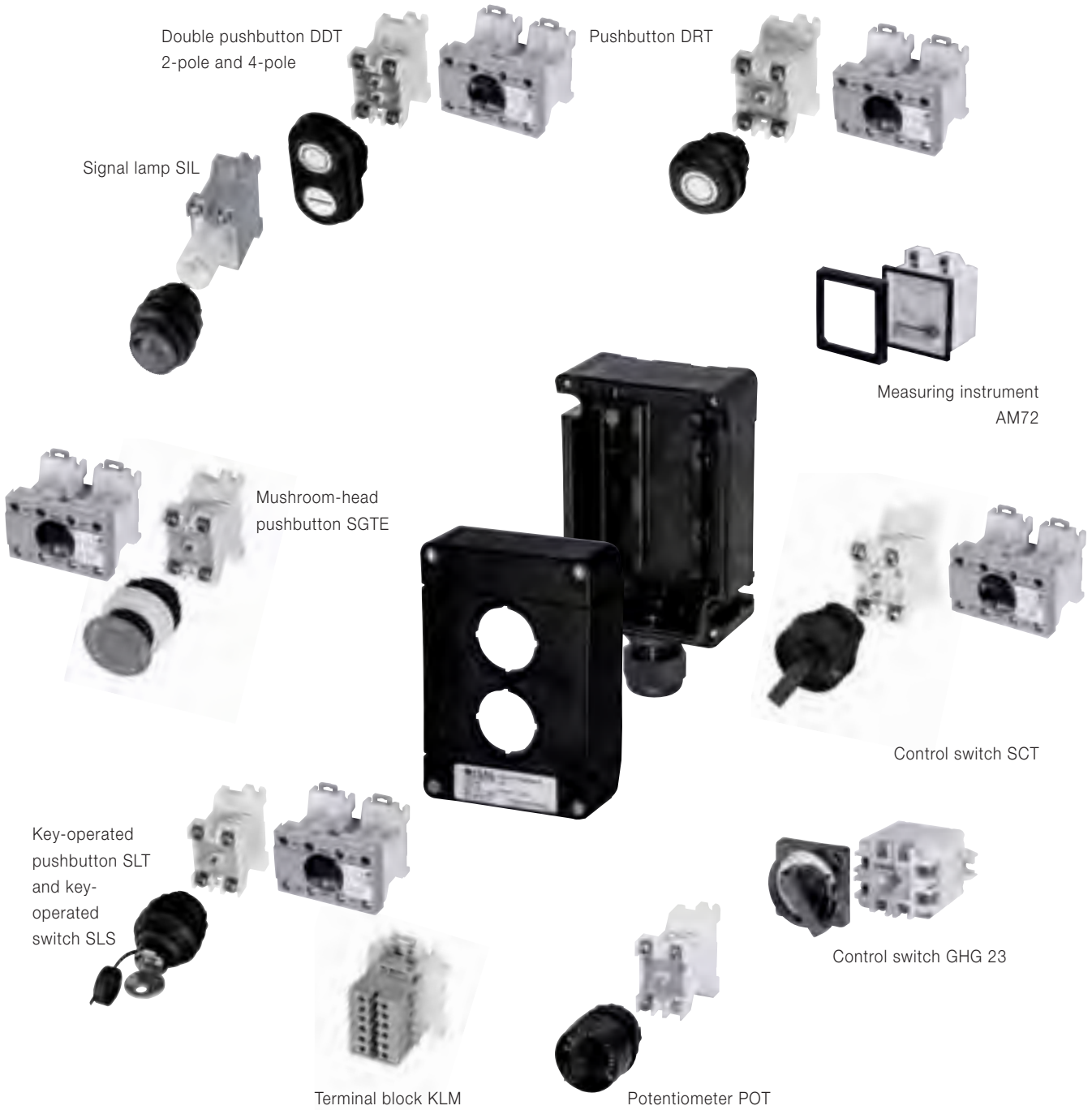


Customised control stations, covered by type examination certificates, can be individually combined from CEAG's numerous built-in components.

ordering. The sum of the code numbers designates a complete control station.

A coding system for these components with unique designations can be used for planning, selection and

For the selection of control units and components, please see page 9.34 pp.



