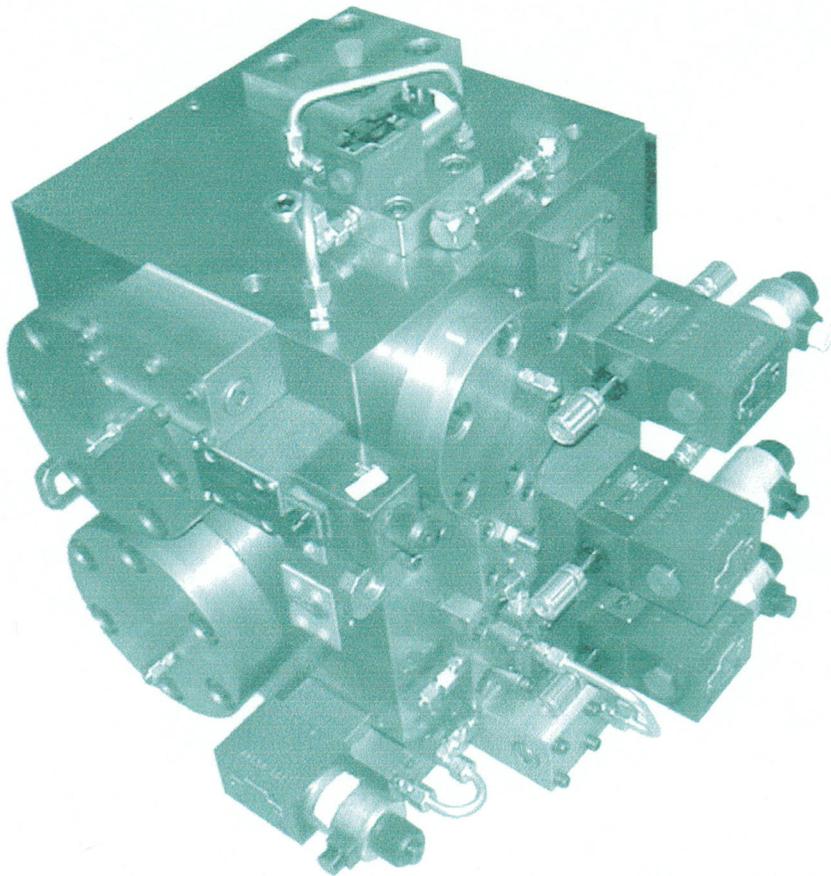
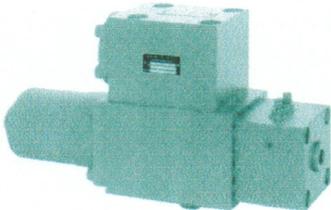


Produktübersicht



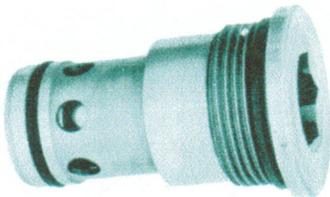
Lieferprogramm

Bremsventil



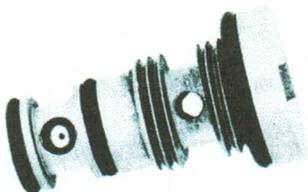
| | |
|---------------------------|-------------------------------|
| Bauart: | Kolbenventil |
| Befestigung: | Plattenaufbau |
| Nenngröße: | 10, 20, 30, 40 |
| Einbaulage: | beliebig |
| max. Betriebsdruck: | 350 bar |
| max. Lecköldruck: | 10 bar |
| Steuerdruck: | 10 - 30 bar |
| max. Durchfluß: | 80 - 1.400 l/min |
| empfohlene Filtereinheit: | 25 µm absolut |
| Druckmitteltemperatur: | - 30° C ... + 70° C |
| Viskositätsbereich: | 10 ... 380 mm ² /s |

Rückschlagventil



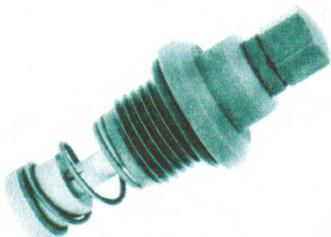
| | |
|---------------------------|--|
| Bauart: | Kugelventil |
| Befestigung: | Einschraubpatrone |
| Nenngröße: | 4, 6, 8, 10, 16, 25 |
| Einbaulage: | beliebig |
| max. Betriebsdruck: | 420 bar NG 6 - 10 250 bar NG 16, 25 |
| max. Durchfluß: | 10 - 150 l/min |
| empfohlene Filtereinheit: | 25 µm absolut |
| Druckmitteltemperatur: | - 20° C ... + 70° C |
| Viskositätsbereich: | 5 ... 380 mm ² /s |

Wechselventil



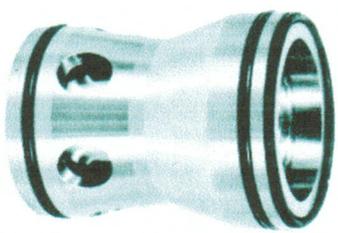
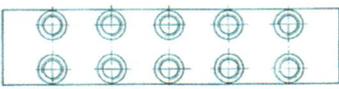
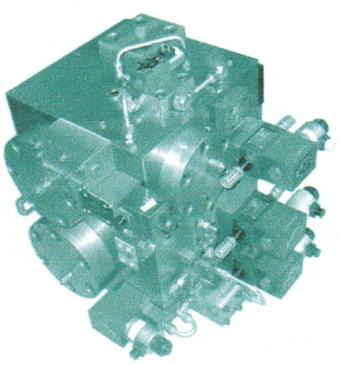
| | |
|---------------------------|------------------------------|
| Bauart: | Kugelventil |
| Befestigung: | Einschraubpatrone |
| Nenngröße: | 4 |
| Einbaulage: | beliebig |
| max. Betriebsdruck: | 350 bar |
| max. Durchfluß: | 10 l/min |
| empfohlene Filtereinheit: | 25 µm absolut |
| Druckmitteltemperatur: | - 20° C ... + 70° C |
| Viskositätsbereich: | 5 ... 380 mm ² /s |

Drosselrückschlagventil

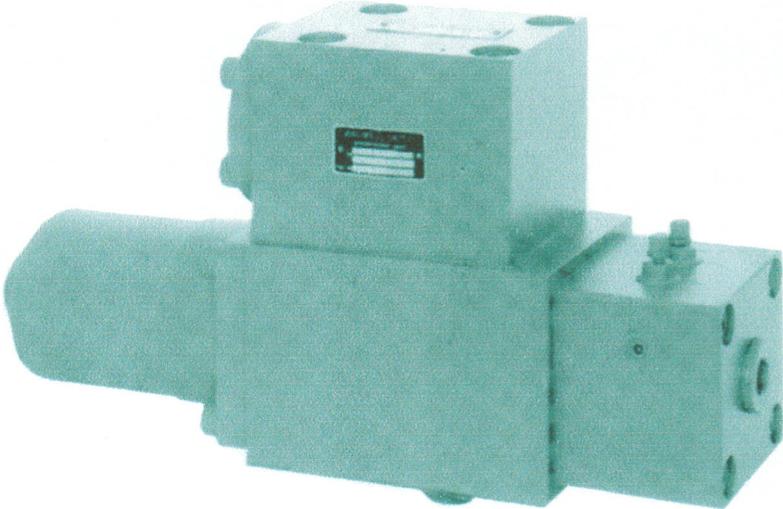


| | |
|---------------------------|------------------------------|
| Bauart: | Kolbenventil |
| Befestigung: | Einschraubpatrone |
| Nenngröße: | 4 |
| Einbaulage: | beliebig |
| max. Betriebsdruck: | 350 bar |
| max. Durchfluß: | 10 l/min |
| empfohlene Filtereinheit: | 25 µm absolut |
| Druckmitteltemperatur: | - 20° C ... + 70° C |
| Viskositätsbereich: | 5 ... 380 mm ² /s |

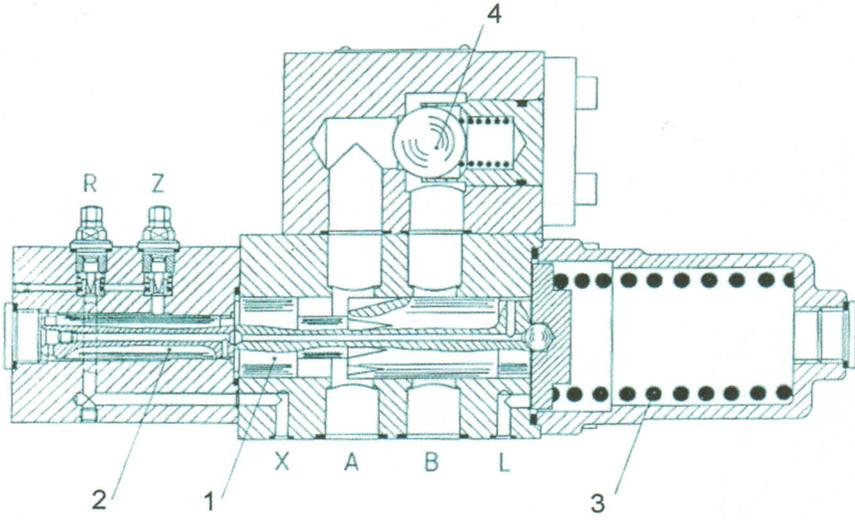


| | |
|---|--|
| <p>Lieferprogramm</p> | <p>Seite 2</p> |
| <p>2-Wege-Einbauventile (Logikelemente)</p>  | <p>Bauart: Kolbenventil Befestigung: Einschraubpatrone Nenngröße: 16, 20, 25, 32, 40, 50, 63, 80, 100 Einbaulage: beliebig max. Betriebsdruck: 350 bar max. Durchfluß bei sp 1 bar und V=36 cSt: 60 ... 2.500 l/min empfohlene Filtereinheit: 25 µm absolut Druckmitteltemperatur: - 20° C ... + 70° C Viskositätsbereich: 5 ... 380 mm²/s</p> |
| <p>Mehrfachanschlußplatte BG 6, Cetop 3, DIN 24340</p>  | <p>Baugröße: 1 ... 10 Ventile Anschlüsse P - T stirnseitig: G 1/2 " Anschlüsse A - B seitlich bzw. unten: G 3/8 " max. Durchfluß: 40 l/min max. Betriebsdruck: 350 bar</p> |
| <p>Sondersteuerblöcke</p>  | <p>Fertigung nach Kundenzeichnung</p> <p>max. Gewicht: 800 kg Material: Hycat 60 Aluminium rostfreies Material</p> |
| <p>Ansprechpartner</p> | <p>Frau Wolter, Herr Klein</p> <p>fon: +49 (0) 431 - 36 91 94 5 fax: +49 (0) 431 - 36 91 94 6</p> |



| Produktübersicht | Bremsventile Baureihe D | Beschreibung |
|------------------|---|--------------|
| | <p data-bbox="440 451 1424 583">Bremsventile werden in hydrostatischen Antriebssystemen im offenen Kreislauf dort eingesetzt, wo es gilt, die Voreilung von Zylinder- und Motorantrieben zu bremsen, die durch Einwirkung äußerer Kräfte angetrieben werden.</p>  <p data-bbox="555 1324 797 1347">Abb. Bremsventil BAY 30</p> <p data-bbox="445 1484 748 1513">Besondere Merkmale:</p> <ul data-bbox="483 1552 1287 1831" style="list-style-type: none">• großer Durchflußbereich bei stabilem Regelverhalten• großer Durchflußstrom bezogen auf die Nenngroße• großer Regelbereich• getrennte Einstellung des Öffnungs- und Schließverhaltens• Druckbereich bis 350 bar• Steuerdruckbereiche 10 bar und 30 bar• Plattenaufbau• Für Zylinder und Motorantriebe geeignet | |



