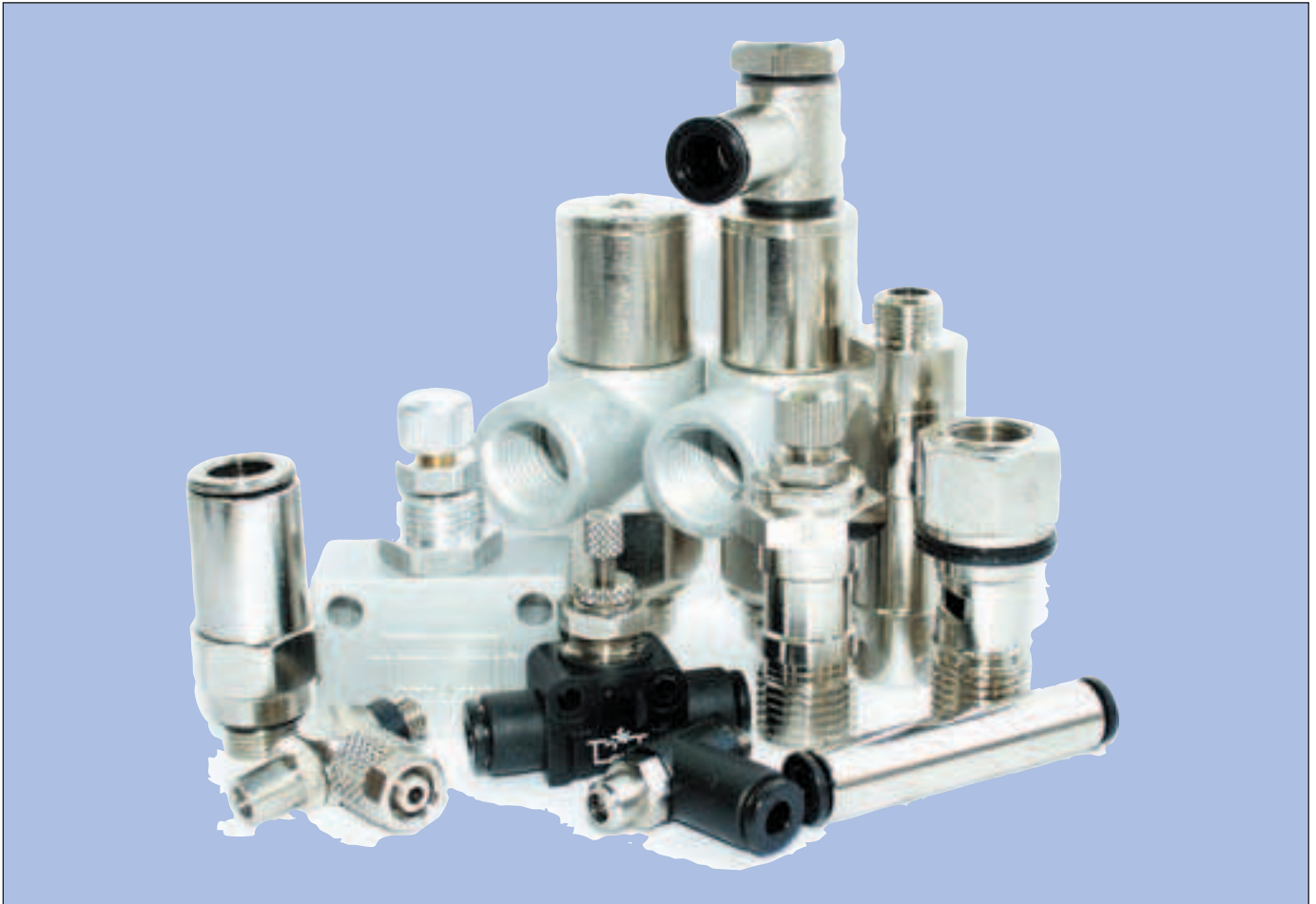


Funktionsverschraubungen

Functional fittings

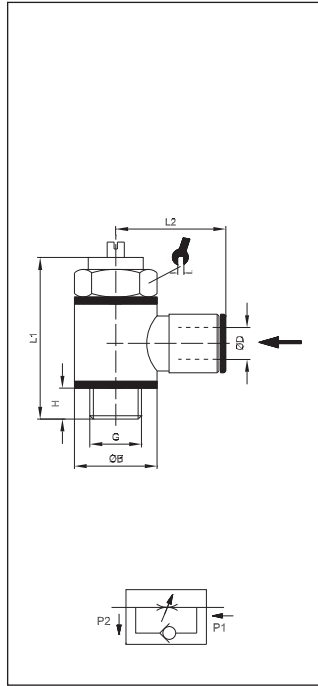


Features

- ▶ **Drossel- und Rückschlagventile mit verschiedenen Schlauchanschlussmöglichkeiten**
- ▶ **Drosselventile aus Messing, Aluminium und Kunststoff**
- ▶ **für die unterschiedlichsten Einsatzzwecke**
- ▶ **Throttle and non-return valves with various tube connection options**
- ▶ **Brass, aluminium and plastic throttle valves**
- ▶ **For various applications**

Technische Daten Technical data

| | | | |
|---|--|---|--|
| Funktions- Verschraubungen | Betriebstemperatur | -10°C bis +70°C 0°C bis +70°C | Rückschlagventil, VSR Ventile allgemein |
| | Betriebsdruck | max. 10bar | Drosselrückschlagventil - mit Ringstutzen - aus Kunststoff - in Blockform |
| | Materialien | 0,2 bis 10bar | entsperrbares Rückschlagventil, Energiesparventil, Kiphebelventil, Handschiebeventil ipso 032, 033 |
| | | 0,3 bis 10bar | VSR |
| | | Gehäuse Messing vernickelt (Ms58) | Drosselrückschlagventile mit Ringstutzen, Rückschlagverbinder, Rückschlagventile, Handschiebeventil, VSR Drosselrückschlagventile 041, 042, 043 |
| | | Gehäuse aus Kunststoff | Drosselrückschlagventil in Blockform |
| | | Gehäuse aus Aluminium | bei allen Ventilen |
| | | O-Ringe aus NBR | bei allen Ventilen |
| | Gewinde | Dichtungen aus Kunststoff | VSR |
| | | Membrane aus Kunststoff | |
| zyl. Gew. DIN EN ISO 228 kon. Gew. DIN EN ISO 10226 (DIN 2999) metr. Gew. ISO 261 | | | |
| Medium | geölte und ungeölte Druckluft | | |
| Operating temperature | -10°C to +70°C 0°C to +70°C | Non-return valve, Quick exhaust valve Valves in general | |
| Operating pressure | max. 10bar | Flow regulators - with banjo body - made of plastic - block shaped | |
| | 0,2 to 10bar 0,3 to 10bar | Bidirectional flow regulators, pressure control valve, pneumatic switch, slide valve ipso 032, 033 Quick exhaust valve | |
| Materials | Body, brass, nickel-plated (Ms58) | Flow regulators with banjo bodies, straight unidirectional connection, non-return valves, slide valve, quick exhaust valve Flow regulators 041, 042, 043 | |
| | Body, plastics | Unidirectional flow regulator (block shaped) | |
| | Body, aluminium | Valves in general | |
| | O-Ringe aus NBR | Valves in general | |
| | Dichtungen aus Kunststoff | Quick exhaust valve | |
| | Membrane aus Kunststoff | | |
| Threads | cyl. threads DIN EN ISO 228 con. threads DIN EN ISO 10226 (DIN 2999) metr. threads ISO 261 | | |
| | Medium | Lubricated and non-lubricated compressed air | |