1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12

**Order Code for Individual Control Units**

Individual control units can be defined by 4 groups of components:

1. Empty Enclosure
2. Components per mounting area
3. Accessories
4. Cable glands

**Code 1: Empty Enclosure**



Code for enclosure

|    |  |        |
|----|--|--------|
| MA |  | 411 81 |
| MA |  | 411 82 |
| MA |  | 411 83 |
| MA |  | 432    |
| MA |  | 434    |
| MA |  | 414 81 |
| MA |  | 414 82 |
| MA |  | 413 84 |
| MA |  | 413 85 |

**Code 2: Components per mounting area (max. 4)**

|                          |                          |                          |                          |                          |                          |                 |
|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-----------------|
| A                        | C                        | D(1)                     | (D2)                     | E                        | F                        | Mounting area 1 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | MA1             |
| A                        | C                        | D(1)                     | (D2)                     | E                        | F                        | Mounting area 2 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | MA2             |
| A                        | C                        | D(1)                     | (D2)                     | E                        | F                        | Mounting area 3 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | MA3             |
| A                        | C                        | D(1)                     | (D2)                     | E                        | F                        | Mounting area 4 |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | MA4             |

|                                       |        |                                     |
|---------------------------------------|--------|-------------------------------------|
|                                       |        |                                     |
| Pushbutton DRT<br>2-pole              | 4-pole | Signal lamp<br>SIL                  |
|                                       |        |                                     |
| Double-pushbutton DDT<br>2-pole       | 4-pole | Potentiometer<br>POT                |
|                                       |        |                                     |
| Key-operated pushbutton SLT<br>2-pole | 4-pole | Control switch<br>Ex 23 Ex 29       |
|                                       |        |                                     |
| Key-operated switch SLS<br>2-pole     | 4-pole | Measuring instrument<br>AM 45 AM 72 |
|                                       |        |                                     |
| Mushroom-head pushbutton<br>SGTE      | SGT    | Terminal block<br>KLM               |

Example: Enclosure Type 434,  
 Pushbutton (MA4),  
 Signal lamp (MA3)  
 Emergency stop  
 Mushroom head pushbutton (MA2)  
 Double pushbutton (MA1)

Code 1: 434..  
 Code 2 MA4: DRT 14 001  
 Code 2 MA3: SIL 1 10  
 Code 2 MA2 SGTE 13 1 1 2  
 Code 2 MA1: DDT15 001 007

Code 3 MA1: ZUB 19  
 Code 3 MA2: ZUB 19  
 Code 3 MA3: ZUB 02  
 Code 3 MA4: --  
 Code 4: GEH 1 GK M25 2

**Code 3: Labels and locking facilities**

|                      |                      |                      |                        |
|----------------------|----------------------|----------------------|------------------------|
| A                    | B                    | C                    | Mounting area 1<br>MA1 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |                        |
| A                    | B                    | C                    | Mounting area 2<br>MA2 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |                        |
| A                    | B                    | C                    | Mounting area 3<br>MA3 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |                        |
| A                    | B                    | C                    | Mounting area 4<br>MA4 |
| <input type="text"/> | <input type="text"/> | <input type="text"/> |                        |



Label with holder  
ZUB 20



locking facility  
ZUB 14



locking facility with hammer  
ZUB 05



locking facility  
ZUB 22



locking facility double pushbutton  
ZUB 17

**Code 4: Cable entries and flanges**

|                      |                      |                      |                      |                      |
|----------------------|----------------------|----------------------|----------------------|----------------------|
| A                    | B                    | C                    | D                    | E                    |
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |



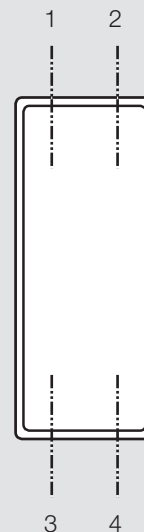
Metal flange plate  
FLM



plastic cable gland  
GK

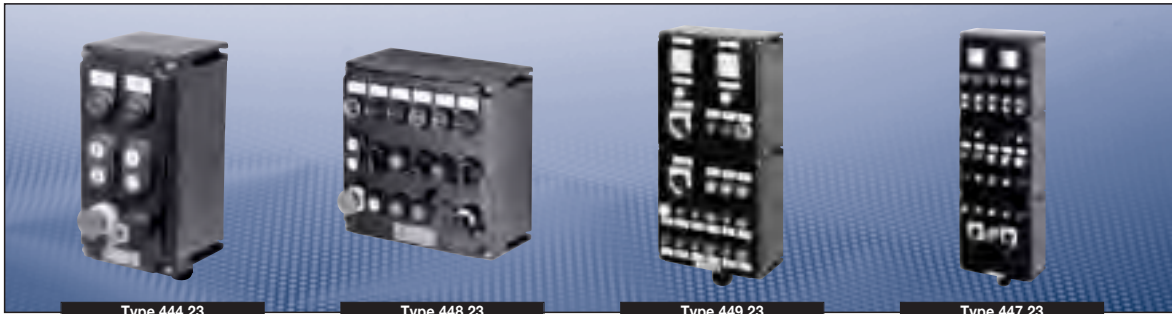


plastic trumpet-shaped  
cable gland TR



position for  
drilling/gland

## Ex-control stations



## Technical data

| Ex-Control stations Type 444, 448, 449, and 447 for individual configuration |  |
|--|--|
| Marking to 94/9/EC   | Ⓔ II 2 G Ex de ia/ib m [ia/ib] IIC T6<br>Ⓔ II 2 D Ex tD A21 IP66/IP65 T80 °C |
| EC-Type Examination Certificate  | PTB 99 ATEX 1044   |
| IECEX Certificate of conformity  | IECEX BK1 07.0023  |
| Marking accd. to IECEx   | Ex de ia/ib m [ia/ib] IIC T4 .. T6<br>Ex tD A21 IP66 T80 °C                  |
| Permissible ambient temperature  | -20 °C to +40 °C<br>-55 °C to +55 °C (option)                                |
| Rated voltage  | 690 V AC   |
| Rated current  | 40 A   |
| Connecting terminals   | see technical data for built-in components                                   |
| PE-connection terminals  | 2 x 4 mm <sup>2</sup>  |
| Insulation class   | I  |
| Degree of protection accd. EN 60529  | IP66 (standard)  |
| Cable glands/Gland plates/Enclosure drilling                                 | as ordered accd. to manufacturer's specification                             |
| Enclosure material   | glass-fibre reinforced polyester   |
| Enclosure colour   | black  |

| Type 444 23            |                                |
|------------------------|--------------------------------|
| Connecting terminals   | max. 20 terminals UT 4         |
| Dimensions (L x W x H) | 271 x 134 x 136 mm             |
| Weight (empty)         | 1.5 kg with mounting framework |
| Mounting arrangements  | 6 mounting areas               |

| Type 448 23            |                                |                        |
|------------------------|--------------------------------|------------------------|
| Connecting terminals   | max. 30 terminals UT 4         |                        |
| Dimensions (L x W x H) | 271 x 271 x 136 mm             |                        |
| Weight (empty)         | 2.5 kg with mounting framework |                        |
| Mounting arrangements  | distance 40 mm                 | max. 18 mounting areas |
|                        | distance 50 mm                 | max. 15 mounting areas |
|                        | distance 60 mm                 | max. 12 mounting areas |

| Type 449 23            |                                |                        |
|------------------------|--------------------------------|------------------------|
| Connecting terminals   | max. 60 terminals UT 4         |                        |
| Dimensions (L x W x H) | 544 x 271 x 136 mm             |                        |
| Weight (empty)         | 4.5 kg with mounting framework |                        |
| Mounting arrangements  | distance 40 mm                 | max. 36 mounting areas |
|                        | distance 50 mm                 | max. 30 mounting areas |
|                        | distance 60 mm                 | max. 24 mounting areas |

| Type 447 23            |                                |                        |
|------------------------|--------------------------------|------------------------|
| Connecting terminals   | max. 90 terminals UT 4         |                        |
| Dimensions (L x W x H) | 817 x 271 x 136 mm             |                        |
| Weight (empty)         | 6.5 kg with mounting framework |                        |
| Mounting arrangements  | distance 40 mm                 | max. 64 mounting areas |
|                        | distance 50 mm                 | max. 45 mounting areas |
|                        | distance 60 mm                 | max. 36 mounting areas |



