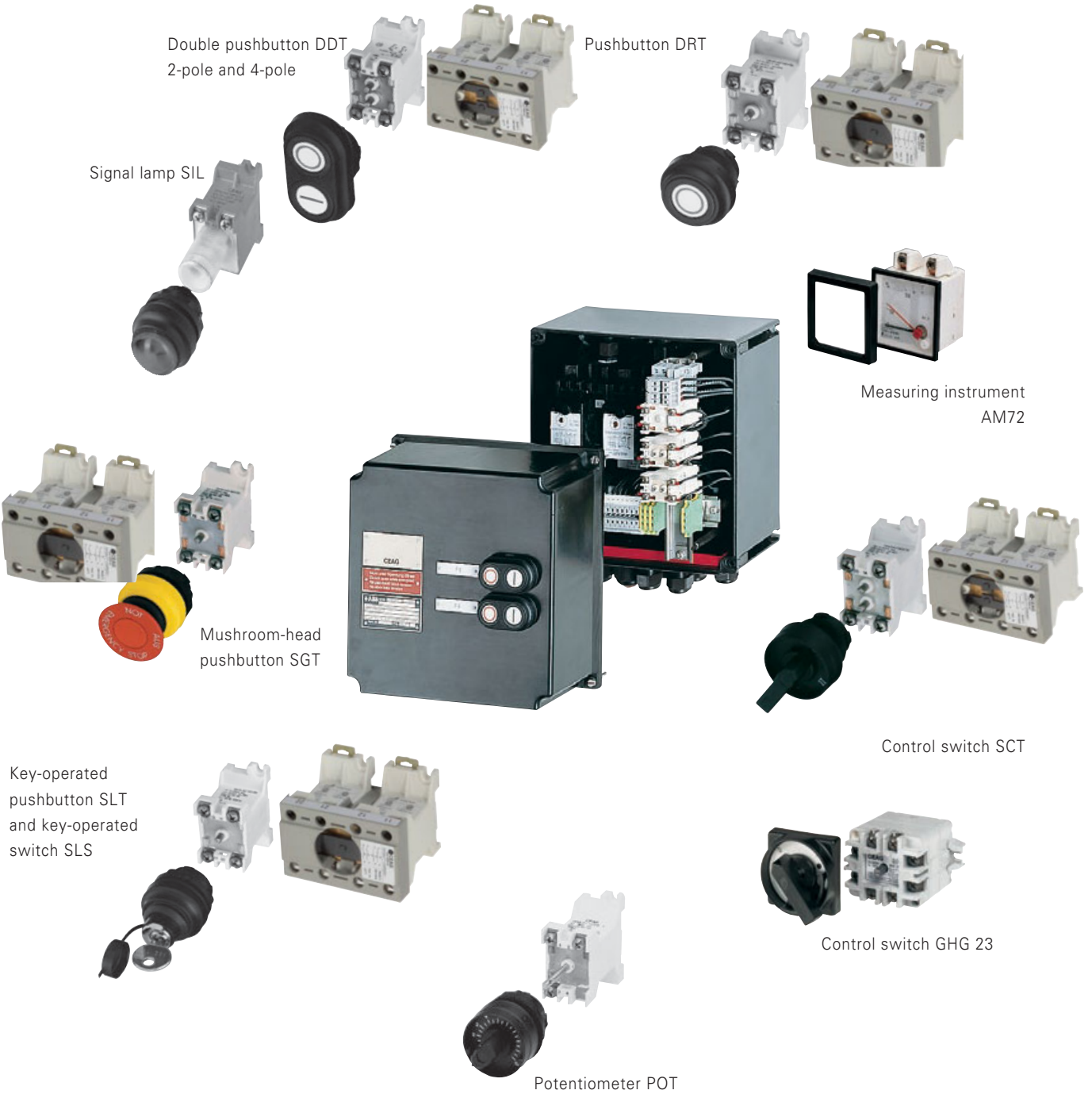


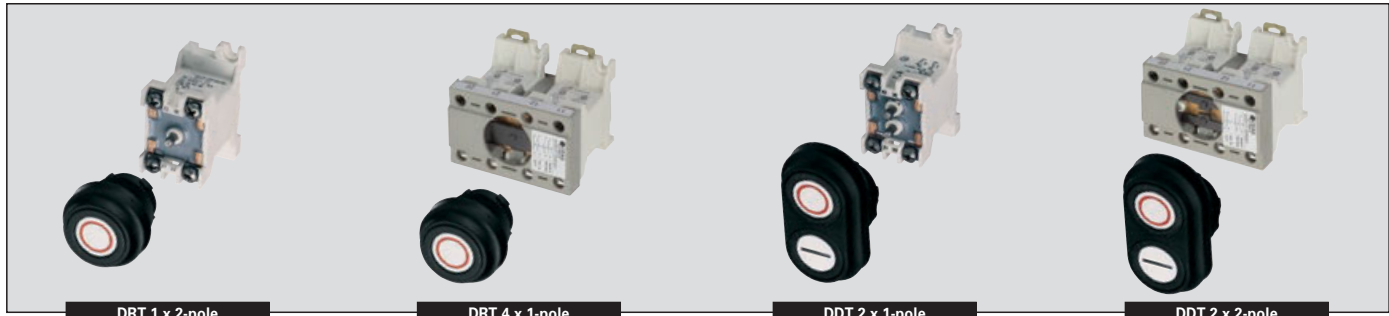
Customised enclosure, covered by Type Examination Certificates, can be individually combined from CEAG's numerous built-in components.

Furthermore control units for panel mounting are available for use in certified enclosures or switchboards. Detailed information you will find on pages 2.4.82 - 2.4.112.

For the selection of control units and components, please see page 2.4.54 to 2.4.80.



Ex d/e switch- and control-equipment



DRT 1 x 2-pole

DRT 4 x 1-pole

DDT 2 x 1-pole

DDT 2 x 2-pole

Technical data

Ex-pushbutton DRT and double pushbutton DDT

Marking accd. to 94/9/EC	Ⓔ II 2 G Ex de e IIC/IIB Gb / Ⓔ I M2 Ex d e I Mb
EC-Type Examination Certificate	IBEx U14 ATEX 1030 U
IECEX Certificate of Conformity	IECEX-IBE14.0005U
Marking accd. to IECEX	Ex d e IIC/IIB Gb Ex d e I Mb
Operating temperature range	-45 °C up to +80 °C (IIC) -60 °C up to +80 °C (IIB)
Application temperature ¹⁾	-45 °C up to +55 °C (option: IIC) -60 °C up to +55 °C (option: IIB)
Rated voltage	500 V AC
Rated current	16 A
Rated current gold contacts	0.4 A
Rated making/breaking capacity accd. EN 60947-5-1	AC-1: U _g 400 V / I _g 16 A AC-15: U _g 250 V / I _g 6 A
Degree of protection accd. to EN 60529	IP66
Type of mounting	DIN rail mounting
Enclosure material	grey
Gasket material	Neoprene (standard), Silikon or Viton on request

