

| KOMPETENZ, DIE ANTREIBT

Handsteuerventil LMBV-5/ Manual control valve LMBV-5



HANDSTEUERVENTIL LMBV-5

MANUAL CONTROL VALVE LMBV-5

Merkmale

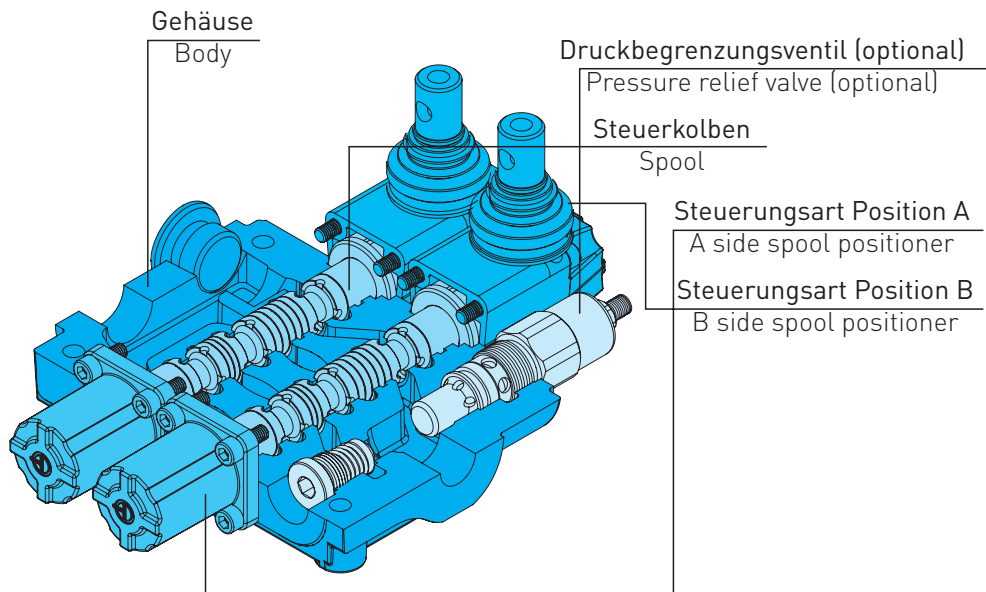
- Kompakte Bauweise
- Geringe Druckverluste
- Lange Lebensdauer und hoher Leistungsgrad
- Verschiedene Anschlussmöglichkeit und Schaltbilder
- Langfristige Präzision

Characteristics

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

| | | | |
|----------------------------------------------------------------------------------------------------|---------------------------------------|--------------|-----------------------------------------------------------------------|
| Max. Ölstrom Flow rate | | lpm [GPM] | 80 [21] |
| Max. Betriebsdruck Max. operating pressure | Parallelschaltung Parallel circuit | bar [PSI] | 315 [4600] |
| | Reihenschaltung Series circuit | bar [PSI] | 250 [3600] |
| 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



HANDSTEUERVERVENTIL LMBV-5

MANUAL CONTROL VALVE LMBV-5

| | | | | | | | |
|------|---|---|---|---|---|---|---|
| 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 |
| XAG | Vorgesteuert, 25 bis 315 bar [360 - 4600 PSI], Standard 125 bar [1800 PSI] Pilot operated, 25 to 315 bar [360 - 4600 PSI], standard 125 bar [1800 PSI] |
| 2 | 80 bis 160 bar [1150 - 2300 PSI], Standardeinstellung 125 bar [1800 PSI] 80 to 160 bar [1150 - 2300 PSI], standard setting 125 bar [1800 PSI] |
| 3 | 125 bis 250 bar [1800 - 3600 PSI], Standardeinstellung 175 bar [2500 PSI] 125 to 250 bar [1800 - 3600 PSI], standard setting 175 bar [2500 PSI] |
| 4 | 200 bis 315 bar [2900 - 4600 PSI], Standardeinstellung 220 bar [3200 PSI] 200 to 315 bar [2900 - 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 |
| 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) |
| 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) |

| | |
|--------|----------------------------------------------------------------------------------|
| 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 |
| P- ... | Schock-Ventil Anti-shock valve |
| BSP ... | Entsperrbares Rückschlagventil Pilot operated check valve |

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

*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!

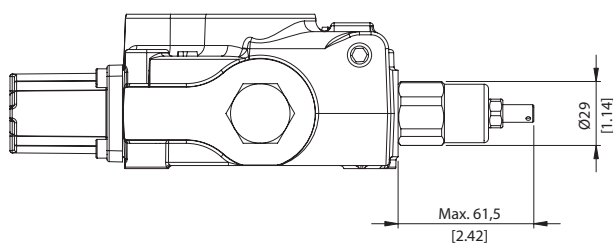
| Pos. 6 | Anschlüsse Ports |
|--------|------------------|
| G-3 | G 3/8" BSPP |
| G-4 | G 1/2" BSPP |
| G-6 | G 3/4" BSPP |
| E8 | 3/4-16 UNF-2B |
| E10 | 7/8-14 UNF-2B |
| E12 | 1 1/16-12 UNF-2B |

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

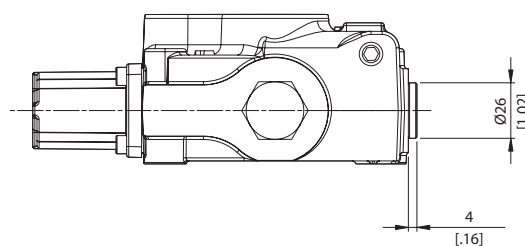
| Pos. 7 | Druckweiterführungsstopfen Power beyond conversion plug |
|--------|------------------------------------------------------------|
| M8 | Mit Stopfen With plug |
| M3 | Ohne Stopfen Without plug |

DRUCKBEGRENZUNGSVENTIL PRESSURE RELIEF VALVE

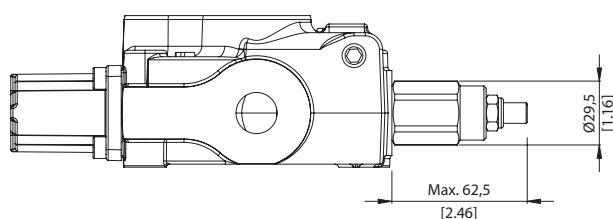
Option 2, 3 + 4: Mit Druckbegrenzungsventil
Option 2, 3 + 4: With pressure relief valve