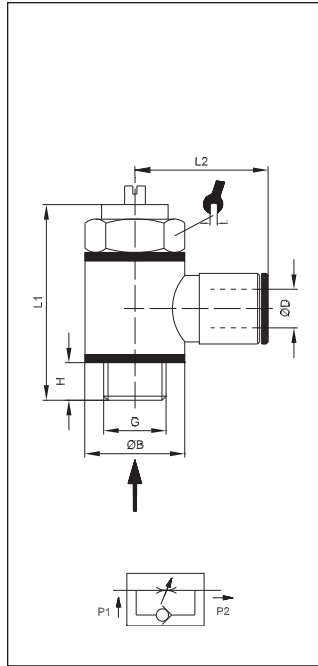


ipso 028

Drosselrückschlagventil mit Ringstück Typ A Zuluft drosselbar

Unidirectional flow regulator type A for valves

| ITV | ØD | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|----|-------------------------------|-----|-----|------|------|----|---------|----|
| 304701 | 4 | M5 | 4 | SW9 | 25 | 18 | 8 | 45 | 50 |
| 304702 | 4 | G ¹ / ₈ | 5 | 14 | 32 | 20,5 | 14 | 310 | 50 |
| 304704 | 5 | G ¹ / ₈ | 5 | 14 | 32 | 22,5 | 14 | 310 | 50 |
| 304714 | 6 | M5 | 4 | SW9 | 25 | 19,5 | 8 | 45 | 50 |
| 304705 | 6 | G ¹ / ₈ | 5 | 14 | 32 | 23 | 14 | 390 | 50 |
| 304706 | 6 | G ¹ / ₄ | 6 | 18 | 37 | 24 | 17 | 710 | 50 |
| 304707 | 8 | G ¹ / ₈ | 5 | 14 | 32 | 24,5 | 14 | 390 | 25 |
| 304708 | 8 | G ¹ / ₄ | 6 | 18 | 37 | 26 | 17 | 810 | 25 |
| 304709 | 8 | G ³ / ₈ | 6,5 | 21 | 46,5 | 27 | 20 | 1050 | 25 |
| 304710 | 10 | G ¹ / ₄ | 6 | 18 | 37 | 27 | 17 | 810 | 25 |
| 304711 | 10 | G ³ / ₈ | 6,5 | 21 | 46,5 | 28 | 20 | 1050 | 25 |
| 304713 | 12 | G ¹ / ₄ | 6 | 18 | 37 | 28 | 17 | 810 | 25 |
| 304712 | 12 | G ³ / ₈ | 6,5 | 21 | 46,5 | 29 | 20 | 1050 | 10 |

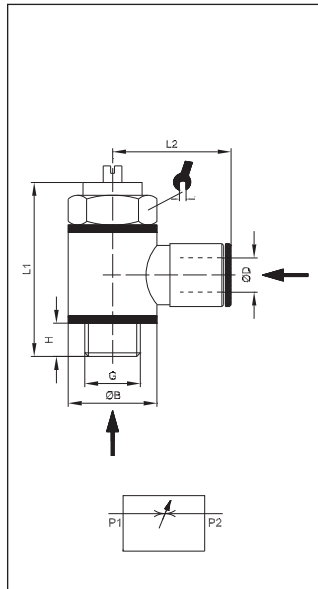


ipso 029

Drosselrückschlagventil mit Ringstück Typ B Abluft drosselbar

Unidirectional flow regulator type B for cylinders

| ITV | ØD | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|----|-------------------------------|-----|-----|------|------|----|---------|----|
| 304801 | 4 | M5 | 4 | SW9 | 25 | 18 | 8 | 45 | 50 |
| 304802 | 4 | G ¹ / ₈ | 5 | 14 | 32 | 20,5 | 14 | 310 | 50 |
| 304804 | 5 | G ¹ / ₈ | 5 | 14 | 32 | 22,5 | 14 | 310 | 50 |
| 304814 | 6 | M5 | 4 | SW9 | 25 | 19,5 | 8 | 45 | 50 |
| 304805 | 6 | G ¹ / ₈ | 5 | 14 | 32 | 23 | 14 | 390 | 50 |
| 304806 | 6 | G ¹ / ₄ | 6 | 18 | 37 | 24 | 17 | 710 | 50 |
| 304807 | 8 | G ¹ / ₈ | 5 | 14 | 32 | 24,5 | 14 | 390 | 25 |
| 304808 | 8 | G ¹ / ₄ | 6 | 18 | 37 | 26 | 17 | 810 | 25 |
| 304809 | 8 | G ³ / ₈ | 6,5 | 21 | 46,5 | 27 | 20 | 1050 | 25 |
| 304810 | 10 | G ¹ / ₄ | 6 | 18 | 37 | 27 | 17 | 810 | 25 |
| 304811 | 10 | G ³ / ₈ | 6,5 | 21 | 46,5 | 28 | 20 | 1050 | 25 |
| 304813 | 12 | G ¹ / ₄ | 6 | 18 | 37 | 28 | 17 | 810 | 25 |
| 304812 | 12 | G ³ / ₈ | 6,5 | 21 | 46,5 | 29 | 20 | 1050 | 10 |



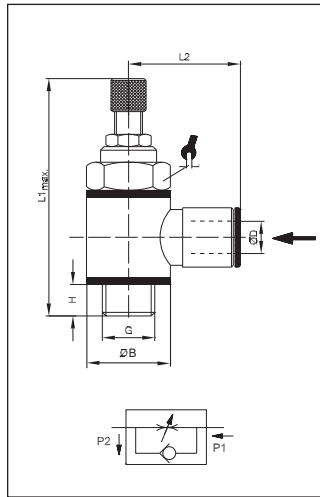
ipso 030

Drosselhohlschraube mit Ringstück Typ C beidseitig drosselbar

Bidirectional flow regulator, type C

| ITV | ØD | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|----|-------------------------------|-----|-----|------|------|----|---------|----|
| 304901 | 4 | M5 | 4 | SW9 | 25 | 18 | 8 | 45 | 50 |
| 304902 | 4 | G ¹ / ₈ | 5 | 14 | 32 | 20,5 | 14 | 310 | 50 |
| 304904 | 5 | G ¹ / ₈ | 5 | 14 | 32 | 22,5 | 14 | 310 | 50 |
| 304914 | 6 | M5 | 4 | SW9 | 25 | 19,5 | 8 | 45 | 50 |
| 304905 | 6 | G ¹ / ₈ | 5 | 14 | 32 | 23 | 14 | 390 | 50 |
| 304906 | 6 | G ¹ / ₄ | 6 | 18 | 37 | 24 | 17 | 710 | 50 |
| 304907 | 8 | G ¹ / ₈ | 5 | 14 | 32 | 24,5 | 14 | 390 | 25 |
| 304908 | 8 | G ¹ / ₄ | 6 | 18 | 37 | 26 | 17 | 810 | 25 |
| 304909 | 8 | G ³ / ₈ | 6,5 | 21 | 46,5 | 27 | 20 | 1050 | 25 |
| 304910 | 10 | G ¹ / ₄ | 6 | 18 | 37 | 27 | 17 | 810 | 25 |

*Ermittlung der Durchflusswerte bei durchschnittlich 6bar

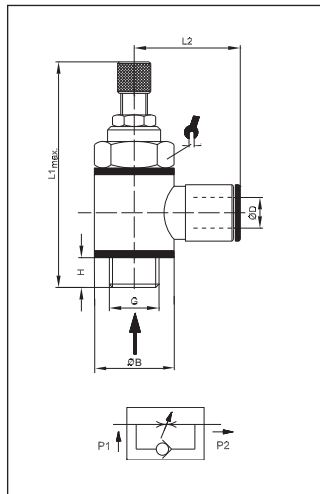


ipso 039

Drosselrückschlagventil mit Steckverschraubung und Rändelknopf Typ A Zuluft drosselbar

