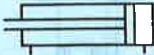
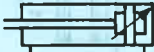


Double acting cylinder
with elastic cushioning rings
in end positions

Type DSW-...-P-B 

with adjustable end position cushioning at
both ends




Type DSW-...-P-B 

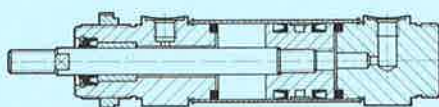
On these combination cylinders, the bearing cap and cover cap are roller burnished onto the cylinder barrel so as to be pressure tight.

Special designs:



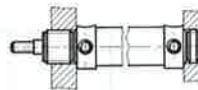
Additional components
(sheet 1.310, 1320):

-  Rod clevis, Type SG
-  Rod eye, Type SGS
-  Self-aligning rod coupler, Type FK

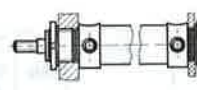


Installation of basic cylinder without mounting attachments

Neck mounting (threaded)
at front at rear

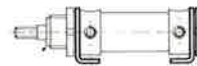


Mounting with nut
at front at rear

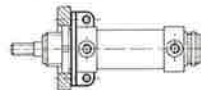


Other types of installation and additional mounting attachments

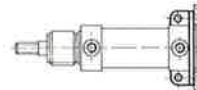
Foot mounting Type H



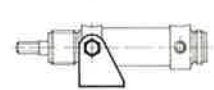
Flange mounting at front
Type FV-...



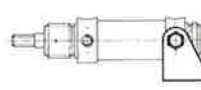
Flange mounting at rear
Type FV-...



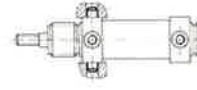
Clevis foot mounting Type
SBS-... at front



Clevis foot mounting Type SBS-...
at rear



Plug bolt, Type GBS-...
at front



Plug bolt, Type GBS-...
at rear

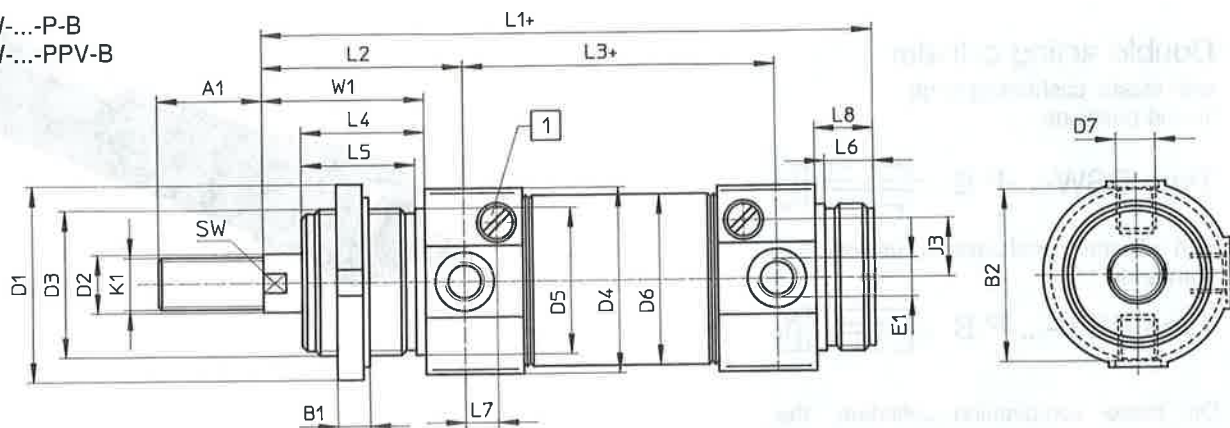


| | |
|-------------------------------------|---|
| Order code (see sheet 1.242.1) | Part No. + DSW + piston dia. + stroke length + end position cushioning <i>Example: piston dia. 40 mm, stroke length 100 mm = 161473 DSW-40-100-P-B</i> |
| Medium | Compressed air, filtered (lubricated or unlubricated) |
| Design | Piston cylinder |
| Max. permissible operating pressure | 10 bar |
| Temperature range | -20 to +80 °C |
| Materials | Bearing cap and cover cap: naturally anodized aluminium; cylinder barrel: X 5 CrNi 18 9; piston rod: X 20 Cr 13, rolled thread; seals: Perbunan |
| Weights | See overleaf |

| Piston dia. mm | Standard stroke lengths mm | Stroke length min. - max. mm | Thrust at 6 bar | | Return force at 6 bar | | Connection | Cushioning length mm |
|-------------------|--|------------------------------------|-----------------|---------|-----------------------|---------|------------|----------------------|
| | | | N | (≈ kp) | N | (≈ kp) | | |
| 32 | 25, 40, 50, 80, 100, 160, 200, 300 | 1 to 500 | 482 | (48.2) | 415 | (41.5) | G 1/8 | 19 |
| 40 | | | 753 | (75.3) | 633 | (63.3) | G 1/4 | 22 |
| 50 | | | 1178 | (117.8) | 990 | (99) | G 1/4 | 27 |
| 63 | | | 1870 | (187) | 1682 | (168.2) | G 3/8 | 27 |