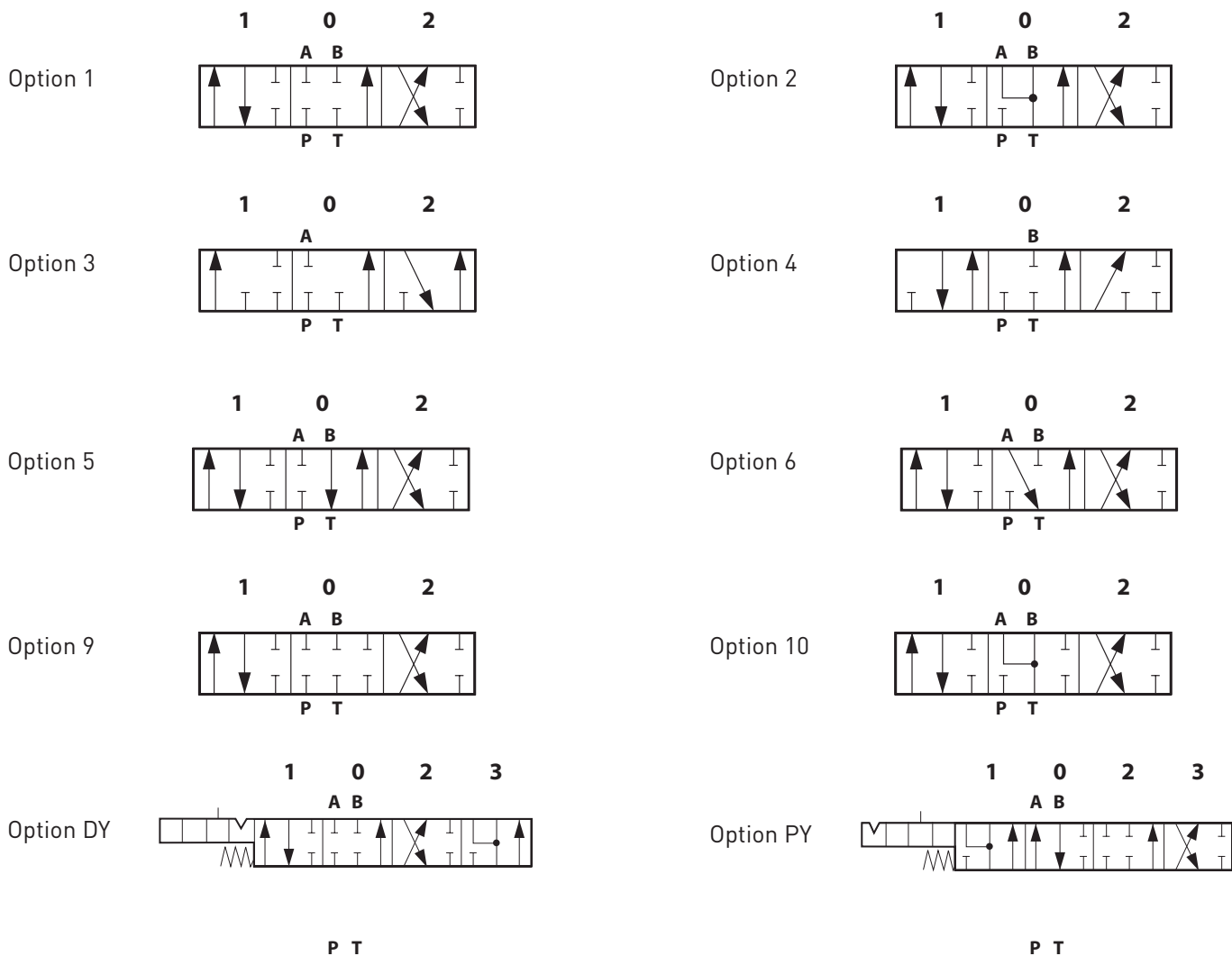
Option VS: Ohne Druckbegrenzungsventil
Option VS: Without pressure relief valve



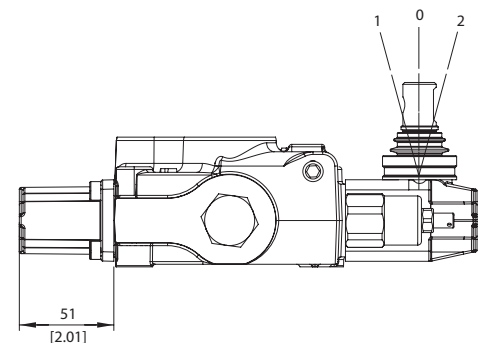
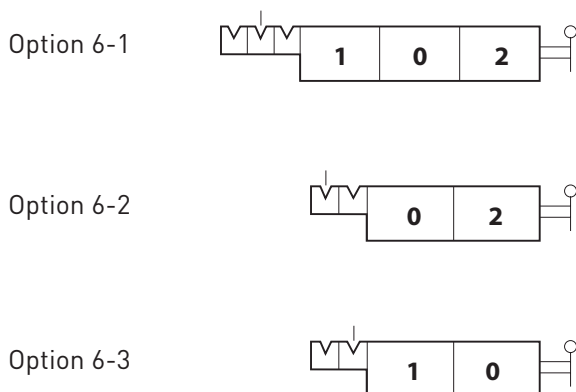
Option XAG: Vorgesteuertes Druckbegrenzungsventil
Option XAG: Pilot operated pressure relief valve



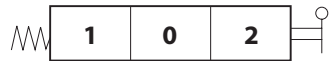
SCHALTBILD GRAPHIC SYMBOL



STEUERUNGSART POSITION B B SIDE SPOOL POSITIONER



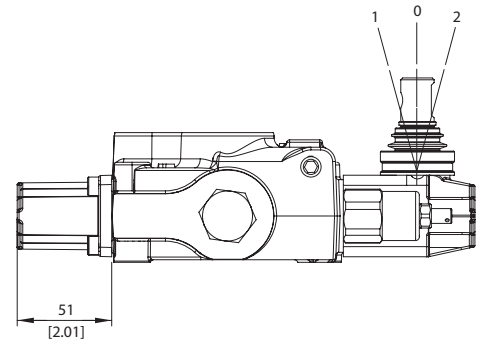
Option 8



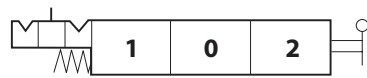
Option 8-1



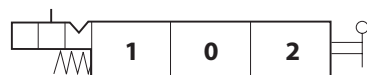
Option 8-2



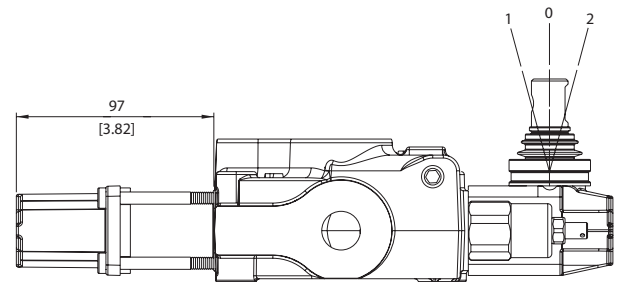
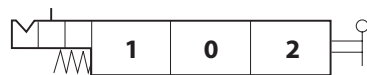
Option 9-1



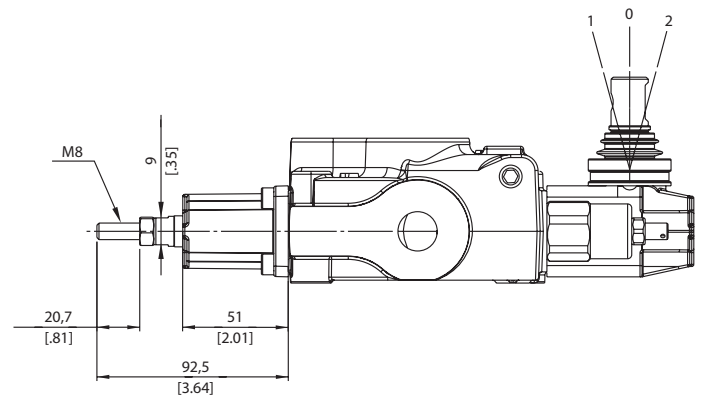
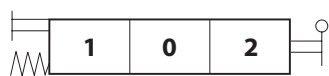
Option 9-2



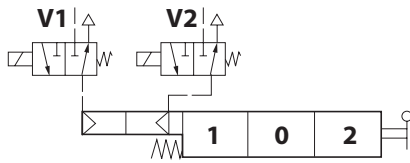
Option 9-3



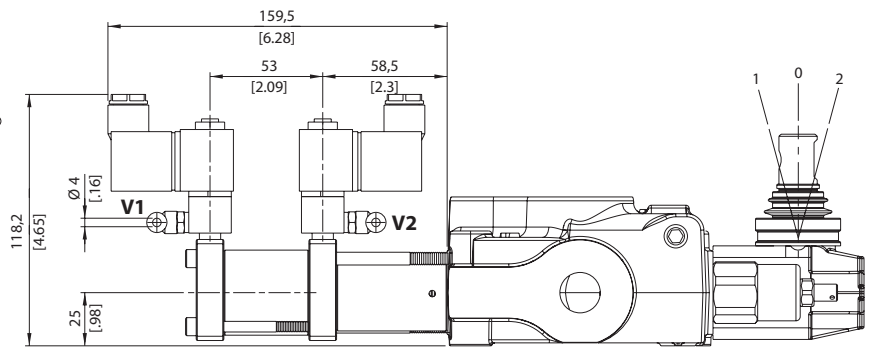
Option D2



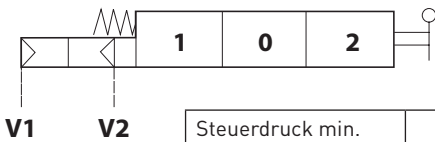
Option EP3



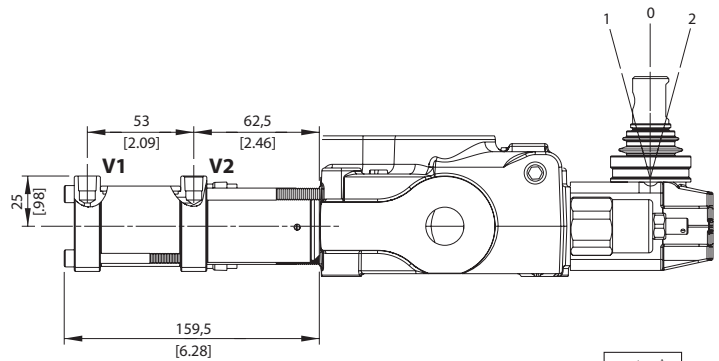
| | |
|---------------------------------|--------|
| Nennspannung Nominal Voltage | 24V DC |
| Toleranz Tolerance | ± 10% |
| Nennleistung Power rating | 5W |



