

## Pneumatic counter PZA, PZV

**FESTO**



## Characteristics

### At a glance

PZA: Adding counters have 6 digits and count upwards, i.e. the relevant signals are added. When reset, the number 000 000 appears.

A pneumatic signal switches the counter by one half step, so the first half of the number is visible. After the signal ends, the number becomes fully visible at the 2nd half step.

The counter can be reset manually by pressing a button. It can also be reset pneumatically using a compressed air signal.

While it is being reset, no counting signal can be received or be present.

- Base mounting
- Front panel mounted

PZV: Preset counters count pneumatic signals backwards from a preselected number. Once the zero position is reached, the counter gives a pneumatic output signal.

This output signal remains until the counter is reset.

The counter is preset by pressing the reset button and entering the preset value at the same time.

Once the number has been preset, it is retained for resetting the counter in future.

- Subtraction counting mode
- Manual and pneumatic reset
- Protective cap

## Datasheet

| General technical data  |  |                      |
|-------------------------|--|----------------------|
| Short type code         | PZA  | PZV                  |
| Pneumatic connection    | M5   |                      |
| Design                  | Mechanical sequence counter with pneumatic drive |                      |
| Type of reset           | Pushbutton or pneumatic signal                   |                      |
| Type of mounting        | Front panel mounting, With through-hole          | Front panel mounting |
| Display                 | 6-digit  | 5-digit              |
| Drop-off pressure drive | < 0.15 bar, 0.2 ± 0.1 bar                        | 0.2 ± 0.1 bar        |
| Drop-off pressure reset | < 0.15 bar, 0.15 ± 0.1 bar                       | 0.15 ± 0.1 bar       |
| Response pressure drive | > 0.8 bar, 0.6 ± 0.2 bar                         | 0.6 ± 0.2 bar        |
| Response pressure reset | 2 bar, 0.6 ± 0.2 bar                             | –                    |
| Min. reset pressure     | 2 bar  |                      |
| Min. pulse length drive | 8 ... 10 ms                                      | 10 ms                |
| Min. pulse length reset | 150 ... 180 ms                                   | 180 ms               |
| Min. pause period drive | 10 ... 15 ms                                     | 15 ms                |
| Min. pause period reset | 50 ms  |                      |

| Operating and environmental conditions           |  |   |
|--|--|---|
| Short type code                                  | PZA  | PZV   |
| Operating pressure                               | 2 ... 8 bar  |   |
| Operating medium                                 | Compressed air to ISO 8573-1:2010 [7:4:4]                          |   |
| Note on operating and pilot medium <sup>1)</sup> | Lubricated operation not possible<br>Lubricated operation possible | Lubricated operation possible (in which case lubricated operation will always be required)<br>Lubricated operation not possible |
| Ambient temperature                              | -10 ... 60°C   | 0 ... 60°C  |