Double acting cylinders
for proximity sensing, piston dia. 32 to 63 mm

Type DSW-...-P-B
DSW-...-PPV-B



① Regulating screw for adjustable end position cushioning

+ = Plus stroke length

| Piston dia. mm | A ₁ | B ₁ | B ₂ | D ₁ dia. | D ₂ dia. f ₈ | D ₃ | D ₄ dia. | D ₅ dia. h ₉ | D ₆ dia. | D ₇ | E ₁ | J ₃ | K ₁ | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | L ₇ | L ₈ | SW ₂ | W ₁ |
|----------------|----------------|----------------|----------------|---------------------|------------------------------------|----------------|---------------------|------------------------------------|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|
| 32 | 20 | 8 | 37 | 42 | 12 | M30 × 1.5 | 38 | 30 | 33.6 | M 8 × 1 | G 1/8 | 12 | M10 | 148 | 47 | 78 | 30 | 28 | 12 | 8 | 14 | 10 | 38 |
| 40 | 24 | 10 | 45 | 50 | 16 | M38 × 1.5 | 46 | 38 | 41.6 | M10 × 1 | G 1/4 | 13.5 | M12 | 174 | 57 | 89 | 35 | 32 | 13 | 9 | 16 | 12 | 45 |
| 50 | 32 | 10 | 56 | 60 | 20 | M45 × 1.5 | 57 | 45 | 52.4 | M12 × 1.5 | G 1/4 | 18 | M16 | 188 | 62 | 96 | 38 | 35 | 15 | 10 | 18 | 16 | 50 |
| 63 | 32 | 10 | 69 | 60 | 20 | M45 × 1.5 | 70 | 45 | 65.4 | M14 × 1.5 | G 3/8 | 20 | M16 | 192 | 63 | 98 | 38 | 35 | 15 | 12 | 18 | 16 | 50 |

Weights

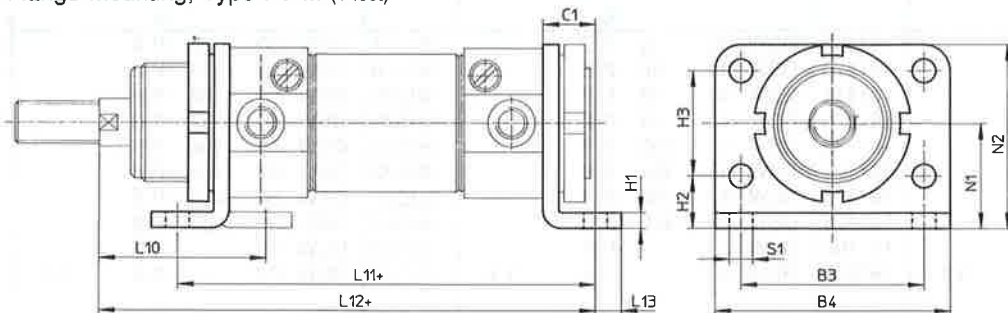
| Basic cylinder in kg | | | Mounting attachments: Material and weight in kg | | | |
|----------------------|-------------------------------|----------------------------|---|-------------------------|----------------------------|--------------------------|
| Piston dia. mm | Type DSW-...-P-B Basic weight | Weight per 10 mm of stroke | H-... Galvanized steel | FV-... Galvanized steel | SBS-...-B Galvanized steel | GBS-... Galvanized steel |
| 32 | 0.432 | 0.015 | 0.235 | 0.110 | 0.160 | 0.010 |
| 40 | 0.732 | 0.019 | 0.435 | 0.190 | 0.225 | 0.020 |
| 50 | 1.232 | 0.033 | 0.665 | 0.300 | 0.380 | 0.040 |
| 63 | 1.712 | 0.039 | 0.800 | 0.395 | 0.530 | 0.065 |

Additional mounting attachments

(state piston dia. when ordering)

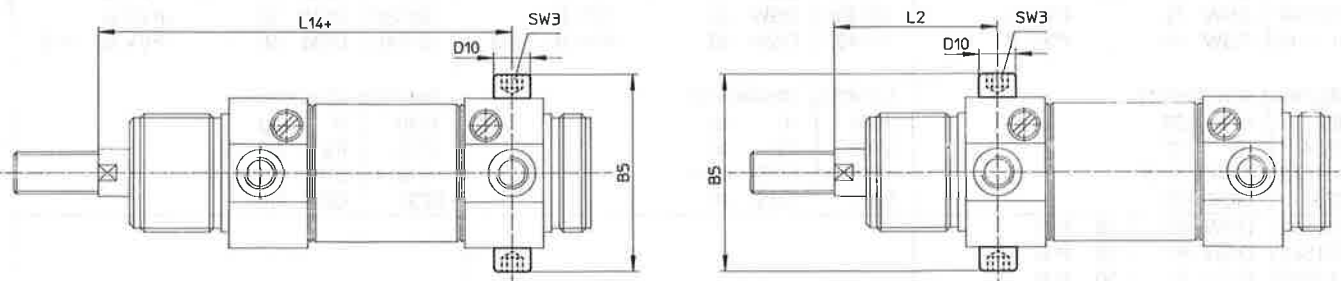
Foot mounting, Type H-... (2 feet + 1 nut)

Flange mounting, Type FV-... (1 foot)

