

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.

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Double pushbutton DDT
2-pole and 4-pole

Pushbutton DRT

Signal lamp SIL

Measuring instrument
AM72

Mushroom-head
pushbutton SGTE

Control switch SCT

Key-operated
pushbutton SLT
and key-
operated
switch SLS

Control switch GHG 23

Terminal block KLM

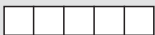





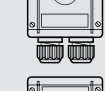
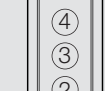


Potentiometer POT

| 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			①						411 81
MA			① ②						411 82
MA			① ② ③						411 83
MA			① ②						432
MA			① ② ③ ④						434
MA			① ②						414 81
MA			① ② ③ ④						414 82
MA			① ②						413 84
MA			① ② ③ ④						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 2-pole	4-pole	Signal lamp SIL
		
Double-pushbutton DDT 2-pole	4-pole	Potentiometer POT
		
Key-operated pushbutton SLT 2-pole	4-pole	Control switch Ex 23
		
Key-operated switch SLS 2-pole	4-pole	Measuring instrument AM 45
		
Mushroom-head pushbutton SGTE	SGT	Terminal block 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

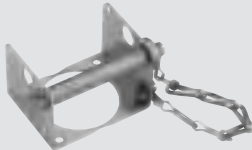
Code 3 MA1: ZUB 19
 Code 3 MA2: ZUB 19
 Code 3 MA3: ZUB 02
 Code 3 MA4: --
 Code 4: GEH 1 GK M25 2

Code 3: Lables and locking facilities

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



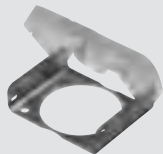
Label with holder
ZUB 20



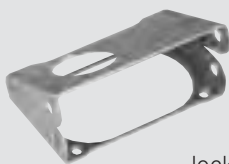
locking facility
ZUB 14



locking facility with hammer
ZUB 05



locking facility
ZUB 12



locking facility double pushbutton
ZUB 17

Code 4: Cable entries and flanges

A	B	C	D	E
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



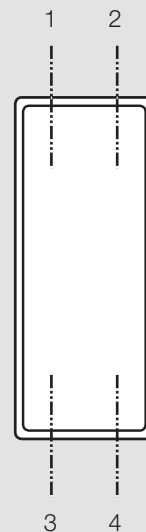
Metal flange plate
FLM



plastic cable gland
GK

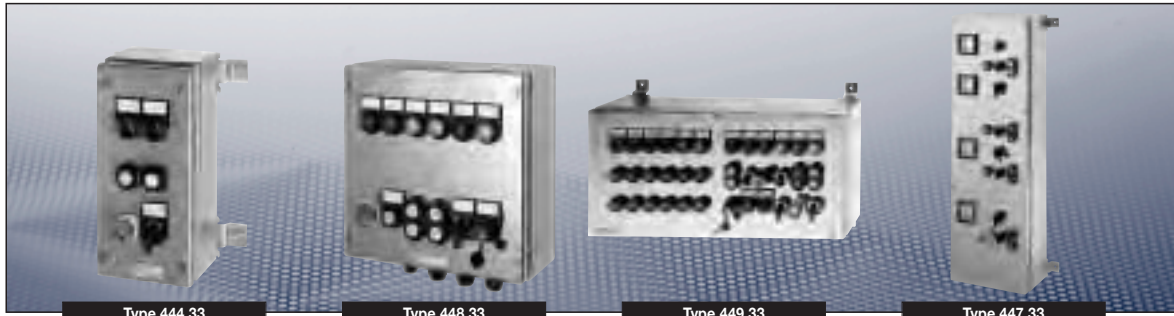


plastic trumpet-shaped
cable gland TR



position for
drilling/gland

Ex-control stations



Technical data

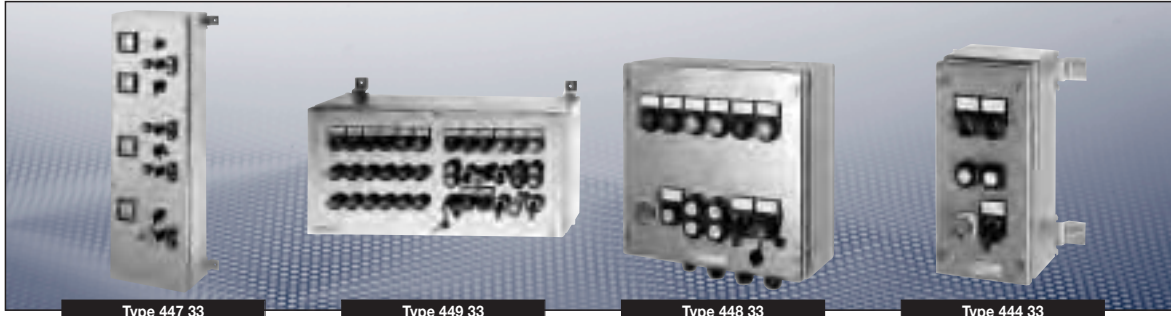
Ex-Control stations Type 444, 448, 449, and 447 stainless steel for individual configuration	
Marking to 94/9/EC	Ex II 2 G Ex de ia/ib m [ia/ib] IIC T6 Ex II 2 D Ex tD A21 IP66/IP65 T80 °C
EC-Type Examination Certificate	PTB 99 ATEX 1044
IECEX Certificate of conformity	IECEX BK1 07.0023
Marking accd. to IECEx	Ex de ia/ib m [ia/ib] IIC T4 .. T6 Ex tD A21 IP66 T80 °C
Permissible ambient temperature	-20 °C to +40 °C -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 ²
Insulation class	I
Degree of protection accd. EN 60529	IP66 (standard) IP65 (measuring instrument or double pushbutton)
Cable glands/Gland plates/Enclosure drilling	as ordered accd. to manufacturer's specification
Enclosure material	Stainless steel AISI 316 L
Enclosure colour	polished