Flow regulator with push-in fittings and handwheel regulator type A

| TV | ØD | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|----|-------------------------------|---|----|------|------|----|---------|----|
| 203901 | 4 | G ¹ / ₈ | 5 | 14 | 49 | 20,5 | 14 | 310 | 50 |
| 203902 | 6 | G ¹ / ₈ | 5 | 14 | 49 | 23 | 14 | 390 | 50 |
| 203903 | 8 | G ¹ / ₈ | 5 | 14 | 49 | 24,5 | 14 | 390 | 50 |
| 203904 | 6 | G ¹ / ₄ | 6 | 18 | 56,5 | 24 | 17 | 710 | 25 |
| 203905 | 8 | G ¹ / ₄ | 6 | 18 | 56,5 | 26 | 17 | 810 | 25 |
| 203906 | 10 | G ¹ / ₄ | 6 | 18 | 56,5 | 27 | 17 | 810 | 25 |
| 203907 | 12 | G ¹ / ₄ | 6 | 18 | 56,5 | 28 | 17 | 810 | 25 |

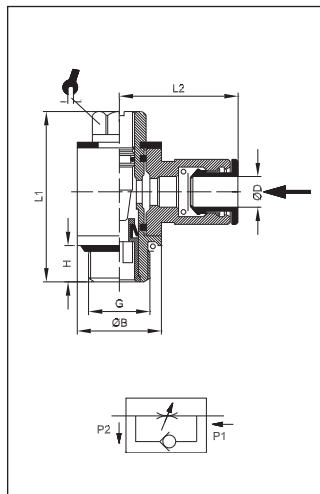


ipso 040

Drosselrückschlagventil mit Steckverschraubung und Rändelknopf Typ B Abluft drosselbar

Flow regulator with push-in fittings and handwheel regulator type B

| TV | ØD | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|----|-------------------------------|---|----|------|------|----|---------|----|
| 204001 | 4 | G ¹ / ₈ | 5 | 14 | 49 | 20,5 | 14 | 310 | 50 |
| 204002 | 6 | G ¹ / ₈ | 5 | 14 | 49 | 23 | 14 | 390 | 50 |
| 204003 | 8 | G ¹ / ₈ | 5 | 14 | 49 | 24,5 | 14 | 390 | 50 |
| 204004 | 6 | G ¹ / ₄ | 6 | 18 | 56,5 | 24 | 17 | 710 | 25 |
| 204005 | 8 | G ¹ / ₄ | 6 | 18 | 56,5 | 26 | 17 | 810 | 25 |
| 204006 | 10 | G ¹ / ₄ | 6 | 18 | 56,5 | 27 | 17 | 810 | 25 |
| 204007 | 12 | G ¹ / ₄ | 6 | 18 | 56,5 | 28 | 17 | 810 | 25 |

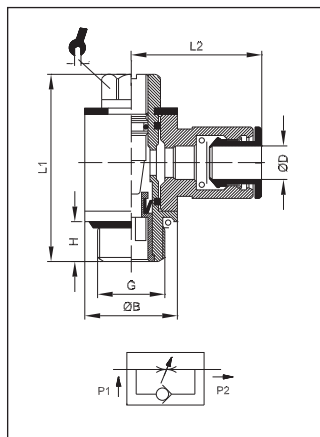


ipso 045

Drosselrückschlagventil mit Ringstück schwenkbar Typ A Zuluft drosselbar

Flow Regulator 045 Type A

| TV | ØD | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|----|-------------------------------|-----|----|----|------|----|---------|----|
| 204502 | 4 | G ¹ / ₈ | 6,5 | 14 | 32 | 20,5 | 9 | 310 | 10 |
| 204505 | 6 | G ¹ / ₈ | 6,5 | 14 | 32 | 23 | 9 | 390 | 10 |
| 204506 | 6 | G ¹ / ₄ | 8 | 18 | 37 | 24 | 12 | 710 | 10 |
| 204507 | 8 | G ¹ / ₈ | 6,5 | 14 | 32 | 24,5 | 9 | 390 | 10 |
| 204508 | 8 | G ¹ / ₄ | 8 | 18 | 37 | 26 | 12 | 810 | 10 |
| 204510 | 10 | G ¹ / ₄ | 8 | 18 | 37 | 27 | 12 | 810 | 10 |
| 204514 | 12 | G ¹ / ₄ | 8 | 18 | 37 | 28 | 12 | 810 | 10 |



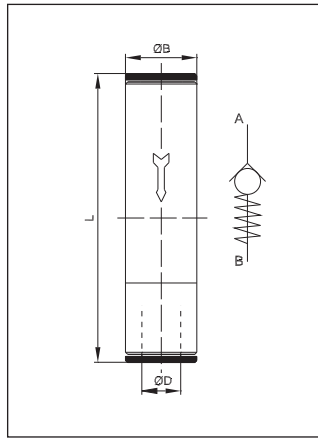
ipso 046

Drosselrückschlagventil mit Ringstück schwenkbar Typ B Abluft drosselbar

Flow Regulator 046 Type B

| TV | ØD | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|----|-------------------------------|-----|----|----|------|----|---------|----|
| 204602 | 4 | G ¹ / ₈ | 6,5 | 14 | 32 | 20,5 | 9 | 310 | 10 |
| 204605 | 6 | G ¹ / ₈ | 6,5 | 14 | 32 | 23 | 9 | 390 | 10 |
| 204606 | 6 | G ¹ / ₄ | 8 | 18 | 37 | 24 | 12 | 710 | 10 |
| 204607 | 8 | G ¹ / ₈ | 6,5 | 14 | 32 | 24,5 | 9 | 390 | 10 |
| 204608 | 8 | G ¹ / ₄ | 8 | 18 | 37 | 26 | 12 | 810 | 10 |
| 204610 | 10 | G ¹ / ₄ | 8 | 18 | 37 | 27 | 12 | 810 | 10 |
| 204614 | 12 | G ¹ / ₄ | 8 | 18 | 37 | 28 | 12 | 810 | 10 |

*Ermittlung der Durchflusswerte bei durchschnittlich 6bar

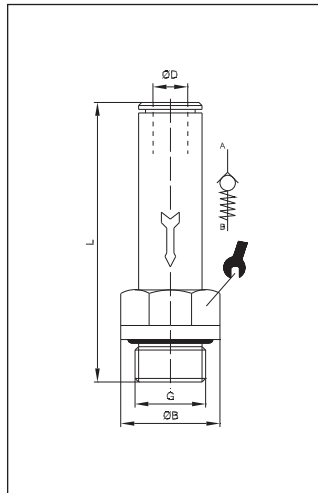


ipso 032

Rückschlagverbinder

Straight unidirectional connection

| TV | ØD | ØB | L | ■ |
|--------|----|----|------|----|
| 203201 | 4 | 9 | 44,5 | 50 |
| 203203 | 6 | 11 | 50 | 25 |
| 203204 | 8 | 13 | 53,5 | 25 |

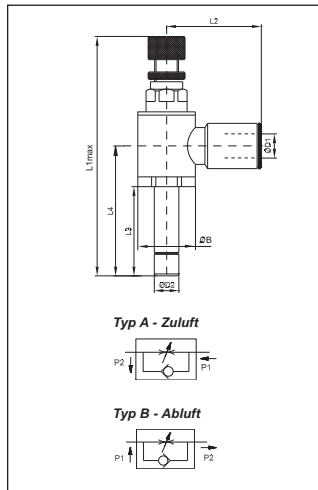


ipso 033

Rückschlagverschraubung

Straight connection with non-return valve

| TV | ØD | G | ØB | L | ■ | ■ |
|--------|----|-------------------------------|----|------|----|----|
| 203301 | 4 | M5 | 8 | 37 | 9 | 50 |
| 203302 | 4 | G ¹ / ₈ | 13 | 30 | 11 | 50 |
| 203307 | 6 | G ¹ / ₈ | 13 | 37,5 | 13 | 50 |
| 203308 | 6 | G ¹ / ₄ | 16 | 38 | 14 | 50 |
| 203309 | 8 | G ¹ / ₈ | 13 | 38 | 15 | 50 |
| 203310 | 8 | G ¹ / ₄ | 16 | 39 | 16 | 50 |
| 203312 | 10 | G ¹ / ₄ | 16 | 42,5 | 18 | 25 |
| 203313 | 10 | G ³ / ₈ | 20 | 42,5 | 18 | 25 |
| 203315 | 12 | G ¹ / ₂ | 25 | 45 | 22 | 10 |
| 203317 | 14 | G ¹ / ₂ | 25 | 52,5 | 25 | 10 |