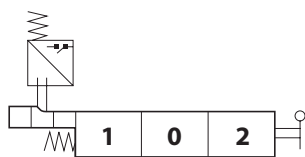
Option P



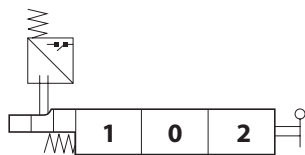
| | |
|----------------------------------------------|-------------------|
| Steuerdruck min. Pilot pressure min. | 6 bar 87 PSI |
| Steuerdruck max. Pilot pressure max. | 12 bar 174 PSI |
| Anschlussgröße V1, V2 Port size V1, V2 | 1/8-27 NPT |



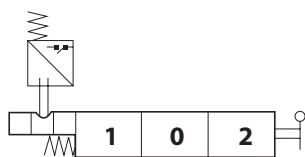
Option MG1(NO)



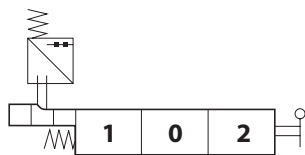
Option MG2(NO)



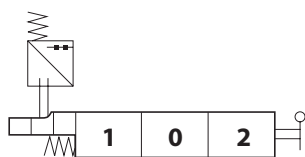
Option MG3(NO)



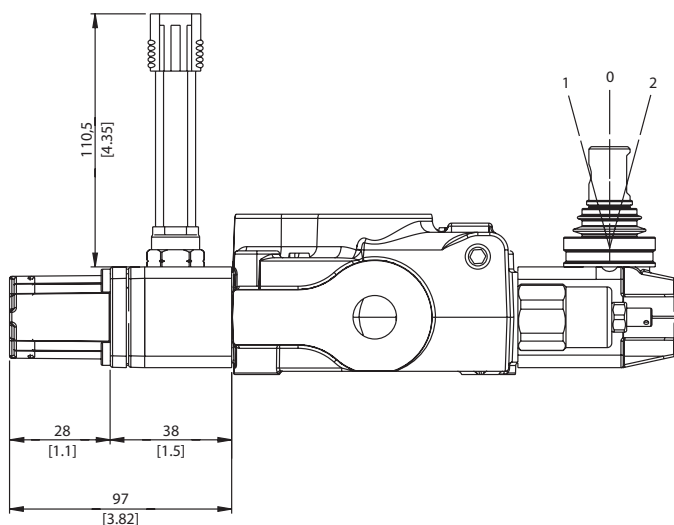
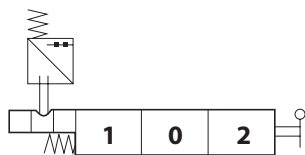
Option MG1(NC)



Option MG2(NC)

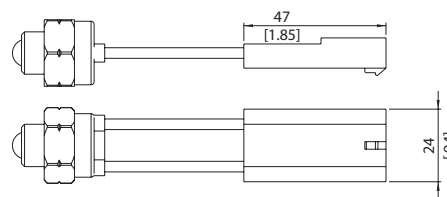


Option MG3(NC)

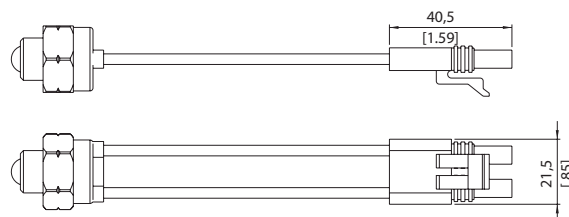


Induktive Belastung 7A/13,5V DC - 10A / 12V DC - 3A / 28V DC
Resistive load

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

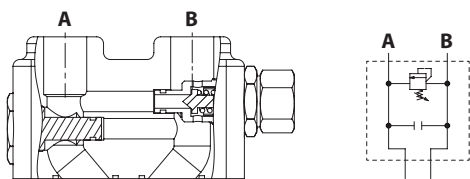


NC-Kontakt (männlicher Verbinder mit weiblichem Ende)
NC-contact (male connector with female end)

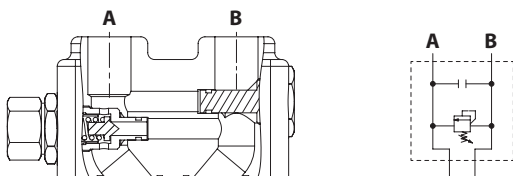


Option P- ...

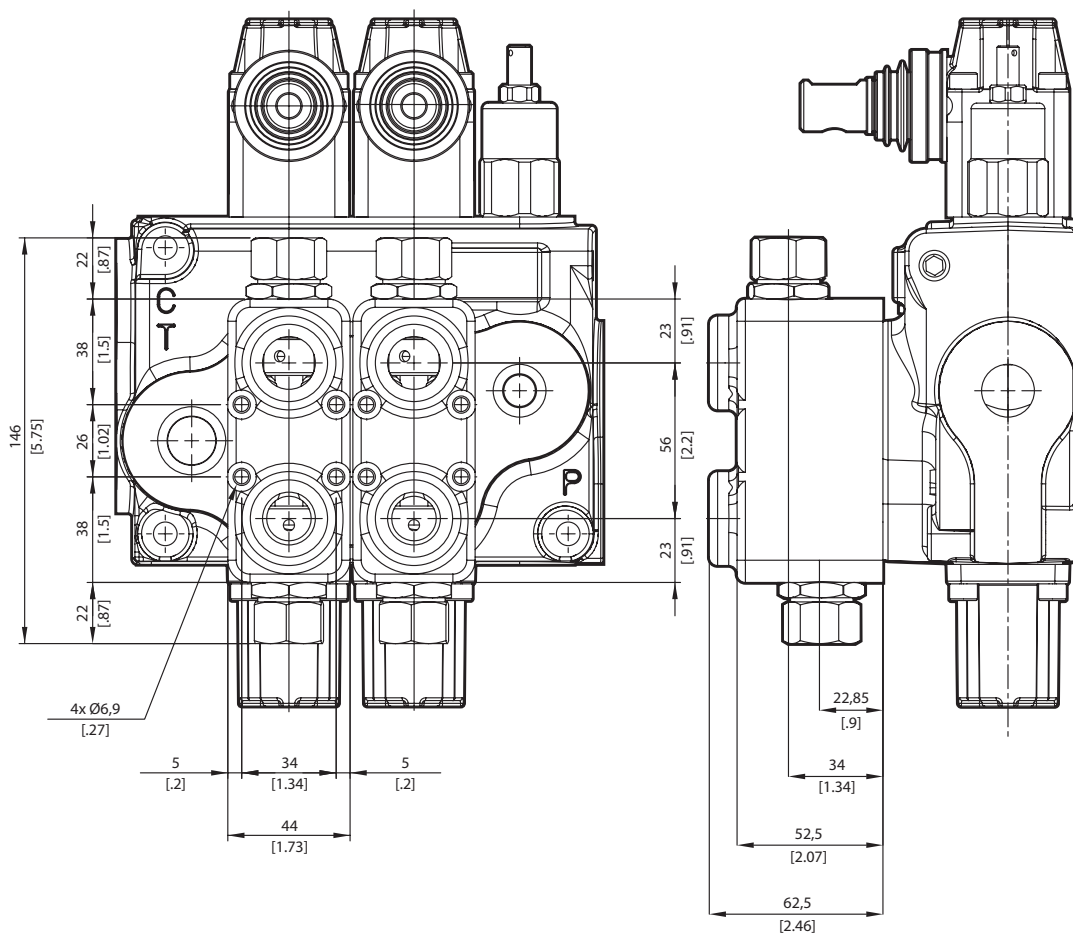
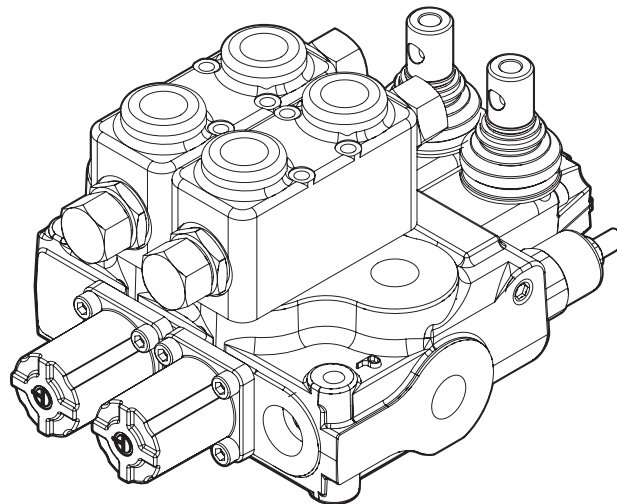
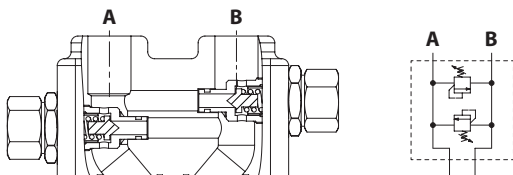
Bestellcode: P-1
Ordercode: P-1



