# Ventil de panou frontal M5 SV



# Caracteristici

## La prima vedere

Buton:
- Dupa actionare, butoanele de apasare revin la pozitia initiala de comutare.

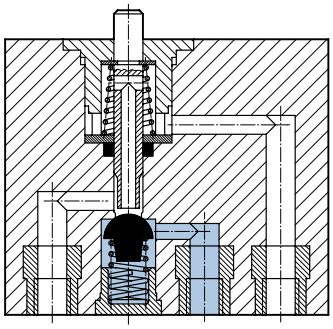
Comutator:
- Comutatoarele au mai multe pozitii care pot fi selectate, dupa cum este necesar. Cheile de actionare pot fi actionate numai cu cheia. Cheia poate fi scoasa in orice pozitie a comutatorului.

Butoane-ciuperca/butoane-ciuperca cu retinere
- Dupa actionare, butoanele-ciuperca revin la pozitia initiala de comutare. Butoanele-ciuperca cu retinere sunt actionate prin apasare si revin la pozitia initiala de comutare dupa deblocare.
- Tipul PR: accesoriul se deblocheaza prin rotirea inelului de blocare de pe capul de ciuperca.
- Tipul PRS: Accesoriul poate fi deblocat numai cu ajutorul cheii. Cheia poate fi scoasa in ambele pozitii ale comutatorului.

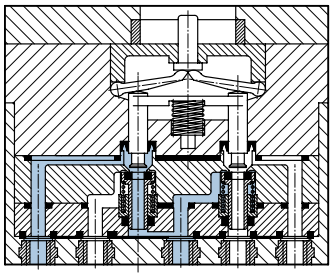
## Functie ventil

Ventilele de baza sunt ventile cu scaun fara suprapunere.
- Nu se produce nicio depasire intre canale in timpul procesului de comutare
- Autocuratare limitata prin fluxul de aer in timpul functionarii

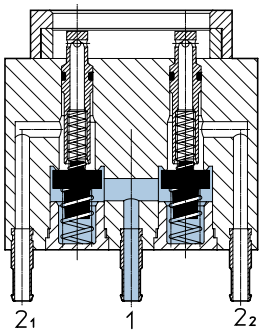
[32] Ventil 3/2



[52] Functie cale 5/2



[T32C] Ventil 2x3/2, normal inchis



# Fisa de date

| Date tehnice generale - Anexe actuator cu diametru de instalare 22,5 mm | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Semn scurt tip | N-22-SW | H | P | PR | T | NR | Q | PRS |
| Forta de actionare | – | | 14 N | 25 N | 14 N | – | | |
| Cuplu de actionare | 0,4 Nm | 0,14 Nm | – | | | | | |
| Greutate produs | 21 g | 19 g | 20 g | 26 g | 14 g | – | 36,8 g | 44,8 g |
| Culoare | negru | | | roșu | galben, roșu, negru | – | negru | roșu |
| Nota privind materialele | – | | | | | | Conform RoHS | |

| Date tehnice generale - Elemente de actionare cu diametru de instalare 30,5 mm | | | | | | | |
|---|---|---|---|---|---|---|---|
| Semn scurt tip | T | Q | H | P | PR | N-30-SW | PRS-30-RT |
| Forta de actionare | 14 N | 23 N | – | 14 N | 25 N | – | 23 N |
| Cuplu de actionare | – | | 0,14 Nm | – | | 0,4 Nm | – |
| Greutate produs | 22 g | 88 g | 27 g | 28 g | 37 g | 30 g | 91 g |
| Culoare | galben, roșu, negru | – | negru | | roșu | negru | roșu |
| Nota privind materialele | – | | | | | | |