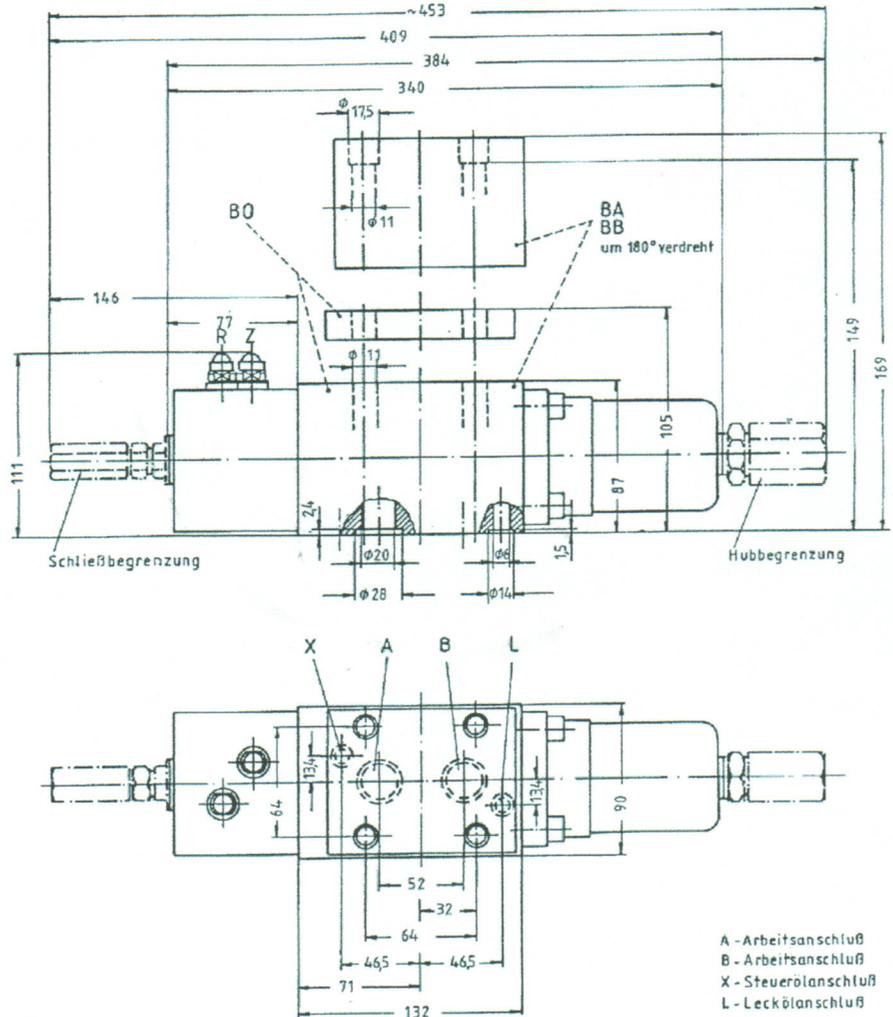
| Produktübersicht | Bremsventile Baureihe D | Schnittbild - Funktionsweise |
|--|---|------------------------------|
| <p>Funktionsweise des Bremsventils:</p> <p>Zusatzfunktionen:</p> |  <p>Abb. Schnittbild Bremsventil</p> <p>Der Anschluß "B" des Bremsventils ist in den Volumenstrom der Lastseite des Hebezeugantriebs (Zylinder oder Ölmotor) geschaltet. Der Anschluß "A" wird über ein Wegeventil zur Pumpe geführt. Bei 0-Stellung des Wegeventils (Anschlüsse A und B des Wegeventils zum Tank entlastet) sind die Anschlüsse "A" und "X" des Bremsventils drucklos. Der Lastdruck stützt sich auf dem geschlossenen Regelkolben (1) und dem Rückschlagventil (4) ab - die Last wird gehalten. Zum Senken der Last wird die Senkenseite des Verbrauchers und damit der Steuerdruckanschluß "X" mit Druck beaufschlagt. Dieser Steuerdruck wirkt über den Steuerkolben (2) auf den Regelkolben (1) gegen die Regelfeder (3) und öffnet den Regelkolben in eine Drosselstellung, über die der lastseitige Volumenstrom abfließen kann. Bei steigendem Volumenstrom erhöht sich der Steuerdruck, der wiederum am Regelkolben (1) gegen die Regelfeder (3) einen größeren Drosselquerschnitt einstellt. Bei fallendem Volumenstrom fällt der Steuerdruck in "X" und bewirkt eine Verkleinerung des Drosselquerschnitts am Regelkolben. Die Drosselung und damit die Lastbremsung paßt sich somit dem Volumenstrom und dem beherrschenden Lastdruck kontinuierlich im Regelprozeß an. Die Last wird über den gesamten Geschwindigkeits- und Drehzahlbereich gebremst abgesenkt - die Last kann dem Volumenstrom nicht voreilen. Über die Drosselrückschlagventile "R" und "Z" wird die Öffnungs- und Schließfunktion des Regelkolbens (1) eingestellt. Beim Lastheben umgeht der Volumenstrom den geschlossenen Regelkolben (1) über das Rückschlagventil.</p> <p>Hubbegrenzung - zur Begrenzung der Öffnungshubes des Regelkolbens</p> <p>Schließbegrenzung - zur Verringerung der Überdeckung oder zur Einstellung einer Voröffnung am Regelkolben (1)</p> <p>Steuerdruckbereich - 10 bar alternativ 30 bar</p> | |

Produktübersicht

Bremsventile Baureihe D

Einbauzeichnungen

Einbauzeichnung Bremsventil BOY / BAY / BBY 20



Masse [kg]

| Zusatzeinrichtung | BOY 20 | BAY/BBY 20 |
|-------------------|--------|------------|
| O | 15,3 | 21,3 |
| H | 15,8 | 21,8 |
| B | 15,6 | 21,6 |
| G | 16,1 | 22,1 |



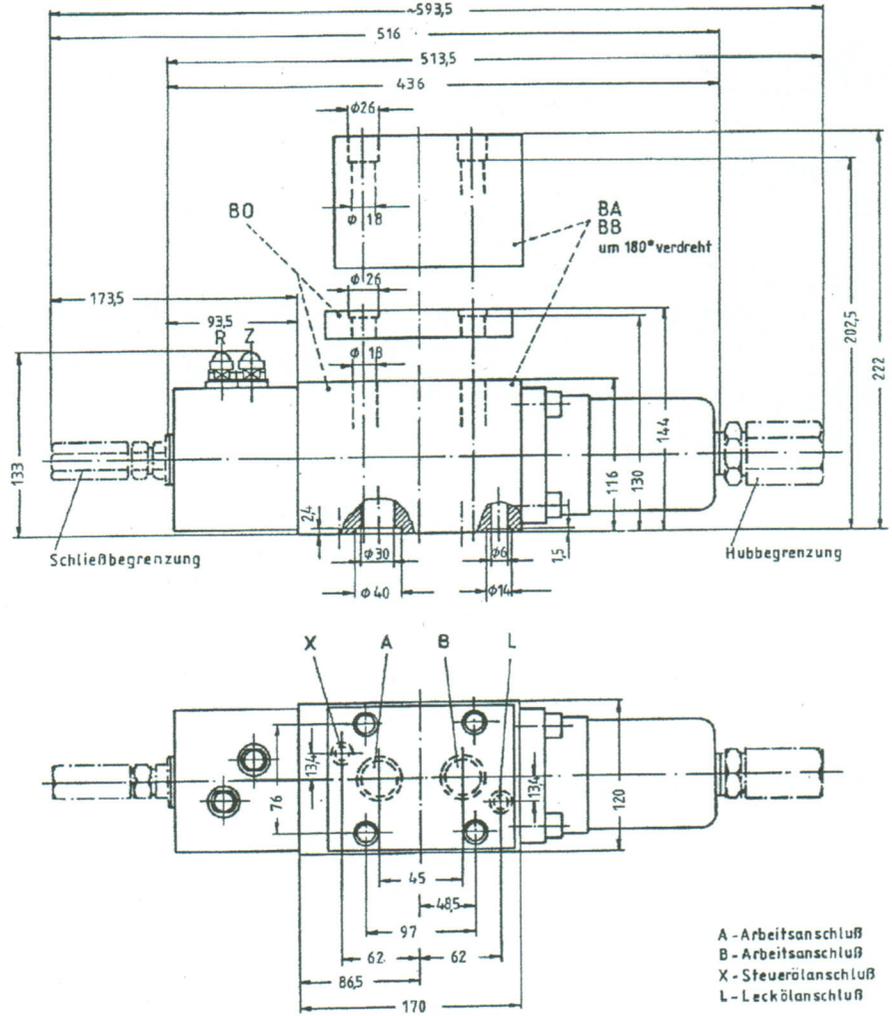
| Produktübersicht | Bremsventile Baureihe D | Kennlinien |
|--|-------------------------|------------|
| <p>Kennlinie Q-p_e-p_{ST} Bremsventil NG 20</p> | | |
| <p>Steuerdruckbereich 30 bar</p> | | |
| <p>Kennlinie Δp-Q Bremsventil NG 20</p> | | |

Produktübersicht

Bremsventile Baureihe D

Einbauzeichnungen

**Einbauzeichnung
Bremsventil
BOY / BAY / BBY 30**

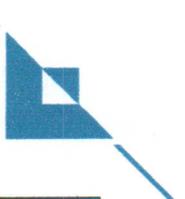


Masse [kg]

| Zusatzeinrichtung | BOY30 | BAY/BBY30 |
|-------------------|-------|-----------|
| O | 31,6 | 46,6 |
| H | 33,3 | 48,3 |
| B | 32,2 | 47,2 |
| G | 33,9 | 48,9 |



| Produktübersicht | Bremsventile Baureihe D | Kennlinien |
|---|-------------------------|------------|
| <p>Kennlinie $Q-p_e-p_{ST}$ Bremsventil NG 30 Steuerdruckbereich 10 bar</p> | | |
| <p>Steuerdruckbereich 30 bar</p> | | |
| <p>Kennlinie $\Delta p-Q$ Bremsventil NG 30</p> | | |

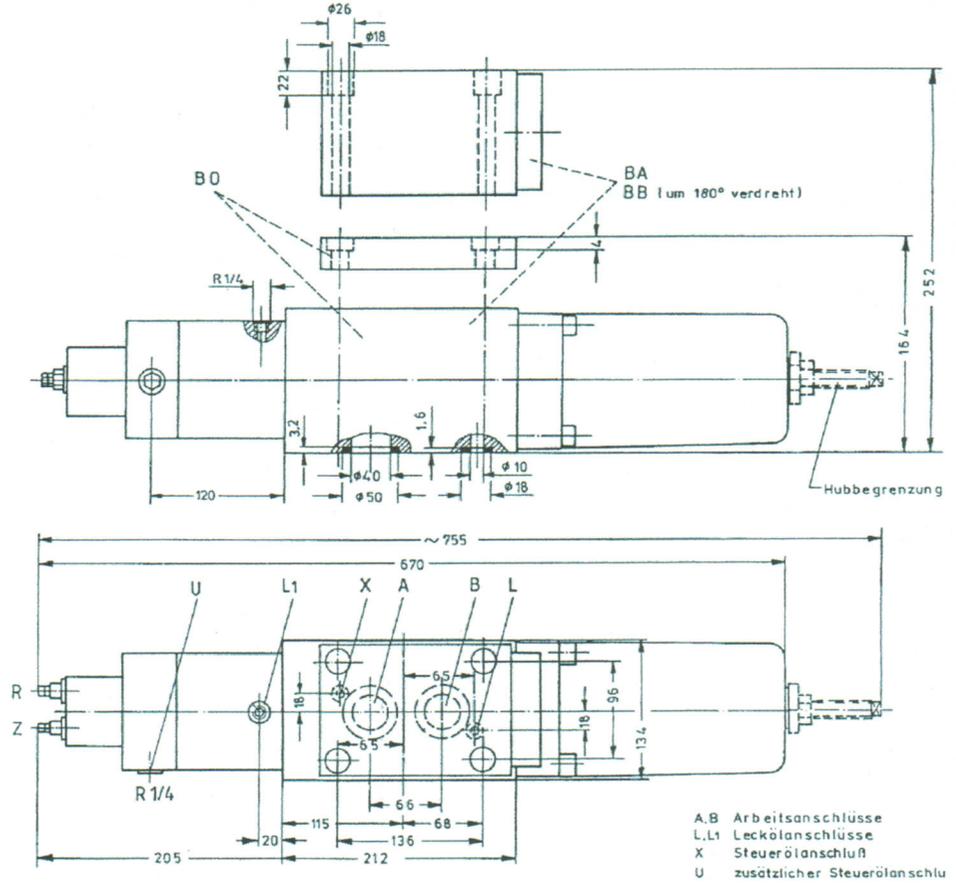


Produktübersicht

Bremsventile Baureihe D

Einbauzeichnungen

**Einbauzeichnung
Bremsventil
BOY / BAY / BBY 40**



A, B Arbeitsanschlüsse
L, L1 Leckölan schlüsse
X Steuerölan schluss
U zusätzlicher Steuerölan schluss

Masse [kg]

| Zusatzeinrichtung | BOY40 | BAY/BBY40 |
|-------------------|-------|-----------|
| O | 55 | 68 |
| H | 56 | 69 |

Befestigungsschrauben für Bremsventile

| Für Plattenaufbau und Anschlußplatte | Bremsventil Typ | Zylinderschraube | Stück |
|--------------------------------------|-----------------------------|-------------------------|-------|
| | BOY20P.F..D1. | M 10 x 120 DIN 912 10.9 | 4 |
| | BAY20P.F..D1./BBY20P.F..D1. | M 10 x 170 DIN 912 10.9 | 4 |
| | BOY30P.F..D1. | M 16 x 150 DIN 912 10.9 | 4 |
| | BAY30P.F./D1./BBY30P.F..D1. | M 16 x 220 DIN 912 10.9 | 4 |
| | BOY40P.F..A1 | M 16 x 190 DIN 912 10.9 | 4 |
| | BAY40P.F..A1/BBY40P.F..A1 | M 16 x 260 DIN 912 10.9 | 4 |

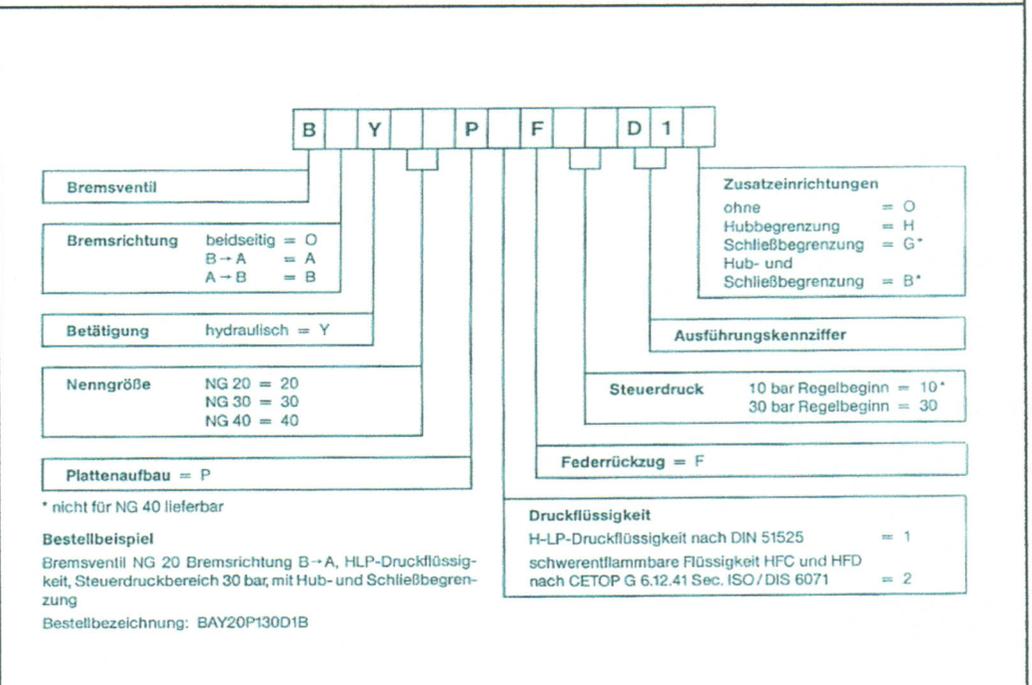


| Produktübersicht | Bremsventile Baureihe D | Kennlinien |
|---|-------------------------|------------|
| <p>Kennlinie $Q-p_e-p_{ST}$ Bremsventil NG 40 Steuerdruckbereich 30 bar</p> | | |
| <p>Kennlinie $\Delta p-Q$ Bremsventil NG 40</p> | | |