Ordering codes (Code 1)

| 1. Empty enclosure | 2. Components arrangement/Terminals |                        |                         |                         | 3. Labels/Locking devices | 4. Cable glands |
|--------------------|-------------------------------------|------------------------|-------------------------|-------------------------|---------------------------|-----------------|
|                    | Mounting area 1 ... 6               | Mounting area 7 ... 18 | Mounting area 19 ... 36 | Mounting area 37 ... 64 |                           |                 |
| 444 23             | X                                   | -                      | -                       | -                       | X                         | X               |
| 448 23             | X                                   | X                      | -                       | -                       | X                         | X               |
| 449 23             | X                                   | X                      | X                       | -                       | X                         | X               |
| 447 23             | X                                   | X                      | X                       | X                       | X                         | X               |

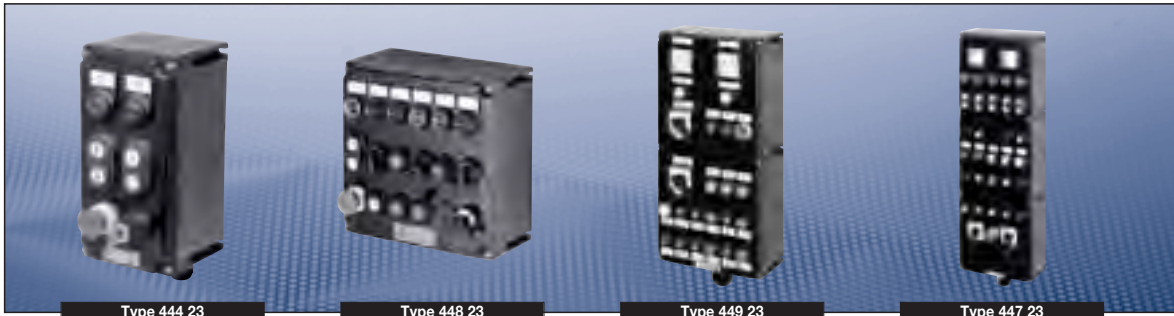
Possible components (Code 1)

| Component  | Code                 | Component                             | Code                  |
|--|----------------------|---------------------------------------|-----------------------|
| Pushbutton (2-pole or 4-pole <sup>1)</sup> )               | DRT                  | Measuring instrument                  | AM72 <sup>1)</sup>    |
| Double pushbutton (2-pole or 4-pole <sup>1)</sup> )        | DDT                  | Measuring instrument                  | AM45                  |
| Key-operated pushbutton (2-pole or 4-pole <sup>1)</sup> )  | SLT                  | Signal lamp                           | SIL                   |
| Key switch (2-pole or 4-pole <sup>1)</sup> )               | SLS                  | Potentiometer                         | POT                   |
| Control switch (2-pole or 4-pole <sup>1)</sup> )           | SCT                  | Serial terminals (4 mm <sup>2</sup> ) | KLM...A <sup>2)</sup> |
| Mushroom-head pushbutton (2-pole or 4-pole <sup>1)</sup> ) | SGT                  | Terminal block (4 mm <sup>2</sup> )   | KLM...B               |
| Control switch   | GHG 23 <sup>1)</sup> | Blanking element                      | BLV                   |

<sup>1)</sup> 2 mounting areas are needed

<sup>2)</sup> Serial terminals and PE-Terminal are mounted on a rail below the hinged frame

## Ex-control stations



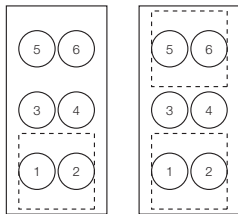
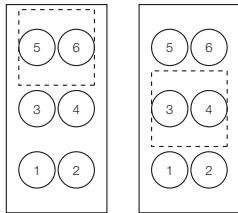
Type 444 23

Type 448 23

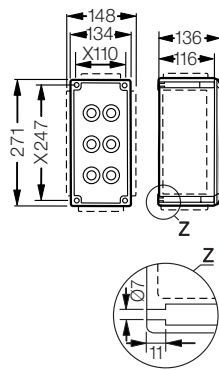
Type 449 23

Type 447 23

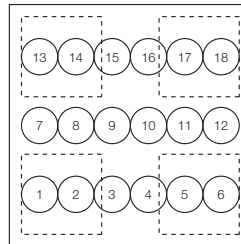
## Mounting areas | Dimension drawing



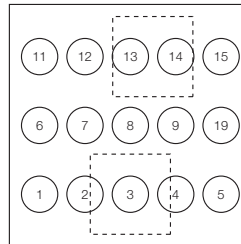
Distance between centres 40, 50 and 60 mm for positioning of built-in components