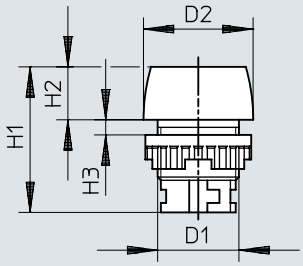
| Date tehnice generale - ventil de baza | | | | | |
|---|---|---|---|---|---|
| Semn scurt tip | SV | | SVOS | SVS | SV/O |
| Functie de ventil | inchis 3/2 monostabil | 5/2 monostabil | 3/2 deschis monostabil | inchis 3/2 monostabil | 2x3/2 monostabil inchis |
| Structura constructiva | Ventil cu scaun cu arc de revenire | | Scaunul pistonului | | – |
| Suprapunere | suprapunere pozitiva | | | – | |
| Nota privind dinamizarea fortata | – | | | Frecventa de comutare cel putin 1/saptamana | – |
| Directia de curgere | nu este reversibil | – | nu este reversibil | | |
| Tipul de comanda | direct | | | pilotat | direct |
| Tip de actionare | manual | | mecanic | | – |
| Tip de revenire | arc mecanic | | | | |
| Principiul de etansare | slab | | | | |
| Pozitie de instalare | oricare | | | | |
| Tipul de montare | Instalarea panoului frontal, cu orificiu de trecere | | cu orificiu de trecere | | |
| Conector pneumatic 1 | M5 | | G1/8 | | PK-3 |
| Conexiune pneumatica 2 | – | | G1/8 | | PK-3 |
| Conector pneumatic 3 | – | | G1/8 | | – |
| Latimea nominala | 2 mm | 2,3 mm | – | | 2,5 mm |
| Debit nominal standard (normalizat conform DIN 1343) | 65 l/min | 95 l/min | 120 l/min | | 70 l/min |
| Forta de actionare | 12 N | 17 N | 8 N | | – |
| Greutate produs | 40 g | 53 g | – | | 34 g |

| Materiale - Ventil baza | | | | | |
|---|---|---|---|---|---|
| Semn scurt tip | SV | | SVOS | SVS | SV/O |
| Functie de ventil | inchis 3/2 monostabil | 5/2 monostabil | 3/2 deschis monostabil | inchis 3/2 monostabil | 2x3/2 monostabil inchis |
| Material carcasa | Polimer, Alama | | Aluminiu | | – |
| Material capac | – | | POM | | – |
| Material garnituri | Cauciuc nitrilic | | Cauciuc nitrilic, TPE-U (PU) | | Cauciuc nitrilic |

| Conditii de operare si de mediu - Ventil de baza | | | | | |
|---|---|---|---|---|---|
| Semn scurt tip | SV | | SVOS | SVS | SV/O |
| Functie de ventil | inchis 3/2 monostabil | 5/2 monostabil | 3/2 deschis monostabil | inchis 3/2 monostabil | 2x3/2 monostabil inchis |
| Mediu de operare | Aer comprimat conform ISO 8573-1:2010 [7:4:4] | Aer comprimat conform ISO 8573-1:2010 [-:-:-] | | | Aer comprimat conform ISO 8573-1:2010 [7:-:-] |
| Presiune de lucru | -0,095 ... 0,8 MPa | 0 ... 0,8 MPa | 0,35 ... 0,8 MPa | | – |
| Presiune de lucru | -0,95 ... 8 bar | 0 ... 8 bar | 3,5 ... 8 bar | | 0 ... 8 bar |
| Temperatura medie | – | | | -10 ... 60°C | – |
| Temperatura ambianta | -10 ... 60°C | | | | |

# Dimensiuni

**Dimensiuni – Buton T** Descarcarea datelor CAD www.festo.com



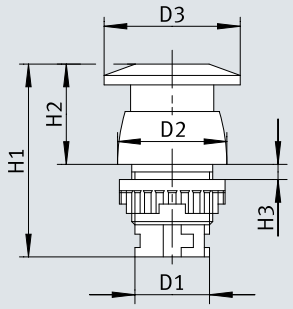

| | 1)<br>Ø | D1<br>Ø | D2<br>Ø | H1 | H2 | H3 |
|---|---|---|---|---|---|---|
| SV-T-... | 22,5 | M22x1,5 | 29 | 38,5 | 14 | 1 ...6 |
| | 30,5 | M30x1,5 | 36 | 39 | 8,5 | 1 ...12 |