2-pole version

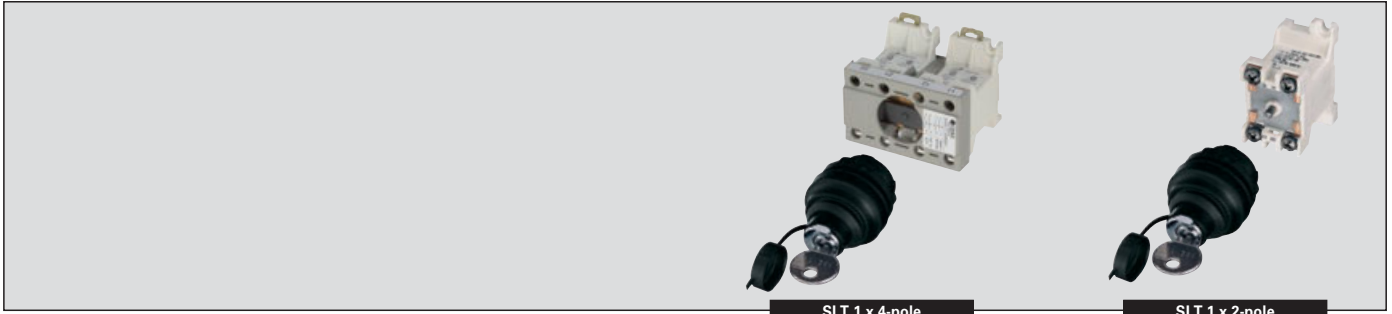
Connecting terminals	2 x 2.5 mm ²
Dimensions (L x W x H)	59 x 31 x 45 mm
Weight	0.15 kg

4-pole version ²⁾

Connecting terminals	4 x 2.5 mm ²
Dimensions (L x W x H)	59 x 73 x 45 mm
Weight	0.5 kg

¹⁾ The limits of the operating temperature range and the max. permissible temperature rise of the components have to be taken into account. See also pages 2.6.19.

²⁾ The 4-pole pushbutton needs two mounting areas of a 2-pole pushbutton. The actuator will be in the middle of the two mounting areas. For detailed information see page 2.4.54 - 2.4.80.



Technical data

Ex-key-operated pushbutton SLT

Marking accd. to 94/9/EC	II 2 G Ex de e IIC/IIB Gb / I M2 Ex de I Mb
EC-Type Examination Certificate	IBEx U14 ATEX 1030 U
IECEX Certificate of Conformity	IECEX-IBE14.0005U
Marking accd. to IECEx	Ex de IIC/IIB Gb Ex de I Mb
Operating temperature range	-45 °C up to +80 °C (IIC) -60 °C up to +80 °C (IIB)
Application temperature ¹⁾	-45 °C up to +55 °C (Option: IIC) -60 °C up to +55 °C (Option: IIB)
Rated voltage	500 V AC
Rated current	16 A
Rated current gold contacts	0.4 A
Rated making/breaking capacity accd. EN 60947-5-1	AC-1: U _o 400 V / I _o 16 A AC-15: U _o 250 V / I _o 6 A
Degree of protection accd. to EN 60529	IP66
Type of mounting	DIN rail mounting
Enclosure colour	grey
Gasket material	Neoprene (standard), Silikon or Viton on request
Latch point	CEAG 1 (others on request)

2-pole version

Connecting terminals	2 x 2.5 mm ²
Dimensions (L x W x H)	59 x 31 x 45 mm
Weight	0.15 kg

4-pole version ²⁾

Connecting terminals	4 x 2.5 mm ²
Dimensions (L x W x H)	59 x 73 x 45 mm
Weight	0.35 kg

¹⁾ The limits of the operating temperature range and the max. permissible temperature rise of the components have to be taken into account. See also pages 2.6.19.

²⁾ The 4-pole pushbutton needs two mounting areas of a 2-pole pushbutton. The actuator will be in the middle of the two mounting areas. For detailed information see page 2.4.54 - 2.4.80.

