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Components for BZC8050 Control Stations

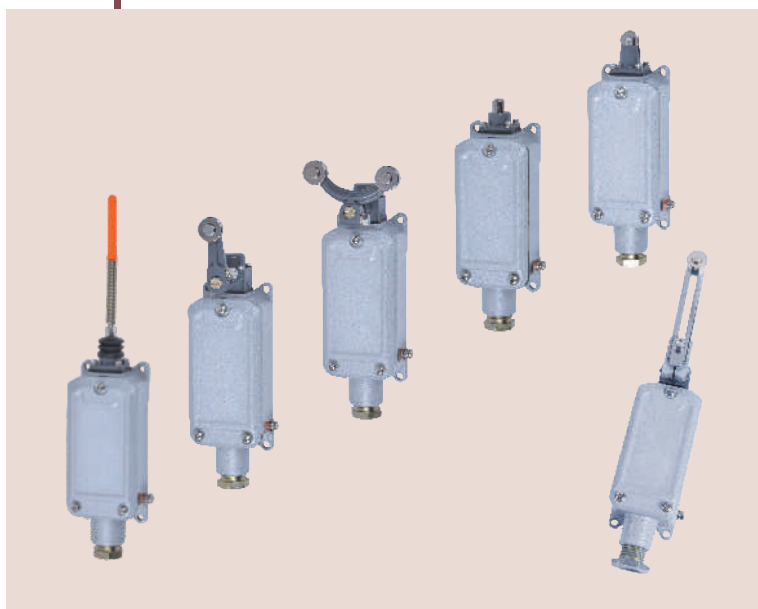
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More products are under development. Please contact us or visit our website for the latest product development. We reserve the right to make alteration to the technical data, weight, dimensions, designs and products available without notice.

Position Switches

BZX85 Series Explosion-proof Position Switches



Explosion protection to

-CENELEC

-IEC

Can be used in

Zone 1 and Zone 2

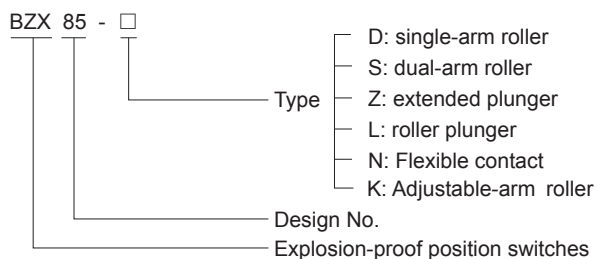
Zone 21 and Zone 22

Types: D, S, Z, L, N.

Increased safety enclosure with explosion-proof components.

Copper-free aluminium enclosure, powder coated surface.

■ Catalogue number logic



Selection table

Version	Rated voltage	Rated current (A)	Type of contact	Ordering code	Weight (kg)
BZX85-D	380V AC	0.79	1NO+1NC	40001	0.45
	250V AC	1.5	1NO+1NC	40002	0.45
	220V DC	0.1	1NO+1NC	40003	0.45
BZX85-S	380V AC	0.79	1NO+1NC	40004	0.50
	250V AC	1.5	1NO+1NC	40005	0.50
	220V DC	0.1	1NO+1NC	40006	0.50
BZX85-Z	380V AC	0.79	1NO+1NC	40007	0.40
	250V AC	1.5	1NO+1NC	40008	0.40
	220V DC	0.1	1NO+1NC	40009	0.40
BZX85-L	380V AC	0.79	1NO+1NC	40010	0.40
	250V AC	1.5	1NO+1NC	40011	0.40
	220V DC	0.1	1NO+1NC	40012	0.40
BZX85-N	380V AC	0.79	1NO+1NC	40013	0.42
	250V AC	1.5	1NO+1NC	40014	0.42
	220V DC	0.1	1NO+1NC	40015	0.42
BZX85-K	380V AC	0.79	1NO+1NC	40016	0.45
	250V AC	1.5	1NO+1NC	40017	0.45
	220V DC	0.1	1NO+1NC	40018	0.45