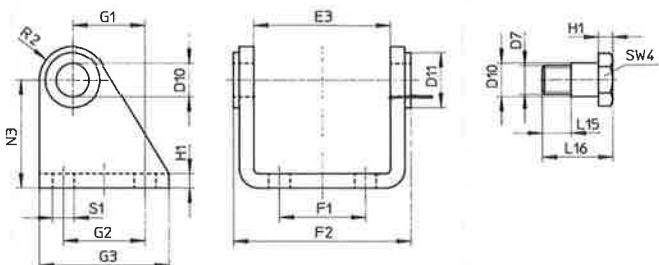


4

Plug bolt
Type GBS-...
(2 bolts)



Clevis foot mounting Type SBS-...-B
with 2 hexagon fitting bolts



+ = plus stroke length

| Piston dia. mm | B ₃ | B ₄ | B ₅ | C ₁ | D ₇ | D ₁₀ dia. H ₈ /f ₇ | D ₁₁ | E ₃ | F ₁ | F ₂ | G ₁ | G ₂ | G ₃ | H ₁ | H ₂ | H ₃ |
|-------------------|----------------|----------------|----------------|----------------|----------------|---|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 32 | 52 | 66 | 50 | 14 | M 8 × 1 | 10 | 15 | 38.1 | 20 | 50.1 | 20 | 24 | 40 | 4 | 14 | 28 |
| 40 | 60 | 80 | 60 | 20 | M10 × 1 | 12 | 20 | 46.1 | 28 | 60.1 | 27 | 30 | 50 | 5 | 18 | 30 |
| 50 | 70 | 90 | 74 | 20 | M12 × 1.5 | 14 | 23 | 57.1 | 36 | 74.1 | 30 | 34 | 54 | 6 | 20 | 40 |
| 63 | 76 | 96 | 89 | 20 | M14 × 1.5 | 16 | 23 | 70.1 | 42 | 88.1 | 34 | 35 | 65 | 6 | 20 | 50 |

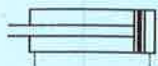
| Piston dia. mm | L ₂ | L ₁₀ | L ₁₁ | L ₁₂ | L ₁₃ | L ₁₄ | L ₁₅ | L ₁₆ | N ₁ | N ₂ | N ₃ | R ₂ | S ₁ | SW ₃ | SW ₄ |
|-------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|
| 32 | 47 | 48 | 124 | 148 | 7 | 125 | 6.5 | 17.5 | 28 | 49 | 35 | 12 | 7 | 5 | 13 |
| 40 | 57 | 60 | 153 | 178 | 10 | 146 | 9 | 22 | 33 | 58 | 40 | 13 | 9 | 6 | 17 |
| 50 | 62 | 64 | 160 | 190 | 10 | 158 | 12 | 27.5 | 40 | 70 | 45 | 14 | 9 | 6 | 19 |
| 63 | 64 | 65 | 164 | 195 | 10 | 162 | 16 | 32.1 | 45 | 80 | 50 | 16 | 9 | 8 | 19 |