Ex d/e switch- and control-equipment



SLT 1 x 2-pole

SLT 1 x 4-pole

Technical data

Ex-Built-in components for individual control stations, key-operated switch SLS

Marking accd. to 94/9/EC	Ⓔ II 2 G Ex de e IIC/IIB Gb / Ⓔ I M2 Ex d e I Mb
EC-Type Examination Certificate	IBEx U14 ATEX 1030 U
IECEX Certificate of Conformity	IECEX-IBE14.0005U
Marking accd. to IECEX	Ex d e IIC/IIB Gb Ex d e I Mb
Operating temperature range ¹⁾	-45 °C up to +80 °C (IIC) -60 °C up to +80 °C (IIB)
Application temperature 1)	-45 °C up to +55 °C (option: IIC) -60 °C up to +55 °C (option: IIB)
Rated voltage	500 V AC
Rated current	16 A
Rated current gold contacts	0.4 A
Rated making/breaking capacity accd. EN 60947-5-1	AC-1: U _o 400 V / I _o 16 A AC-15: U _o 250 V / I _o 6 A
Switching system	engaging – engaging – engaging
Degree of protection accd. to EN 60529	IP66
Type of mounting	DIN rail mounting
Enclosure colour	grey
Latch point	CEAG 1 (others on request)

2-pole version

Connecting terminals	2 x 2.5 mm ²
Dimensions (L x W x H)	59 x 31 x 45 mm
Weight	0.15 kg

4-pole version ²⁾

Connecting terminals	4 x 2.5 mm ²
Dimensions (L x W x H)	59 x 73 x 45 mm
Weight	0.35 kg

¹⁾ The limits of the operating temperature range and the max. permissible temperature rise of the components have to be taken into account. See also pages 2.6.19.

²⁾ The 4-pole pushbutton needs two mounting areas of a 2-pole pushbutton. The actuator will be in the middle of the two mounting areas. For detailed information see page 2.4.54 - 2.4.80..



Technical data

Ex-mushroom-head pushbutton (Emergency Stop „SGTE“ and normal version „SGT“)

Marking accd. to 94/9/EC	II 2 G Ex de e IIC/IIB Gb / I M2 Ex d e I Mb
EC-Type Examination Certificate	IBEx U14 ATEX 1030 U
IECEX Certificate of Conformity	IECEX-IBE14.0005U
Marking accd. to IECEx	Ex d e IIC/IIB Gb Ex d e I Mb
Operating temperature range	-45 °C up to +80 °C (IIC) -60 °C up to +80 °C (IIB)
Application temperature ¹⁾	-45 °C up to +55 °C (option: IIC) -60 °C up to +55 °C (option: IIB)
Rated voltage	500 V AC
Rated current	16 A
Rated current gold contacts	0.4 A
Rated making/breaking capacity accd. EN 60947-5-1	AC-1: U ₀ 400 V / I ₀ 16 A AC-15: U ₀ 250 V / I ₀ 6 A
Degree of protection accd. to EN 60529	IP66
Type of mounting	DIN rail mounting
Enclosure colour	grey
Gasket material	Neoprene (standard), Silikon or Viton on request

2-pole version

Connecting terminals	2 x 2.5 mm ²
Dimensions (L x W x H)	59 x 31 x 45 mm
Weight	0.15 kg

4-pole version ²⁾

Connecting terminals	4 x 2.5 mm ²
Dimensions (L x W x H)	59 x 73 x 45 mm
Weight	0.35 kg

¹⁾ The limits of the operating temperature range and the max. permissible temperature rise of the components have to be taken into account. See also pages 2.6.19.

²⁾ The 4-pole pushbutton needs two mounting areas of a 2-pole pushbutton. The actuator will be in the middle of the two mounting areas. For detailed information see page 2.4.54 - 2.4.80.

Ex d/e switch- and control-equipment



SCT 1 x 2-pole

SCT 1 x 4-pole

Potentiometer

Technical data

Ex-Mini-control switch SCT

Marking accd. to 94/9/EC	⊕ II 2 G Ex de e IIC/IIB Gb / ⊕ I M2 Ex d e I Mb
EC-Type Examination Certificate	IBEx U14 ATEX 1030 U
IECEX Certificate of Conformity	IECEX-IBE14.0005U
Marking accd. to IECEx	Ex d e IIC/IIB Gb / Ex d e I Mb
Operating temperature range	-45 °C up to +80 °C (IIC) / -60 °C up to +80 °C (IIB)
Application temperature ¹⁾	-45 °C up to +55 °C (option: IIC) / -60 °C up to +55 °C (option: IIB)
Rated voltage	500 V AC
Rated current	16 A
Rated current gold contacts	0.4 A
Rated switching capacity	400 V / 16 A AC-1 / AC-15: U _o 250 V / I _o 6 A
Degree of protection accd. to EN 60529	IP66
Type of mounting	DIN rail mounting
Enclosure colour	grey