Bestellcode: P-2
Ordercode: P-2

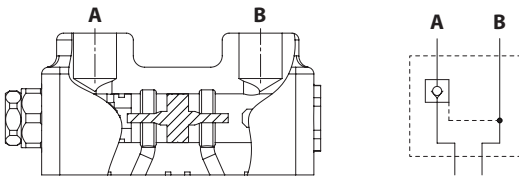


Bestellcode: P-3
Ordercode: P-3

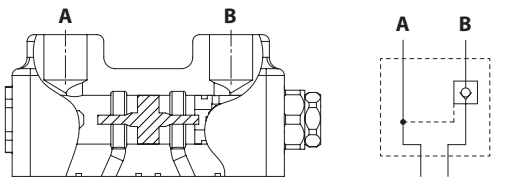


Option BSP- ...

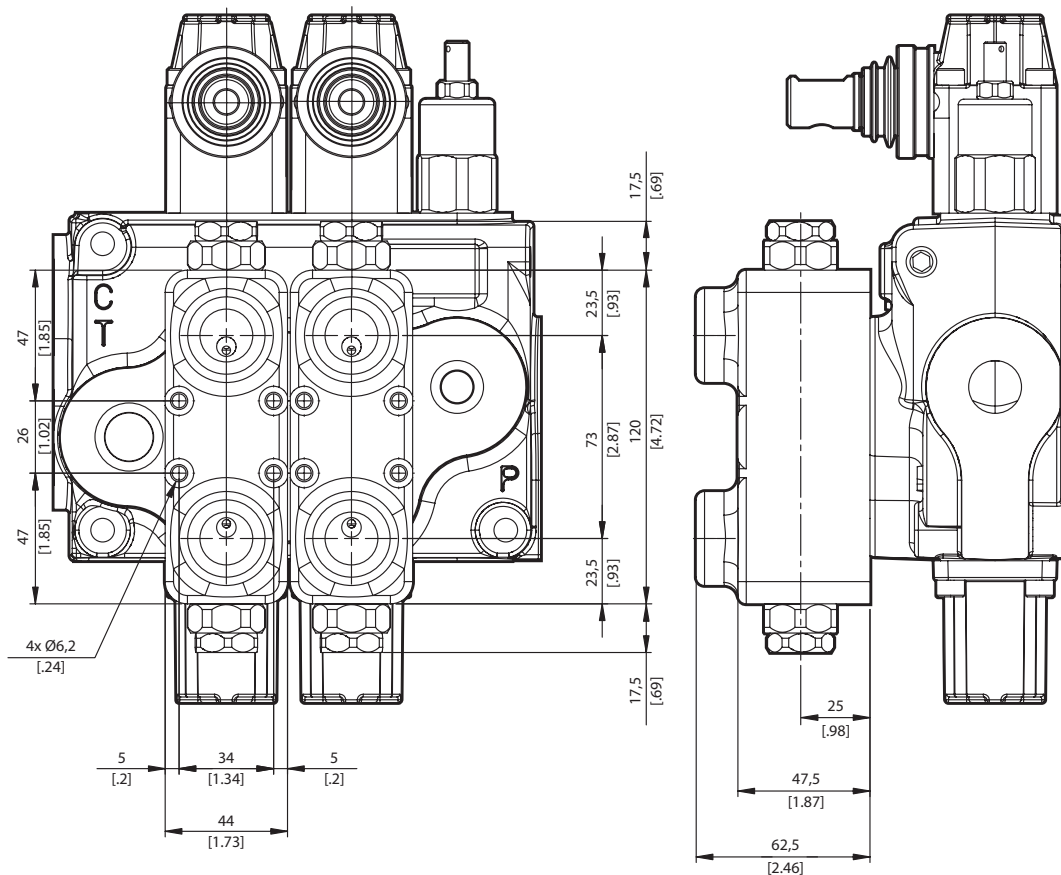
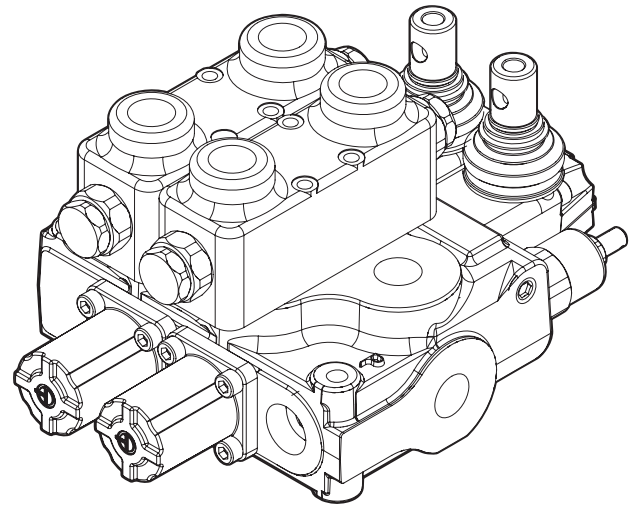
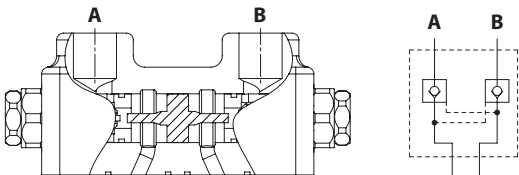
Bestellcode: BSP-1
Ordercode: BSP-1



Bestellcode: BSP-2
Ordercode: BSP-2



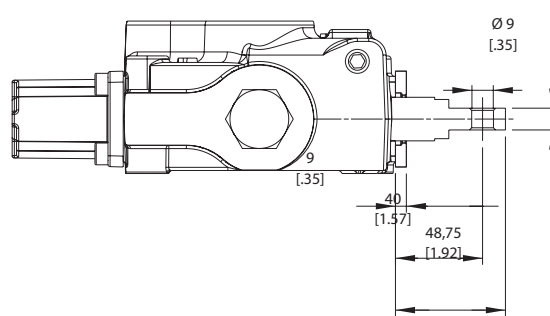
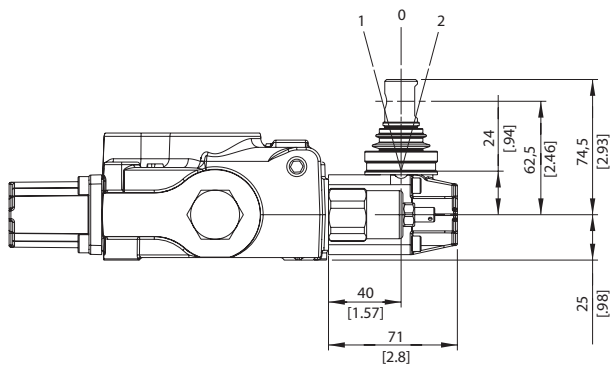
Bestellcode: BSP-3
Ordercode: BSP-3