Zones 1&2; 21&22

Position Switches

BZX85 Series Explosion-proof Position Switches

Technical data

Explosion-proof position switches BZX85-□

Explosion protection

Gas explosion protection

Dust explosion protection

Certificates

Conformity to standards

Enclosure material

Enclosure colour

Exposed fastener

Type of contact

Swing angle or distance of roller arm

Ex II 2 G Ex d e IIC T6 Gb

Ex II 2 D Ex tb IIIC T80 Db IP65

ATEX and IECEx (applied for); PCEC (China)

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

Copper-free aluminium, powder coated surface

Window grey (RAL7040)

Stainless steel

1NO+1NC

Rated voltage

Rated current

Degree of protection

Internal&external earthing

Ambient temperature

Cable entries

Available cable outer diameter

BZX85-D

BZX85-S

BZX85-Z

BZX85-L

45°

45°

5mm

5mm

380V AC

250V AC

220V DC

0.79A

1.5A

0.1A

IP65

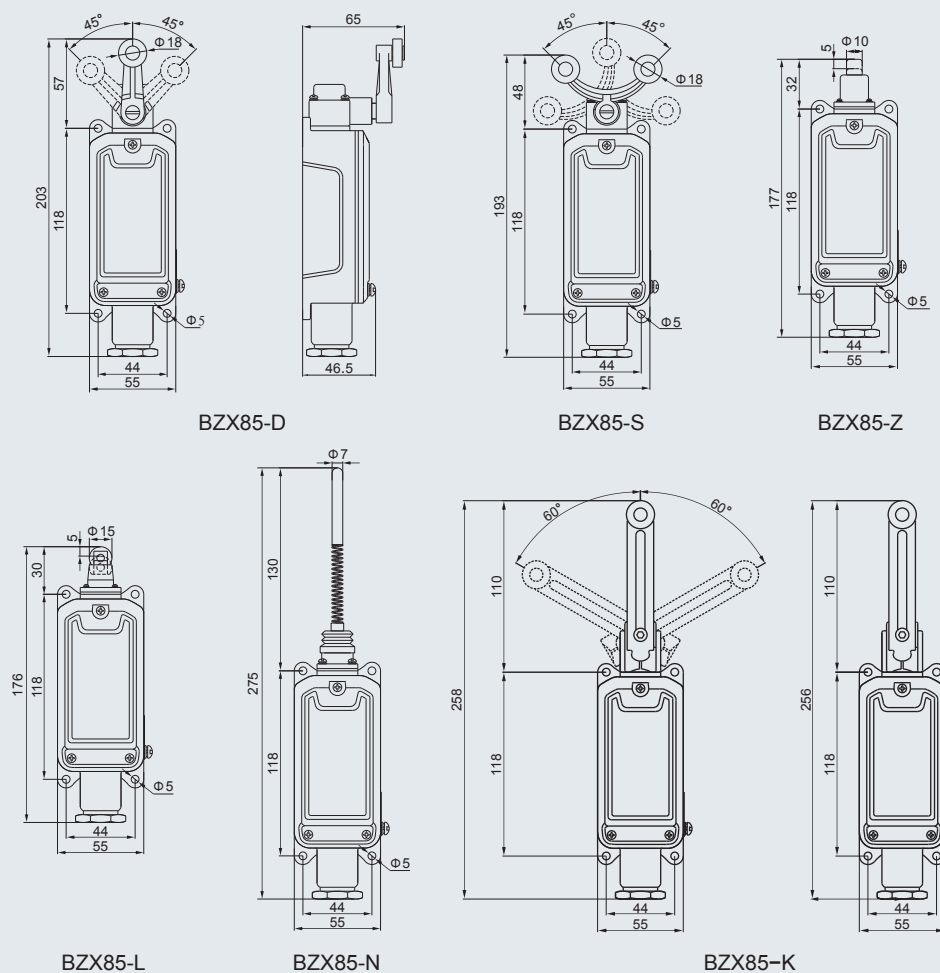
M4/M4

-20 ~+55

1 x G1/2"

Φ6.5~Φ10(mm)

Dimension drawings (all dimensions in mm) - subject to alteration



Control Stations

BZC Series Explosion-proof Control Stations (Ex d IIB+H₂)



Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

Zone 21 and Zone 22

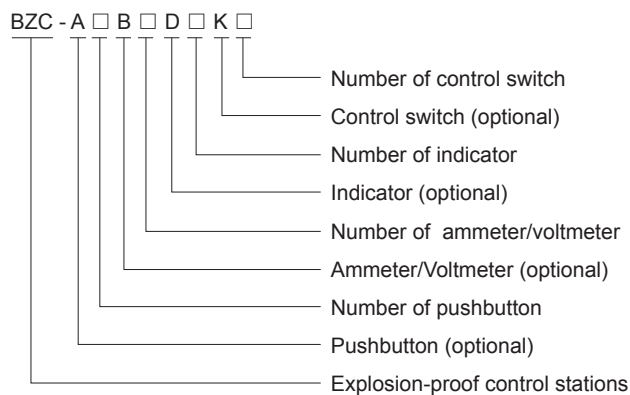
Class I, Zone 1 and Zone 2

Class I, Division 1, Groups B, C, D

Copper-free aluminium enclosure, powder coated surface.

Six types of enclosure .

■ Catalogue number logic



■ Note

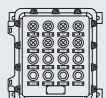
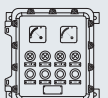
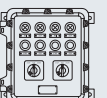
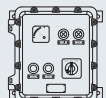
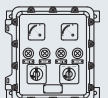
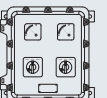
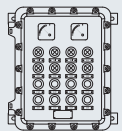
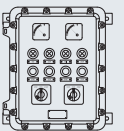
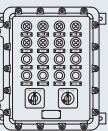
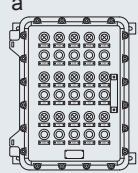
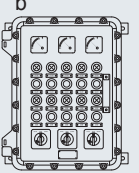
1. Please refer to the Selection table on P4/5.
2. Please select internal components as below:
 - Selection table of HA pushbutton on P4/8~11 (Nominal contact is 1NO+1NC);
 - Selection table of HD indicator on P4/12~13;
 - Selection table of HK control switch on P4/14~17;
 - Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC-A2B1K1
 - Components: Two pushbuttons, one ammeter, one control switch ;
 - Tech. Details: One start pushbutton (40036B + 40033, green, 1NO+1NC);
 - One stop pushbutton (40036A + 40033, red, 1NO+1NC);
 - One ammeter (40126, 100/5A);
 - One control switch (Function A, stop-run-start);
4. Special requirements on request.



Zones 1&2; 21&22

Control Stations

BZC Series Explosion-proof Control Stations (Ex d IIB+H₂)Selection table of control station BZC (Ex d IIB+H₂)

Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I	     	2-M25 x 1.5 Bottom entry	40017.....	8.00
II	   	1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40018.....	9.10
III	   	1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40019.....	10.20
IV	  	1-M40 x 1.5 or 2-M32 x 1.5 or 4-M25 x 1.5 Bottom entry	40020.....	15.90
	  			
V	  	1-M40 x 1.5 or 4-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40021.....	27.50
VI	 	1-M40 x 1.5 or 4-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40022.....	40.00

Control Stations

BZC Series Explosion-proof Control Stations (Ex d IIB+H₂)

Technical data

Explosion-proof control stations

BZC (Ex d IIB+H₂)

Explosion protection

Gas explosion protection

Ex II 2 G Ex db IIB+H₂ T6 Gb

Dust explosion protection

Ex II 2 D Ex tb IIIC T80°C Db IP66

Certificates

TÜV CY 17 ATEX 0205967X; IECEx CQM 11.0043; RU C-CN.ГБ05.B.00345 (CU-TR)
KZ.7500525.22.01.00378 (CU-TR)

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

Enclosure material

Copper-free aluminium, powder coated surface

Enclosure colour

Window grey (RAL7040)

Exposed fastener

Stainless steel

Rated voltage

Max. 415V AC

Rated current

10A

Degree of protection

IP66, IP67 (optional)

Internal&external earthing

I, II, III: M6/M6; IV, V, VI : M6/M8;

Ambient temperature

-60 ~+55

Components

1. Technical data of HA pushbutton on P4/8~11;
2. Technical data of HD indicator on P4/12~13;
3. Technical data of HK control switch on P4/14~17;
4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;

Cable entries

Standard M□ x 1.5 plug. Please see the Selection table on P4/5

Cable gland (optional)

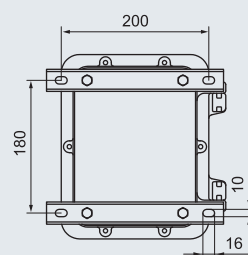
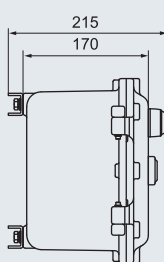
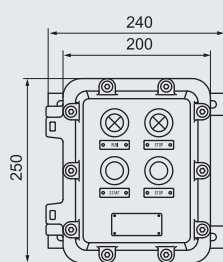
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.

