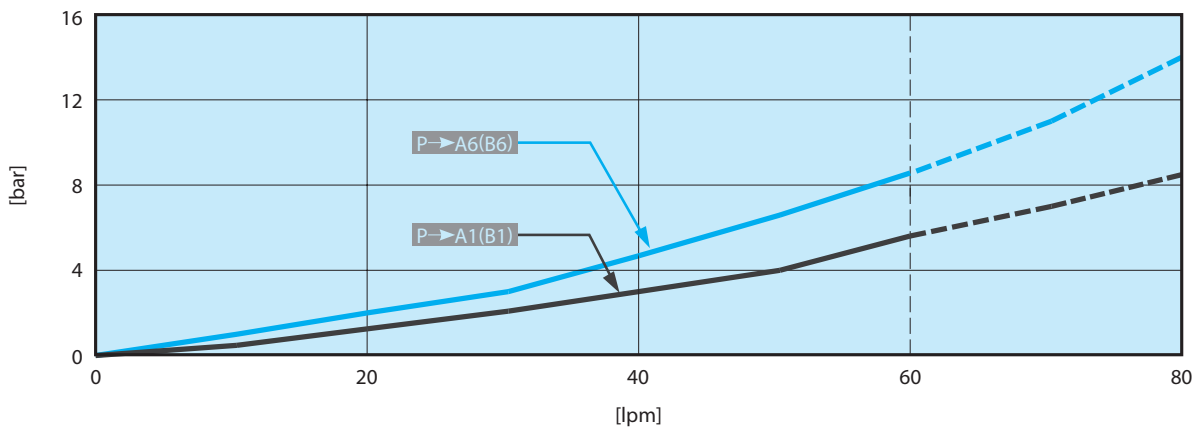


mm [in]

P nach T
P to T



P nach A (B)
P to A (B)



A (B) nach T
A (B) to T