Produktübersicht **Bremsventile Baureihe D Typenbezeichnung - Bestellschlüssel**

Typenbezeichnung Bestellschlüssel



Kenngroßen

Allgemeines
Bauart: Kolbenschieber mit Drosselkerben federbelastet
Nenngrößen: NG 20 NG 30 NG 40
Befestigungsart: Plattenaufbau mit O-Ringabdichtung
Leitungsanschluß: über Anschlußplatte (nicht NG 40)
 Rohranschluß R 1", R 1/2" oder SAE-Flansch
Einbaulage: beliebig
Einbaumaße: siehe Einbauzeichnung

Hydraulische Kenngroßen

Betriebsdruck: Anschlüsse A, B, X p_{max} 350 bar
 L, L₁ p_{max} 15 bar
 bei NG 40 max. 5 bar

Steuerdruckbereich: Steuerdruckstufe 10 bar
 Steuerdruckstufe 30 bar

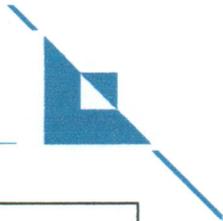
Durchfluß: siehe Durchflußkennlinien

| | | | |
|---|---------|-------------------------|----------------------|
| | | Steuerdruckstufe 30 bar | 10 bar |
| Steuervolumen bei voller Öffnung des Regelkolbens: | NG 20 = | 4,83 cm ³ | 14,8 cm ³ |
| | NG 30 = | 16,20 cm ³ | 52,5 cm ³ |
| | NG 40 = | 26,00 cm ³ | |

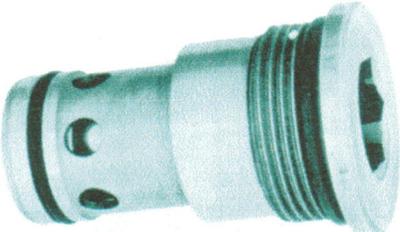
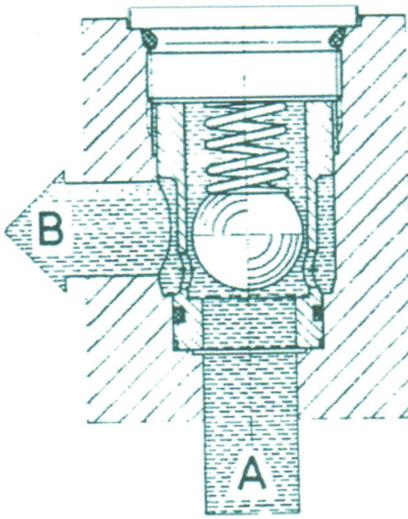
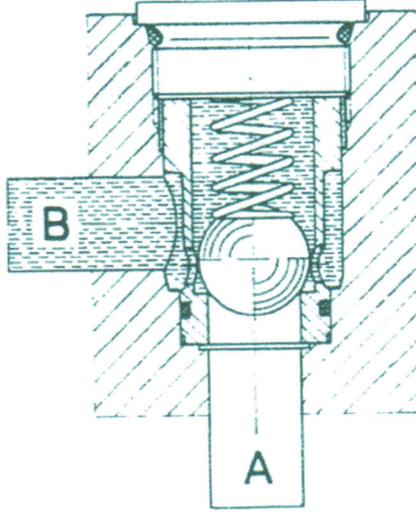
Druckflüssigkeitstemperaturbereich: ϑ_{min} = - 30° C ϑ_{max} = + 70° C

Viskositätsbereich: τ_{min} = 10 mm²/s τ_{max} = 380 mm²/s

Druckflüssigkeit: H-LP-Druckflüssigkeit nach DIN 51.525
 HFC-, HFD-Flüssigkeit nach CETOP mit Sonderdichtungen



| Produktübersicht | Bremsventile Baureihe D | Einbauzeichnungen |
|---|-------------------------|-------------------|
| <p>Einbauzeichnung Anschlußplatte PB20R5A1 (Rohranschluß R1)</p> | <p>Masse 6,5 kg</p> | |
| <p>Einbauzeichnung Anschlußplatte PB20S5A1 (SAE-Flansch)</p> | <p>Masse 8,15 kg</p> | |

| Produktübersicht | Rückschlagventil | Beschreibung |
|----------------------------|---|--------------|
| | <p>Rückschlagventile ermöglichen den Durchfluß in der einen Richtung und sperren in der entgegengesetzten Richtung.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Abb. Rückschlagventil - Einschraubpatrone</p> </div> <div style="text-align: center;">  <p>Abb. Sinnbild nach DIN 24 300</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: center; margin-top: 20px;">   </div> <p style="text-align: center; margin-top: 10px;">Abb. Schema (Funktion) Rückschlagventil</p> | |
| <p>Arbeitsweise</p> | <p>A nach B freier Durchfluß, B nach A gesperrt (siehe Abb. Schema)</p> | |



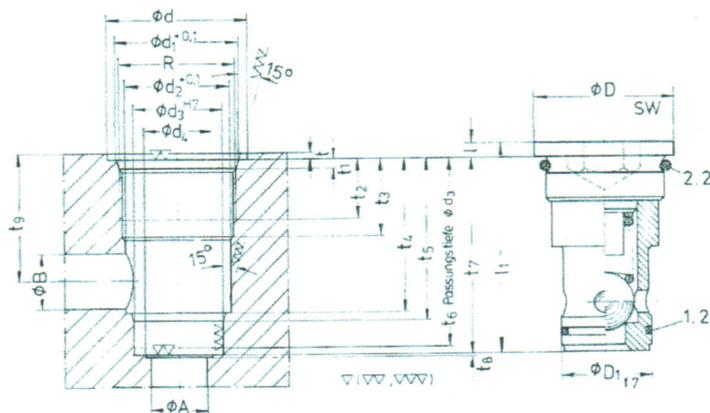
| Produktübersicht | Rückschlagventil | Kenngrößen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|----------------------------|-------------------------------|------------------------------|--|---|-------------|------------|------------------------------|------------------|--------------------|-------------------------------|------------------------------|--|---|--|------------------|--------------------|--|--|--|--|--|------------------|--------------------|--|--|--|--|--|--------------------|--|--|--|--|--|------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|----|----------------------------|----------------------------|-------|---|---------|---------|---------|---|---|----|---------|---------|----|----|---------|----|---------|
| <p>Kenngrößen nach VDI 3269</p> | <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th>Ventilart</th> <th colspan="2">Nenngröße</th> <th>Anschlußart</th> <th>Rückführung</th> <th>Druckmittel</th> <th>Ausführung</th> </tr> </thead> <tbody> <tr> <td>Rückschlagventil R</td> <td>NG 4 4</td> <td>NG 16 16</td> <td>Einschraubpatrone E</td> <td>Federrückführung F</td> <td>Mineralöl 1 Hydraulikflüssigkeit auf Esterbasis 2</td> <td>A0 wird vom Werk nach neuesten Stand der Technik eingesetzt</td> </tr> <tr> <td></td> <td>NG 6 6</td> <td>NG 20 20</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>NG 8 8</td> <td>NG 25 25</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>NG 10 10</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Bestellbeispiel: 1 Stück Rückschlagventil, NG 16, Druckmittel Mineralöl = 1 Stück Type R 16 E F 1 A0</p> <p>Bauart: Direkt gesteuertes Sitzventil</p> <p>Befestigungsart: Einbausatz (Einschraubpatrone)</p> <p>Abmessungen und Einbaumaße: siehe Abb. Einbaumaße</p> <p>Gewicht in \varnothing kg:</p> <table style="margin-left: 20px;"> <tr> <td>NG 4</td><td>NG 6</td><td>NG 8</td><td>NG 10</td><td>NG 16</td><td>NG 20</td><td>NG 25</td> </tr> <tr> <td>0,045</td><td>0,070</td><td>0,100</td><td>0,150</td><td>0,290</td><td>0,425</td><td>0,600</td> </tr> </table> <p>Einbaulage: beliebig</p> <p>Durchflußrichtung: A nach, B nach A gesperrt</p> <p>Druckmittel: Hydraulikflüssigkeit auf Mineralölbasis (Hydrauliköle nach DIN 51 525) Hydraulikflüssigkeit auf Esterbasis (HSD-Druckflüssigkeit VDMA 24 317) Bei anderen Flüssigkeiten Rücksprache!</p> | Ventilart | Nenngröße | | Anschlußart | Rückführung | Druckmittel | Ausführung | Rückschlagventil R | NG 4 4 | NG 16 16 | Einschraubpatrone E | Federrückführung F | Mineralöl 1 Hydraulikflüssigkeit auf Esterbasis 2 | A0 wird vom Werk nach neuesten Stand der Technik eingesetzt | | NG 6 6 | NG 20 20 | | | | | | NG 8 8 | NG 25 25 | | | | | | NG 10 10 | | | | | | NG 4 | NG 6 | NG 8 | NG 10 | NG 16 | NG 20 | NG 25 | 0,045 | 0,070 | 0,100 | 0,150 | 0,290 | 0,425 | 0,600 | <p>Hydraulische Kenngrößen</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-bottom: 10px;"> <thead> <tr> <th>NG</th> <th>p_{max} bei Einbau in St</th> <th>p_{max} bei Einbau in GG</th> <th>P_0</th> </tr> </thead> <tbody> <tr> <td>4</td> <td rowspan="3" style="text-align: center;">400 bar</td> <td rowspan="3" style="text-align: center;">320 bar</td> <td rowspan="6" style="text-align: center;">0,5 bar</td> </tr> <tr> <td>6</td> </tr> <tr> <td>8</td> </tr> <tr> <td>10</td> <td rowspan="4" style="text-align: center;">250 bar</td> <td rowspan="4" style="text-align: center;">250 bar</td> </tr> <tr> <td>16</td> </tr> <tr> <td>20</td> <td style="text-align: center;">210 bar</td> </tr> <tr> <td>25</td> <td style="text-align: center;">180 bar</td> </tr> </tbody> </table> <p>Druckmittel</p> <p>temperaturbereich: \square min = -20° C \square max = +70° C</p> <p>Viskositätsbereich: \mp min = 5 cSt \mp max = 380 cSt</p> | NG | p_{max} bei Einbau in St | p_{max} bei Einbau in GG | P_0 | 4 | 400 bar | 320 bar | 0,5 bar | 6 | 8 | 10 | 250 bar | 250 bar | 16 | 20 | 210 bar | 25 | 180 bar |
| Ventilart | Nenngröße | | Anschlußart | Rückführung | Druckmittel | Ausführung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rückschlagventil R | NG 4 4 | NG 16 16 | Einschraubpatrone E | Federrückführung F | Mineralöl 1 Hydraulikflüssigkeit auf Esterbasis 2 | A0 wird vom Werk nach neuesten Stand der Technik eingesetzt | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 6 6 | NG 20 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 8 8 | NG 25 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 10 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NG 4 | NG 6 | NG 8 | NG 10 | NG 16 | NG 20 | NG 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0,045 | 0,070 | 0,100 | 0,150 | 0,290 | 0,425 | 0,600 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NG | p_{max} bei Einbau in St | p_{max} bei Einbau in GG | P_0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 400 bar | 320 bar | 0,5 bar | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 10 | 250 bar | 250 bar | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | | | 210 bar | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | | 180 bar | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Produktübersicht

Rückschlagventil

Abmessungen - Ersatzteile

Abmessungen und Einbaumaße



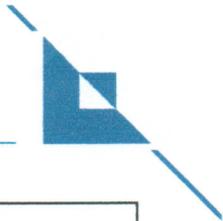
| NG | φ d | φ d ₁ ^{-0.1} | R | φ d ₂ ^{-0.1} | φ d ₃ ^{-H7} | φ d ₄ | t | t ₁ | t ₂ | t ₃ | t ₄ | t ₅ | t ₆ | t ₇ ^{-0.05} | t ₈ | t ₉ | φ A | φ B | φ D | φ D ₁₇ | l | l ₁ |
|----|-----|----------------------------------|---------|----------------------------------|---------------------------------|------------------|-----|----------------|----------------|----------------|----------------|----------------|----------------|---------------------------------|----------------|----------------|-----|-----|-----|-------------------|---|----------------|
| 4 | 19 | 14,4 | R 1/4 | 11,5 | 10 | 6 | 1,5 | 1,9+0,2 | 13,5 | 18,5 | 22 | 23,5 | 28,5 | 30 | 1 | 20 | 4 | 4 | 18 | 10 | 3 | 33 |
| 6 | 23 | 18,9 | R 3/8 | 15 | 12 | 8 | 2 | 2,4+0,2 | 13,5 | 18,5 | 27 | 28,5 | 33,5 | 35 | 1 | 25 | 6 | 6 | 22 | 12 | 3 | 38 |
| 8 | 27 | 23,5 | R 1/2 | 18,5 | 16 | 10 | 2,5 | 2,8+0,2 | 15 | 22 | 33 | 34,5 | 39,5 | 41 | 1 | 30 | 8 | 8 | 26 | 16 | 4 | 45 |
| 10 | 33 | 28,9 | R 3/4 | 24 | 20 | 12 | 2,5 | 2,8+0,2 | 17 | 24 | 41 | 42,5 | 47,5 | 49 | 1 | 37 | 10 | 10 | 32 | 20 | 4 | 53 |
| 16 | 40 | 36 | R 1 | 30 | 28 | 18 | 2,5 | 3 +0,4 | 20 | 27 | 51 | 53 | 59,5 | 61 | 1 | 44 | 16 | 16 | 39 | 28 | 5 | 66 |
| 20 | 50 | 44,6 | R 1 1/4 | 39 | 32 | 22 | 2,5 | 3 +0,4 | 23 | 29 | 62 | 64 | 70 | 72 | 1 | 53 | 20 | 20 | 49 | 32 | 5 | 77 |
| 25 | 56 | 50,5 | R 1 1/2 | 45 | 40 | 28 | 2,5 | 3 -0,4 | 23 | 31 | 70 | 72,5 | 80 | 82 | 1,5 | 59 | 25 | 25 | 55 | 40 | 5 | 87 |