1) Ø montare

# Dimensiuni

**Dimensiuni – Buton ciuperca P**

Descarcarea datelor CAD www.festo.com

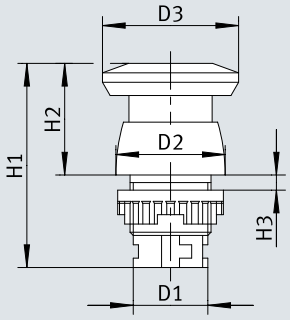



| | 1)<br>Ø | D1<br>Ø | D2<br>Ø | D3<br>Ø | H1 | H2 | H3 |
|---|---|---|---|---|---|---|---|
| SV-P-... | 22,5 | M22x1,5 | 29 | 40 | 51 | 26,5 | 1 ...6 |
| | 30,5 | M30x1,5 | 36 | 40 | 51,5 | 21 | 1 ...12 |

1) Ø montare

# Dimensiuni

**Dimensiuni – Buton-ciuperca cu retinere PR** Descarcarea datelor CAD www.festo.com

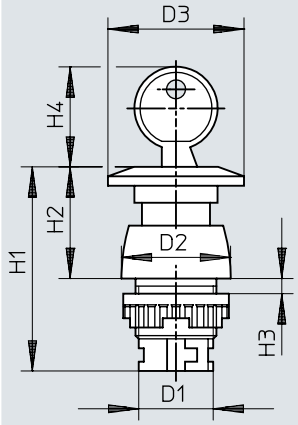



| | 1)<br>Ø | D1<br>Ø | D2<br>Ø | D3<br>Ø | H1 | H2 | H3 |
|---|---|---|---|---|---|---|---|
| SV-PR-... | 22,5 | M22x1,5 | 29 | 37,5 | 54 | 29,5 | 1 ...6 |
| | 30,5 | M30x1,5 | 36 | 37,5 | 54,5 | 24 | 1 ...12 |

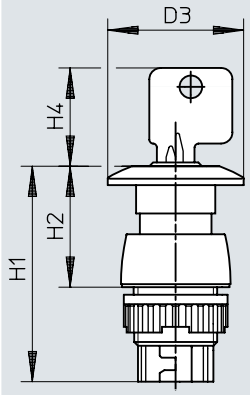
1) Ø montare

# Dimensiuni

**Dimensiuni – Buton-ciuperca cu retinere PRS** Descarcarea datelor CAD www.festo.com




SV-PRS-...B

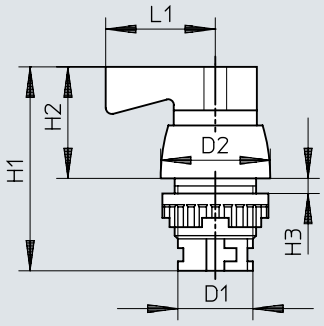



| | 1)<br>ø | D1<br>ø | D2<br>ø | D3<br>ø | H1 | H2 | H3 | H4 |
|---|---|---|---|---|---|---|---|---|
| SV-PR-... | 30,5 | M30x1,5 | 36 | 36 | 56 | 25,5 | 1 ...12 | 26,5 |
| SV-PRS-... | 22,5 | M22x1,5 | 29 | 36 | 57 | 32 | 1 ...6 | 26 |

1) Ø montare

# Dimensiuni

**Dimensiuni – Cheie selectoare N** Descarcarea datelor CAD www.festo.com



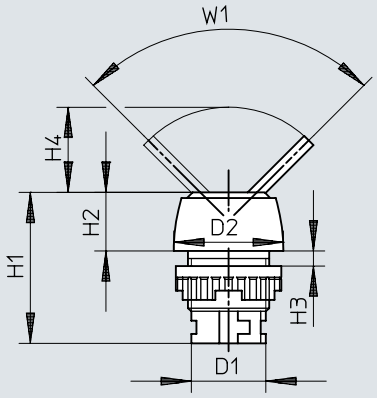

| | 1)<br>ø | D1<br>ø | D2<br>ø | H1 | H2 | H3 | L1 |
|---|---|---|---|---|---|---|---|
| SV-N-... | 22,5 | M22x1,5 | 29 | 54 | 29,5 | 1 ...6 | 29 |
| | 30,5 | M30x1,5 | 36 | 54,5 | 24 | 1 ...12 | 29 |