| Order code | | | | | | Order code | | | | | | Order code | | | | | |
|-----------------------------|------|-------------|--------|-------------------------|----------------|-----------------------------|------|-------------|--------|-------------------------|----------------|-----------------------------|------|-------------|--------|-------------------------|----------------|
| Part No. | Type | Piston dia. | Stroke | End position cushioning | Special design | Part No. | Type | Piston dia. | Stroke | End position cushioning | Special design | Part No. | Type | Piston dia. | Stroke | End position cushioning | Special design |
| 161421 | DSW | -32 | - 25 | -P-B | | 161469 | DSW | -40 | - 25 | -P-B | | 161517 | DSW | -50 | - 25 | -P-B | |
| 161422 | DSW | -32 | - 40 | -P-B | | 161470 | DSW | -40 | - 40 | -P-B | | 161518 | DSW | -50 | - 40 | -P-B | |
| 161423 | DSW | -32 | - 50 | -P-B | | 161471 | DSW | -40 | - 50 | -P-B | | 161519 | DSW | -50 | - 50 | -P-B | |
| 161424 | DSW | -32 | - 80 | -P-B | | 161472 | DSW | -40 | - 80 | -P-B | | 161520 | DSW | -50 | - 80 | -P-B | |
| 161425 | DSW | -32 | -100 | -P-B | | 161473 | DSW | -40 | -100 | -P-B | | 161521 | DSW | -50 | -100 | -P-B | |
| 161426 | DSW | -32 | -160 | -P-B | | 161474 | DSW | -40 | -160 | -P-B | | 161522 | DSW | -50 | -160 | -P-B | |
| 161427 | DSW | -32 | -200 | -P-B | | 161475 | DSW | -40 | -200 | -P-B | | 161523 | DSW | -50 | -200 | -P-B | |
| 161428 | DSW | -32 | -300 | -P-B | | 161476 | DSW | -40 | -300 | -P-B | | 161524 | DSW | -50 | -300 | -P-B | |
| 161420 | DSW | -32 | ... | -P-B | | 161468 | DSW | -40 | ... | -P-B | | 161516 | DSW | -50 | ... | -P-B | |
| 161429 | DSW | -32 | ... | -P-B | -S 3 | 161477 | DSW | -40 | ... | -P-B | -S 3 | 161525 | DSW | -50 | ... | -P-B | -S 3 |
| 161441 | DSW | -32 | - 25 | -PVV-B | | 161489 | DSW | -40 | - 25 | -PPV-B | | 161537 | DSW | -50 | - 25 | -PVV-B | |
| 161442 | DSW | -32 | - 40 | -PVV-B | | 161490 | DSW | -40 | - 40 | -PPV-B | | 161538 | DSW | -50 | - 40 | -PVV-B | |
| 161443 | DSW | -32 | - 50 | -PVV-B | | 161491 | DSW | -40 | - 50 | -PPV-B | | 161539 | DSW | -50 | - 50 | -PVV-B | |
| 161444 | DSW | -32 | - 80 | -PVV-B | | 161492 | DSW | -40 | - 80 | -PPV-B | | 161540 | DSW | -50 | - 80 | -PVV-B | |
| 161445 | DSW | -32 | -100 | -PVV-B | | 161493 | DSW | -40 | -100 | -PPV-B | | 161541 | DSW | -50 | -100 | -PVV-B | |
| 161446 | DSW | -32 | -160 | -PVV-B | | 161494 | DSW | -40 | -160 | -PPV-B | | 161542 | DSW | -50 | -160 | -PVV-B | |
| 161447 | DSW | -32 | -200 | -PVV-B | | 161495 | DSW | -40 | -200 | -PPV-B | | 161543 | DSW | -50 | -200 | -PVV-B | |
| 161448 | DSW | -32 | -300 | -PVV-B | | 161496 | DSW | -40 | -300 | -PPV-B | | 161544 | DSW | -50 | -300 | -PVV-B | |
| 161440 | DSW | -32 | ... | -PVV-B | | 161488 | DSW | -40 | ... | -PPV-B | | 161536 | DSW | -50 | ... | -PVV-B | |
| 161449 | DSW | -32 | ... | -PVV-B | -S 3 | 161497 | DSW | -40 | ... | -PPV-B | -S 3 | 161545 | DSW | -50 | ... | -PVV-B | -S 3 |
| Mounting attachments | | | | | | Mounting attachments | | | | | | Mounting attachments | | | | | |
| 3667 | H | -32 | | | | 3668 | H | -40 | | | | 3669 | H | -50 | | | |
| 3754 | FV | -32 | | | | 3765 | FV | -40 | | | | 3775 | FV | -50 | | | |
| 161612 | SBS | -32-B | | | | 161613 | SBS | -40-B | | | | 161614 | SBS | -50-B | | | |
| 9236 | GBS | -32 | | | | 9237 | GBS | -40 | | | | 9238 | GBS | -50 | | | |
| 161565 | DSW | -63 | - 25 | -P-B | | | | | | | | | | | | | |
| 161566 | DSW | -63 | - 40 | -P-B | | | | | | | | | | | | | |
| 161567 | DSW | -63 | - 50 | -P-B | | | | | | | | | | | | | |
| 161568 | DSW | -63 | - 80 | -P-B | | | | | | | | | | | | | |
| 161569 | DSW | -63 | -100 | -P-B | | | | | | | | | | | | | |
| 161570 | DSW | -63 | -160 | -P-B | | | | | | | | | | | | | |
| 161571 | DSW | -63 | -200 | -P-B | | | | | | | | | | | | | |
| 161572 | DSW | -63 | -300 | -P-B | | | | | | | | | | | | | |
| 161564 | DSW | -63 | ... | -P-B | | | | | | | | | | | | | |
| 161573 | DSW | -63 | ... | -P-B | -S 3 | | | | | | | | | | | | |
| 161585 | DSW | -63 | - 25 | -PVV-B | | | | | | | | | | | | | |
| 161586 | DSW | -63 | - 40 | -PVV-B | | | | | | | | | | | | | |
| 161587 | DSW | -63 | - 50 | -PVV-B | | | | | | | | | | | | | |
| 161588 | DSW | -63 | - 80 | -PVV-B | | | | | | | | | | | | | |
| 161589 | DSW | -63 | -100 | -PVV-B | | | | | | | | | | | | | |
| 161590 | DSW | -63 | -160 | -PVV-B | | | | | | | | | | | | | |
| 161591 | DSW | -63 | -200 | -PVV-B | | | | | | | | | | | | | |
| 161592 | DSW | -63 | -300 | -PVV-B | | | | | | | | | | | | | |
| 161584 | DSW | -63 | ... | -PVV-B | | | | | | | | | | | | | |
| 161593 | DSW | -63 | ... | -PVV-B | -S 3 | | | | | | | | | | | | |
| Mounting attachments | | | | | | Mounting attachments | | | | | | Mounting attachments | | | | | |
| 3700 | H | -63 | | | | | | | | | | | | | | | |
| 3785 | FV | -63 | | | | | | | | | | | | | | | |
| 161615 | SBS | -63-B | | | | | | | | | | | | | | | |
| 9239 | GBS | -63 | | | | | | | | | | | | | | | |

Double acting cylinder

with elastic cushioning rings
in end positions

Type DSW-...-P-A-B



with end position cushioning adjustable at
both ends

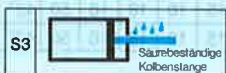
Type DSW-...-PPV-A-B



On these combination cylinders, the bearing cap and end cap are roller burnished onto the cylinder barrel so as to be pressure tight.

There is a permanent magnet on the cylinder piston, the magnetic field of which actuates proximity switches.