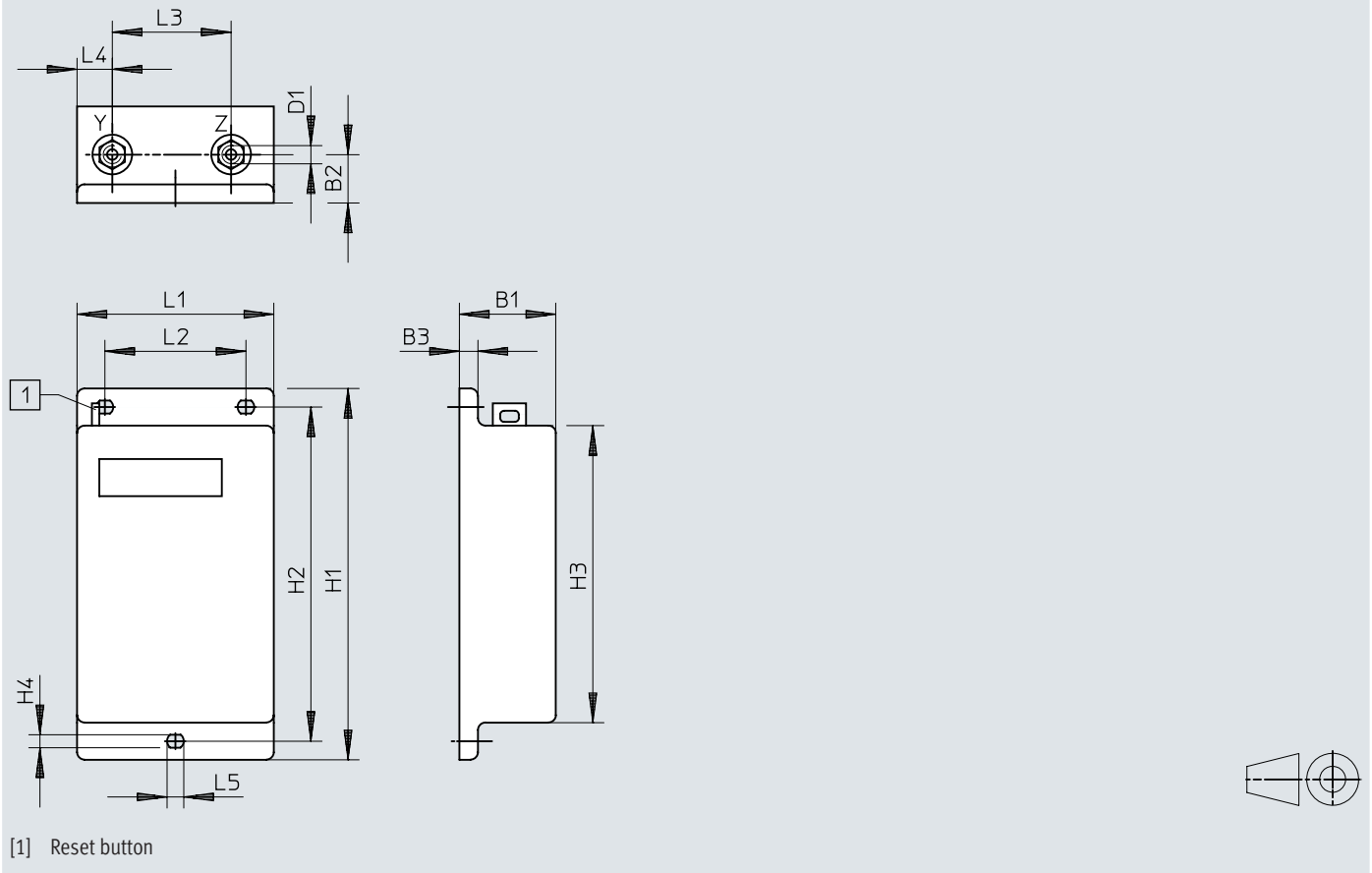
1) See also ordering information

| Materials              |                   |
|------------------------|-------------------|
| Material housing       | ABS, PA           |
| LABS (PWIS) conformity | VDMA24364-B1/B2-L |

## Dimensions

Dimensions – Adding counters – Base mounting PZA-A-B

Download CAD data → [www.festo.com](http://www.festo.com)