1) Ø montare

# Dimensiuni

**Dimensiuni – Comutator basculant H**

Descarcarea datelor CAD www.festo.com



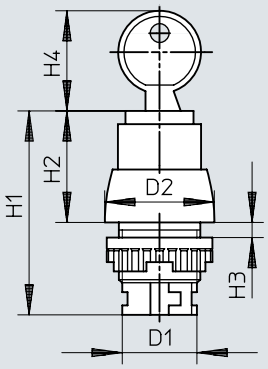

| | 1)<br>ø | D1<br>ø | D2<br>ø | H1 | H2 | H3 | H4 | W1 |
|---|---|---|---|---|---|---|---|---|
| SV-H-... | 22,5 | M22x1,5 | 29 | 40 | 15,5 | 1 ...6 | 22,5 | 90° |
| | 30,5 | M30x1,5 | 36 | 40 | 9,5 | 1 ...12 | 22,5 | 90° |

1) Ø montare

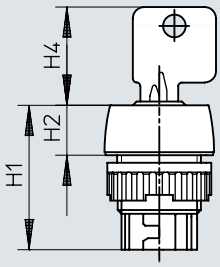
# Dimensiuni

**Dimensiuni – Cheie de actionare Q**

Descarcarea datelor CAD www.festo.com




SV-Q-...B

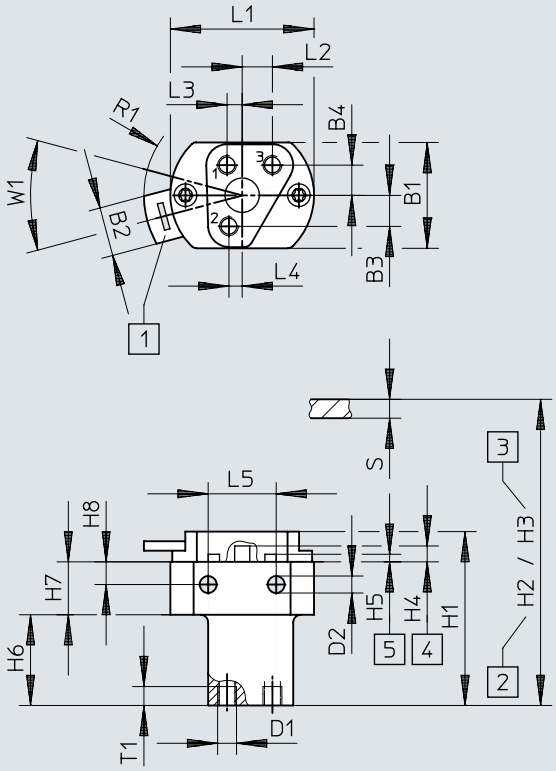


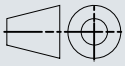

| | 1)<br>ø | D1<br>ø | D2<br>ø | H1 | H2 | H3 | H4 |
|---|---|---|---|---|---|---|---|
| SV-Q-... | 30,5 | M30x1,5 | 36 | 54,5 | 24 | 1 ...12 | 26,5 |
| | 22,5 | M22x1,5 | 29 | 38,2 | 13,2 | 1 ...6 | 26 |