Ersatzteilliste

| NG | Pos. | Benennung | Abmessungen | Stückzahl |
|----|------|-----------|---------------|-----------|
| 4 | 1.2 | O-Ring | 6 x 10 x 2 | 1 |
| | 2.2 | O-Ring | 10 x 13 x 1,5 | 1 |
| 6 | 1.2 | O-Ring | 8 x 12 x 2 | 1 |
| | 2.2 | O-Ring | 14 x 18 x 2 | 1 |
| 8 | 1.2 | O-Ring | 12 x 16 x 2 | 1 |
| | 2.2 | O-Ring | 17 x 22 x 2,5 | 1 |
| 10 | 1.2 | O-Ring | 16 x 20 x 2 | 1 |
| | 2.2 | O-Ring | 23 x 28 x 2,5 | 1 |
| 16 | 1.2 | O-Ring | 23 x 28 x 2,5 | 1 |
| | 2.2 | O-Ring | 29 x 35 x 3 | 1 |
| 20 | 1.2 | O-Ring | 27 x 32 x 2,5 | 1 |
| | 2.2 | O-Ring | 38 x 44 x 3 | 1 |
| 25 | 1.2 | O-Ring | 34 x 40 x 3 | 1 |
| | 2.2 | O-Ring | 44 x 50 x 3 | 1 |

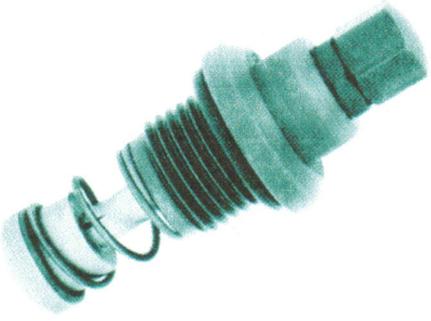
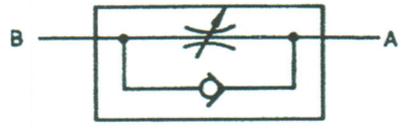
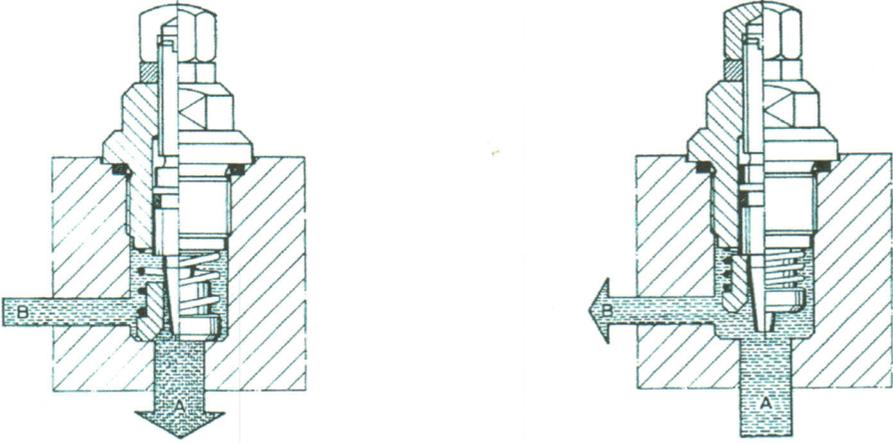


| Produktübersicht | Wechselventil RWY .. EDO . AO | Kenngrößen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|------------------|------------------------|--------------------|------------------|--|---|----------------|-----------------|-----------------|-------------|-----------|-----------------|--------------------|----------------|----------------------------|-------------------------|------------------|------------------------|--------------------|------------------|--|---|----------------|----------------|----------------|---|-----|---|---|------------------|------------------|------|------|------|-----|-----|----|-------|---|--------------------|----|--------------------|------|-----|
| Kenngrößen nach VDI 3269 | <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th>Ventilart</th> <th>Betätigung</th> <th>Nenngröße</th> <th>Anschlußart</th> <th>Steuerung</th> <th>Rückführung</th> <th>Druckmittel</th> <th>Ausführung</th> </tr> </thead> <tbody> <tr> <td>Wechselventil RW</td> <td>hydraulisch Y</td> <td>NG 4 4</td> <td>Einbausatz E</td> <td>direkt D</td> <td>ohne O</td> <td>Mineralöl 1 Hydraulik- flüssigkeit auf Esterbasis 2</td> <td>AO wird vom Werk nach neuesten Stand der Technik ein- gesetzt</td> </tr> </tbody> </table> | | | | | | | Ventilart | Betätigung | Nenngröße | Anschlußart | Steuerung | Rückführung | Druckmittel | Ausführung | Wechselventil RW | hydraulisch Y | NG 4 4 | Einbausatz E | direkt D | ohne O | Mineralöl 1 Hydraulik- flüssigkeit auf Esterbasis 2 | AO wird vom Werk nach neuesten Stand der Technik ein- gesetzt | | | | | | | | | | | | | | | | | | | | | | |
| | Ventilart | Betätigung | Nenngröße | Anschlußart | Steuerung | Rückführung | Druckmittel | Ausführung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Wechselventil RW | hydraulisch Y | NG 4 4 | Einbausatz E | direkt D | ohne O | Mineralöl 1 Hydraulik- flüssigkeit auf Esterbasis 2 | AO wird vom Werk nach neuesten Stand der Technik ein- gesetzt | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bestellbeispiel: 1 Stück Wechselventil, NG 4, Einbausatz, Druckmittel Mineralöl: = 1 Stück Wechselventil Typ RWY 4 E DO 1 AO | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Bauart: Direkt gesteuertes Sitzventil Befestigungsart: Einbausatz (Einschraubpatrone) Anschlußgröße: NG 4 Gewicht in kg: NG 4 = 0,020 Einbaulage: beliebig Durchflußrichtung: siehe Abs. Arbeitsweise bzw. Abb. Schema Druckmittel: Hydraulikflüssigkeit auf Mineralölbasis (Hydrauliköle nach DIN 51 525) Hydraulikflüssigkeit auf Esterbasis (HSD-Druckflüssigkeiten nach VDMA 24 317) Bei anderen Flüssigkeiten Rücksprache ! | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydraulische Kenngrößen | Betriebsdruckbereich: $P_{max} = 350 \text{ bar}$ Druckmittel temperaturbereich: □ min = - 20° C □ max = + 70° C Viskositätsbereich: ∓ min = 5 cSt ∓ max = 380 cSt | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Maße und Gewichte | <div style="text-align: center;"> </div> <p style="font-size: small;">Maße in mm Typ: RWY .. EDO . AO</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center; font-size: x-small;"> <thead> <tr> <th>NG</th> <th>φA</th> <th>a</th> <th>b</th> <th>φd</th> <th>φd₁</th> <th>φD</th> <th>l</th> <th>l₁</th> <th>φP₁</th> <th>φP₂</th> <th>r</th> <th>R</th> <th>t</th> <th>t₁</th> <th>t₂</th> <th>t₃</th> <th>t₄</th> <th>t₅</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>5-6</td> <td>4</td> <td>3</td> <td>18^{H8}</td> <td>11^{H8}</td> <td>18f7</td> <td>26,5</td> <td>30,1</td> <td>5-6</td> <td>5-6</td> <td>10</td> <td>R1/4"</td> <td>5</td> <td>25^{+0,1}</td> <td>20</td> <td>14^{+0,5}</td> <td>11,8</td> <td>5-6</td> </tr> </tbody> </table> | | | | | | | NG | φA | a | b | φd | φd ₁ | φD | l | l ₁ | φP ₁ | φP ₂ | r | R | t | t ₁ | t ₂ | t ₃ | t ₄ | t ₅ | 4 | 5-6 | 4 | 3 | 18 ^{H8} | 11 ^{H8} | 18f7 | 26,5 | 30,1 | 5-6 | 5-6 | 10 | R1/4" | 5 | 25 ^{+0,1} | 20 | 14 ^{+0,5} | 11,8 | 5-6 |
| NG | φA | a | b | φd | φd ₁ | φD | l | l ₁ | φP ₁ | φP ₂ | r | R | t | t ₁ | t ₂ | t ₃ | t ₄ | t ₅ | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | 5-6 | 4 | 3 | 18 ^{H8} | 11 ^{H8} | 18f7 | 26,5 | 30,1 | 5-6 | 5-6 | 10 | R1/4" | 5 | 25 ^{+0,1} | 20 | 14 ^{+0,5} | 11,8 | 5-6 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ersatzteile | 1 O-Ring 14 x 18 x 2 2 O-Ringe 8 x 11 x 1,5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



| Produktübersicht | Wechselventil RWY .. EDO . AO | Beschreibung |
|----------------------------|--|---|
| <p>Arbeitsweise</p> | <p>Über Wechselventile können zwei gegeneinander sperrbare Arbeits- oder Steueranschlüsse, (P_1, P_2) druckabhängig mit einem Verbraucher (A) verbunden werden.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="485 619 916 884"> </div> <div data-bbox="1039 674 1378 851"> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div data-bbox="477 1128 816 1515"> </div> <div data-bbox="1031 1128 1378 1515"> </div> </div> <p style="text-align: center; margin-top: 10px;">Abb. Schema (Funktion) Wechselventil</p> | <p>Über Wechselventile können zwei gegeneinander sperrbare Arbeits- oder Steueranschlüsse, (P_1, P_2) druckabhängig mit einem Verbraucher (A) verbunden werden.</p> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div data-bbox="485 917 877 962"> <p>Abb. Wechselventil - Einschraubpatrone</p> </div> <div data-bbox="1031 917 1339 962"> <p>Abb. Sinnbild nach DIN 24 300</p> </div> </div> |



| Produktübersicht | Drosselrückschlagventile DR 4 EDF . AO | Beschreibung |
|----------------------------|--|--|
| <p>Arbeitsweise</p> | <p>Drosselrückschlagventile ermöglichen einen gedrosselten Durchfluß in der einen und freien Durchfluß in der entgegengesetzten Richtung.</p>  <p>Abb. Drosselrückschlagventil (einstellbar) Einschraubpatrone</p>  <p>Abb. Sinnbild nach DIN 24 300</p>  <p>Abb. Schema (Funktion) Drosselrückschlagventil</p> | <p>Bei Durchströmung von A nach B ermöglicht das Rückschlagventil freien Durchfluß. Bei Durchströmung von B nach A sperrt das Rückschlagventil, der Durchfluß wird gedrosselt. Der Drosselquerschnitt ist einstellbar.</p> |

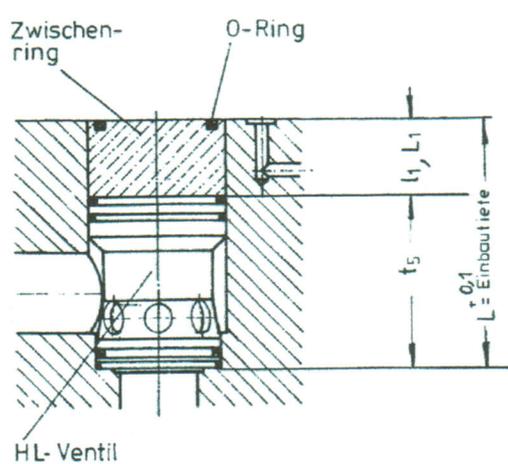
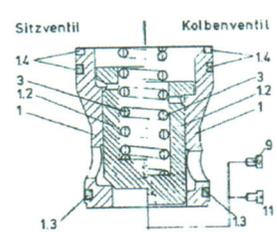