Special designs:

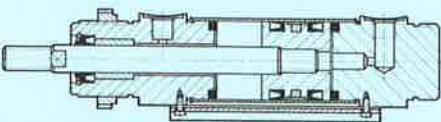


Additional components
(sheets 1.310, 1.320):

Rod clevis, Type SG

Rod eye, Type SGS

Self-aligning rod coupler, Type FK



4

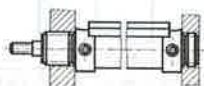
One or more proximity switches can be fastened to the DUO rail on the cylinder. These switches permit non-contact sensing of the end or intermediate positions of the cylinder.

The proximity switches with pneumatic or electrical output signals have identical dimensions and can be combined on the DUO rail.

Proximity switches see sheet 1.350.

Installation of basic cylinder without mounting attachments

Neck mounting (threaded)
at front at rear

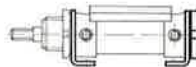
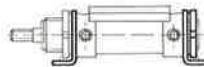


Mounting with nut
at front at rear

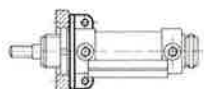


Other types of installation and additional mounting attachments

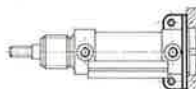
Foot mounting Type H



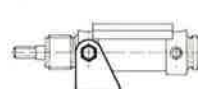
Flange mounting at front
Type FV-...



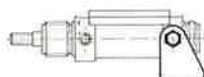
Flange mounting at rear
Type FV-...



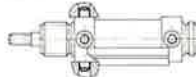
Clevis foot mounting
Type SBS-... at front



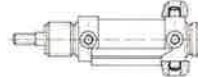
Clevis foot mounting
Type SBS-... at rear



Plug bolt, Type GBS-...
at front



Plug bolt, Type GBS-...
at rear

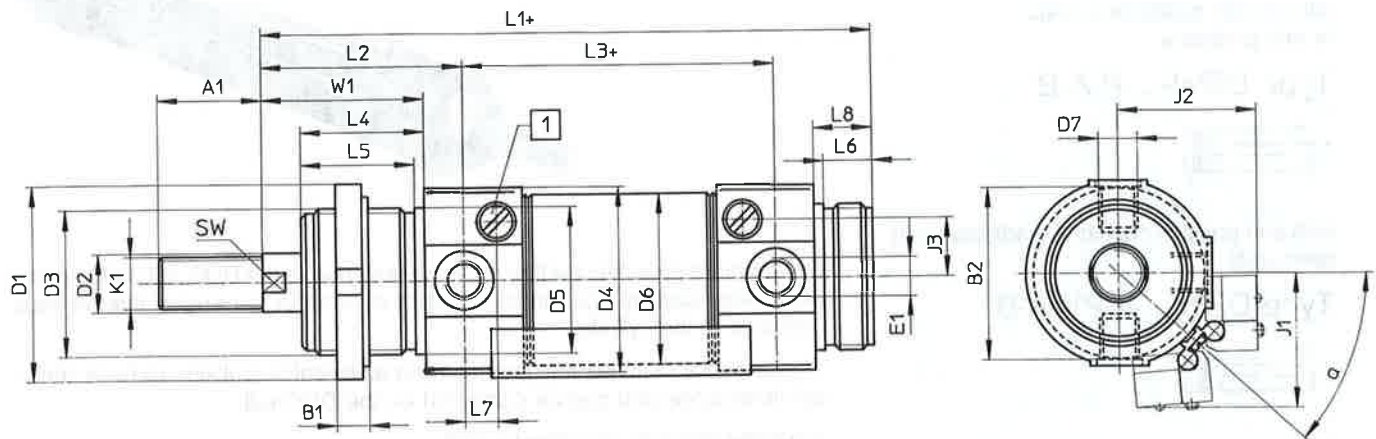


| | |
|-------------------------------------|---|
| Order code (see sheet 1.245.1) | Part No. + DSW + piston dia. + stroke length + end position cushioning + proximity sensing <i>Example: piston dia. 63 mm, stroke length 80 mm = 161578 DSW-63-80-P-A-B</i> |
| Medium | Compressed air, filtered (lubricated or unlubricated) |
| Design | Piston cylinder |
| Max. permissible operating pressure | 10 bar |
| Temperature range | -20 to +80 °C (check range of application of proximity switches) |
| Materials | Bearing cap and cover cap: naturally anodized aluminium; cylinder barrel: X 5 CrNi 18 9; piston rod: X 20 Cr 13, rolled thread; DUO rail: aluminium; seals: Perbunan |
| Weights | See overleaf |

| Piston dia. mm | Standard stroke lengths mm | Stroke length min. - max. mm | Thrust at 6 bar | | Return force at 6 bar | | Connection | Cushioning length mm |
|-------------------|--|------------------------------------|-----------------|---------|-----------------------|---------|------------|-------------------------|
| | | | N | (≈ kp) | N | (≈ kp) | | |
| 32 | 25, 40, 50, 80, 100, 160, 200, 300 | 10 to 500 | 482 | (48.2) | 415 | (41.5) | G 1/8 | 19 |
| 40 | | | 753 | (75.3) | 633 | (63.3) | G 1/4 | 22 |
| 50 | | | 1178 | (117.8) | 990 | (99) | G 1/4 | 27 |
| 63 | | | 1870 | (187) | 1682 | (168.2) | G 3/8 | 27 |