1) Ø montare

# Dimensiuni

**Dimensiuni – Ventile de baza, SV-3-M5** Descarcarea datelor CAD www.festo.com



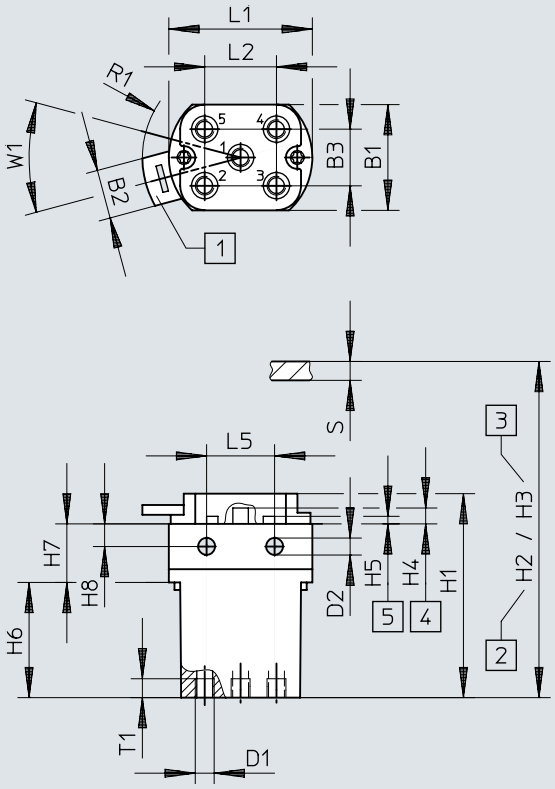
[1] Cuplaj cu eliberare rapida pentru accesorii de actionare
[2] Dimensiunea de instalare pentru Ø 22,5
[3] Dimensiunea de instalare pentru Ø 30,5
[4] cursa maxima
[5] Grosimea maxima a deschiderii panoului frontal

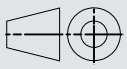
| | B1 | B2 | B3 | B4 | D1 | D2<br>ø | H1 | H2 | H3 | H4<br>± 0,2 | H5 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SV-3-M5 | 28 | 13 | 8,2 | 8 | M5 | 4,5 | 46 | 63,5 | 69,5 | 4,2 | 2 |

| | H6 | H7 | H8 | L1 | L2 | L3 | L4 | L5 | R1 | T1 | W1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SV-3-M5 | 24 | 14 | 6 | 38 | 8 | 4 | 3,5 | 18 | 26 | 5 | 30° |

# Dimensiuni

**Dimensiuni – Ventile de baza, SV-5-M5-B** Descarcarea datelor CAD www.festo.com



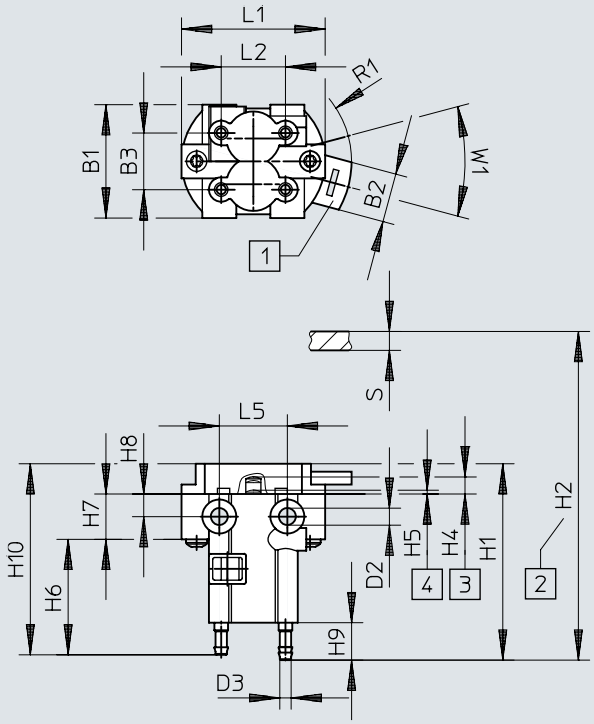
[1] Cuplaj cu eliberare rapida pentru accesorii de actionare
[2] Dimensiunea de instalare pentru Ø 22,5
[3] Dimensiunea de instalare pentru Ø 30,5
[4] cursa maxima
[5] Grosimea maxima a deschiderii panoului frontal

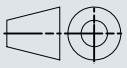
| | B1 | B2 | B3 | D1 | D2<br>ø | H1 | H2 | H3 | H4<br>± 0,2 | H5 |
|---|---|---|---|---|---|---|---|---|---|---|
| SV-5-M5-B | 28 | 13 | 15 | M5 | 4,5 | 54 | 71,5 | 77,5 | 4,2 | 2 |

| | H6 | H7 | H8 | L1 | L2 | L5 | R1 | T1 | W1 |
|---|---|---|---|---|---|---|---|---|---|
| SV-5-M5-B | 30,5 | 15,5 | 9,5 | 38 | 19 | 18 | 26 | 5 | 30° |