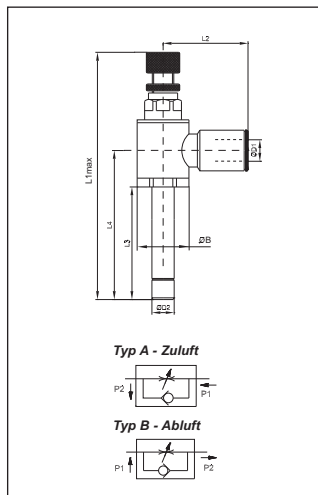
ipso 050 / ipso 051

Drosselrückschlagventil steckbar

Unidirectional flow regulator, pluggable

| TV | ØD1 | ØD2 | ØB | L1 | L2 | L3 | L4 | NI/min* | ■ |
|----------|-----|-----|----|------|------|------|------|---------|----|
| ipso 050 | | | | | | | | | |
| 205003A | 6 | 6 | 11 | 59,5 | 23 | 18 | 28 | 310 | 25 |
| 205004A | 8 | 8 | 13 | 61 | 24,5 | 19,5 | 29,5 | 390 | 25 |
| 205009A | 6 | 8 | 11 | 61 | 23 | 19,5 | 28 | 310 | 25 |

| | | | | | | | | | |
|----------|---|---|----|------|------|------|------|-----|----|
| ipso 051 | | | | | | | | | |
| 205103B | 6 | 6 | 11 | 59,5 | 23 | 18 | 28 | 310 | 25 |
| 205104B | 8 | 8 | 13 | 61 | 24,5 | 19,5 | 29,5 | 310 | 25 |
| 205109B | 6 | 8 | 11 | 61 | 23 | 19,5 | 28 | 390 | 25 |



ipso 050/L / ipso 051/L

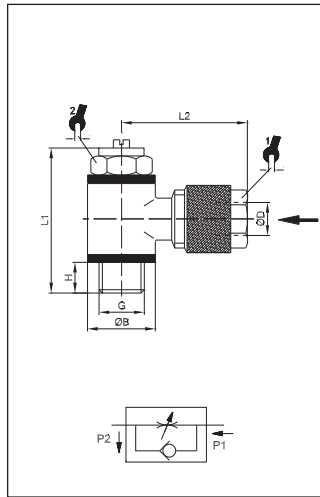
Drosselrückschlagventil steckbar - lang

Unidirectional flow regulator, pluggable - long

| TV | ØD1 | ØD2 | ØB | L1 | L2 | L3 | L4 | NI/min* | ■ |
|------------|-----|-----|----|-----|------|------|------|---------|----|
| ipso 050/L | | | | | | | | | |
| 205003-2A | 6 | 6 | 11 | 102 | 23 | 60 | 70 | 310 | 25 |
| 205004-1A | 8 | 8 | 13 | 103 | 24,5 | 61,5 | 71,5 | 390 | 25 |
| 205009-1A | 6 | 8 | 11 | 103 | 23 | 61,5 | 70 | 310 | 25 |

| | | | | | | | | | |
|------------|---|---|----|-----|------|------|------|-----|----|
| ipso 051/L | | | | | | | | | |
| 205103-2B | 6 | 6 | 11 | 102 | 23 | 60 | 70 | 310 | 25 |
| 205104-1B | 8 | 8 | 13 | 103 | 24,5 | 61,5 | 71,5 | 310 | 25 |

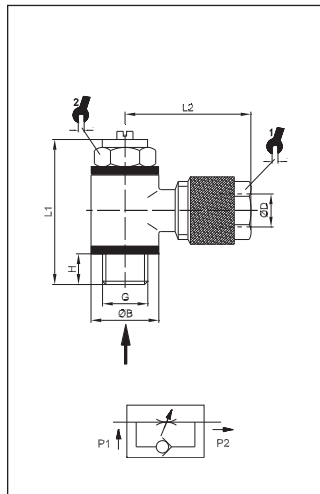
*Ermittlung der Durchflusswerte bei durchschnittlich 6bar



**Drosselrückschlagventil mit Ringstück
Typ A Zuluft drosselbar**

Unidirectional flow regulator, type A for valves

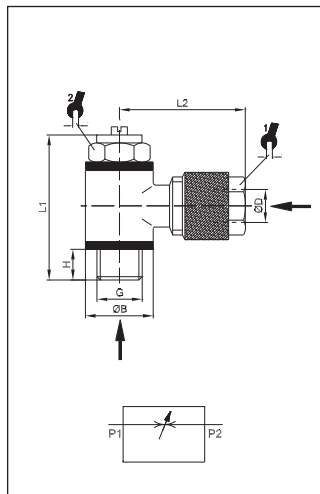
| ITV | ØD | G | H | ØB | L1 | L2 | | | NI/min* | |
|--------|-----|------------------|---|-----|----|------|----|----|---------|----|
| 304105 | 5/3 | M5 | 4 | SW9 | 25 | 16 | 8 | 8 | 45 | 50 |
| 304100 | 5/3 | G ^{1/8} | 5 | 14 | 32 | 21 | 8 | 14 | 310 | 50 |
| 304106 | 6/4 | M5 | 4 | SW9 | 25 | 16 | 9 | 8 | 45 | 50 |
| 304101 | 6/4 | G ^{1/8} | 5 | 14 | 32 | 21,5 | 10 | 14 | 310 | 50 |
| 304102 | 6/4 | G ^{1/4} | 6 | 18 | 37 | 24,5 | 10 | 17 | 420 | 50 |
| 304103 | 8/6 | G ^{1/8} | 5 | 14 | 32 | 20,5 | 12 | 14 | 310 | 50 |
| 304104 | 8/6 | G ^{1/4} | 6 | 18 | 37 | 22,5 | 12 | 17 | 420 | 50 |



**Drosselrückschlagventil mit Ringstück
Typ B Abluft drosselbar**

Unidirectional flow regulator, type B for cylinders

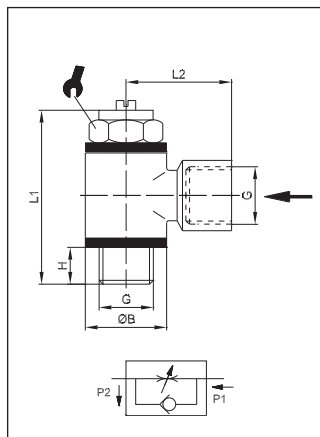
| ITV | ØD | G | H | ØB | L1 | L2 | | | NI/min* | |
|--------|-----|------------------|---|------|----|------|----|----|---------|----|
| 304205 | 5/3 | M5 | 4 | SW9 | 25 | 16 | 8 | 8 | 45 | 50 |
| 304200 | 5/3 | G ^{1/8} | 5 | 14 | 32 | 21 | 8 | 14 | 310 | 50 |
| 304206 | 6/4 | M5 | 4 | SW9 | 25 | 16 | 9 | 8 | 45 | 50 |
| 304201 | 6/4 | G ^{1/8} | 5 | 14 | 32 | 21,5 | 10 | 14 | 310 | 50 |
| 304202 | 6/4 | G ^{1/4} | 6 | 18 | 37 | 24,5 | 10 | 17 | 420 | 50 |
| 304203 | 8/6 | G ^{1/8} | 5 | 14 | 32 | 20,5 | 12 | 14 | 310 | 50 |
| 304204 | 8/6 | G ^{1/4} | 6 | 18 | 37 | 22,5 | 12 | 17 | 420 | 50 |
| 304207 | 8/6 | G ^{3/8} | 6 | 21,5 | 46 | 24,5 | 12 | 20 | 500 | 50 |