Double acting cylinders
for proximity sensing, piston dia. 32 to 63 mm

Type DSW-...-P-A-B
DSW-...-PPV-A-B



① Regulating screw for adjustable end position cushioning

② Proximity switch

+ = Plus stroke length

| Piston dia. mm | A ₁ | B ₁ | B ₂ | D ₁ dia. | D ₂ dia. f _h | D ₃ | D ₄ dia. | D ₅ dia. h _g | D ₆ dia. | D ₇ | E ₁ | J ₁ | J ₂ | J ₃ | K ₁ | L ₁ | L ₂ | L ₃ | L ₄ | L ₅ | L ₆ | L ₇ | L ₈ | SW ₂ | W ₁ | α |
|----------------|----------------|----------------|----------------|---------------------|------------------------------------|----------------|---------------------|------------------------------------|---------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|----------------|---------|
| 32 | 20 | 8 | 37 | 42 | 12 | M30 × 1.5 | 38 | 30 | 33.6 | M 8 × 1 | G 1/8 | 32.5 | 36.5 | 12 | M10 | 148 | 47 | 78 | 30 | 28 | 12 | 8 | 14 | 10 | 38 | 38° 30' |
| 40 | 24 | 10 | 45 | 50 | 16 | M38 × 1.5 | 46 | 38 | 41.6 | M10 × 1 | G 1/4 | 36.5 | 38.5 | 13.5 | M12 | 174 | 57 | 89 | 35 | 32 | 13 | 9 | 16 | 12 | 45 | 41° |
| 50 | 32 | 10 | 56 | 60 | 20 | M45 × 1.5 | 57 | 45 | 52.4 | M12 × 1.5 | G 1/4 | 41.5 | 42 | 18 | M16 | 188 | 62 | 96 | 38 | 35 | 15 | 10 | 18 | 16 | 50 | 42° |
| 63 | 32 | 10 | 69 | 60 | 20 | M45 × 1.5 | 70 | 45 | 65.4 | M14 × 1.5 | G 3/8 | 47.5 | 48 | 20 | M16 | 192 | 63 | 98 | 38 | 35 | 15 | 12 | 18 | 16 | 50 | 42° |

Weights

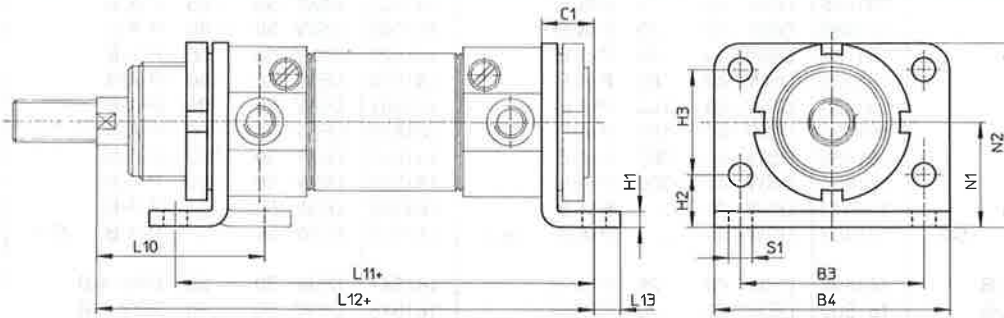
| Basic Cylinder in kg | | | Mounting attachments: Material and weight in kg | | | |
|----------------------|--------------------|----------------------------|---|------------------|------------------|------------------|
| Piston dia. mm | Type DSW-...-P-A-B | | H-... | FV-... | SBS-...-B | GBS-... |
| | Basic weight | Weight per 10 mm of stroke | Galvanized steel | Galvanized steel | Galvanized steel | Galvanized steel |
| 32 | 0.450 | 0.018 | 0.235 | 0.110 | 0.160 | 0.010 |
| 40 | 0.754 | 0.022 | 0.435 | 0.190 | 0.225 | 0.020 |
| 50 | 1.277 | 0.035 | 0.665 | 0.300 | 0.380 | 0.040 |
| 63 | 1.738 | 0.041 | 0.800 | 0.395 | 0.530 | 0.065 |

Additional mounting attachments

(state piston dia. when ordering)

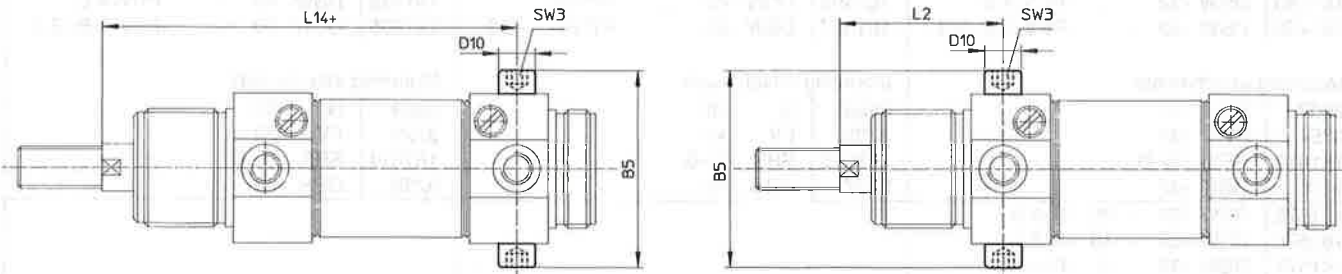
Foot mounting, Type H-... (2 feet + 1 nut)