# Dimensiuni

**Dimensiuni – Ventile de baza, SV/O-3-PK-3X2** Descarcarea datelor CAD www.festo.com



[1] Cuplaj cu eliberare rapida pentru accesorii de actionare
[2] Dimensiunea de instalare pentru Ø 22,5
[3] cursa maxima
[4] Grosimea maxima a deschiderii panoului frontal

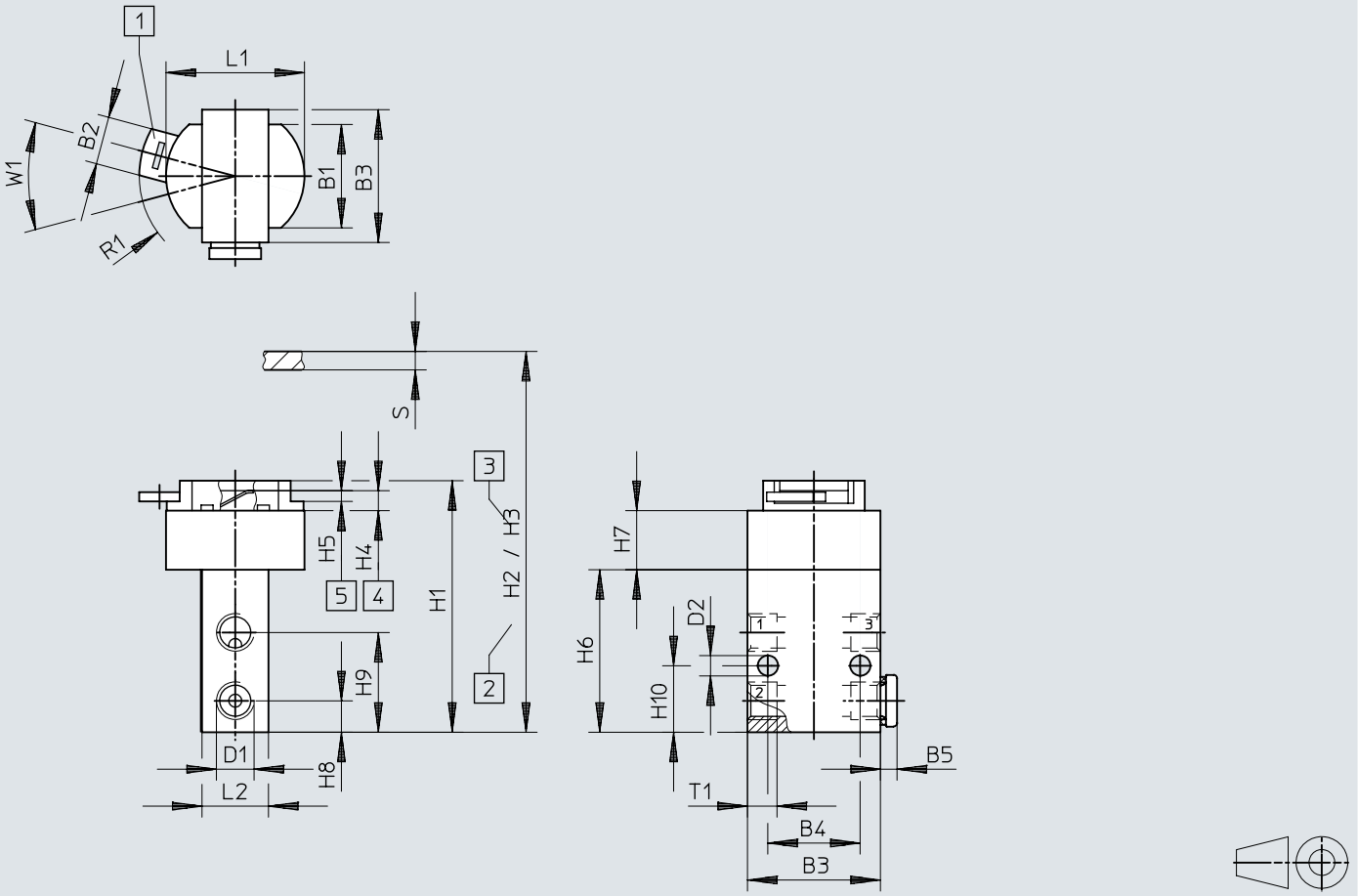
| | B1 | B2 | B3 | D2<br>ø | D3<br>ø | H1 | H2 | H4<br>± 0,2 |
|---|---|---|---|---|---|---|---|---|
| SV/O-3-PK-3X2 | 30 | 13 | 15 | 4,5 | 3 | 52 | 68,5 | 4,5 |