**Drosselhohlschraube mit Ringstück
Typ C beidseitig drosselbar**

Bidirectional flow regulator, type C

| ITV | ØD | G | H | ØB | L1 | L2 | | | NI/min* | |
|--------|-----|------------------|---|-----|----|------|----|----|---------|----|
| 304305 | 5/3 | M5 | 4 | SW9 | 25 | 16 | 8 | 8 | 45 | 50 |
| 304306 | 6/4 | M5 | 4 | SW9 | 25 | 16 | 9 | 8 | 45 | 50 |
| 304301 | 6/4 | G ^{1/8} | 5 | 14 | 32 | 21,5 | 10 | 14 | 310 | 50 |
| 304302 | 6/4 | G ^{1/4} | 6 | 18 | 37 | 24,5 | 10 | 17 | 420 | 50 |
| 304303 | 8/6 | G ^{1/8} | 5 | 14 | 32 | 20,5 | 12 | 14 | 310 | 50 |
| 304304 | 8/6 | G ^{1/4} | 6 | 18 | 37 | 22,5 | 12 | 17 | 420 | 50 |

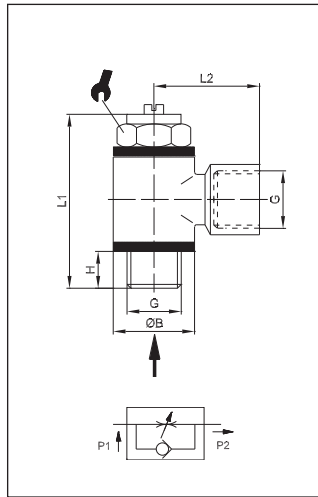


**Drosselrückschlagventil mit Innengewinde
Typ A Zuluft drosselbar**

Unidirectional flow regulator type A, for valves (female thread)

| ITV | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|------------------|----|-----|------|------|----|---------|----|
| 304401 | M5 | 4 | SW9 | 25 | 11,5 | 8 | 45 | 50 |
| 304402 | G ^{1/8} | 5 | 14 | 32 | 21 | 14 | 310 | 50 |
| 304403 | G ^{1/4} | 6 | 18 | 37 | 25,5 | 17 | 450 | 50 |
| 304404 | G ^{3/8} | 7 | 21 | 46 | 26 | 20 | 1040 | 25 |
| 304405 | G ^{1/2} | 10 | 26 | 52,5 | 32 | 26 | 2200 | 10 |

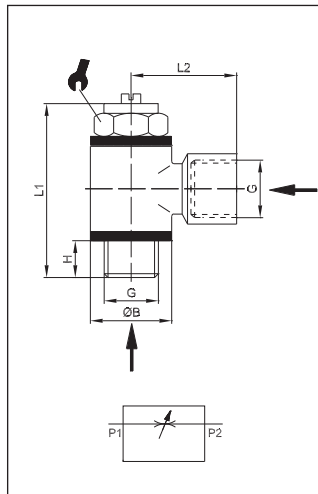
*Ermittlung der Durchflusswerte bei durchschnittlich 6bar



**Drosselrückschlagventil mit Innengewinde
Typ B Abluft drosselbar**

Unidirectional flow regulator type B, for cylinders (female thread)

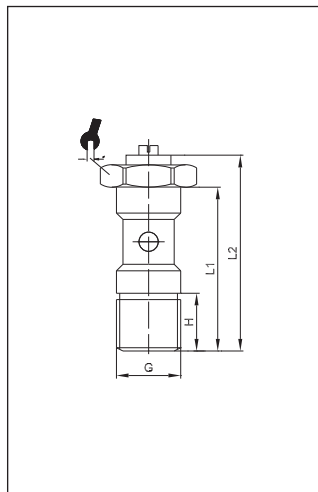
| ITV | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|------------------|----|-----|------|------|----|---------|----|
| 304501 | M5 | 4 | SW9 | 25 | 11,5 | 8 | 45 | 50 |
| 304502 | G ^{1/8} | 5 | 14 | 32 | 21 | 14 | 310 | 50 |
| 304503 | G ^{1/4} | 6 | 18 | 37 | 25,5 | 17 | 450 | 50 |
| 304504 | G ^{3/8} | 7 | 21 | 46 | 26 | 20 | 1040 | 25 |
| 304505 | G ^{1/2} | 10 | 26 | 52,5 | 32 | 26 | 2200 | 10 |



**Drosselhohlschraube mit Ringstück
(Innengewinde)
Typ C beidseitig drosselbar**

Bidirectional flow regulator type C (female thread)

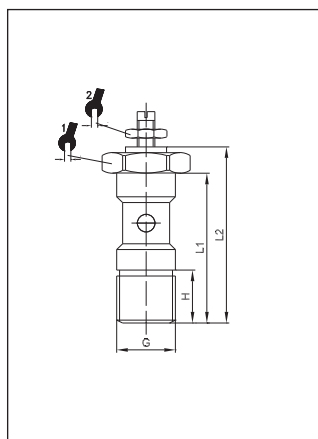
| ITV | G | H | ØB | L1 | L2 | | NI/min* | |
|--------|------------------|----|-----|------|------|----|---------|----|
| 304601 | M5 | 4 | SW9 | 25 | 11,5 | 8 | 45 | 50 |
| 304602 | G ^{1/8} | 5 | 14 | 32 | 21 | 14 | 310 | 50 |
| 304603 | G ^{1/4} | 6 | 18 | 37 | 25,5 | 17 | 450 | 50 |
| 304604 | G ^{3/8} | 7 | 21 | 46 | 26 | 20 | 1040 | 25 |
| 304605 | G ^{1/2} | 10 | 26 | 52,5 | 32 | 26 | 2200 | 10 |



Drosselhohlschraube mit Schlitzschraube
Screw for flow regulation with slotted screw

A=Zuluft A=for valves
B=Abluft B=for cylinders
C=Beidseitig C=bidirectional

| ITV | Typ | G | H | L1 | L2 | | NI/min* | |
|----------|-----|------------------|------|------|------|----|---------|----|
| 304000 | B | M5 | 4,5 | 16,5 | 25 | 8 | 45 | 50 |
| 304001 | A | G ^{1/8} | 9,5 | 23,5 | 32 | 14 | 310 | 50 |
| 304002 | A | G ^{1/4} | 11 | 28 | 37 | 17 | 810 | 50 |
| 304003 | B | G ^{1/8} | 9,5 | 23,5 | 32 | 14 | 310 | 50 |
| 304004 | B | G ^{1/4} | 11 | 28 | 37 | 17 | 810 | 50 |
| 304005 | C | G ^{1/8} | 9,5 | 23,5 | 32 | 14 | 310 | 50 |
| 304006 | C | G ^{1/4} | 11 | 28 | 37 | 17 | 810 | 50 |
| 304008 | B | G ^{3/8} | 14 | 29,8 | 46 | 19 | 1040 | 50 |
| 304009-1 | A | G ^{1/2} | 12,5 | 39 | 52,5 | 26 | 2200 | 50 |
| 304010 | B | G ^{1/2} | 12,5 | 39 | 52,5 | 26 | 2200 | 50 |



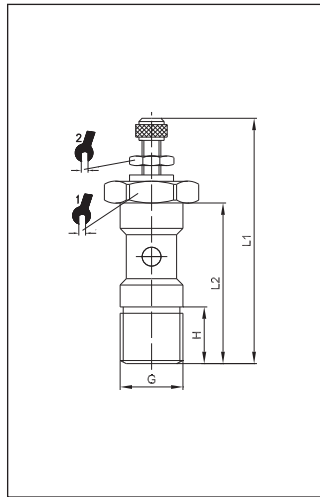
Drosselhohlschraube mit Schlitzschraube und Kontermutter