Type 444 33	
Connecting terminals	max. 20 terminals UT 4
Dimensions (L x W x H)	312.5 x 175 x 135 mm
Weight (empty)	3.5 kg with mounting framework
Mounting arrangements	6 mounting areas

Type 448 33	
Connecting terminals	max. 30 terminals UT 4
Dimensions (L x W x H)	312.5 x 312.5 x 135 mm
Weight (empty)	7.5 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 33	
Connecting terminals	max. 60 terminals UT 4
Dimensions (L x W x H)	627 x 312.5 x 135 mm
Weight (empty)	11.5 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 33	
Connecting terminals	max. 90 terminals UT 4
Dimensions (L x W x H)	941.5 x 312.5 x 135 mm
Weight (empty)	16.5 kg with mounting framework
Mounting arrangements	distance 40 mm max. 54 mounting areas distance 50 mm max. 45 mounting areas distance 60 mm max. 36 mounting areas



Type 447 33

Type 449 33

Type 448 33

Type 444 33

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 33	X	-	-	-	X	X
448 33	X	X	-	-	X	X
449 33	X	X	X	-	X	X
447 33	X	X	X	X	X	X

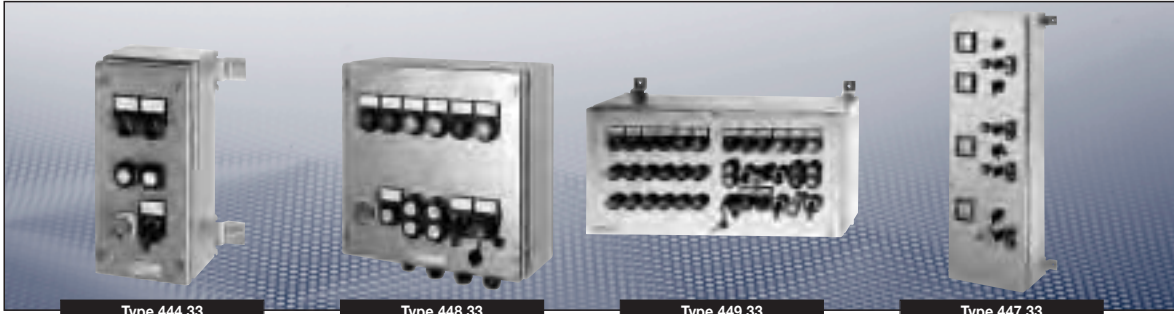
Possible components (Code 1)

Component	Code	Component	Code
Pushbutton (2-pole or 4-pole)	DRT	Measuring instrument	AM72 ¹⁾
Double pushbutton (2-pole or 4-pole)	DDT	Measuring instrument	AM45
Key-operated pushbutton (2-pole or 4-pole)	SLT	Blanking element	BLV
Key switch (2-pole or 4-pole)	SLS	Control switch	GHG 23 ¹⁾
Mushroom-head pushbutton (2-pole or 4-pole)	SGT	Control switch	GHG 29 ¹⁾
Control switch (2-pole or 4-pole)	SCT	Terminal (4 mm ²)	KLM ... A ²⁾
Signal lamp	SIL	Terminal block (4 mm ²)	KLM ... B
Potentiometer	POT		

¹⁾ 2 mounting areas are needed

²⁾ Terminal blocks and PE-terminals are attached to terminal rail under the fold-out mounting frame

| Ex-control stations |



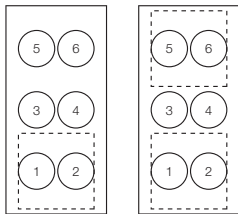
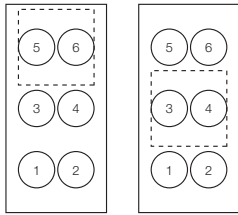
Type 444 33