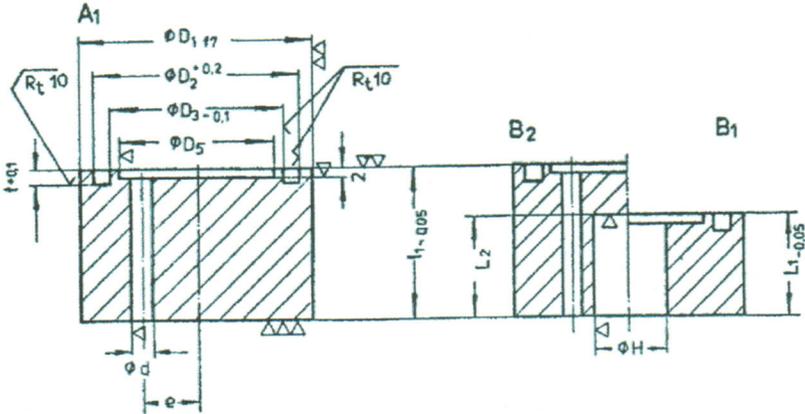
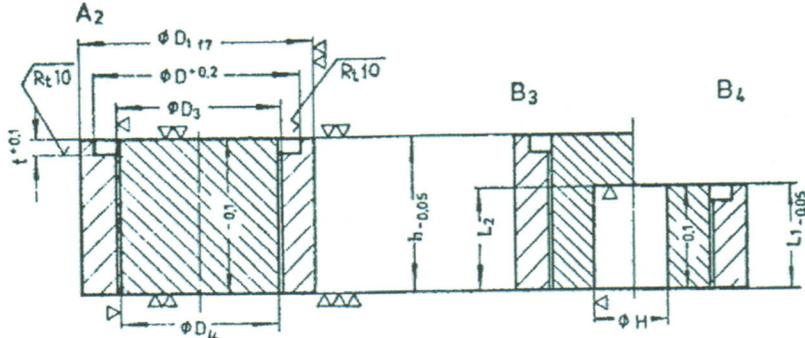
| Produktübersicht | Hydrologik-Ventile | Funktion |
|----------------------------|--|----------|
| <p>Arbeitsweise</p> | <p>Das Sitzventil hat drei Steuerflächen A_A, A_B und A_X. Steuerflächenverhältnis: $A_A : A_X = 1 : 1,2; 1 : 2$. Von diesen wird die Steuerfläche A_A immer mit dem Druck A, die Steuerfläche A_B immer mit dem Druck B beaufschlagt. Nur der Steueranschluß X kann frei beschaltet werden. Es ergeben sich zwei Zustände:</p> <p>Xdrucklos: A - B frei durchströmbar, Schließorgan ganz geöffnet.</p> <p>Xdruck beaufschlagt: B - A durchströmbar, wenn $p_A \exists A_A + p_B \exists A_B > p_X \exists A_X + F_{Feder}$</p> <p style="padding-left: 40px;">A - B gesperrt, wenn $p_A \exists A_A + p_B \exists A_B > p_X \exists A_X + F_{Feder}$</p> <p>Leckstrom: B - X, wenn $p_B > p_X$. X - B, wenn $p_B < p_X$</p> <p>Das Kolbenventil hat zwei Steuerflächen, A_A und A_X, dabei ist $A_A = A_X \exists$ Steuerflächenverhältnis $A_A : A_X = 1 : 1$ Die Steuerfläche A_A wird immer mit dem Druck p_A beaufschlagt. Der Steueranschluß X kann frei beschaltet werden. Es ergeben sich zwei Zustände:</p> <p>Xdrucklos: A - B frei durchströmbar, Schließorgan ganz geöffnet. B - A durchströmbar, wenn sich in A infolge einer Belastung ein Druck aufbaut, so daß $p_A \exists A_A > F_{Feder}$.</p> <p>Xdruck beaufschlagt: A - B durchströmbar, wenn $p_A \exists A_A > p_X \exists A_X + F_{Feder}$. A - B gesperrt, wenn $p_A \exists A_A < p_X \exists A_X + F_{Feder}$.</p> <p>Leckstrom: B - X, wenn $p_B > p_X$, X - B, wenn $p_B < p_X$ A - B, wenn $p_A > p_B$, B - A, wenn $p_A < p_B$ (in Schließstellung)</p> <p>Bezeichnungen: p_A, p_B, p_X = Druck am Anschluß A, B, X A_A, A_B, A_X = Steuerflächen druckbeaufschlagt von p_A, p_B, p_X F_{Feder} = Kraft der Schließfeder</p> | |

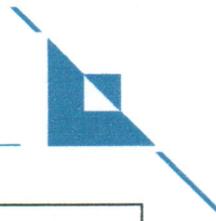
| Produktübersicht | Hydrologik-Ventile | Beschreibung | | | | | | | | | | | | | | | | |
|------------------|---|------------------|--------------------------------|--------------|--|------------------|--------------------------------|------------------|--------------------------------|--|--|--|--|------------|--------------|--|--|--|
| | <p>Hydrologik-Ventile in Sitz- oder Schieberbauart sind Einbauelemente, die zur Steuerung eines Druckmittelstromes dienen. Die Steuerung erfolgt durch Druckbeaufschlagung oder -entlastung des Steueranschlusses X, die Stellung des Schließorgans hängt von der Höhe der Drücke in den Anschlüssen A, B, X und der Charakteristik der Schließfeder ab.</p> <p>Ventile in Sitzbauart sperren in geschlossenem Zustand die Räume A und B dicht gegeneinander ab, bei Ventilen in Kolbenbauart dagegen ist ein Leckspalt vorhanden. Ein weiterer Leckspalt besteht bei den beiden Bauarten zwischen den Räumen B und X.</p> <div data-bbox="679 703 1164 1030" data-label="Image"> </div> <p data-bbox="753 1057 976 1083">Abb. Hydrologik-Ventil</p> <div data-bbox="463 1132 1399 1431" data-label="Diagram"> <table border="1"> <tr> <th colspan="2" data-bbox="463 1132 910 1152">Sitzventil</th> <th colspan="2" data-bbox="959 1132 1399 1152">Kolbenventil</th> </tr> <tr> <td data-bbox="463 1152 689 1269">ohne Steuerkanal</td> <td data-bbox="689 1152 910 1269">mit Steuerkanal Zwischen A - X</td> <td data-bbox="959 1152 1182 1269">ohne Steuerkanal</td> <td data-bbox="1182 1152 1399 1269">mit Steuerkanal zwischen A - X</td> </tr> <tr> <td data-bbox="463 1269 689 1431"></td> <td data-bbox="689 1269 910 1431"></td> <td data-bbox="959 1269 1182 1431"></td> <td data-bbox="1182 1269 1399 1431"></td> </tr> </table> </div> <p data-bbox="474 1451 629 1477">Abb. Sinnbilder</p> <div data-bbox="489 1532 1392 1964" data-label="Diagram"> <table border="1"> <tr> <th data-bbox="489 1532 1028 1566">Sitzventil</th> <th data-bbox="1028 1532 1392 1566">Kolbenventil</th> </tr> <tr> <td data-bbox="489 1566 1028 1964"></td> <td data-bbox="1028 1566 1392 1964"></td> </tr> </table> </div> <p data-bbox="498 2006 905 2032">Abb. Schema (Funktion) Hydrologik-Ventil</p> | Sitzventil | | Kolbenventil | | ohne Steuerkanal | mit Steuerkanal Zwischen A - X | ohne Steuerkanal | mit Steuerkanal zwischen A - X | | | | | Sitzventil | Kolbenventil | | | |
| Sitzventil | | Kolbenventil | | | | | | | | | | | | | | | | |
| ohne Steuerkanal | mit Steuerkanal Zwischen A - X | ohne Steuerkanal | mit Steuerkanal zwischen A - X | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| Sitzventil | Kolbenventil | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

| Produktübersicht | Hydrologik-Ventile | Kenngrößen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---------------------------------------|---|---|---|----------------------|--|--|--------|------------|-------------------------|--------|---------------------------------------|---|-------------------------------------|---|--------------------|--|--|-------|-------|---------------------------------------|-------------------|---|-------|-------|-------------------------------------|-------------------|-----------------|-------|-------|---|--|--|-------|--|--------|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|------|-----|-----|-----|-----|-----|-----|------|------|--|-------|-------|-------|-------|-------|-------|-------|-------|--------|-------------|----|-----|-----|-----|-----|-----|------|------|------|--|
| <h3 style="margin: 0;">Kenngrößen</h3> | <table border="1" style="width:100%; border-collapse: collapse; font-size: small;"> <thead> <tr> <th>Ventilart</th> <th>Nenngröße</th> <th>Bauart</th> <th>Schließfeder</th> <th>Lage d. Steuerkanals</th> <th>Steuerung Größe d. Düse</th> <th>Baugröße</th> <th>Medium</th> <th>Ausführung</th> </tr> </thead> <tbody> <tr> <td rowspan="10">Hydrologik-ventil HL</td> <td>NG 16</td> <td rowspan="2">Kolbenventil $A_A \cdot A_X = 1:1$</td> <td rowspan="2">Öffnungsdruck bei Anströmung von A $\approx 0,5$ bar</td> <td rowspan="2">Kein Steuerkanal N zwischen A und X</td> <td rowspan="2">ohne Düsen einbau. Bei Steuerung N verschlossen $\emptyset 0$ Ø Düse NG 16 bis einschl. NG 40 1,0 1,2 1,4 1,6 1,8</td> <td rowspan="10">Kurze Ausführung A</td> <td rowspan="10">Mineralöl 1 Hydraulikflüssigkeit auf Esterbasis 2</td> <td rowspan="10">A 2 wird vom Werk nach neuesten Stand der Technik eingesetzt</td> </tr> <tr> <td>NG 20</td> </tr> <tr> <td>NG 25</td> <td rowspan="2">Sitzventil $A_A \cdot A_X = 1:1,2$</td> <td rowspan="2">$\approx 0,5$ bar</td> <td rowspan="2">Ø Düse NG 50 bis einschl. NG 100 1,6 1,8 2,0 2,2 2,5 2,8</td> </tr> <tr> <td>NG 32</td> </tr> <tr> <td>NG 40</td> <td rowspan="2">Sitzventil $A_A \cdot A_X = 1:2$</td> <td rowspan="2">$\approx 2,0$ bar</td> <td rowspan="2">3,2 3,6 4,0 4,5</td> </tr> <tr> <td>NG 50</td> </tr> <tr> <td>NG 63</td> <td rowspan="3">R</td> <td rowspan="3">$\approx 5,0$ bar nur für Bauart Su R</td> <td></td> </tr> <tr> <td>NG 80</td> <td></td> </tr> <tr> <td>NG 100</td> <td></td> </tr> </tbody> </table> <p>Bestellbeispiel: Hydrologik Ventileinsatz NG 50, Sitzventil Flächenverhältnis 1:1,2, Öffnungsdruck 2,0 bar, Steuerkanal zwischen A und X, Größe der Steuerdüse Ø 2,0 mm, kurze Ausführung, Mineralöl = 1 Stück HL-Ventil Typ: HL 50 S 2.0A 2.0A1A 2</p> <p>Bauart: Kolben- /Sitzventil Befestigung: Blockeinbau Anschlußmaße für Hydrologiksteuerplatten:</p> <table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <tr> <td>NG 16</td><td>NG 20</td><td>NG 25</td><td>NG 32</td><td>NG 40</td><td>NG 50</td><td>NG 63</td><td>NG 80</td><td>NG 100</td> </tr> <tr> <td>0,18</td><td>0,2</td><td>0,4</td><td>0,8</td><td>1,4</td><td>2,9</td><td>6,2</td><td>12,4</td><td>22,6</td> </tr> </table> <p>Gewicht in kg:</p> <p>Einbaulage: beliebig Betriebsmittel: Hydraulikflüssigkeit auf Mineralölbasis (Hydrauliköle nach DIN 51 525) Hydraulikflüssigkeit auf Esterbasis (HSD-Druckflüssigkeit nach VDMA 24 217) Bei anderen Flüssigkeiten Rücksprache! Einbaurichtlinien: siehe dort</p> <p>Hydraulische Kenngrößen</p> <p>Betriebsdruckbereich Eingang: $p_{max} = 350$ bar Druckmittel-temperaturbereich: □ min = - 20° C □ max = + 70° C Viskositätsbereich: ∓ min = 5 cSt ∓ max = 380 cSt Nenndurchfluß:</p> <table border="1" style="width:100%; border-collapse: collapse; font-size: x-small;"> <tr> <td>Durchfluß bei einem Druckabfall von $\Delta p = 1$ bar</td> <td>NG 16</td><td>NG 20</td><td>NG 25</td><td>NG 32</td><td>NG 40</td><td>NG 50</td><td>NG 63</td><td>NG 60</td><td>NG 100</td> </tr> <tr> <td>Q_N l/min</td> <td>60</td><td>100</td><td>160</td><td>250</td><td>400</td><td>630</td><td>1000</td><td>1600</td><td>2500</td> </tr> </table> <p>Der Druckverlust bei Nenndurchfluß und voll geöffnetem Hydrologik-Ventil beträgt $\Delta p = 1$ bar (Druckmittelviskosität $\mp = 36$ cSt).</p> | Ventilart | Nenngröße | Bauart | Schließfeder | Lage d. Steuerkanals | Steuerung Größe d. Düse | Baugröße | Medium | Ausführung | Hydrologik-ventil HL | NG 16 | Kolbenventil $A_A \cdot A_X = 1:1$ | Öffnungsdruck bei Anströmung von A $\approx 0,5$ bar | Kein Steuerkanal N zwischen A und X | ohne Düsen einbau. Bei Steuerung N verschlossen $\emptyset 0$ Ø Düse NG 16 bis einschl. NG 40 1,0 1,2 1,4 1,6 1,8 | Kurze Ausführung A | Mineralöl 1 Hydraulikflüssigkeit auf Esterbasis 2 | A 2 wird vom Werk nach neuesten Stand der Technik eingesetzt | NG 20 | NG 25 | Sitzventil $A_A \cdot A_X = 1:1,2$ | $\approx 0,5$ bar | Ø Düse NG 50 bis einschl. NG 100 1,6 1,8 2,0 2,2 2,5 2,8 | NG 32 | NG 40 | Sitzventil $A_A \cdot A_X = 1:2$ | $\approx 2,0$ bar | 3,2 3,6 4,0 4,5 | NG 50 | NG 63 | R | $\approx 5,0$ bar nur für Bauart Su R | | NG 80 | | NG 100 | | NG 16 | NG 20 | NG 25 | NG 32 | NG 40 | NG 50 | NG 63 | NG 80 | NG 100 | 0,18 | 0,2 | 0,4 | 0,8 | 1,4 | 2,9 | 6,2 | 12,4 | 22,6 | Durchfluß bei einem Druckabfall von $\Delta p = 1$ bar | NG 16 | NG 20 | NG 25 | NG 32 | NG 40 | NG 50 | NG 63 | NG 60 | NG 100 | Q_N l/min | 60 | 100 | 160 | 250 | 400 | 630 | 1000 | 1600 | 2500 | |
| Ventilart | Nenngröße | Bauart | Schließfeder | Lage d. Steuerkanals | Steuerung Größe d. Düse | Baugröße | Medium | Ausführung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hydrologik-ventil HL | NG 16 | Kolbenventil $A_A \cdot A_X = 1:1$ | Öffnungsdruck bei Anströmung von A $\approx 0,5$ bar | Kein Steuerkanal N zwischen A und X | ohne Düsen einbau. Bei Steuerung N verschlossen $\emptyset 0$ Ø Düse NG 16 bis einschl. NG 40 1,0 1,2 1,4 1,6 1,8 | Kurze Ausführung A | Mineralöl 1 Hydraulikflüssigkeit auf Esterbasis 2 | A 2 wird vom Werk nach neuesten Stand der Technik eingesetzt | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 25 | Sitzventil $A_A \cdot A_X = 1:1,2$ | $\approx 0,5$ bar | Ø Düse NG 50 bis einschl. NG 100 1,6 1,8 2,0 2,2 2,5 2,8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 32 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 40 | Sitzventil $A_A \cdot A_X = 1:2$ | $\approx 2,0$ bar | 3,2 3,6 4,0 4,5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 63 | R | $\approx 5,0$ bar nur für Bauart Su R | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 80 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | NG 16 | NG 20 | NG 25 | NG 32 | NG 40 | | | | NG 50 | NG 63 | NG 80 | NG 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0,18 | 0,2 | 0,4 | 0,8 | 1,4 | 2,9 | 6,2 | 12,4 | 22,6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Durchfluß bei einem Druckabfall von $\Delta p = 1$ bar | NG 16 | NG 20 | NG 25 | NG 32 | NG 40 | NG 50 | NG 63 | NG 60 | NG 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Q_N l/min | 60 | 100 | 160 | 250 | 400 | 630 | 1000 | 1600 | 2500 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