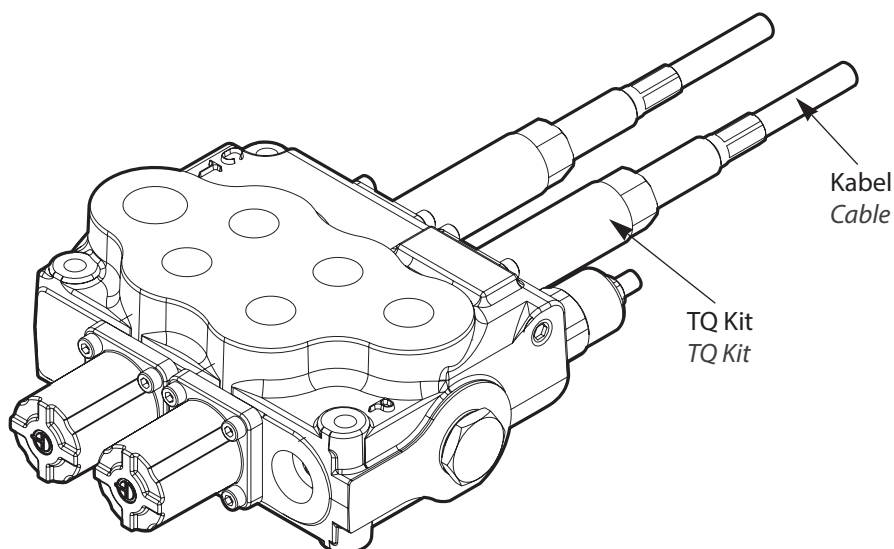
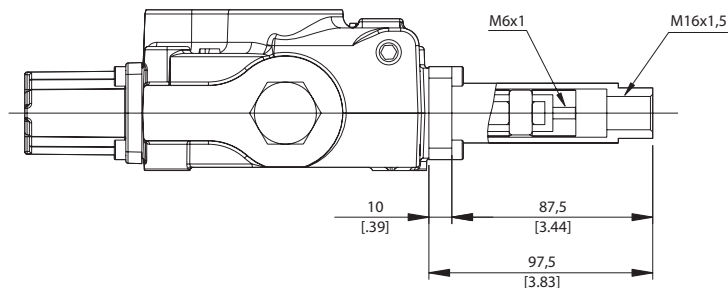
STEUERUNGSART POSITION A A SIDE SPOOL POSITIONER

Option L: Standardhandhebel
Option L: Standard lever box

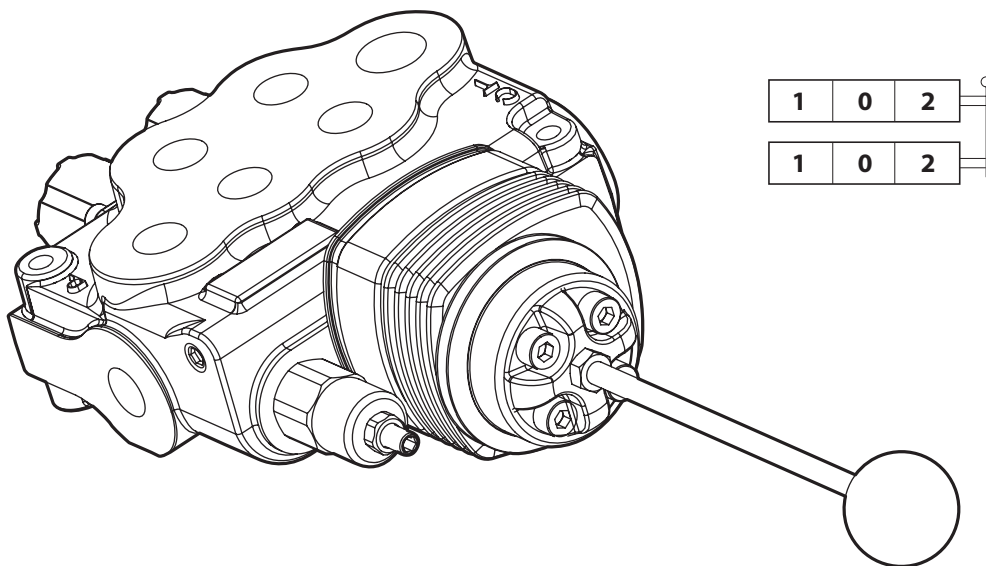
Option SPL: Staubschutzplatte, ohne Handhebel
Option SPL: With dust-proof plate, without lever



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

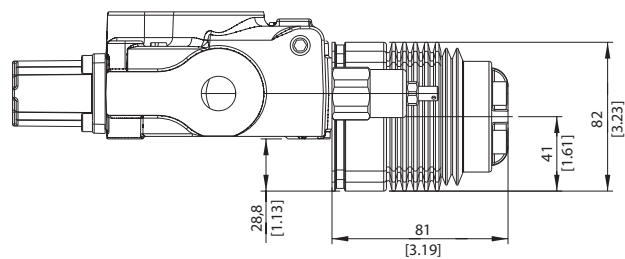
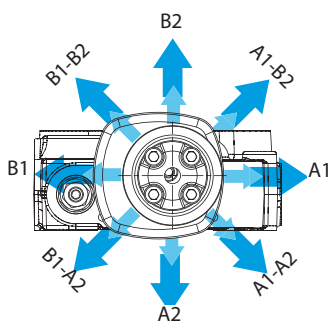
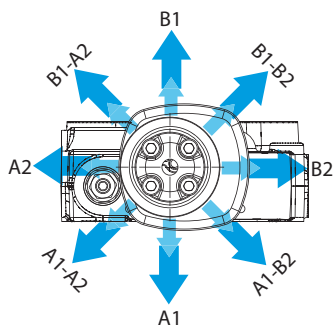


Option LCB: Joystick
 Option LCB: Joystick



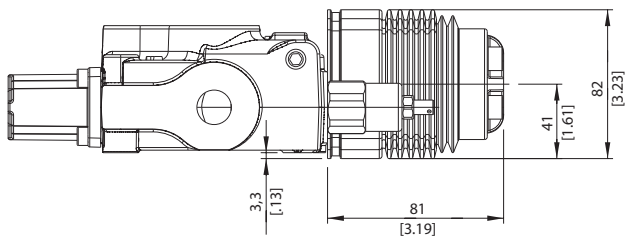
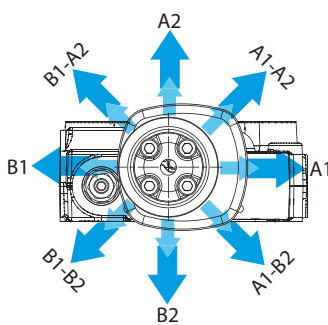
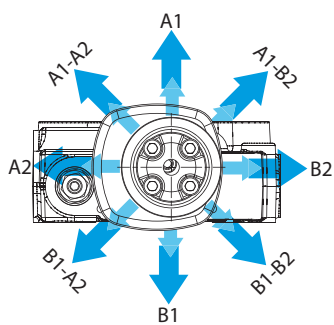
Bestellcode: LCB 1
 Ordercode: LCB 1