Screw for flow regulation with nut and slotted screw

A=Zuluft A=for valves
B=Abluft B=for cylinders
C=Beidseitig C=bidirectional

| ITV | Typ | G | H | L1 | L2 | | | NI/min* |
|--------|-----|------------------|-----|------|------|----|---|---------|
| 304011 | A | G ^{1/8} | 6,5 | 25,5 | 32,5 | 14 | 9 | 310 |
| 304012 | A | G ^{1/4} | 8 | 28 | 35 | 17 | 9 | 810 |
| 304013 | B | G ^{1/8} | 6,5 | 25,5 | 32,5 | 14 | 9 | 310 |
| 304014 | B | G ^{1/4} | 8 | 28 | 35 | 17 | 9 | 810 |
| 304015 | C | G ^{1/8} | 8 | 25,5 | 32,5 | 14 | 9 | 310 |
| 304016 | C | G ^{1/4} | 12 | 28 | 35 | 17 | 9 | 810 |

*Ermittlung der Durchflusswerte bei durchschnittlich 6bar

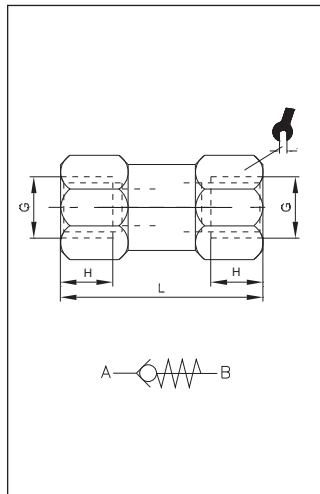


Drosselhohlschraube mit Rändelknopf und Kontermutter

Screw for flow regulation with nut and regulating spindle

A=Zuluft A=for valves
B=Abluft B=for cylinders
C=Beidseitig C=bidirectional

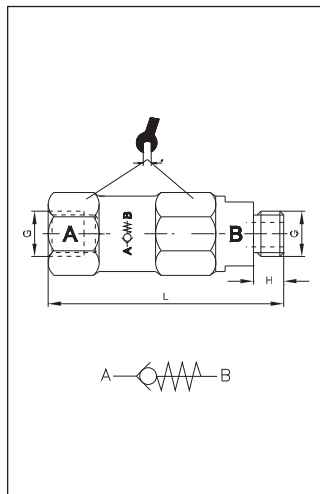
| ITV | Typ | G | H | L1 | L2 | | | NI/min* | |
|--------|-----|-------------------------------|---|----|------|----|----|---------|----|
| 304021 | A | G ¹ / ₈ | 7 | 32 | 23,5 | 14 | 9 | 310 | 50 |
| 304022 | A | G ¹ / ₄ | 9 | 37 | 27 | 17 | 11 | 810 | 50 |
| 304023 | B | G ¹ / ₈ | 7 | 32 | 23,5 | 14 | 9 | 310 | 50 |
| 304024 | B | G ¹ / ₄ | 9 | 37 | 27 | 17 | 11 | 810 | 50 |
| 304025 | C | G ¹ / ₈ | 7 | 32 | 23,5 | 14 | 9 | 310 | 50 |
| 304026 | C | G ¹ / ₄ | 9 | 37 | 27 | 17 | 11 | 810 | 50 |



Rückschlagventil Messing vernickelt Sechskant

Non-return valve, brass nickel-plated, with hexagon

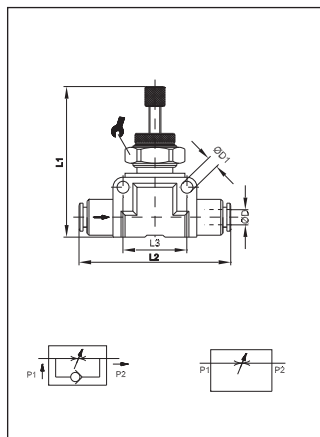
| ITV | G | H | L | | NI/min* | |
|--------|-------------------------------|-----|------|----|---------|----|
| 304051 | M5 | 5,5 | 26,5 | 8 | 190 | 50 |
| 304052 | G ¹ / ₈ | 8,5 | 36,5 | 13 | 920 | 50 |
| 304053 | G ¹ / ₄ | 9 | 42,5 | 16 | 1600 | 25 |
| 304054 | G ³ / ₈ | 12 | 51 | 20 | 2430 | 10 |
| 304055 | G ¹ / ₂ | 14 | 62 | 24 | 3500 | 10 |



Rückschlagventil

Non-return valve

| ITV | G | H | L | | NI/min* | |
|--------|-------------------------------|----|----|----|---------|---|
| 305101 | G ¹ / ₈ | 6 | 53 | 14 | 920 | 1 |
| 305103 | G ¹ / ₄ | 9 | 66 | 19 | 1600 | 1 |
| 305105 | G ¹ / ₂ | 12 | 81 | 27 | 3500 | 1 |

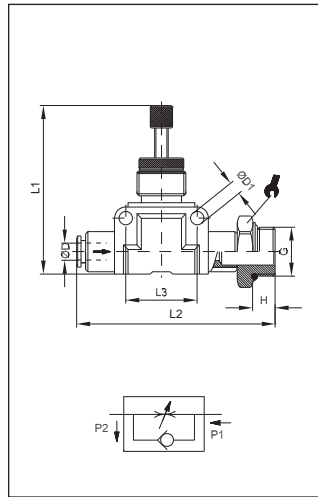


Drosselrückschlagventil 041 Kunststoff-Steckanschluss

Acetal Line Flow Regulator 041

| ITV | ØD | ØD1 | L1 | L2 | L3 | | NI/min* | | |
|---|----|-----|----|----|----|----|---------|----|--|
| 340404 | 4 | 3,2 | 35 | 35 | 12 | 11 | 140 | 10 | |
| 340606 | 6 | 3,2 | 45 | 45 | 15 | 14 | 260 | 10 | |
| 340808 | 8 | 3,2 | 45 | 46 | 15 | 14 | 330 | 5 | |
| beidseitig drosselbar / bidirectional throttling | | | | | | | | | |
| 340414 | 4 | 3,2 | 34 | 35 | 12 | 11 | 140 | 10 | |
| 340616 | 6 | 3,2 | 45 | 45 | 15 | 14 | 260 | 10 | |
| 340818 | 8 | 3,2 | 45 | 46 | 15 | 14 | 360 | 5 | |

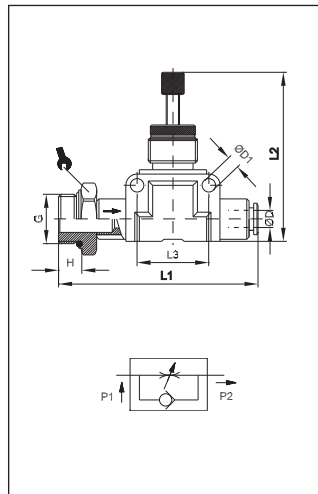
*Ermittlung der Durchflusswerte bei durchschnittlich 6bar



Drosselrückschlagventil 042 Kunststoff
Steck-, Einschraubanschluss
Acetal Line Flow Regulator 042

für Zuluft
for Valves

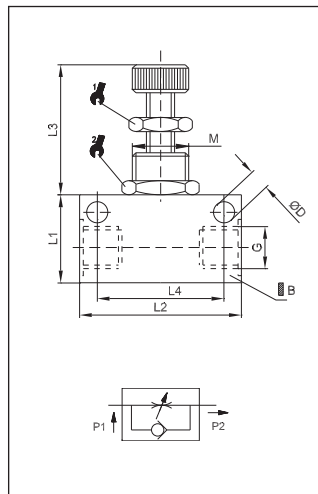
| ITV | ØD | ØD1 | G | H | L1 | L2 | L3 | | NI/min* | |
|--------|----|-----|-------------------------------|-----|----|----|----|----|---------|----|
| 350400 | 4 | 3,2 | M5 | 4 | 35 | 43 | 12 | 9 | 110 | 10 |
| 350401 | 4 | 3,2 | G ¹ / ₈ | 5 | 35 | 43 | 12 | 13 | 140 | 10 |
| 350402 | 6 | 3,2 | G ¹ / ₈ | 5 | 45 | 52 | 15 | 13 | 260 | 10 |
| 350403 | 6 | 3,2 | G ¹ / ₄ | 6,5 | 45 | 54 | 15 | 16 | 260 | 10 |
| 350404 | 8 | 3,2 | G ¹ / ₈ | 5 | 46 | 53 | 15 | 14 | 340 | 10 |
| 350405 | 8 | 3,2 | G ¹ / ₄ | 6,5 | 46 | 55 | 15 | 16 | 340 | 10 |