Mounting

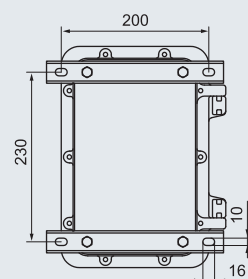
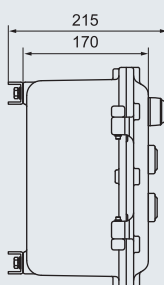
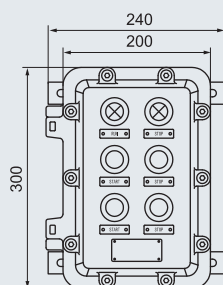
Surface type



Dimension drawings (all dimensions in mm) - subject to alteration



Enclosure I

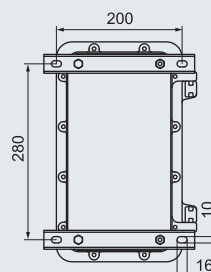
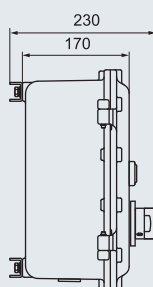
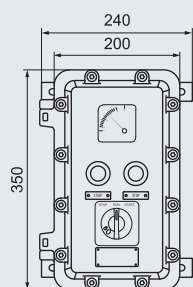


Enclosure II

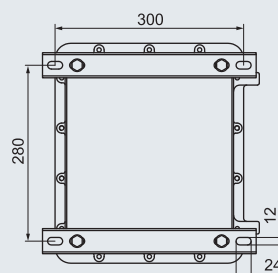
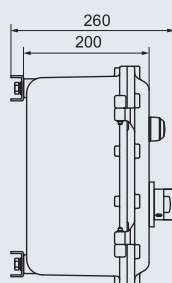
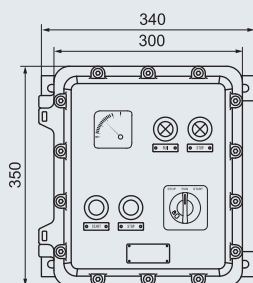
Control Stations

BZC Series Explosion-proof Control Stations (Ex d IIB+H₂)

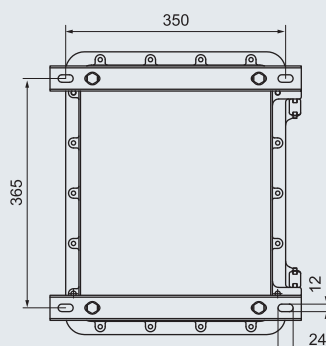
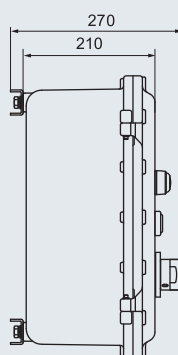
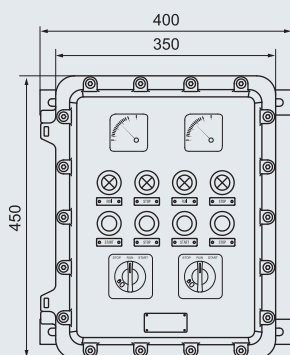
Dimension drawings (all dimensions in mm) - subject to alteration