| | H5<br>+0,4<br>–0,8 | H6 | H7 | H8 | H9 | H10 | L1 | L2 | L5 | R1 | W1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SV/O-3-PK-3X2 | 1 | 30,6 | 12 | 6 | 9,9 | 50,6 | 38 | 17 | 18 | 26 | 30° |

# Dimensiuni

**Dimensiuni – Ventile de baza, SVS-3-1/8, SVOS-3-1/8**

Descarcarea datelor CAD www.festo.com



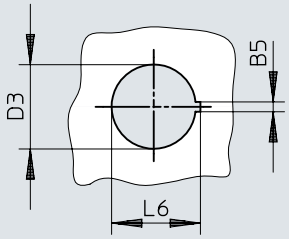

[1] Cuplaj cu eliberare rapida pentru accesorii de actionare
[2] Dimensiunea de instalare pentru Ø 22,5
[3] Dimensiunea de instalare pentru Ø 30,5
[4] cursa maxima
[5] Grosimea maxima a deschiderii panoului frontal

| | B1 | B2 | B3 | B4 | B5 | D1 | D2<br>Ø | H1 | H2 | H3 | H4<br>± 0,2 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SVS-3-1/8<br>SVOS-3-1/8 | 28 | 13 | 36 | 25 | 4,5 | G1/8 | 5,5 | 68 | 86 | 91 | 6 |

| | H5<br>+0,4<br>–0,8 | H6 | H7 | H8 | H9 | H10 | L1 | L2 | R1 | T1 | W1 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| SVS-3-1/8<br>SVOS-3-1/8 | 2...3 | 44 | 16 | 8,5 | 27 | 18 | 37,5 | 18 | 26 | 8 | 30° |

# Dimensiuni

**Dimensiuni – Deschidere de montaj (decupaj in panoul de comanda)** Descarcarea datelor CAD www.festo.com




| | B5 | D3 | L6 |
|---|---|---|---|
| T-22-... | 2.6 | 22,3 | 23,5 |
| N-22-SW | | | |
| NR-22-SWX2 | | | |
| H-22-SW | | | |
| H-22-SWX2 | | | |
| Q-22-B | | | |
| P-22-SW | | | |
| PR-22-RT | | | |
| PRS-22-RT-B | | | |
| T-30-... | 3,1 | 30,3 | 31,5 |
| N-30-SW | | | |
| H-30-SW | | | |
| Q-30 | | | |
| P-30-SW | | | |
| PR-30-RT | | | |
| PRS-30-RT | | | |

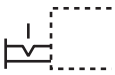
# Detalii comanda

**Elemente de actionare pentru diametrul de instalare 22,5 mm, buton**



| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | galben | **9290** | **T-22-GE** |
| | roșu | **9997** | **T-22-RT** |
| | negru | **9289** | **T-22-SW** |

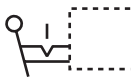
**Element de actionare cu diametru de 22,5 mm, selector**



| Tip de protectie [1] | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | | **25261** | **NR-22-SWX2** |
| | negru | **9301** | **N-22-SW** |

1) Cheie selectoare NR-22-SWX2 (cod numeric 25261) doar pentru ventilul de panou SV/O-3-PK-3X2 (cod numeric 184135)

**Elemente de actionare pentru diametrul de instalare 22,5 mm, comutator basculant cu retinere**



| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | negru | **9305** | **H-22-SW** |