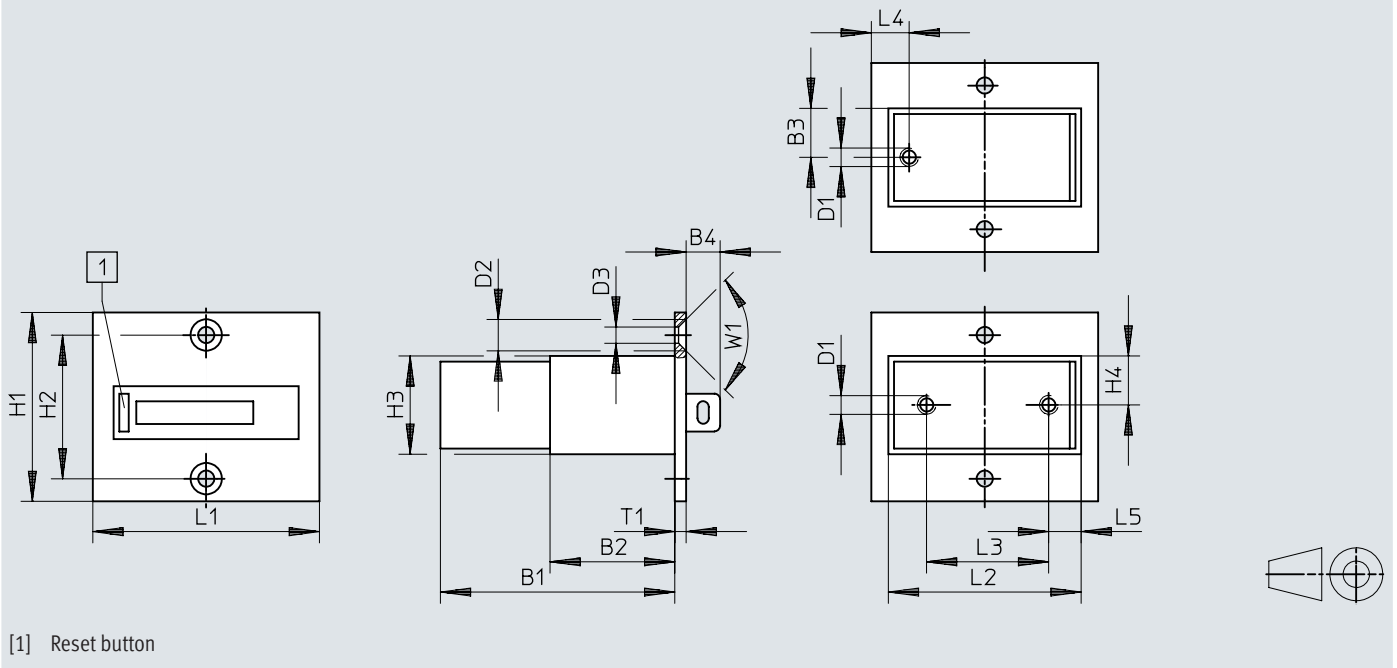


|           | B1 | B2 | B3 | D1 | H1  | H2 | H3 | H4  | L1 | L2 | L3 | L4  | L5  |
|-----------|----|----|----|----|-----|----|----|-----|----|----|----|-----|-----|
| PZA-A-... | 26 | 13 | 5  | M5 | 100 | 90 | 80 | 3,5 | 53 | 38 | 32 | 9,5 | 4,5 |

## Dimensions

Dimensions – Adding counters – Front panel mounting PZA-E-C

Download CAD data → [www.festo.com](http://www.festo.com)