Bestellcode: LCB 2
 Ordercode: LCB 2



Bestellcode: LCB 3
 Ordercode: LCB 3

Bestellcode: LCB 4
 Ordercode: LCB 4

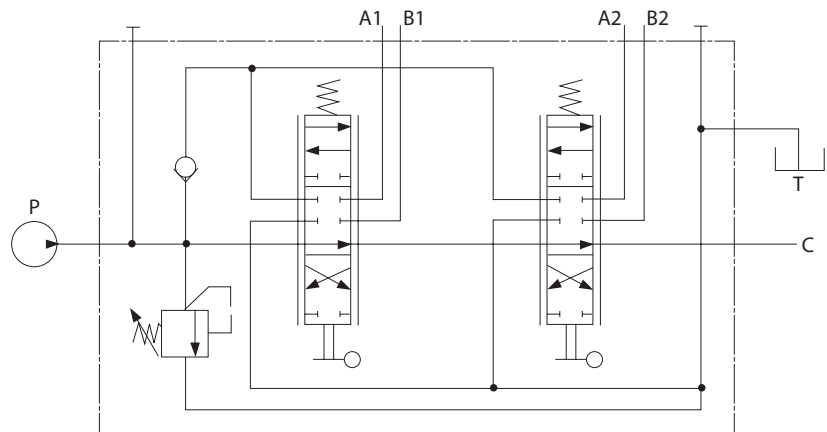
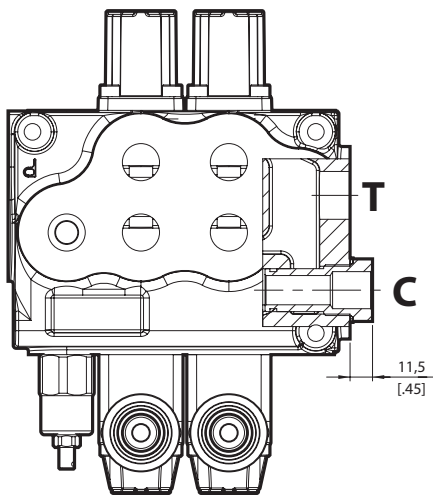


ANSCHLÜSSE PORTS

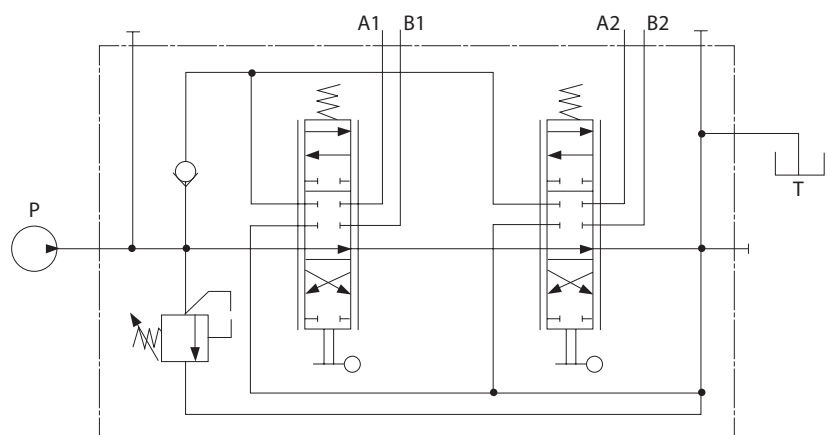
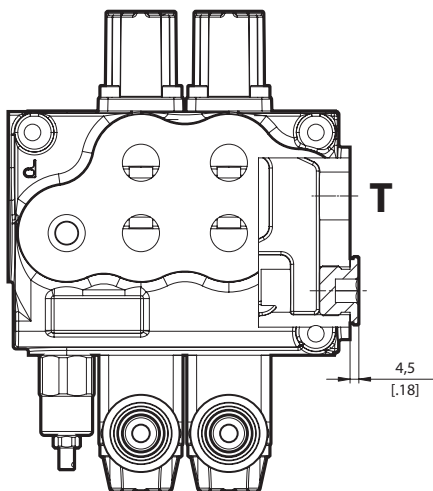
| Option Option | G-3 | G-4 | G-6 | E8 | E10 | E12 | E16 | M18 |
|------------------|--------|--------|--------|------------|------------|---------------|---------------|---------|
| A/B/P /T | G 3/8" | G 1/2" | G 3/4" | 3/4-16 UNF | 7/8-14 UNF | 1 1/16-12 UNF | 1 5/16-12 UNF | M18x1,5 |

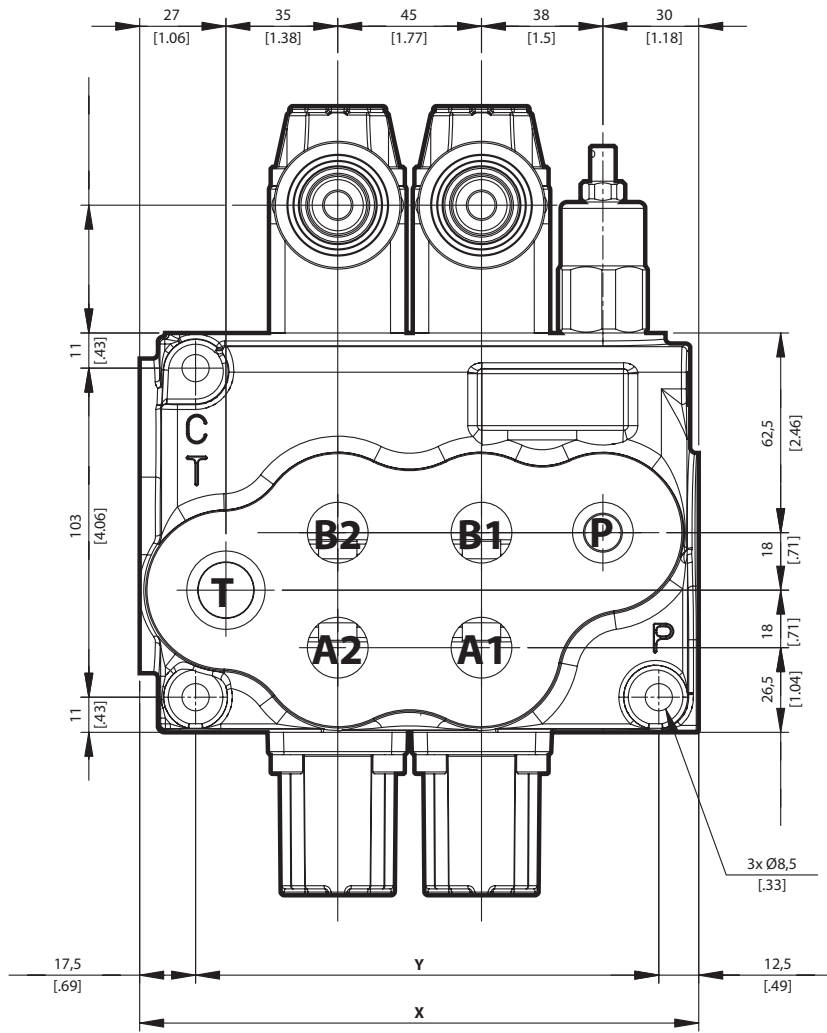
DRUCKWEITERFÜHRUNGSSTOPFEN POWER BEYOND CONVERSION PLUG