Type 448 33

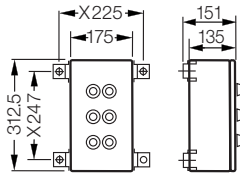
Type 449 33

Type 447 33

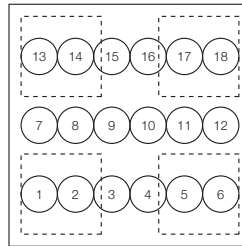
Mounting area | Dimension drawing



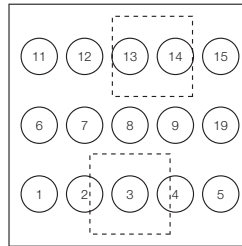
Distance between centres
40, 50 and 60 mm



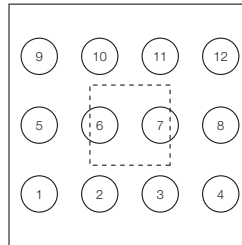
Type 444 33



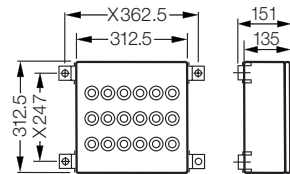
Distance between centres 40 mm



Distance between centres 50 mm



Distance between centres 60 mm

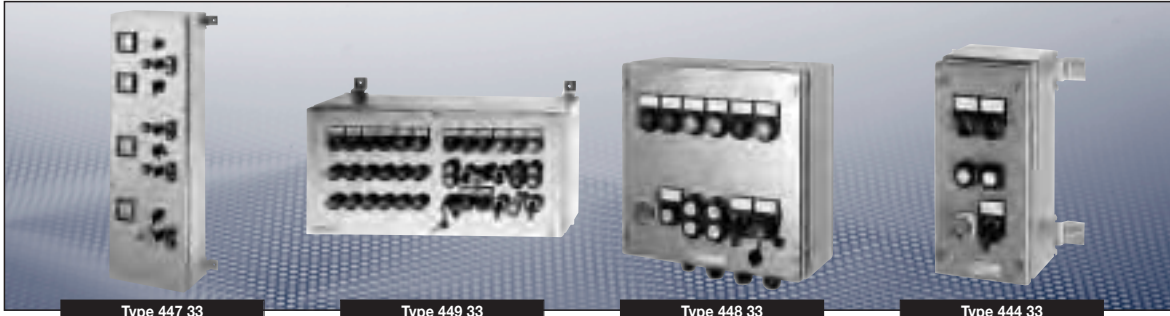


Type 448 33

X = fixing dimension

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Dimensions in mm



Type 447 33

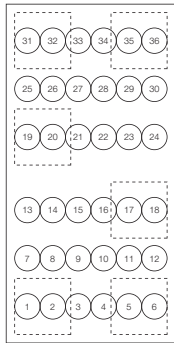
Type 449 33

Type 448 33

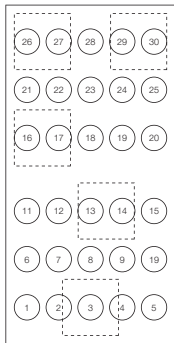
Type 444 33

Mounting area | Dimension drawing

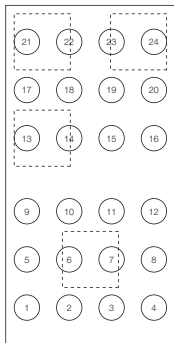
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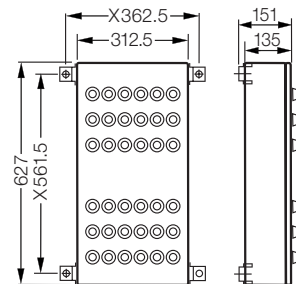
Distance between centres 40 mm



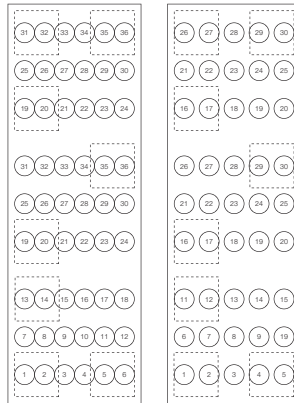
Distance between centres 50 mm



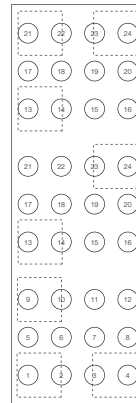
Distance between centres 60 mm



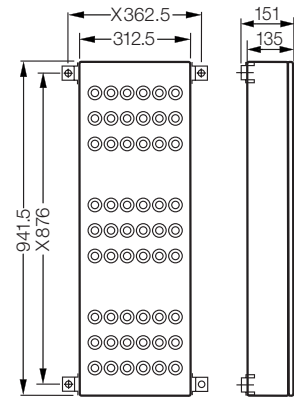
Type 449 33



Distance between centres
40 mm 50 mm



Distance between centres 60 mm



Type 447 33

X = fixing dimension

Dimensions in mm

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