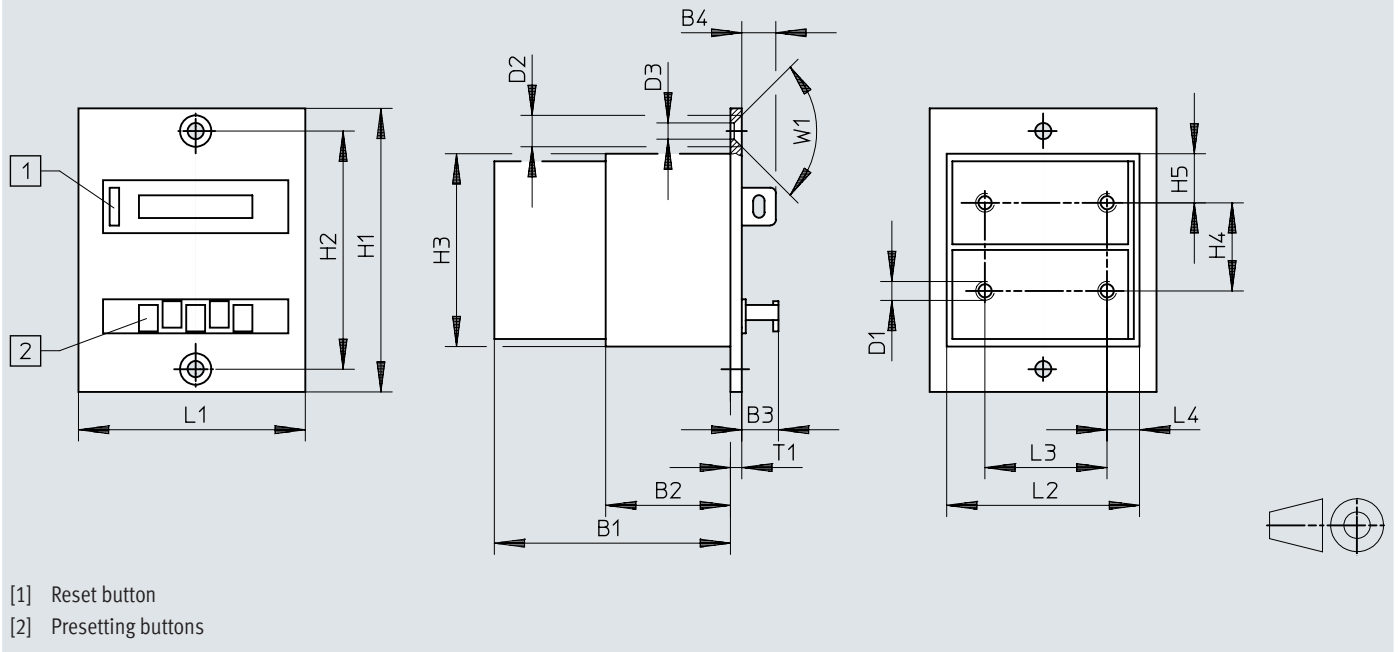


|            | B1 | B2 | B3 | B4 | D1 | D2<br>∅ | D3<br>∅ | H1 | H2 | H3 | H4 | L1 | L2 | L3   | L4 | L5  | T1 | W1  |
|------------|----|----|----|----|----|---------|---------|----|----|----|----|----|----|------|----|-----|----|-----|
| PZA-E...-C | 62 | 33 | 13 | 9  | M5 | 8,3     | 4,3     | 50 | 38 | 26 | 13 | 60 | 51 | 32,3 | 10 | 8,6 | 3  | 90° |

## Dimensions

Dimensions – Preset counter – Base mounting PZV-E-C

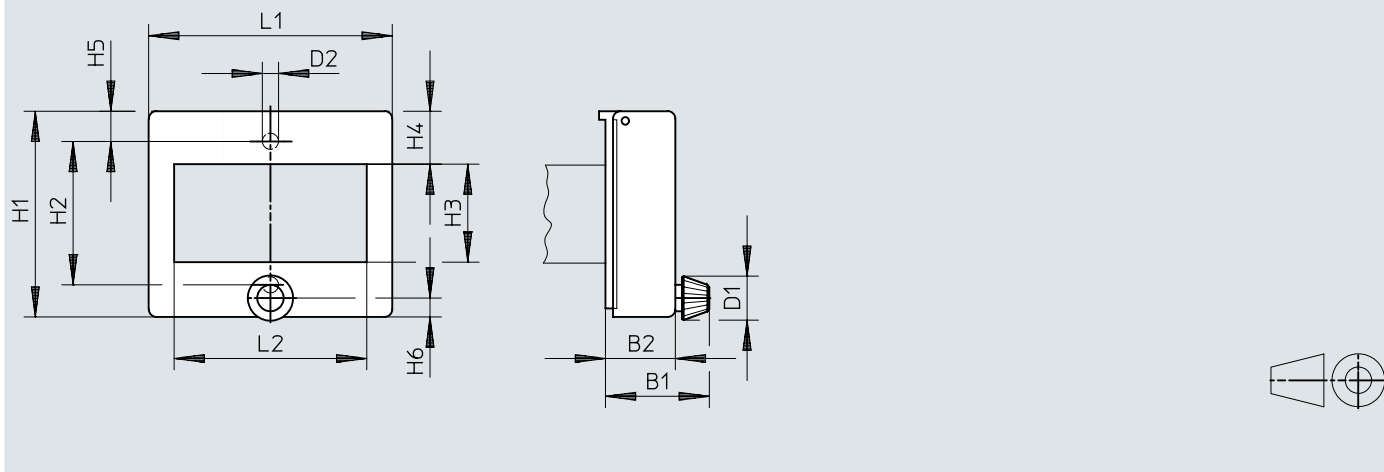
Download CAD data → [www.festo.com](http://www.festo.com)