Option M8

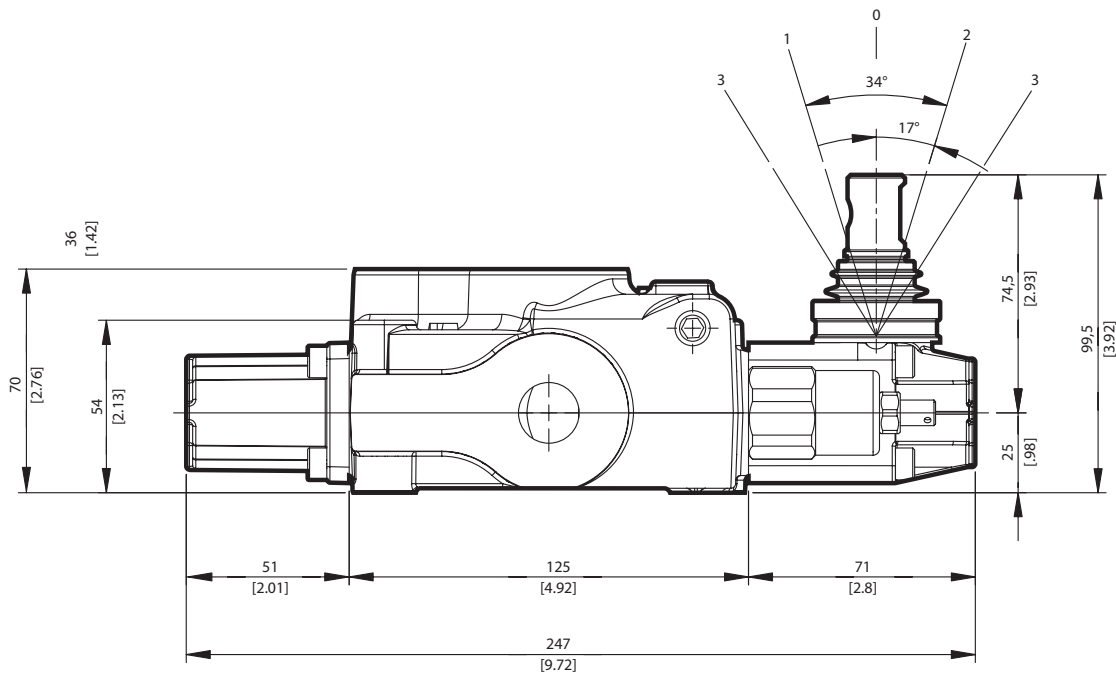


Option M3



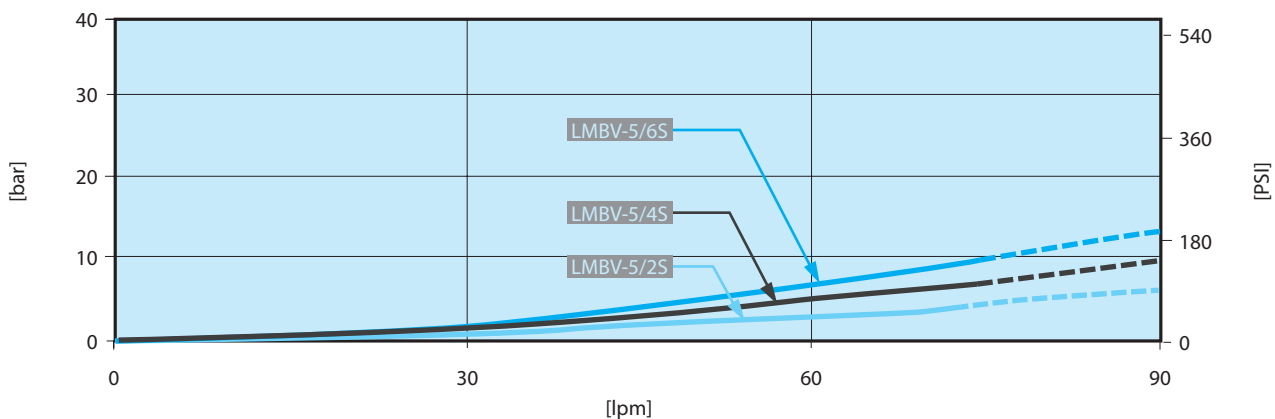


| Typ Type | X mm [in.] | Y mm [in.] |
|-------------|------------------|------------------|
| LMBV-5/1S | 130,0 [5.12] | 100 [3.94] |
| LMBV-5/2S | 174,5 [6.87] | 145 [5.71] |
| LMBV-5/3S | 219,5 [8.64] | 190 [7.48] |
| LMBV-5/4S | 264,5 [10.41] | 235 [9.25] |
| LMBV-5/5S | 309,5 [12.19] | 280 [11.02] |
| LMBV-5/6S | 354,5 [13.96] | 325 [12.80] |

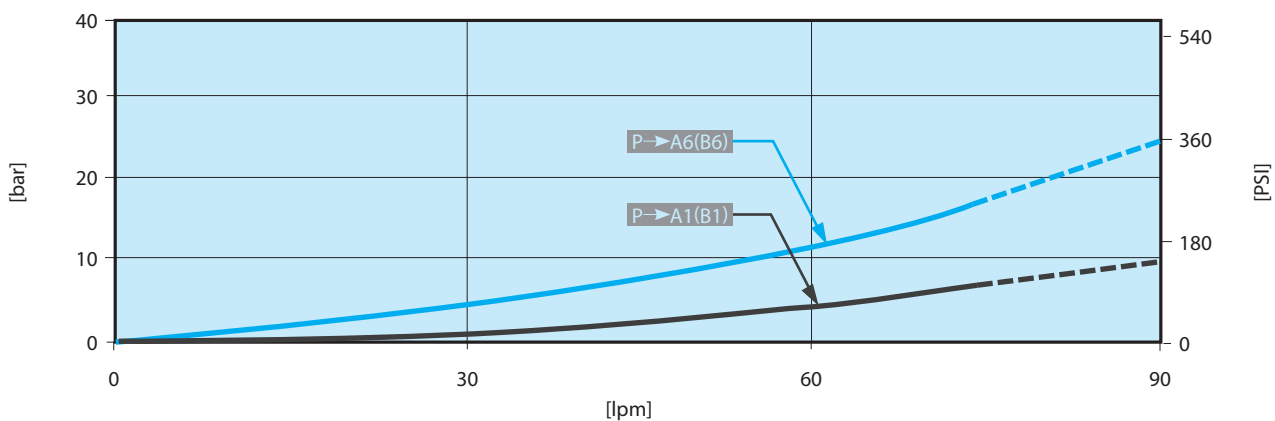


DRUCKGEFÄLLE PRESSURE DROP

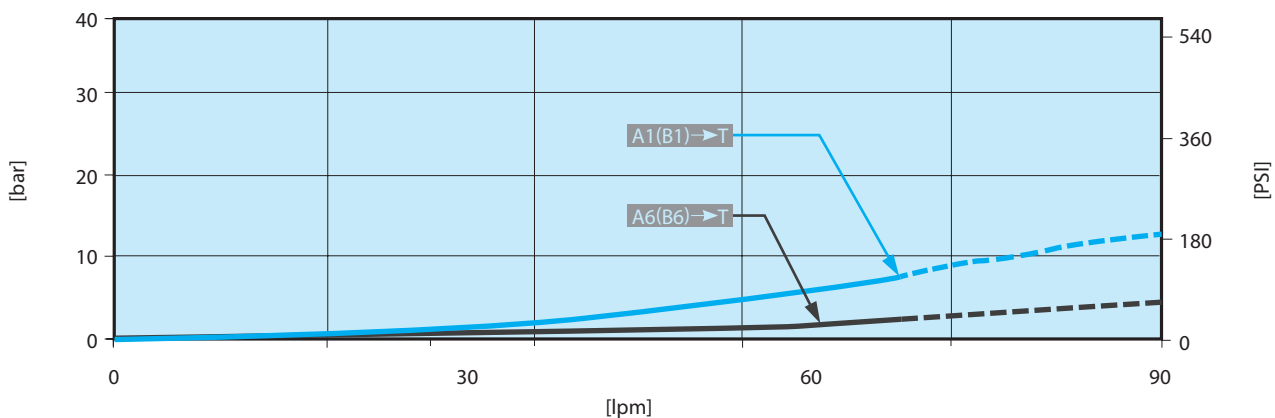
P nach T
P to T



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

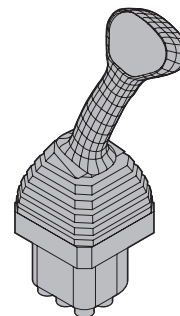


A (B) nach T
A (B) to T



DRUCKGEFÄLLE PRESSURE DROP

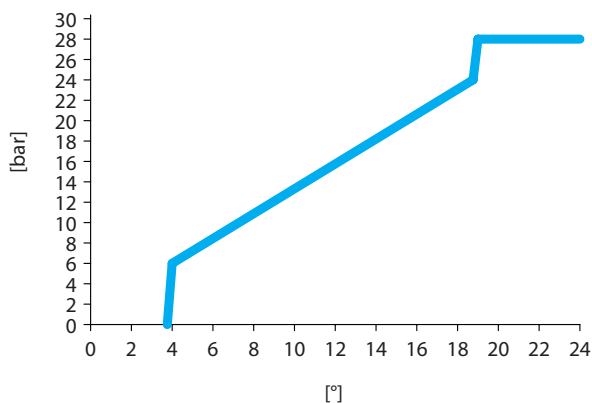
Steuerventil (Handbetätigt)
Pilot valve (hand-operated)