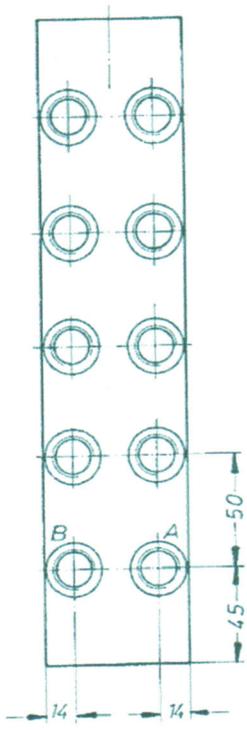
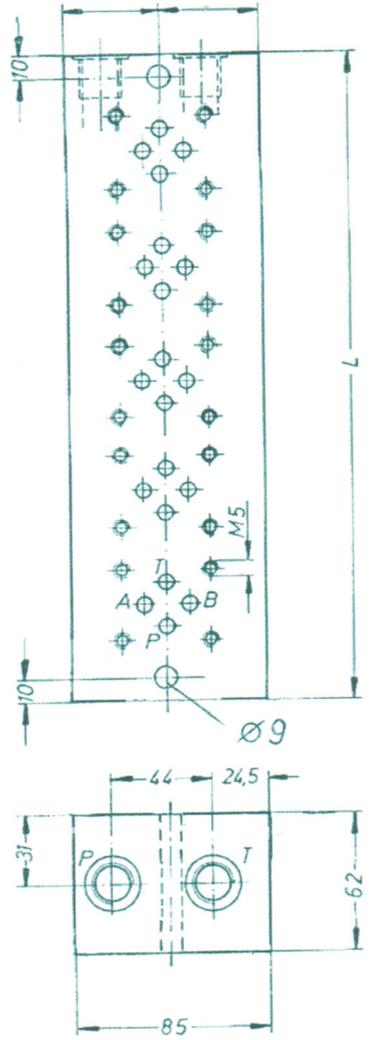
| Produktübersicht | Hydrologik-Ventile | Abmessungen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|---|--|-----------------------|-----------------|-----------|----------------|--------------|----------------|--------------|--------------|--------------|-------|--------------|--------------|--------------|--------------|--------------|----------|----------|------|----|------|----|----|------|----|----|----|-----|------|----|----|----|-----|------|----|----|----|-----|------|----|----|----|-----|------|----|----|-----|-----|------|----|-----|-----|---|----|----|----|------|----|----|----|----|----|----|------|----|----|----|----|-----|-----|---|----|----|----|------|----|----|----|----|----|----|------|----|----|----|----|-----|-----|---|----|----|----|------|----|----|----|----|----|----|------|----|----|----|----|---|-----|---|----|----|----|------|----|----|----|----|----|----|----|-----|-----|----|----|---|-----|---|----|-----|-----|------|----|----|----|----|----|-----|-----|-----|-----|----|----|---|-----|----|----|-----|-----|------|----|----|----|-----|----|-----|-----|-----|-----|-----|----|---|-----|----|-----|-----|-----|------|-----|-----|-----|-----|----|-----|-----|-----|-----|-----|-----|---|-----|----|----|------------|--|----------|--|------------------|-----------------------|------------------|-----------------------|----|--|------|--|----|----|--|----|--|----|----|--|----|--|----|----|--|----|--|----|----|-----|----|-----|----|----|--|------|-----|----|----|--|----|-----|----|----|--|----|-----|----|-----|--|------|------|----|--|
| <p>Abmessungen und Einbaumaße</p> | | <table border="1" style="font-size: small;"> <thead> <tr> <th>Bauart</th> <th>Schließfeder/bar</th> <th>Nenngröße</th> </tr> </thead> <tbody> <tr> <td>S,R,K</td> <td>0,5</td> <td>16 - 100</td> </tr> <tr> <td>S,R</td> <td>2,0</td> <td>16 - 100</td> </tr> <tr> <td>K</td> <td>2,0</td> <td>16 - 25</td> </tr> <tr> <td>S,R</td> <td>5,0</td> <td>16 - 100</td> </tr> <tr> <td>K</td> <td>2,0</td> <td>32 - 100</td> </tr> </tbody> </table> | Bauart | Schließfeder/bar | Nenngröße | S,R,K | 0,5 | 16 - 100 | S,R | 2,0 | 16 - 100 | K | 2,0 | 16 - 25 | S,R | 5,0 | 16 - 100 | K | 2,0 | 32 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bauart | Schließfeder/bar | Nenngröße | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S,R,K | 0,5 | 16 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S,R | 2,0 | 16 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K | 2,0 | 16 - 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| S,R | 5,0 | 16 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| K | 2,0 | 32 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | <p>A</p> <table border="1" style="font-size: x-small; width:100%; border-collapse: collapse;"> <thead> <tr> <th>NG</th> <th>ϕd_1^{H7}</th> <th>ϕd_2^{H7}</th> <th>ϕd_3^{G3}</th> <th>ϕA</th> <th>ϕA_{max}</th> <th>ϕB</th> <th>ϕB_{max}</th> <th>t_1</th> <th>$t_2^{+0,2}$</th> <th>$t_3^{+0,2}$</th> <th>t_4</th> <th>$t_5^{+0,1}$</th> <th>t_6</th> <th>t_7</th> <th>$t_8^{+0,1}$</th> <th>$t_9^{+0,1}$</th> <th>ϕX</th> </tr> </thead> <tbody> <tr><td>16</td><td>32</td><td>30</td><td>11,5</td><td>16</td><td>18</td><td>16</td><td>20</td><td>15</td><td>32</td><td>34</td><td>40,5</td><td>42</td><td>22</td><td>20</td><td>1,5</td><td>1,9</td><td>5</td></tr> <tr><td>20</td><td>36</td><td>32</td><td>11,5</td><td>20</td><td>22</td><td>20</td><td>25</td><td>5</td><td>38</td><td>40</td><td>46</td><td>48</td><td>26</td><td>24</td><td>1,5</td><td>1,9</td><td>5</td></tr> <tr><td>25</td><td>45</td><td>40</td><td>11,5</td><td>25</td><td>28</td><td>25</td><td>32</td><td>18</td><td>46</td><td>48,5</td><td>56</td><td>56</td><td>32</td><td>29</td><td>1,5</td><td>2,3</td><td>5</td></tr> <tr><td>32</td><td>56</td><td>50</td><td>11,5</td><td>32</td><td>36</td><td>32</td><td>40</td><td>20</td><td>55</td><td>57,5</td><td>66</td><td>68</td><td>38</td><td>34</td><td>1,5</td><td>2,3</td><td>5</td></tr> <tr><td>40</td><td>70</td><td>63</td><td>15,5</td><td>40</td><td>45</td><td>40</td><td>50</td><td>25</td><td>68</td><td>70,5</td><td>80</td><td>82</td><td>46</td><td>41</td><td>2</td><td>3,1</td><td>6</td></tr> <tr><td>50</td><td>90</td><td>80</td><td>15,5</td><td>50</td><td>56</td><td>50</td><td>63</td><td>30</td><td>87</td><td>91</td><td>103</td><td>105</td><td>60</td><td>55</td><td>2</td><td>3,1</td><td>8</td></tr> <tr><td>63</td><td>110</td><td>100</td><td>17,5</td><td>63</td><td>70</td><td>63</td><td>80</td><td>30</td><td>114</td><td>118</td><td>131</td><td>135</td><td>80</td><td>72</td><td>2</td><td>3,9</td><td>10</td></tr> <tr><td>80</td><td>140</td><td>125</td><td>17,5</td><td>80</td><td>90</td><td>80</td><td>100</td><td>30</td><td>142</td><td>146</td><td>164</td><td>170</td><td>100</td><td>90</td><td>2</td><td>3,9</td><td>10</td></tr> <tr><td>100</td><td>180</td><td>160</td><td>17,5</td><td>100</td><td>115</td><td>100</td><td>125</td><td>30</td><td>172</td><td>176</td><td>195</td><td>205</td><td>120</td><td>107</td><td>2</td><td>3,9</td><td>10</td></tr> </tbody> </table> <p>B 1)</p> <table border="1" style="font-size: x-small; width:100%; border-collapse: collapse;"> <thead> <tr> <th rowspan="2">NG</th> <th colspan="2">Bauart S,R</th> <th colspan="2">Bauart K</th> </tr> <tr> <th>Schließfeder/bar</th> <th>ϕH (Federhülse)</th> <th>Schließfeder/bar</th> <th>ϕH (Federhülse)</th> </tr> </thead> <tbody> <tr><td>16</td><td></td><td>10,5</td><td></td><td>10</td></tr> <tr><td>20</td><td></td><td>13</td><td></td><td>10</td></tr> <tr><td>25</td><td></td><td>16</td><td></td><td>18</td></tr> <tr><td>32</td><td></td><td>20</td><td></td><td>19</td></tr> <tr><td>40</td><td>5,0</td><td>25</td><td>4,0</td><td>24</td></tr> <tr><td>50</td><td></td><td>31,5</td><td>5,0</td><td>30</td></tr> <tr><td>63</td><td></td><td>40</td><td>6,3</td><td>39</td></tr> <tr><td>80</td><td></td><td>52</td><td>8,0</td><td>48</td></tr> <tr><td>100</td><td></td><td>64,5</td><td>10,0</td><td>61</td></tr> </tbody> </table> <p>Maß: $t_5 + L_1$ Toleranz +0,1 mm</p> <p>1) Zwischenringe siehe unten 2) Bei tieferem Einbau des HL-Ventils siehe unten</p> | NG | ϕd_1^{H7} | ϕd_2^{H7} | ϕd_3^{G3} | ϕA | ϕA_{max} | ϕB | ϕB_{max} | t_1 | $t_2^{+0,2}$ | $t_3^{+0,2}$ | t_4 | $t_5^{+0,1}$ | t_6 | t_7 | $t_8^{+0,1}$ | $t_9^{+0,1}$ | ϕX | 16 | 32 | 30 | 11,5 | 16 | 18 | 16 | 20 | 15 | 32 | 34 | 40,5 | 42 | 22 | 20 | 1,5 | 1,9 | 5 | 20 | 36 | 32 | 11,5 | 20 | 22 | 20 | 25 | 5 | 38 | 40 | 46 | 48 | 26 | 24 | 1,5 | 1,9 | 5 | 25 | 45 | 40 | 11,5 | 25 | 28 | 25 | 32 | 18 | 46 | 48,5 | 56 | 56 | 32 | 29 | 1,5 | 2,3 | 5 | 32 | 56 | 50 | 11,5 | 32 | 36 | 32 | 40 | 20 | 55 | 57,5 | 66 | 68 | 38 | 34 | 1,5 | 2,3 | 5 | 40 | 70 | 63 | 15,5 | 40 | 45 | 40 | 50 | 25 | 68 | 70,5 | 80 | 82 | 46 | 41 | 2 | 3,1 | 6 | 50 | 90 | 80 | 15,5 | 50 | 56 | 50 | 63 | 30 | 87 | 91 | 103 | 105 | 60 | 55 | 2 | 3,1 | 8 | 63 | 110 | 100 | 17,5 | 63 | 70 | 63 | 80 | 30 | 114 | 118 | 131 | 135 | 80 | 72 | 2 | 3,9 | 10 | 80 | 140 | 125 | 17,5 | 80 | 90 | 80 | 100 | 30 | 142 | 146 | 164 | 170 | 100 | 90 | 2 | 3,9 | 10 | 100 | 180 | 160 | 17,5 | 100 | 115 | 100 | 125 | 30 | 172 | 176 | 195 | 205 | 120 | 107 | 2 | 3,9 | 10 | NG | Bauart S,R | | Bauart K | | Schließfeder/bar | ϕH (Federhülse) | Schließfeder/bar | ϕH (Federhülse) | 16 | | 10,5 | | 10 | 20 | | 13 | | 10 | 25 | | 16 | | 18 | 32 | | 20 | | 19 | 40 | 5,0 | 25 | 4,0 | 24 | 50 | | 31,5 | 5,0 | 30 | 63 | | 40 | 6,3 | 39 | 80 | | 52 | 8,0 | 48 | 100 | | 64,5 | 10,0 | 61 | |
| NG | ϕd_1^{H7} | ϕd_2^{H7} | ϕd_3^{G3} | ϕA | ϕA_{max} | ϕB | ϕB_{max} | t_1 | $t_2^{+0,2}$ | $t_3^{+0,2}$ | t_4 | $t_5^{+0,1}$ | t_6 | t_7 | $t_8^{+0,1}$ | $t_9^{+0,1}$ | ϕX | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 32 | 30 | 11,5 | 16 | 18 | 16 | 20 | 15 | 32 | 34 | 40,5 | 42 | 22 | 20 | 1,5 | 1,9 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 36 | 32 | 11,5 | 20 | 22 | 20 | 25 | 5 | 38 | 40 | 46 | 48 | 26 | 24 | 1,5 | 1,9 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 45 | 40 | 11,5 | 25 | 28 | 25 | 32 | 18 | 46 | 48,5 | 56 | 56 | 32 | 29 | 1,5 | 2,3 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | 56 | 50 | 11,5 | 32 | 36 | 32 | 40 | 20 | 55 | 57,5 | 66 | 68 | 38 | 34 | 1,5 | 2,3 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 70 | 63 | 15,5 | 40 | 45 | 40 | 50 | 25 | 68 | 70,5 | 80 | 82 | 46 | 41 | 2 | 3,1 | 6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | 90 | 80 | 15,5 | 50 | 56 | 50 | 63 | 30 | 87 | 91 | 103 | 105 | 60 | 55 | 2 | 3,1 | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | 110 | 100 | 17,5 | 63 | 70 | 63 | 80 | 30 | 114 | 118 | 131 | 135 | 80 | 72 | 2 | 3,9 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | 140 | 125 | 17,5 | 80 | 90 | 80 | 100 | 30 | 142 | 146 | 164 | 170 | 100 | 90 | 2 | 3,9 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | 180 | 160 | 17,5 | 100 | 115 | 100 | 125 | 30 | 172 | 176 | 195 | 205 | 120 | 107 | 2 | 3,9 | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NG | Bauart S,R | | Bauart K | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Schließfeder/bar | ϕH (Federhülse) | Schließfeder/bar | ϕH (Federhülse) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | | 10,5 | | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | | 13 | | 10 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | | 16 | | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | | 20 | | 19 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 5,0 | 25 | 4,0 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | | 31,5 | 5,0 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | | 40 | 6,3 | 39 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | | 52 | 8,0 | 48 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | | 64,5 | 10,0 | 61 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <p>Anschlußmaße für Hydrologik-Steuerplatte</p> | <p>Lochbild NG 16 / 20 / 25 / 32 / 40 / 50</p> | <p>Lochbild NG 60 / 80 / 100</p> | <table border="1" style="font-size: x-small;"> <thead> <tr> <th>NG</th> <th>ϕD_1</th> <th>M Gewinde</th> <th>Bohrtiefe</th> <th>Gewindetiefe</th> </tr> </thead> <tbody> <tr><td>16</td><td>50</td><td>M 8</td><td>17</td><td>11,5</td></tr> <tr><td>20</td><td>55</td><td>M 8</td><td>17</td><td>11,5</td></tr> <tr><td>25</td><td>65</td><td>M 10</td><td>21</td><td>15</td></tr> <tr><td>32</td><td>85</td><td>M 12</td><td>25</td><td>18</td></tr> <tr><td>40</td><td>108</td><td>M 16</td><td>31</td><td>24</td></tr> <tr><td>50</td><td>135</td><td>M 20</td><td>38</td><td>30</td></tr> <tr><td>63</td><td>155</td><td>M 20</td><td>38</td><td>30</td></tr> <tr><td>80</td><td>195</td><td>M 24</td><td>45</td><td>36</td></tr> <tr><td>100</td><td>250</td><td>M 30</td><td>56</td><td>42</td></tr> </tbody> </table> | NG | ϕD_1 | M Gewinde | Bohrtiefe | Gewindetiefe | 16 | 50 | M 8 | 17 | 11,5 | 20 | 55 | M 8 | 17 | 11,5 | 25 | 65 | M 10 | 21 | 15 | 32 | 85 | M 12 | 25 | 18 | 40 | 108 | M 16 | 31 | 24 | 50 | 135 | M 20 | 38 | 30 | 63 | 155 | M 20 | 38 | 30 | 80 | 195 | M 24 | 45 | 36 | 100 | 250 | M 30 | 56 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NG | ϕD_1 | M Gewinde | Bohrtiefe | Gewindetiefe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 50 | M 8 | 17 | 11,5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 55 | M 8 | 17 | 11,5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 65 | M 10 | 21 | 15 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | 85 | M 12 | 25 | 18 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 108 | M 16 | 31 | 24 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | 135 | M 20 | 38 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | 155 | M 20 | 38 | 30 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | 195 | M 24 | 45 | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | 250 | M 30 | 56 | 42 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Produktübersicht | Hydrologik-Ventile | Einbaurichtlinien - Ersatzteile | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|--|-----------|--------|----|-------------|----|---------------|----|---------------|----|-------------|----|-------------|----|-------------|----|-------------|----|---------------|-----|---------------|------|-----------|---|--------|-----|--------|-----|--------|-----|--------|---|------------|---|------|----|----------------------------------|
| <p>Einbaurichtlinien</p> |  <p>Zwischenring O-Ring HL-Ventil</p> <p>1) Einbautiefe: L für HL-Ventil, Bauart S, R, NG 16-100 K, NG 32-100 Steuerplatte Typ PHL ... u. PHL... m. Hubbegrenzung</p> <p>= Maß t_5 HL Ventil Maßtabelle Seite 3 + Maß L_1 Zwischenring B₁, B₄ Seite 4 = <u>Einbautiefe $L^{+0,1}$</u></p> <p>2) Einbautiefen für HL-Ventile, die über das Maß t_5 der Maßtabelle s.o. hinausgehen, sind nach obiger Einbauzeichnung zu bestimmen. z.B. Erforderliche Einbautiefe für HL-Ventil NG 50</p> <p>$L_{\text{Einbautiefe}}$ 135 mm $t_{\text{Maßtabelle Seite 3}}$ - 105 mm <u>Zwischenring l_1 = 30 mm</u> l_1 ist den Tiefenmaßen der Maßtabelle (s.o.) NG 60 zuzurechnen</p> | <table border="1" data-bbox="1124 530 1386 873"> <thead> <tr> <th>Nenngröße</th> <th>O-Ring</th> </tr> </thead> <tbody> <tr><td>16</td><td>24 × 28 × 2</td></tr> <tr><td>20</td><td>28 × 33 × 2,5</td></tr> <tr><td>25</td><td>35 × 40 × 2,5</td></tr> <tr><td>32</td><td>44 × 50 × 3</td></tr> <tr><td>40</td><td>55 × 61 × 3</td></tr> <tr><td>50</td><td>72 × 78 × 3</td></tr> <tr><td>63</td><td>90 × 98 × 4</td></tr> <tr><td>80</td><td>112 × 120 × 4</td></tr> <tr><td>100</td><td>140 × 150 × 5</td></tr> </tbody> </table> <p>Ersatzteile</p>  <table border="1" data-bbox="777 1592 1001 1802"> <thead> <tr> <th>Pos.</th> <th>Benennung</th> </tr> </thead> <tbody> <tr><td>1</td><td>Buchse</td></tr> <tr><td>1.2</td><td>Kolben</td></tr> <tr><td>1.3</td><td>O-Ring</td></tr> <tr><td>1.4</td><td>O-Ring</td></tr> <tr><td>3</td><td>Druckfeder</td></tr> <tr><td>9</td><td>Düse</td></tr> <tr><td>11</td><td>Zylinder- oder Verschlusschraube</td></tr> </tbody> </table> <p>Für Hydrologik-Ventile sind als Ersatzteile nur die O-Ringe als kompl. Dichtungssatz lieferbar. Bei Bestellungen von Druckfedern und Düsen bitte genaue Typenbezeichnung des Hydrologik-Ventils angeben. Bestellbeispiel: 1 Düse Ø 2,5 Pos. 9 für Hydrologik-Ventil Typ: HL 50 S 2.0 A 2,5 A 1 A 2</p> | Nenngröße | O-Ring | 16 | 24 × 28 × 2 | 20 | 28 × 33 × 2,5 | 25 | 35 × 40 × 2,5 | 32 | 44 × 50 × 3 | 40 | 55 × 61 × 3 | 50 | 72 × 78 × 3 | 63 | 90 × 98 × 4 | 80 | 112 × 120 × 4 | 100 | 140 × 150 × 5 | Pos. | Benennung | 1 | Buchse | 1.2 | Kolben | 1.3 | O-Ring | 1.4 | O-Ring | 3 | Druckfeder | 9 | Düse | 11 | Zylinder- oder Verschlusschraube |
| Nenngröße | O-Ring | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 24 × 28 × 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 28 × 33 × 2,5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 35 × 40 × 2,5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | 44 × 50 × 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 55 × 61 × 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | 72 × 78 × 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | 90 × 98 × 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | 112 × 120 × 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | 140 × 150 × 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pos. | Benennung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1 | Buchse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.2 | Kolben | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.3 | O-Ring | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 1.4 | O-Ring | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | Druckfeder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 9 | Düse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 11 | Zylinder- oder Verschlusschraube | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