|         | B1   | B2 | B3  | B4 | D1 | D2<br>∅ | D3<br>∅ | H1 | H2 | H3 | H4   | H5 | L1 | L2 | L3   | L4  | T1 | W1  |
|---------|------|----|-----|----|----|---------|---------|----|----|----|------|----|----|----|------|-----|----|-----|
| PZV-E-C | 62,5 | 33 | 9,7 | 9  | M5 | 8,3     | 4,3     | 75 | 63 | 51 | 23,3 | 13 | 60 | 51 | 32,3 | 8,6 | 3  | 90° |

## Dimensions

Dimensions – Protective cap with rotary knob PZ-SK-1

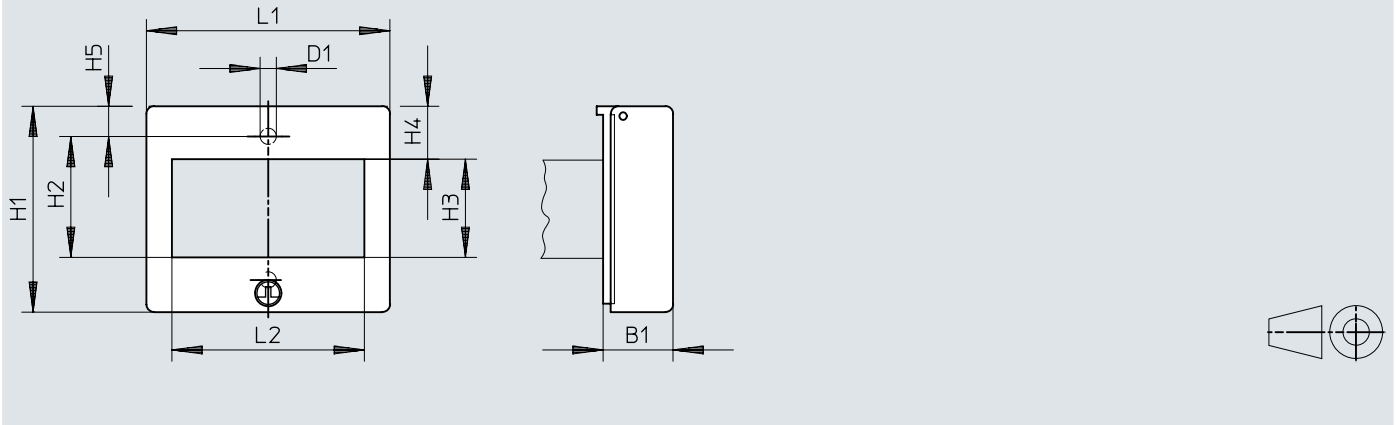
Download CAD data → [www.festo.com](http://www.festo.com)

|         | B1   | B2   | D1<br>∅ | D2<br>∅ | H1   | H2 | H3 | H4 | H5 | H6 | L1   | L2 |
|---------|------|------|---------|---------|------|----|----|----|----|----|------|----|
| PZ-SK-1 | 27,5 | 18,5 | 12      | 4,3     | 54,5 | 38 | 26 | 14 | 8  | 5  | 64,5 | 51 |

## Dimensions

Dimensions – Protective cap with lock PZ-SS-1

Download CAD data → [www.festo.com](http://www.festo.com)