**Element de actionare cu diametrul de 22,5 mm, comutator basculant**



| Tip de protectie [1] | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | | **25749** | **H-22-SWX2** |

1) Cheie selectoare H-22-SWX2 (cod numeric 25749) adecvata numai pentru ventilul de panou SV/O-3-PK-3X2 (cod numeric 184135)

**Elemente de actionare pentru diametrul de instalare 22,5 mm, actionare cu cheie**



| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | negru | **573107** | **Q-22-B** |

**Elemente de actionare pentru instalare cu diametrul 22,5 mm, buton tip ciuperca**



| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | negru | **9293** | **P-22-SW** |

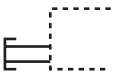
# Detalii comanda

**Elemente de actionare cu diametrul de montaj 22,5 mm, buton tip ciuperca cu retinere**



| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | roșu | **9297** | **PR-22-RT** |
| | | **573108** | **PRS-22-RT-B** |

**Element de actionare cu diametrul 30,5 mm, buton**



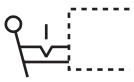
| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | galben | **9292** | **T-30-GE** |
| | roșu | **10014** | **T-30-RT** |
| | negru | **9291** | **T-30-SW** |

**Elemente de actionare cu diametrul de instalare 30,5 mm, selector**



| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | negru | **9302** | **N-30-SW** |

**Elemente de actionare cu diametrul de instalare 30,5 mm, comutator basculant**



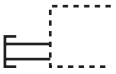
| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | negru | **9306** | **H-30-SW** |

**Elemente de actionare cu diametrul de instalare 30,5 mm, cheie actionare**



| Tip de protectie | Nr. piesa | Tip |
|---|---|---|
| IP40 | **9304** | **Q-30** |

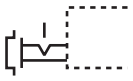
**Elemente de actionare cu diametrul 30,5 mm, buton tip ciuperca**



| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | negru | **9295** | **P-30-SW** |

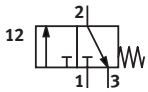
# Detalii comanda

**Elemente de actionare cu diametrul 30,5 mm, buton cu retinere tip ciuperca**



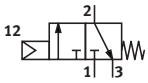
| Tip de protectie | Culoare | Nr. piesa | Tip |
|---|---|---|---|
| IP40 | roşu | **9300** | **PRS-30-RT** |
| | | **9298** | **PR-30-RT** |

**Ventil baza, 3/2 ventil directional, normal inchis, conexiune pneumatica M5**



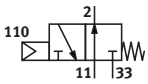

| Functie de ventil | Conector pneumatic 1 | Nr. piesa | Tip |
|---|---|---|---|
| inchis 3/2 monostabil | M5 | **6817** | **SV-3-M5** |

**Ventil de baza, 3/2 ventil directional, normal inchis, conexiune pneumatica G1/8**



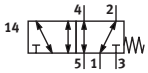

| Functie de ventil | Conector pneumatic 1 | Nr. piesa | Tip |
|---|---|---|---|
| inchis 3/2 monostabil | G1/8 | **10190** | **SVS-3-1/8** |

**Ventil de baza, 3/2, pozitie normal deschisa, conexiune pneumatica G1/8**



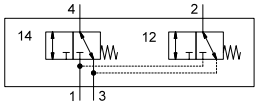

| Functie de ventil | Conector pneumatic 1 | Nr. piesa | Tip |
|---|---|---|---|
| 3/2 deschis monostabil | G1/8 | **10191** | **SVOS-3-1/8** |

**Ventil baza, 5/2ventil directional, conexiune pneumatica M5**




| Functie de ventil | Conector pneumatic 1 | Nr. piesa | Tip |
|---|---|---|---|
| 5/2 monostabil | M5 | **11914** | **SV-5-M5-B** |

**Ventil baza, 2x3/2, normal inchise, conexiune pneumatica PK-3**




| Functie de ventil | Conector pneumatic 1 | Nr. piesa | Tip |
|---|---|---|---|
| 2x3/2 monostabil inchis | PK-3 | **184135** | **SV/O-3-PK-3X2** |