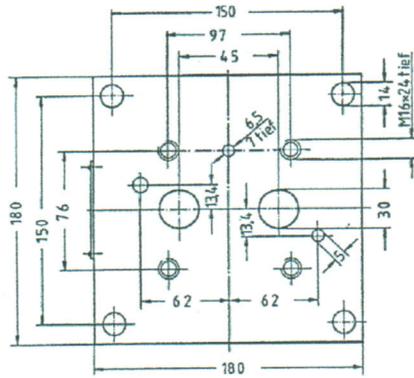
| Produktübersicht | Hydrologik-Ventile | Kenngrößen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--------------------|----------------------|-------------------------------|-----------|--------------|----------------|---------|----------|--------------------|--------------|------------------|-----|----------|---|-----|---------|----------------|------|-----|----------|---|-----|----------|----------------|------|-----|----------|---|-----|----------|----------------|---------|-----|----------|-------------------------------|------|-----|----------|---|-----|---------|----------------|------|-----|----------|---|-----|----------|----------------|------|-----|----------|---|-----|----------|-----------|-----------|-------------|-------------|--------|--------|-------|--------|---|----------|--------------------|--|---------|----|------------------|----|----|------|----|----|----|---|-----|---|----|----|------|----|----|------|----|----|----|---|---|---|----|----|----|----|----|------|----|----|----|---|---|----|----|----|----|----|----|------|------|----|----|---|-----|----|----|----|----|----|----|------|------|----|----|---|-----|----|----|----|----|----|----|------|----|----|----|---|-----|----|----|----|----|----|-----|------|----|----|----|---|-----|----|----|----|----|----|-----|-----|-----|-----|----|---|-----|----|----|----|----|-----|-----|-----|-----|-----|-----|---|---|----|-----|-----|----|--|
| <p>Kenngrößen Zwischenring</p> | <p>Zwischenring A₁, B₁, B₂ bei Steuerplatte PHL.....</p>  <p>Zwischenring A₂, B₃, B₄ bei Steuerplatte PHL..... mit Hubbegrenzung</p>  <table border="1" data-bbox="483 1256 1299 1698"> <thead> <tr> <th>Zwischenring</th> <th>bei Bauart HL-Ventil</th> <th>Schließfeder / bar</th> <th>Nenngröße</th> <th>Steuerplatte</th> </tr> </thead> <tbody> <tr> <td rowspan="3">A₁</td> <td>S, R, K</td> <td>0,5</td> <td>16 - 100</td> <td rowspan="6">Typ: PHL....</td> </tr> <tr> <td>S, R</td> <td>2,0</td> <td>16 - 100</td> </tr> <tr> <td>K</td> <td>2,0</td> <td>16 - 25</td> </tr> <tr> <td rowspan="2">B₂</td> <td>S, R</td> <td>5,0</td> <td>16 - 100</td> </tr> <tr> <td>K</td> <td>2,0</td> <td>32 - 100</td> </tr> <tr> <td rowspan="2">B₁</td> <td>S, R</td> <td>5,0</td> <td>16 - 100</td> </tr> <tr> <td>K</td> <td>2,0</td> <td>32 - 100</td> </tr> <tr> <td rowspan="3">A₂</td> <td>S, R, K</td> <td>0,5</td> <td>16 - 100</td> <td rowspan="6">Typ: PHL... mit Hubbegrenzung</td> </tr> <tr> <td>S, R</td> <td>2,0</td> <td>16 - 100</td> </tr> <tr> <td>K</td> <td>2,0</td> <td>16 - 25</td> </tr> <tr> <td rowspan="2">B₃</td> <td>S, R</td> <td>5,0</td> <td>16 - 100</td> </tr> <tr> <td>K</td> <td>2,0</td> <td>32 - 100</td> </tr> <tr> <td rowspan="2">B₄</td> <td>S, R</td> <td>5,0</td> <td>16 - 100</td> </tr> <tr> <td>K</td> <td>2,0</td> <td>32 - 100</td> </tr> </tbody> </table> <table border="1" data-bbox="483 1705 1299 2030"> <thead> <tr> <th rowspan="2">Nenngröße</th> <th rowspan="2">phi D1 f7</th> <th rowspan="2">phi D2 +0.2</th> <th rowspan="2">phi D3 -0.1</th> <th rowspan="2">phi D4</th> <th rowspan="2">phi D5</th> <th rowspan="2">phi d</th> <th rowspan="2">t +0.1</th> <th rowspan="2">e</th> <th rowspan="2">l1 -0.05</th> <th colspan="2">B1 B4 Zwischenring</th> </tr> <tr> <th>L1 0.05</th> <th>L2</th> <th>phi H Federhülse</th> </tr> </thead> <tbody> <tr> <td>16</td> <td>32</td> <td>27,5</td> <td>22</td> <td>21</td> <td>19</td> <td>3</td> <td>1,5</td> <td>8</td> <td>10</td> <td>10</td> <td>10,5</td> </tr> <tr> <td>20</td> <td>36</td> <td>32,4</td> <td>26</td> <td>25</td> <td>22</td> <td>3</td> <td>2</td> <td>9</td> <td>10</td> <td>10</td> <td>13</td> </tr> <tr> <td>25</td> <td>45</td> <td>39,5</td> <td>33</td> <td>32</td> <td>29</td> <td>4</td> <td>2</td> <td>12</td> <td>18</td> <td>18</td> <td>16</td> </tr> <tr> <td>32</td> <td>56</td> <td>49,5</td> <td>41,5</td> <td>40</td> <td>36</td> <td>4</td> <td>2,4</td> <td>15</td> <td>22</td> <td>22</td> <td>20</td> </tr> <tr> <td>40</td> <td>70</td> <td>60,5</td> <td>52,5</td> <td>50</td> <td>45</td> <td>5</td> <td>2,4</td> <td>19</td> <td>40</td> <td>40</td> <td>28</td> </tr> <tr> <td>50</td> <td>90</td> <td>77,5</td> <td>67</td> <td>65</td> <td>56</td> <td>5</td> <td>2,4</td> <td>24</td> <td>50</td> <td>50</td> <td>34</td> </tr> <tr> <td>63</td> <td>110</td> <td>97,5</td> <td>85</td> <td>83</td> <td>70</td> <td>6</td> <td>3,2</td> <td>31</td> <td>63</td> <td>63</td> <td>44</td> </tr> <tr> <td>80</td> <td>140</td> <td>119</td> <td>108</td> <td>105</td> <td>90</td> <td>6</td> <td>3,2</td> <td>40</td> <td>90</td> <td>90</td> <td>56</td> </tr> <tr> <td>100</td> <td>180</td> <td>149</td> <td>136</td> <td>130</td> <td>110</td> <td>8</td> <td>4</td> <td>50</td> <td>120</td> <td>120</td> <td>68</td> </tr> </tbody> </table> | Zwischenring | bei Bauart HL-Ventil | Schließfeder / bar | Nenngröße | Steuerplatte | A ₁ | S, R, K | 0,5 | 16 - 100 | Typ: PHL.... | S, R | 2,0 | 16 - 100 | K | 2,0 | 16 - 25 | B ₂ | S, R | 5,0 | 16 - 100 | K | 2,0 | 32 - 100 | B ₁ | S, R | 5,0 | 16 - 100 | K | 2,0 | 32 - 100 | A ₂ | S, R, K | 0,5 | 16 - 100 | Typ: PHL... mit Hubbegrenzung | S, R | 2,0 | 16 - 100 | K | 2,0 | 16 - 25 | B ₃ | S, R | 5,0 | 16 - 100 | K | 2,0 | 32 - 100 | B ₄ | S, R | 5,0 | 16 - 100 | K | 2,0 | 32 - 100 | Nenngröße | phi D1 f7 | phi D2 +0.2 | phi D3 -0.1 | phi D4 | phi D5 | phi d | t +0.1 | e | l1 -0.05 | B1 B4 Zwischenring | | L1 0.05 | L2 | phi H Federhülse | 16 | 32 | 27,5 | 22 | 21 | 19 | 3 | 1,5 | 8 | 10 | 10 | 10,5 | 20 | 36 | 32,4 | 26 | 25 | 22 | 3 | 2 | 9 | 10 | 10 | 13 | 25 | 45 | 39,5 | 33 | 32 | 29 | 4 | 2 | 12 | 18 | 18 | 16 | 32 | 56 | 49,5 | 41,5 | 40 | 36 | 4 | 2,4 | 15 | 22 | 22 | 20 | 40 | 70 | 60,5 | 52,5 | 50 | 45 | 5 | 2,4 | 19 | 40 | 40 | 28 | 50 | 90 | 77,5 | 67 | 65 | 56 | 5 | 2,4 | 24 | 50 | 50 | 34 | 63 | 110 | 97,5 | 85 | 83 | 70 | 6 | 3,2 | 31 | 63 | 63 | 44 | 80 | 140 | 119 | 108 | 105 | 90 | 6 | 3,2 | 40 | 90 | 90 | 56 | 100 | 180 | 149 | 136 | 130 | 110 | 8 | 4 | 50 | 120 | 120 | 68 | |
| Zwischenring | bei Bauart HL-Ventil | Schließfeder / bar | Nenngröße | Steuerplatte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A ₁ | S, R, K | 0,5 | 16 - 100 | Typ: PHL.... | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | S, R | 2,0 | 16 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | K | 2,0 | 16 - 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B ₂ | S, R | 5,0 | 16 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | K | 2,0 | 32 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B ₁ | S, R | 5,0 | 16 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | K | 2,0 | 32 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| A ₂ | S, R, K | 0,5 | 16 - 100 | Typ: PHL... mit Hubbegrenzung | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | S, R | 2,0 | 16 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | K | 2,0 | 16 - 25 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B ₃ | S, R | 5,0 | 16 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | K | 2,0 | 32 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B ₄ | S, R | 5,0 | 16 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | K | 2,0 | 32 - 100 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nenngröße | phi D1 f7 | phi D2 +0.2 | phi D3 -0.1 | phi D4 | phi D5 | phi d | t +0.1 | e | l1 -0.05 | B1 B4 Zwischenring | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | L1 0.05 | L2 | phi H Federhülse | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 16 | 32 | 27,5 | 22 | 21 | 19 | 3 | 1,5 | 8 | 10 | 10 | 10,5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20 | 36 | 32,4 | 26 | 25 | 22 | 3 | 2 | 9 | 10 | 10 | 13 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 25 | 45 | 39,5 | 33 | 32 | 29 | 4 | 2 | 12 | 18 | 18 | 16 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 32 | 56 | 49,5 | 41,5 | 40 | 36 | 4 | 2,4 | 15 | 22 | 22 | 20 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 40 | 70 | 60,5 | 52,5 | 50 | 45 | 5 | 2,4 | 19 | 40 | 40 | 28 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 50 | 90 | 77,5 | 67 | 65 | 56 | 5 | 2,4 | 24 | 50 | 50 | 34 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 63 | 110 | 97,5 | 85 | 83 | 70 | 6 | 3,2 | 31 | 63 | 63 | 44 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80 | 140 | 119 | 108 | 105 | 90 | 6 | 3,2 | 40 | 90 | 90 | 56 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100 | 180 | 149 | 136 | 130 | 110 | 8 | 4 | 50 | 120 | 120 | 68 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