2-pole version

Connecting terminals	2 x 2.5 mm ²
Dimensions (L x W x H)	59 x 31 x 45 mm
Weight	0.15 kg

4-pole version ²⁾

Connecting terminals	4 x 2.5 mm ²
Dimensions (L x W x H)	59 x 73 x 45 mm
Weight	0.35 kg

¹⁾ The limits of the operating temperature range and the max. permissible temperature rise of the components have to be taken into account. See also pages 2.6.19.

²⁾ The 4-pole pushbutton needs two mounting areas of a 2-pole pushbutton. The actuator will be in the middle of the two mounting areas. For detailed information see page 2.4.54 - 2.4.80..

Technical data

Ex-Potentiometer POT

Marking accd. to 94/9/EC	⊕ II 2 G Ex de e IIC/IIB Gb / ⊕ I M2 Ex d e I Mb
EC-Type Examination Certificate	IBEx U14 ATEX 1030 U
IECEX Certificate of Conformity	IECEX-IBE14.0005U
Marking accd. to IECEx	Ex d e IIC/IIB Gb / Ex d e I Mb
Operating temperature range ¹⁾	-45 °C up to +80 °C (IIC) / -60 °C up to +80 °C (IIB)
Application temperature 1)	-45 °C up to +55 °C (option: IIC) / -60 °C up to +55 °C (option: IIB)
Rated voltage	up to 250 V
Power consumption (VA)	max. 1 W
Resistance range	100 – 10.000 Ω
Tolerance	± 20 %
Connecting terminals	2 x 2.5 mm ²
Degree of protection accd. to EN 60529	IP66
Dimensions (L x W x H)	approx. 59 x 31 x 45 mm
Weight	0.15 kg
Type of mounting	DIN rail mounting
Enclosure colour	grey
Angle of rotation	270°
Scale	0 - 100 %

¹⁾ The limits of the operating temperature range and the max. permissible temperature rise of the components have to be taken into account. See also pages 2.6.19. For detailed information see page 9.52 – 9.74.



Technical data

Ex-signal lamp SIL	
Marking accd. to 94/9/EC	II 2 G Ex d e IIC/IIB Gb / II 2 G Ex d ia IIC/IIB Gb
EC-Type Examination Certificate	IBExU 12 ATEX 1047 U
Application temperature	-20 °C up to +40 °C
IECEX Certificate of Conformity	IECEX-IBE13.0031U
Marking accd. to IECEx	Ex d e IIC/IIB Gb Ex d ia IIC/IIB Gb
Operating temperature range	-45 °C up to +68 °C (IIC) -60 °C up to +68 °C (IIB)
Application temperature ¹⁾	-45 °C up to +60 °C (IIC) -60 °C up to +60 °C (IIB)
Rated voltage (Ex ed IIC)	20 V up to 254 V AC/DC
(Ex d ia IIC/IIB)	10 V up to 30 V DC
(Ex d e IIC/IIB)	12 V up to 24 V AC/DC
Rated current	20 V to 254 V approx. 4 - 15 mA 10 V up to 30 V Ex d ia IIC max. 25 mA 12 V up to 24 V max. 24 mA
Maximum for Ex ia	U _i = 30 V DC, I _i = 100 mA, P _i = 750 mW
Connecting terminals	2 x 2.5 mm ²
Degree of protection accd. to EN 60529	IP66
Dimensions (L x W x H)	approx. 59 x 31 x 45 mm
Weight	0.15 kg
Type of mounting	DIN rail mounting
Enclosure colour	grey / yellow

¹⁾ The limits of the operating temperature range and the max. permissible temperature rise of the components have to be taken into account. See also pages 2.6.19. For detailed information see page 2.4.54 - 2.4.80.