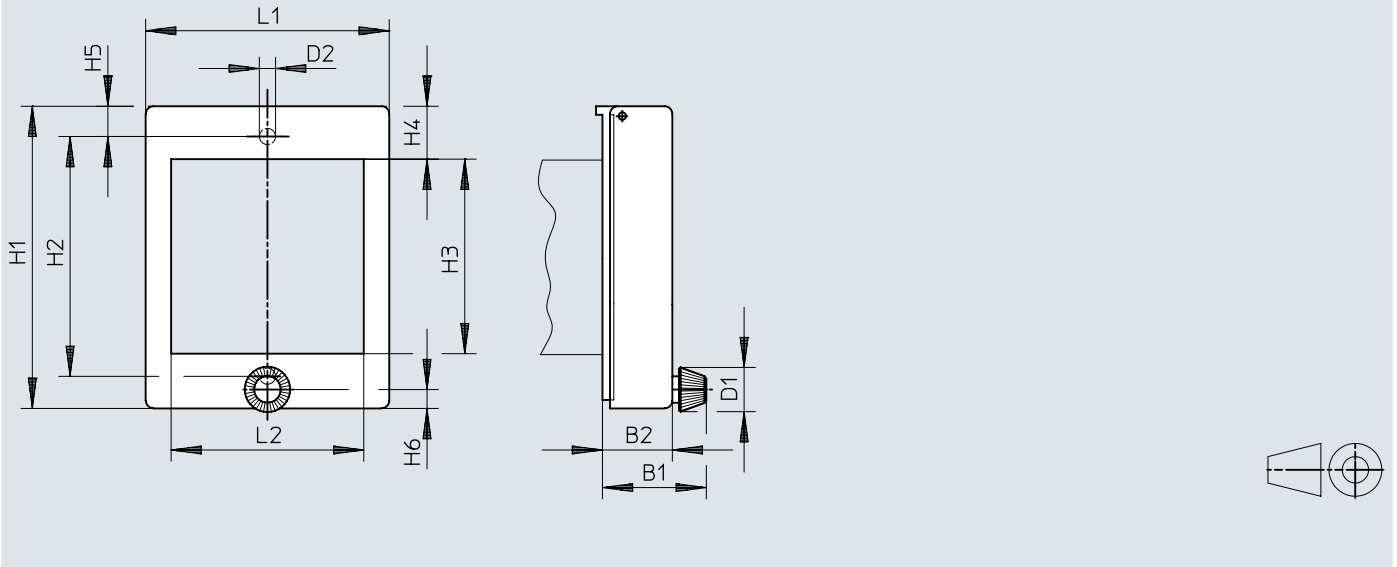


|         | B1   | D1<br>∅ | H1   | H2 | H3 | H4 | H5 | L1   | L2 |
|---------|------|---------|------|----|----|----|----|------|----|
| PZ-SS-1 | 18,5 | 4,3     | 54,5 | 32 | 26 | 14 | 8  | 64,5 | 51 |



## Dimensions

## Dimensions – Protective cap with rotary knob PZ-SK-2

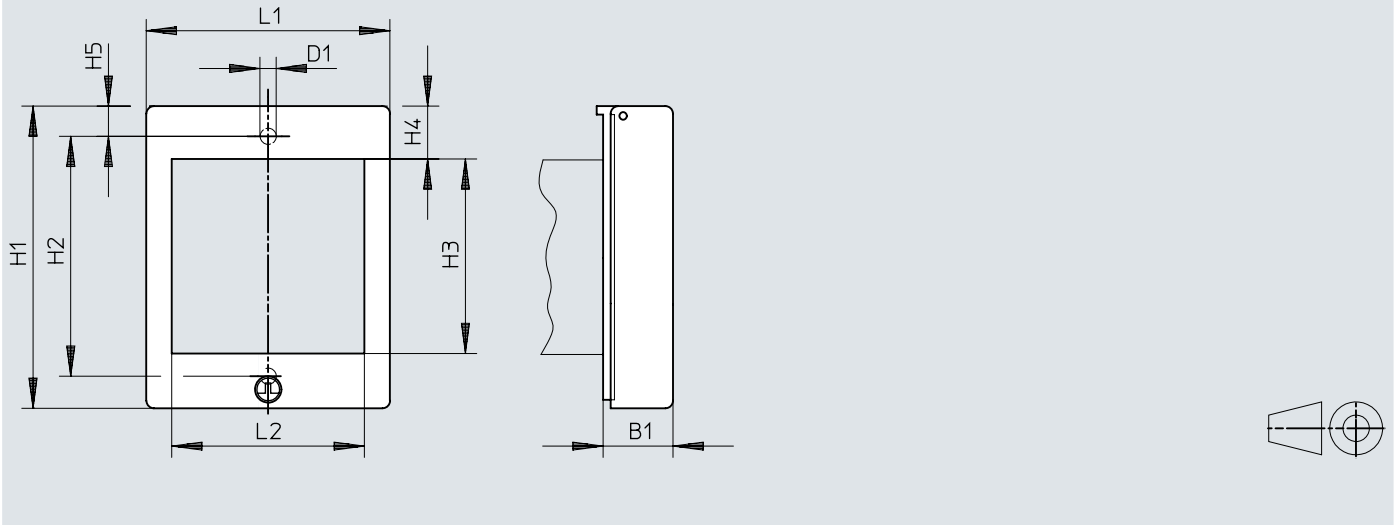
Download CAD data → [www.festo.com](http://www.festo.com)