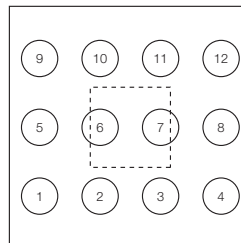
Type 444 23



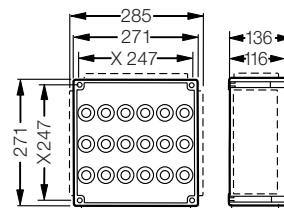
Distance between centres 40 mm



Distance between centres 50 mm



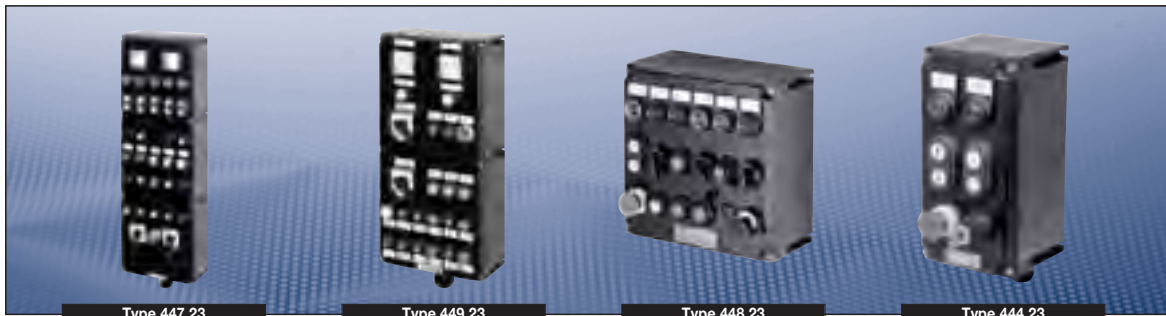
Distance between centres 60 mm



Type 448 23

X = fixing dimension

Dimensions in mm



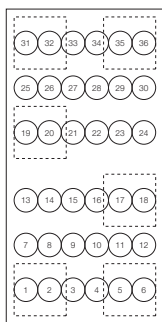
Type 447 23

Type 449 23

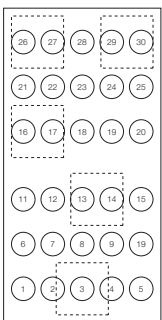
Type 448 23

Type 444 23

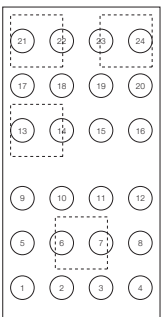
Mounting areas | Dimension drawing



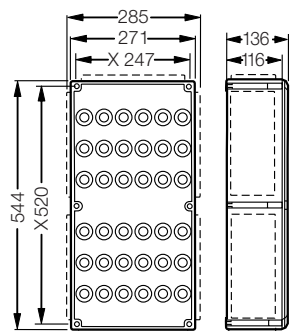
Distance between centres 40 mm



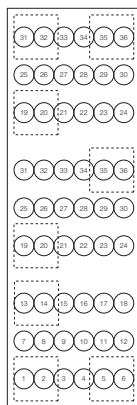
Distance between centres 50 mm



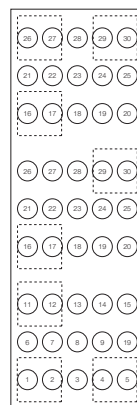
Distance between centres 60 mm



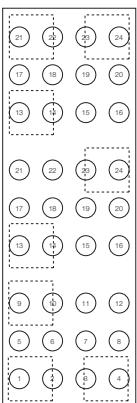
Type 449 23



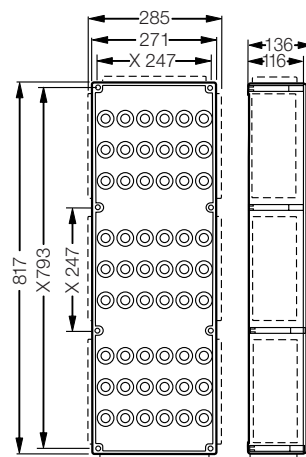
Distance between centres 40 mm



Distance between centres 50 mm



Distance between centres 60 mm



Type 447 23

X = fixing dimension

Dimensions in mm