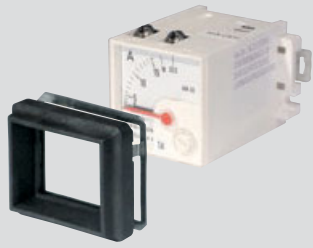
Technical data

Ex-Built-in components for individual control stations		
Control switch Ex 23 and Ex 29		
	Ex 23	Ex 29
Marking accd. to 94/9/EC	II 2 G Ex d e IIC / I M 2 Ex d e I	
EC-Type Examination Certificate	BVS 13 ATEX E 107 U	PTB 98 ATEX 1118 U
Application temperature ¹⁾	-45 °C up to +55 °C (IIC) -60 °C up to +55 °C (IIB)	-20 °C up to +40 °C -55 °C up to +55 °C (option)
IECEX Certificate of Conformity	IECEX-IBNS13.0108U	
Rated voltage	up to 500 V	up to 500 V
Rated current	10 A	16 A ¹⁾
Rated current gold contacts		0.4 A
Rated making/breaking capacity accd. EN 60947-5-1	AC-15: U _e 230 V / I _e 6 A DC-13: U _e 24 V / I _e 2 A	U _e 400 V / I _e 4 A U _e 230 V / I _e 0.5 A
Connecting terminals	2 x 0.5 - 2.5 mm ²	2 x 0.5 - 2.5 mm ² or 1 x 1.0 - 6.0 mm ²
Weight	1 tier: approx. 0.2 kg 2 tier: approx. 0.35 kg 3 tier:	approx. 0.25 kg approx. 0.40 kg approx. 0.55 kg
Type of mounting	DIN rail mounting	
Enclosure colour	grey	black

¹⁾ Terminal cross section for 12 A: 2.5 mm²

For detailed information see page 2.4.54 - 2.4.80.

Ex d/e switch- and control-equipment



AM 45



AM 72

Technical data

Ex-measuring instrument AM 45/AM 72

	Moving iron	Moving coil
Marking accd. to 94/9/EC	⊕ II 2 G Ex e IIC / ⊕ I M 2 Ex e I	⊕ II 2 G Ex ib IIC / ⊕ I M 2 Ex ib I
EC-Type Examination Certificate	PTB 99 ATEX 2032 U	
Permissible ambient temperature	-20 °C up to +40 °C -55 °C up to +55 °C (option)	
Rated voltage	up to 420 V (AM 45) up to 750 V (AM 72)	
Power consumption		max. 0.31 A
Overload range	10-fold - 25 sec. 25-fold - 4 sec. 50-fold - 1 sec. indicated 1 : 1.5	10-fold - 5 sec.
Measuring range	max. 0 - 25 A direct / n / 1A	0/4 - 20 mA
Inductance Li		≤ 0.1 mH
Capacitance Ci		≤ 0.1 nF
Winding specification of moving coil		26.5 windings
Internal resistance		2.5 Ω ±30 %
Open circuit voltage max. Ui		30 V
Connecting terminals max. Ii		150 mA
Accuracy	Class 2.5	Class 1.5
Circuit	Moving iron	Moving coil
Connecting terminals	2 x 0.5 - 2.5 mm ² fine-/multi-wire	1 x 4 mm ² solid-wire
Degree of protection accd. to EN 60529	IP65	
Display size	50 x 45 mm (AM 45) 72 x 72 mm (AM 72)	
Weight	0.35 kg	
Type of mounting	DIN rail mounting	
Enclosure material	grey	

For detailed information see page 2.4.54 - 2.4.80.