Flange mounting, Type FV-... (1 foot)

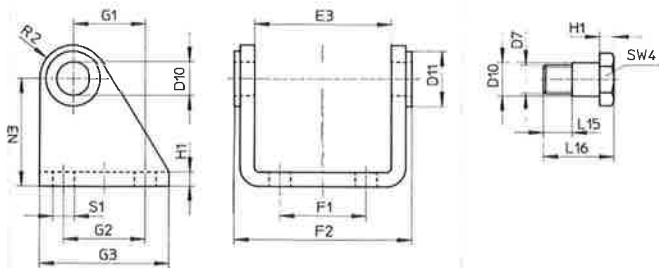


4

Plug bolt
Type GBS-...
(2 bolts)



Clevis foot mounting Type SBS-...-B
with 2 hexagon fitting bolts



+ = plus stroke length

| Piston dia. mm | B ₃ | B ₄ | B ₅ | C ₁ | D ₇ | D ₁₀ dia. H ₈ /f ₇ | D ₁₁ | E ₃ | F ₁ | F ₂ | G ₁ | G ₂ | G ₃ | H ₁ | H ₂ | H ₃ |
|-------------------|----------------|----------------|----------------|----------------|----------------|--|-----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| 32 | 52 | 66 | 50 | 14 | M 8 × 1 | 10 | 15 | 38.1 | 20 | 50.1 | 20 | 24 | 40 | 4 | 14 | 28 |
| 40 | 60 | 80 | 60 | 20 | M10 × 1 | 12 | 20 | 46.1 | 28 | 60.1 | 27 | 30 | 50 | 5 | 18 | 30 |
| 50 | 70 | 90 | 74 | 20 | M12 × 1.5 | 14 | 23 | 57.1 | 36 | 74.1 | 30 | 34 | 54 | 6 | 20 | 40 |
| 63 | 76 | 96 | 89 | 20 | M14 × 1.5 | 16 | 23 | 70.1 | 42 | 88.1 | 34 | 35 | 65 | 6 | 20 | 50 |

| Piston dia. mm | L ₂ | L ₁₀ | L ₁₁ | L ₁₂ | L ₁₃ | L ₁₄ | L ₁₅ | L ₁₆ | N ₁ | N ₂ | N ₃ | R ₂ | S ₁ | SW ₃ | SW ₄ |
|-------------------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|-----------------|-----------------|
| 32 | 47 | 48 | 124 | 148 | 7 | 125 | 6.5 | 17.5 | 28 | 49 | 35 | 12 | 7 | 5 | 13 |
| 40 | 57 | 60 | 153 | 178 | 10 | 146 | 9 | 22 | 33 | 58 | 40 | 13 | 9 | 6 | 17 |
| 50 | 62 | 64 | 160 | 190 | 10 | 158 | 12 | 27.5 | 40 | 70 | 45 | 14 | 9 | 6 | 19 |
| 63 | 64 | 65 | 164 | 195 | 10 | 162 | 16 | 32.1 | 45 | 80 | 50 | 16 | 9 | 8 | 19 |