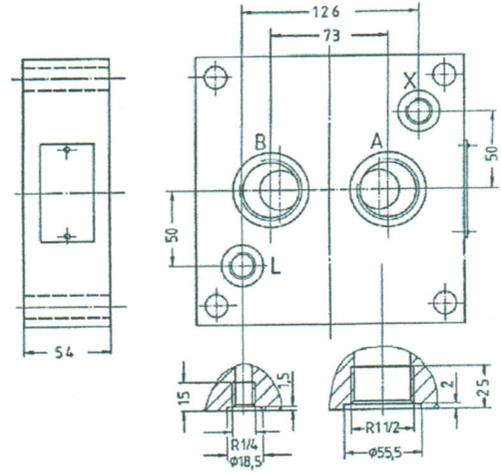
| Produktübersicht | Mehrfachanschlußplatte | Beschreibung - Abmessungen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--------------|----------|----------|--------------|-------|--|----------|-----------|--|-------|--|----------|-----------|--|-------|--|----------|-----------|--|-------|--|----------|-----------|--|--------|--|----------|-----------|--|--------|--|----------|-----------|--|--------|--|----------|-----------|--|--------|--|----------|-----------|--|--------|--|----------|-----------|--|--------|
| <p>Kenngrößen</p> <p>Abmessungen und Einbaumaße</p> | <p>Monoblock-Platte G 3/8" zyl. zur Parallelschaltung von 1 - 10 Ventilen NG 6 (CETOP 3) DIN 24 340</p> <p>Durchfluß: max 40 l/min Betriebsdruck: max 350 bar Anschlüsse: P - T stirnseitig R 1/2" A - B rückseitig R 3/8"</p> <p>Gewicht: siehe Tabelle</p> | <table border="0"> <tr> <td>Best.-Nr.</td> <td>KW 101-S</td> <td>L= 90 mm</td> <td>Masse (kg)</td> <td>= 3,2</td> </tr> <tr> <td></td> <td>KW 102-S</td> <td>L= 140 mm</td> <td></td> <td>= 5,0</td> </tr> <tr> <td></td> <td>KW 103-S</td> <td>L= 190 mm</td> <td></td> <td>= 6,8</td> </tr> <tr> <td></td> <td>KW 104-S</td> <td>L= 240 mm</td> <td></td> <td>= 8,6</td> </tr> <tr> <td></td> <td>KW 105-S</td> <td>L= 290 mm</td> <td></td> <td>= 10,4</td> </tr> <tr> <td></td> <td>KW 106-S</td> <td>L= 340 mm</td> <td></td> <td>= 12,2</td> </tr> <tr> <td></td> <td>KW 107-S</td> <td>L= 390 mm</td> <td></td> <td>= 14,0</td> </tr> <tr> <td></td> <td>KW 108-S</td> <td>L= 440 mm</td> <td></td> <td>= 15,8</td> </tr> <tr> <td></td> <td>KW 109-S</td> <td>L= 490 mm</td> <td></td> <td>= 17,6</td> </tr> <tr> <td></td> <td>KW 110-S</td> <td>L= 540 mm</td> <td></td> <td>= 19,4</td> </tr> </table> | Best.-Nr. | KW 101-S | L= 90 mm | Masse (kg) | = 3,2 | | KW 102-S | L= 140 mm | | = 5,0 | | KW 103-S | L= 190 mm | | = 6,8 | | KW 104-S | L= 240 mm | | = 8,6 | | KW 105-S | L= 290 mm | | = 10,4 | | KW 106-S | L= 340 mm | | = 12,2 | | KW 107-S | L= 390 mm | | = 14,0 | | KW 108-S | L= 440 mm | | = 15,8 | | KW 109-S | L= 490 mm | | = 17,6 | | KW 110-S | L= 540 mm | | = 19,4 |
| Best.-Nr. | KW 101-S | L= 90 mm | Masse (kg) | = 3,2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 102-S | L= 140 mm | | = 5,0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 103-S | L= 190 mm | | = 6,8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 104-S | L= 240 mm | | = 8,6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 105-S | L= 290 mm | | = 10,4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 106-S | L= 340 mm | | = 12,2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 107-S | L= 390 mm | | = 14,0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 108-S | L= 440 mm | | = 15,8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 109-S | L= 490 mm | | = 17,6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 110-S | L= 540 mm | | = 19,4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Produktübersicht | Mehrfachanschlußplatte 2 | Abmessungen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-------------|--------------------|----------|--------------------|--|----------|----------|-------|--|----------|-----------|-------|--|----------|-----------|-------|--|----------|-----------|--------|--|----------|-----------|--------|--|----------|-----------|--------|--|----------|-----------|--------|--|----------|-----------|--------|--|----------|-----------|--------|--|
| <p>Abmessungen und Einbaumaße</p> |  <table border="0"> <tr> <td>Best.-Nr.</td> <td>KW 101-R</td> <td>L= 90 mm</td> <td>Masse (kg) = 3,2</td> </tr> <tr> <td></td> <td>KW 102-R</td> <td>L= 140mm</td> <td>= 5,8</td> </tr> <tr> <td></td> <td>KW 103-R</td> <td>L= 190 mm</td> <td>= 6,8</td> </tr> <tr> <td></td> <td>KW 104 R</td> <td>L= 240 mm</td> <td>= 8,6</td> </tr> <tr> <td></td> <td>KW 105-R</td> <td>L= 290 mm</td> <td>= 10,4</td> </tr> <tr> <td></td> <td>KW 106-R</td> <td>L= 340 mm</td> <td>= 12,2</td> </tr> <tr> <td></td> <td>KW 107-R</td> <td>L= 390 mm</td> <td>= 14,0</td> </tr> <tr> <td></td> <td>KW 108-R</td> <td>L= 440 mm</td> <td>= 15,8</td> </tr> <tr> <td></td> <td>KW 109-R</td> <td>L= 490 mm</td> <td>= 17,6</td> </tr> <tr> <td></td> <td>KW 110-R</td> <td>L= 540 mm</td> <td>= 19,4</td> </tr> </table> | Best.-Nr. | KW 101-R | L= 90 mm | Masse (kg) = 3,2 | | KW 102-R | L= 140mm | = 5,8 | | KW 103-R | L= 190 mm | = 6,8 | | KW 104 R | L= 240 mm | = 8,6 | | KW 105-R | L= 290 mm | = 10,4 | | KW 106-R | L= 340 mm | = 12,2 | | KW 107-R | L= 390 mm | = 14,0 | | KW 108-R | L= 440 mm | = 15,8 | | KW 109-R | L= 490 mm | = 17,6 | | KW 110-R | L= 540 mm | = 19,4 |  |
| Best.-Nr. | KW 101-R | L= 90 mm | Masse (kg) = 3,2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 102-R | L= 140mm | = 5,8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 103-R | L= 190 mm | = 6,8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 104 R | L= 240 mm | = 8,6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 105-R | L= 290 mm | = 10,4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 106-R | L= 340 mm | = 12,2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 107-R | L= 390 mm | = 14,0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 108-R | L= 440 mm | = 15,8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | KW 109-R | L= 490 mm | = 17,6 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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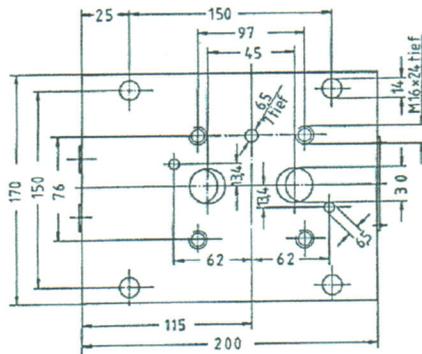
**Einbauzeichnung
Anschlußplatte
PB30R7A1
(Rohranschluß R1½)**



Masse 12 kg



**Einbauzeichnung
Anschlußplatte
PB30S7A1
(SAE-Flansch)**



Masse 13 kg