Drosselrückschlagventil 043 Kunststoff
Einschraub-, Steckanschluss
Acetal Line Flow Regulator 043

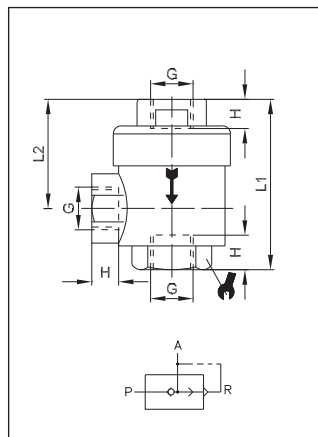
für Abluft
for Cylinders

| ITV | ØD | ØD1 | G | H | L1 | L2 | L3 | | NI/min* | |
|--------|----|-----|-------------------------------|-----|----|----|----|----|---------|----|
| 360400 | 4 | 3,2 | M5 | 4 | 35 | 43 | 12 | 9 | 110 | 10 |
| 360401 | 4 | 3,2 | G ¹ / ₈ | 5 | 35 | 43 | 12 | 13 | 140 | 10 |
| 360402 | 6 | 3,2 | G ¹ / ₈ | 5 | 45 | 52 | 15 | 13 | 260 | 10 |
| 360403 | 6 | 3,2 | G ¹ / ₄ | 6,5 | 45 | 54 | 15 | 16 | 260 | 10 |
| 360404 | 8 | 3,2 | G ¹ / ₈ | 5 | 46 | 53 | 15 | 14 | 340 | 10 |
| 360405 | 8 | 3,2 | G ¹ / ₄ | 6,5 | 46 | 55 | 15 | 16 | 340 | 10 |



Drosselrückschlagventil
Unidirectional flow regulator

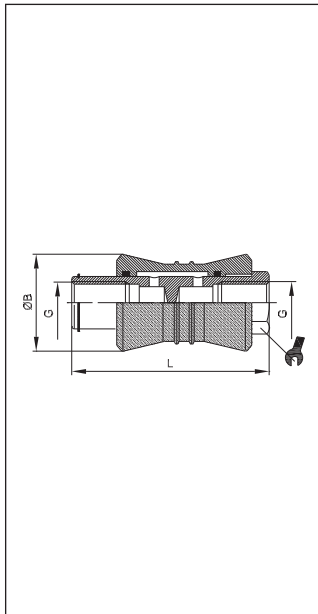
| ITV | G | L1 | L2 | L3 | L4 | ØD | B | M | | | NI/min* | |
|--------|-------------------------------|----|----|-------|----|-----|----|-----|------|----|---------|----|
| 304030 | M5 | 15 | 25 | 22-28 | 18 | 4,5 | 12 | M10 | 12 | 12 | 250 | 10 |
| 304031 | G ¹ / ₈ | 21 | 34 | 27-34 | 25 | 4,5 | 16 | M12 | Ø9,5 | 15 | 450 | 10 |
| 304032 | G ¹ / ₄ | 30 | 50 | 36-34 | 35 | 6,5 | 25 | M12 | Ø9,5 | 15 | 600 | 5 |
| 304033 | G ³ / ₈ | 30 | 50 | 35-43 | 35 | 6,5 | 25 | M18 | Ø12 | 22 | 1100 | 5 |
| 304034 | G ¹ / ₂ | 40 | 65 | 40-53 | 44 | 6,5 | 30 | M22 | 14 | 26 | 1400 | 1 |



Schnellentlüftungsventil VSR
Quick exhaust valve

| ITV | G | H | L1 | L2 | | P-A | | |
|-------|-------------------------------|-----|----|------|----|---------|---------|----|
| | | | | | | NI/min* | NI/min* | |
| 60500 | M5 | 5 | 25 | 17 | 10 | 220 | 300 | 25 |
| 60501 | G ¹ / ₈ | 6,5 | 42 | 27 | 15 | 680 | 1100 | 25 |
| 60502 | G ¹ / ₄ | 9,5 | 53 | 35 | 19 | 1200 | 2100 | 25 |
| 60504 | G ³ / ₈ | 10 | 61 | 38 | 22 | 2300 | 4900 | 10 |
| 60503 | G ¹ / ₂ | 13 | 72 | 43 | 26 | 3400 | 6100 | 10 |
| 60505 | G ³ / ₄ | 18 | 88 | 55 | 32 | 3200 | 8750 | 5 |
| 60506 | G1 | 18 | 94 | 57,5 | 38 | 2900 | 10750 | 1 |

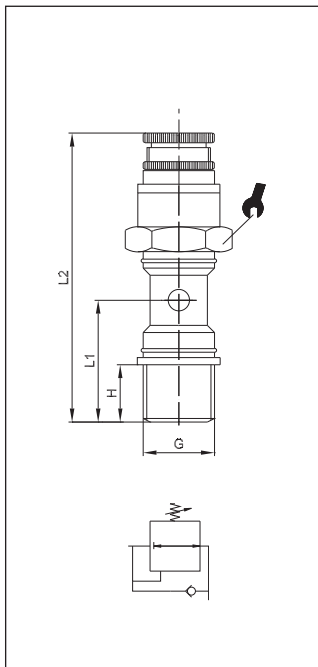
*Ermittlung der Durchflusswerte bei durchschnittlich 6bar



Handschiebeventil

Slide valve

| <i>mv</i> | G | ØB | L | | P-A NI/min* | A-R NI/min* | |
|-----------|------------------|----|----|----|----------------|----------------|----|
| 60602 | G ^{1/8} | 25 | 48 | 14 | 700 | 1280 | 10 |
| 60603 | G ^{1/4} | 30 | 58 | 19 | 1500 | 2220 | 5 |
| 60604 | G ^{3/8} | 35 | 68 | 22 | 2200 | 3200 | 5 |
| 60605 | G ^{1/2} | 40 | 80 | 27 | 3400 | 7500 | 1 |



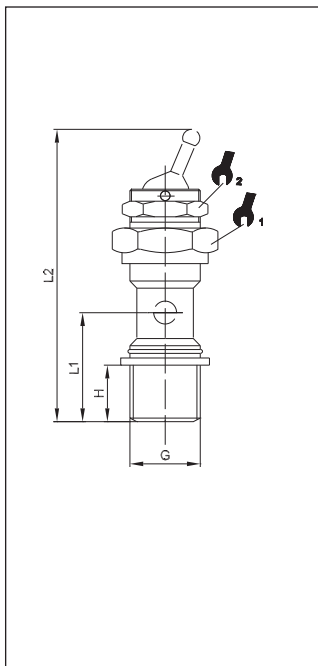
Druckregler (Energiesparventil)

Pressure control valve

Verwendbar mit den Ringstücken der Serie ipso und Serie 300

For banjo body of series ipso and series 300

| <i>mv</i> | G | H | L1 | L2 | | NI/min* | |
|-----------|------------------|---|------|----|----|---------|----|
| 304632 | G ^{1/8} | 6 | 15,5 | 56 | 15 | 580 | 10 |
| 304633 | G ^{1/4} | 8 | 18,5 | 63 | 17 | 750 | 10 |