| Order code | | | | | | Order code | | | | | | Order code | | | | | |
|-----------------------------|------|-------------|--------|-------------------------|----------------|-----------------------------|------|-------------|--------|-------------------------|----------------|-----------------------------|------|-------------|--------|-------------------------|----------------|
| Part No. | Type | Piston dia. | Stroke | End position cushioning | Special design | Part No. | Type | Piston dia. | Stroke | End position cushioning | Special design | Part No. | Type | Piston dia. | Stroke | End position cushioning | Special design |
| 161431 | DSW | -32 | - 25 | -P-A-B | | 161479 | DSW | -40 | - 25 | -P-A-B | | 161527 | DSW | -50 | - 25 | -P-A-B | |
| 161432 | DSW | -32 | - 40 | -P-A-B | | 161480 | DSW | -40 | - 40 | -P-A-B | | 161528 | DSW | -50 | - 40 | -P-A-B | |
| 161433 | DSW | -32 | - 50 | -P-A-B | | 161481 | DSW | -40 | - 50 | -P-A-B | | 161529 | DSW | -50 | - 50 | -P-A-B | |
| 161434 | DSW | -32 | - 80 | -P-A-B | | 161482 | DSW | -40 | - 80 | -P-A-B | | 161530 | DSW | -50 | - 80 | -P-A-B | |
| 161435 | DSW | -32 | -100 | -P-A-B | | 161483 | DSW | -40 | -100 | -P-A-B | | 161531 | DSW | -50 | -100 | -P-A-B | |
| 161436 | DSW | -32 | -160 | -P-A-B | | 161484 | DSW | -40 | -160 | -P-A-B | | 161532 | DSW | -50 | -160 | -P-A-B | |
| 161437 | DSW | -32 | -200 | -P-A-B | | 161485 | DSW | -40 | -200 | -P-A-B | | 161535 | DSW | -50 | -200 | -P-A-B | |
| 161438 | DSW | -32 | -300 | -P-A-B | | 161486 | DSW | -40 | -300 | -P-A-B | | 161534 | DSW | -50 | -300 | -P-A-B | |
| 161430 | DSW | -32 | ... | -P-A-B | | 161478 | DSW | -40 | ... | -P-A-B | | 161526 | DSW | -50 | ... | -P-A-B | |
| 161439 | DSW | -32 | ... | -P-A-B | -S 3 | 161487 | DSW | -40 | ... | -P-A-B | -S 3 | 161535 | DSW | -50 | ... | -P-A-B | -S 3 |
| 161451 | DSW | -32 | - 25 | -PPV-A-B | | 161499 | DSW | -40 | - 25 | -PPV-A | | 161547 | DSW | -50 | - 25 | -PPV-A-B | |
| 161452 | DSW | -32 | - 40 | -PPV-A-B | | 161500 | DSW | -40 | - 40 | -PPV-A | | 161548 | DSW | -50 | - 40 | -PPV-A-B | |
| 161453 | DSW | -32 | - 50 | -PPV-A-B | | 161501 | DSW | -40 | - 50 | -PPV-A | | 161549 | DSW | -50 | - 50 | -PPV-A-B | |
| 161454 | DSW | -32 | - 80 | -PPV-A-B | | 161502 | DSW | -40 | - 80 | -PPV-A | | 161550 | DSW | -50 | - 80 | -PPV-A-B | |
| 161455 | DSW | -32 | -100 | -PPV-A-B | | 161503 | DSW | -40 | -100 | -PPV-A | | 161551 | DSW | -50 | -100 | -PPV-A-B | |
| 161456 | DSW | -32 | -160 | -PPV-A-B | | 161504 | DSW | -40 | -160 | -PPV-A | | 161552 | DSW | -50 | -160 | -PPV-A-B | |
| 161457 | DSW | -32 | -200 | -PPV-A-B | | 161505 | DSW | -40 | -200 | -PPV-A | | 161553 | DSW | -50 | -200 | -PPV-A-B | |
| 161458 | DSW | -32 | -300 | -PPV-A-B | | 161506 | DSW | -40 | -300 | -PPV-A | | 161554 | DSW | -50 | -300 | -PPV-A-B | |
| 161450 | DSW | -32 | ... | -PPV-A-B | | 161498 | DSW | -40 | ... | -PPV-A | | 161546 | DSW | -50 | ... | -PPV-A-B | |
| 161459 | DSW | -32 | ... | -PPV-A-B | -S 3 | 161507 | DSW | -40 | ... | -PPV-A | -S 3 | 161555 | DSW | -50 | ... | -PPV-A-B | -S 3 |
| Mounting attachments | | | | | | Mounting attachments | | | | | | Mounting attachments | | | | | |
| 3667 | H | -32 | | | | 3668 | H | -40 | | | | 3669 | H | -50 | | | |
| 3754 | FV | -32 | | | | 3765 | FV | -40 | | | | 3775 | FV | -50 | | | |
| 161612 | SBS | -32-B | | | | 161613 | SBS | -40-B | | | | 161614 | SBS | -50-B | | | |
| 9236 | GBS | -32 | | | | 9237 | GBS | -40 | | | | 9238 | GBS | -50 | | | |
| 161575 | DSW | -63 | - 25 | -P-A-B | | | | | | | | | | | | | |
| 161576 | DSW | -63 | - 40 | -P-A-B | | | | | | | | | | | | | |
| 161577 | DSW | -63 | - 50 | -P-A-B | | | | | | | | | | | | | |
| 161578 | DSW | -63 | - 80 | -P-A-B | | | | | | | | | | | | | |
| 161579 | DSW | -63 | -100 | -P-A-B | | | | | | | | | | | | | |
| 161580 | DSW | -63 | -160 | -P-A-B | | | | | | | | | | | | | |
| 161581 | DSW | -63 | -200 | -P-A-B | | | | | | | | | | | | | |
| 161582 | DSW | -63 | -300 | -P-A-B | | | | | | | | | | | | | |
| 161574 | DSW | -63 | ... | -P-A-B | | | | | | | | | | | | | |
| 161573 | DSW | -63 | ... | -P-A-B | -S 3 | | | | | | | | | | | | |
| 161595 | DSW | -63 | - 25 | -PPV-A-B | | | | | | | | | | | | | |
| 161596 | DSW | -63 | - 40 | -PPV-A-B | | | | | | | | | | | | | |
| 161597 | DSW | -63 | - 50 | -PPV-A-B | | | | | | | | | | | | | |
| 161598 | DSW | -63 | - 80 | -PPV-A-B | | | | | | | | | | | | | |
| 161599 | DSW | -63 | -100 | -PPV-A-B | | | | | | | | | | | | | |
| 161600 | DSW | -63 | -160 | -PPV-A-B | | | | | | | | | | | | | |
| 161601 | DSW | -63 | -200 | -PPV-A-B | | | | | | | | | | | | | |
| 161602 | DSW | -63 | -300 | -PPV-A-B | | | | | | | | | | | | | |
| 161594 | DSW | -63 | ... | -PPV-A-B | | | | | | | | | | | | | |
| 161603 | DSW | -63 | ... | -PPV-A-B | -S 3 | | | | | | | | | | | | |
| Mounting attachments | | | | | | Mounting attachments | | | | | | Mounting attachments | | | | | |
| 3700 | H | -63 | | | | | | | | | | | | | | | |
| 3785 | FV | -63 | | | | | | | | | | | | | | | |
| 161615 | SBS | -63-B | | | | | | | | | | | | | | | |
| 9239 | GBS | -63 | | | | | | | | | | | | | | | |