|         | B1   | B2   | D1<br>∅ | D2<br>∅ | H1 | H2 | H3 | H4 | H5 | H6 | L1   | L2 |
|---------|------|------|---------|---------|----|----|----|----|----|----|------|----|
| PZ-SK-2 | 27,5 | 18,5 | 12      | 4,3     | 80 | 63 | 51 | 14 | 8  | 5  | 64,5 | 51 |

## Dimensions


Dimensions – Protective cap with lock PZ-SS-2


Download CAD data → [www.festo.com](http://www.festo.com)



|         | B1   | D1<br>∅ | H1 | H2 | H3 | H4 | H5 | L1   | L2 |
|---------|------|---------|----|----|----|----|----|------|----|
| PZ-SS-2 | 18,5 | 4,3     | 80 | 63 | 51 | 14 | 8  | 64,5 | 51 |

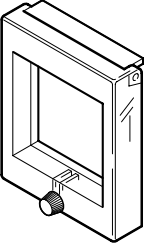
## Ordering data

| Ordering data – Adding counter  |                      |                                    |                |          |         |
|---|----------------------|------------------------------------|----------------|----------|---------|
|   | Pneumatic connection | Note on operating and pilot medium | Product weight | Part no. | Type    |
|  | M5                   | Lubricated operation not possible  | 155 g          | 14992    | PZA-A-B |
|   |                      | Lubricated operation possible      | 70 g           | 8606     | PZA-E-C |

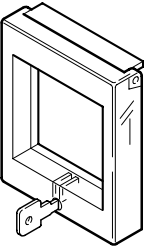
| Ordering data – Preset counter   |                      |  |                |          |             |
|--|----------------------|--|----------------|----------|-------------|
|  | Pneumatic connection | Note on operating and pilot medium   | Product weight | Part no. | Type        |
|  |                      | Lubricated operation possible (in which case lubricated operation will always be required) |                | 13987    | PZV-S-E-AUT |
|  |                      | Lubricated operation not possible  |                | 8605     | PZV-S-E     |
|  | M5                   |  | 150 g          | 15608    | PZV-E-C     |

## Accessories

**Protective cap with rotary knob for adding counter (PZ-SK-1) or for preset counter (PZ-SK-2)**

|  | Short type code | LABS (PWIS) conformity | Part no. | Type    |
|--|-----------------|------------------------|----------|---------|
|  | PZ              | VDMA24364-B1/B2-L      | 14663    | PZ-SK-2 |
|  |                 |                        | 14662    | PZ-SK-1 |

**Protective cap with lock for adding counter (PZ-SS-1) or for preset counter (PZ-SS-2)**

|  | Short type code | LABS (PWIS) conformity | Part no. | Type    |
|--|-----------------|------------------------|----------|---------|
|  | PZ              | VDMA24364-B1/B2-L      | 13966    | PZ-SS-2 |
|  |                 |                        | 13965    | PZ-SS-1 |