Bestellcode: JS
Ordercode: JS

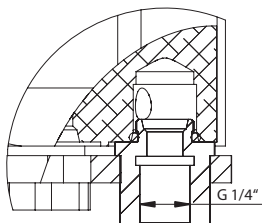
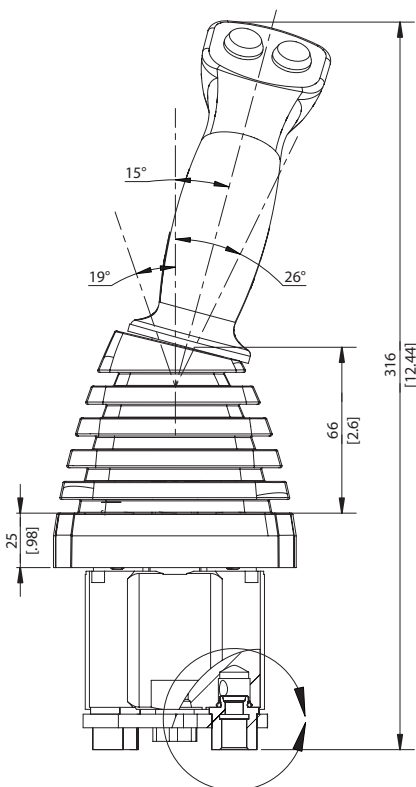
| | | |
|---------------------------------------------------------------------------|---------------------------------------|------------------------------------|
| Durchfluss Flow | lpm [GPM] | 5 - 20 [1.32 - 5.28] |
| Speisedruck Feeding pressure | bar [PSI] | 30 - 100 [435 - 1450] |
| Max. Gegendruck Max. back pressure | bar [PSI] | 3 [43] |
| Ausgangsdruck Output pressure | bar [PSI] | siehe Dia- gramm see diagram |
| Interne Leckage @ 30 bar [435 PSI] Internal leakage @ 30 bar [435 PSI] | cm ³ [in ³] | 18 - 24 [1.098 - 1.464] |
| Betriebsmedium Operating fluid | | Mineralöl mineral oil |
| Betriebstemperatur Operating temperature | °C [°F] | -10 - 80 [14 - 176] |
| Umgebungstemperatur Ambient temperature | °C [°F] | -40 - 60 [-40 - 140] |

Ausgangsdruck - Steuerwinkel
Output pressure - Input angle

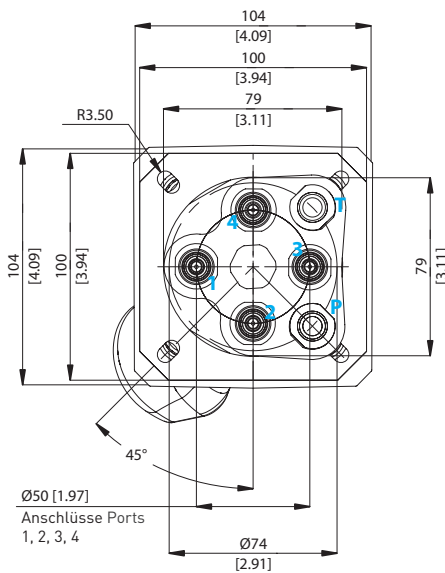
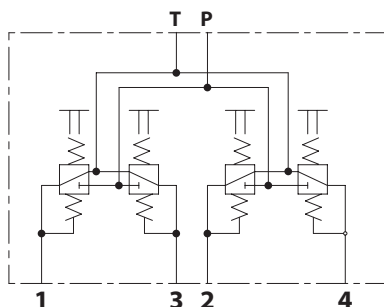


Die Angaben beziehen sich auf Mineralöl mit einer Viskosität von 46 mm²/s bei 40° C [104° F].
The details above shows technical specification with mineral oil of 46 mm²/s at 40° C [104° F].

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

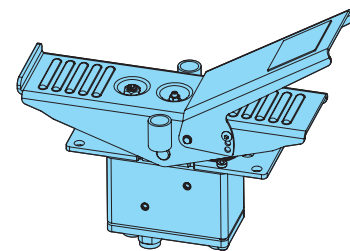


Schaltbild
Graphic symbol



ZUBEHÖR ACCESSORIES

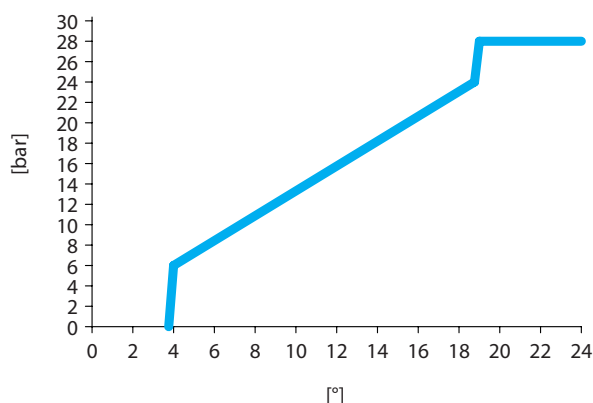
Steuventil (Fußbetätigt) Pilot valve (pedal type)



Bestellcode: FP
Ordercode: FP

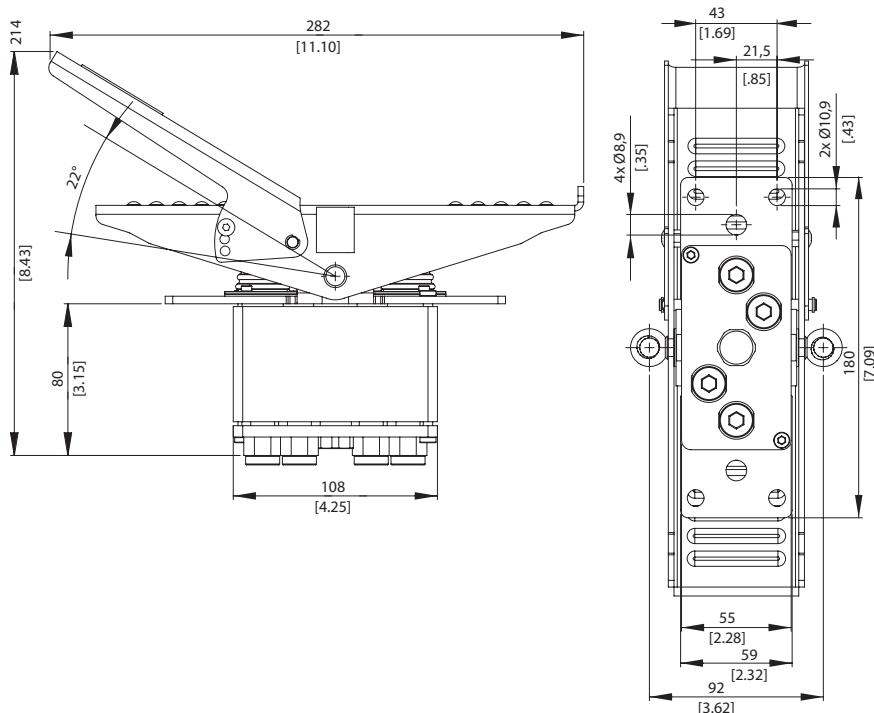
| | | |
|---------------------------------------------------------------------------|---------------------------------------|------------------------------------|
| Durchfluss Flow | lpm [GPM] | 5 - 20 [1.32 - 5.28] |
| Speisedruck Feeding pressure | bar [PSI] | 30 - 100 [435 - 1450] |
| Max. Gegendruck Max. back pressure | bar [PSI] | 3 [43] |
| Ausgangsdruck Output pressure | bar [PSI] | siehe Dia- gramm see diagram |
| Interne Leckage @ 30 bar [435 PSI] Internal leakage @ 30 bar [435 PSI] | cm ³ [in ³] | 18 - 24 [1.098 - 1.464] |
| Betriebsmedium Operating fluid | | Mineralöl mineral oil |
| Betriebstemperatur Operating temperature | °C [°F] | -10 - 80 [14 - 176] |
| Umgebungstemperatur Ambient temperature | °C [°F] | -40 - 60 [-40 - 140] |

Ausgangsdruck - Steuerwinkel
Output pressure - Input angle



Die Angaben beziehen sich auf Mineralöl mit einer Viskosität von 46 mm²/s bei 40° C [104° F].
The details above shows technical specification with mineral oil of 46 mm²/s at 40° C [104° F].

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



Schaltbild Graphic symbol