Kipphebelventil

Pneumatic switch

Verwendbar mit den Ringstücken der Serie ipso und Serie 300

2-Wege-Ventil / 2-ways-valve

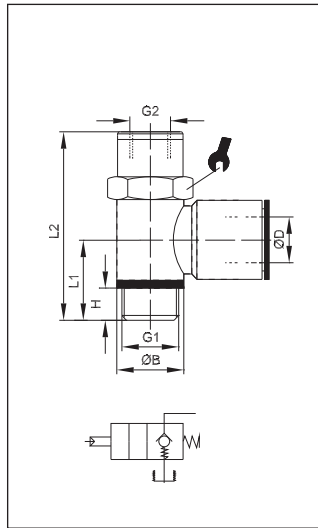


| <i>mv</i> | G | H | L1 | L2 | | | NI/min* | |
|-----------|------------------|---|----|----|----|----|---------|----|
| 304173 | G ^{1/8} | 6 | 16 | 55 | 14 | 15 | 580 | 10 |
| 304174 | G ^{1/4} | 8 | 19 | 60 | 17 | 15 | 750 | 10 |

3-Wege-Ventil / 3-ways-valve



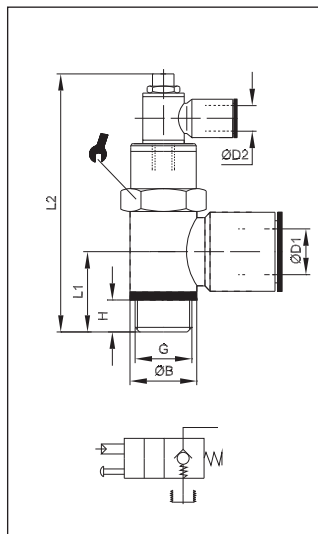
| <i>mv</i> | G | H | L1 | L2 | | | NI/min* | |
|-----------|------------------|---|----|----|----|----|---------|----|
| 304073 | G ^{1/8} | 6 | 16 | 55 | 14 | 15 | 580 | 10 |
| 304074 | G ^{1/4} | 8 | 19 | 60 | 17 | 15 | 750 | 10 |



ipso 048

Rückschlagventil
pneumatisch entsperrbar
Bidirectional flow regulator

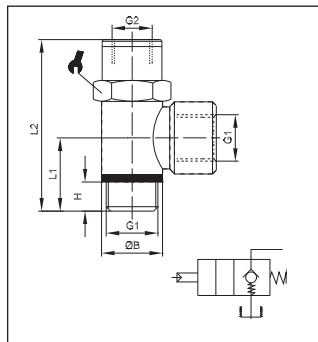
| IV | ØD | G1 | ØB | G2 | H | L1 | L2 | | |
|--------|----|-------------------------------|----|-------------------------------|---|------|------|----|----|
| 204802 | 4 | G ¹ / ₈ | 14 | M5 | 6 | 15,5 | 42 | 13 | 10 |
| 204805 | 6 | G ¹ / ₈ | 14 | M5 | 6 | 15,5 | 42 | 13 | 10 |
| 204806 | 6 | G ¹ / ₄ | 18 | M5 | 8 | 18,5 | 47 | 17 | 10 |
| 204807 | 8 | G ¹ / ₄ | 14 | M5 | 6 | 15,5 | 42 | 13 | 10 |
| 204808 | 8 | G ³ / ₈ | 18 | M5 | 8 | 18,5 | 47 | 17 | 10 |
| 204809 | 8 | G ³ / ₈ | 21 | G ¹ / ₈ | 9 | 21 | 53,5 | 20 | 10 |
| 204810 | 10 | G ¹ / ₄ | 18 | M5 | 8 | 18,5 | 47 | 17 | 10 |
| 204811 | 10 | G ³ / ₈ | 21 | G ¹ / ₈ | 9 | 21 | 53,5 | 20 | 10 |
| 204814 | 12 | G ¹ / ₄ | 18 | M5 | 8 | 18,5 | 47 | 17 | 10 |
| 204812 | 12 | G ³ / ₈ | 21 | G ¹ / ₈ | 9 | 21 | 53,5 | 20 | 10 |



ipso 049

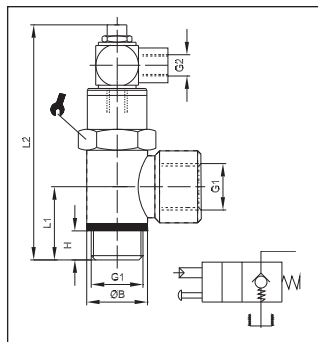
Rückschlagventil entsperrbar
pneumatisch betätigt
Bidirectional flow regulator

| IV | ØD1 | G | ØB | ØD2 | H | L1 | L2 | | |
|--------|-----|-------------------------------|----|-----|---|------|------|----|----|
| 204902 | 4 | G ¹ / ₈ | 14 | 4 | 6 | 15,5 | 62 | 13 | 10 |
| 204905 | 6 | G ¹ / ₈ | 14 | 4 | 6 | 15,5 | 62 | 13 | 10 |
| 204906 | 6 | G ¹ / ₄ | 18 | 4 | 8 | 18,5 | 67 | 17 | 10 |
| 204907 | 8 | G ¹ / ₈ | 14 | 4 | 6 | 15,5 | 62 | 13 | 10 |
| 204908 | 8 | G ¹ / ₄ | 18 | 4 | 8 | 18,5 | 67 | 17 | 10 |
| 204909 | 8 | G ³ / ₈ | 21 | 6 | 9 | 21 | 76,5 | 20 | 10 |
| 204910 | 10 | G ¹ / ₄ | 18 | 4 | 8 | 18,5 | 67 | 17 | 10 |
| 204911 | 10 | G ³ / ₈ | 21 | 6 | 9 | 21 | 76,5 | 20 | 10 |
| 204914 | 12 | G ¹ / ₄ | 18 | 4 | 8 | 18,5 | 67 | 17 | 10 |
| 204912 | 12 | G ³ / ₈ | 21 | 6 | 9 | 21 | 76,5 | 20 | 10 |



Rückschlagventil
pneumatisch entsperrbar
Bidirectional flow regulator

| IV | G1 | ØB | G2 | H | L1 | L2 | | |
|--------|-------------------------------|----|-------------------------------|----|------|------|----|----|
| 304622 | G ¹ / ₈ | 15 | M5 | 6 | 15,5 | 42 | 13 | 10 |
| 304623 | G ¹ / ₄ | 18 | M5 | 8 | 18,5 | 47 | 17 | 10 |
| 304624 | G ³ / ₈ | 22 | G ¹ / ₈ | 9 | 21 | 53,5 | 20 | 10 |
| 304625 | G ¹ / ₂ | 27 | G ¹ / ₈ | 10 | 24,5 | 60 | 25 | 10 |



Rückschlagventil entsperrbar
pneumatisch betätigt
Bidirectional flow regulator

| IV | G1 | ØB | G2 | H | L1 | L2 | | |
|--------|-------------------------------|----|-------------------------------|----|------|------|----|----|
| 304612 | G ¹ / ₈ | 15 | M5 | 6 | 15,5 | 62 | 13 | 10 |
| 304613 | G ¹ / ₄ | 18 | M5 | 8 | 18,5 | 67 | 17 | 10 |
| 304614 | G ³ / ₈ | 22 | G ¹ / ₈ | 9 | 21 | 76,5 | 20 | 10 |
| 304615 | G ¹ / ₂ | 27 | G ¹ / ₈ | 10 | 24,5 | 83 | 25 | 10 |

| G | Durchfluss in NI/min. bei 6 bar | Steuerdruck in Abhängigkeit zum Arbeitsdruck | | | | |
|-------------------------------|---------------------------------|--|------|------|------|-------|
| | | 2bar | 4bar | 6bar | 8bar | 10bar |
| G ¹ / ₈ | 400 | 1,5 | 2 | 3 | 3,5 | 4 |
| G ¹ / ₄ | 850 | 1,5 | 2 | 3 | 3,5 | 4 |
| G ³ / ₈ | 1250 | 1,5 | 2 | 3 | 3,5 | 4 |
| G ¹ / ₂ | 1800 | 1,5 | 2 | 3 | 3,5 | 4 |

Medium: gefilterte und geölte Luft
Betriebsdruck: 2bar bis 10bar
Betriebstemperatur: -5°C bis +70°C