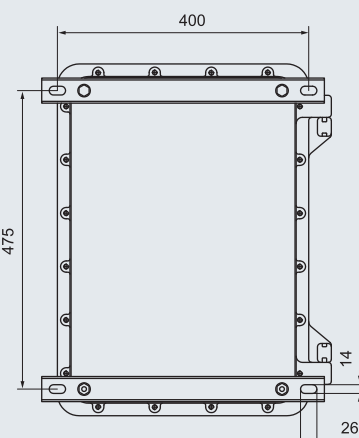
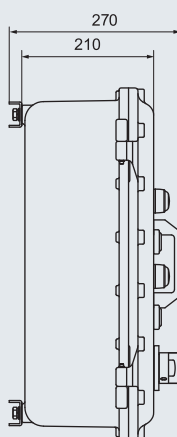
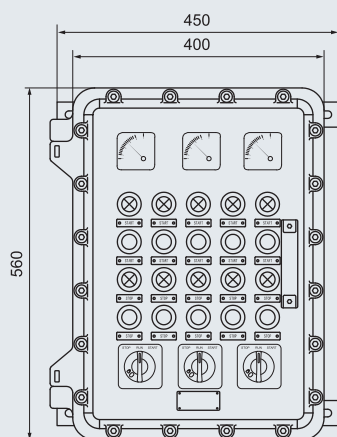
Enclosure III



Enclosure IV



Enclosure V



Enclosure VI



Components for BZC Control Stations

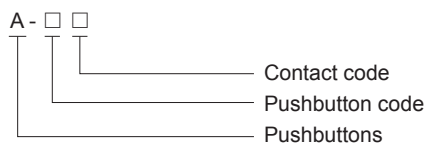
HA Flameproof pushbutton



- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 1 and Zone 2
 - Class I, Division 1, Groups A, B, C, D
- ◆ Five different ways of operation
 - Spring-return pushbutton
 - Key-operated pushbutton
 - Mushroom stay-put emergency pushbutton
 - Mushroom turn-to-release emergency pushbutton
 - Rotary pushbutton
- ◆ Mushroom stay-put emergency pushbutton/ mushroom turn-to-release emergency pushbutton can be equipped with protection cover, please specify when ordering. Material of protection cover: stainless steel and PC, please specify when ordering.

■ Catalogue number logic

HA (A for short)



Technical data

HA Flameproof pushbutton

Explosion protection

Gas explosion protection

Ex II 2 G Ex db IIC Gb

Dust explosion protection

Ex II 2 D Ex tb IIIC Db

Certificates

CML 17 ATEX 1289U; IECEx CML 17.0161U

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-31

Rated voltage

660V AC; 400V DC

Rated current

10A(for 660V AC); 6A(for 400V DC)

Degree of protection

IP66

Ambient temperature

-60 ~+70

Zones 1&2; 21&22

Components for BZC Control Stations

HA Flameproof pushbutton

Selection table				
Cover mounting	Specification	Code	Ordering code	Weight (kg)
	Spring-return pushbutton ● Red ● Green ● Yellow	a	40036A	0.15
		b	40036B	0.15
		c	40036C	0.15
	Mushroom stay-put emergency pushbutton Red	d	40037	0.27
	Key-operated mushroom stay-put emergency pushbutton Red	d	40037A	0.30
	Mushroom turn-to-release emergency pushbutton Red Экстренная кнопка включения грибковая	e	40040	0.27
	Key-operated mushroom turn-to-release emergency pushbutton Red	e	40040A	0.30
	Rotary pushbutton Black	f	40039	0.27
	Key-operated pushbutton Black	g	40038	0.27
	Pushbutton with indicator ● Red ● Green ● Yellow ● Blue	a	40057A	0.15
		b	40057B	0.15
		c	40057C	0.15
		d	40057D	0.15



Components for BZC Control Stations

HA Flameproof pushbutton

Selection table of pushbutton contact

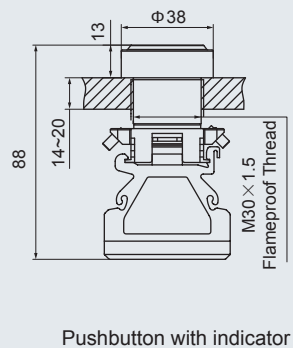
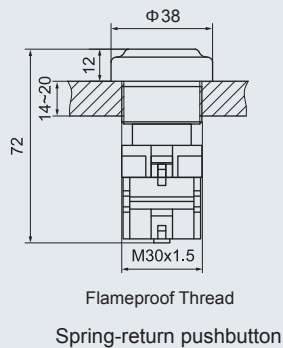
Version	Specification	Contact code	Ordering code	Weight (kg)
 Screw type	 1NC	T1	40023	0.03
	 1NO	S1	40024	0.03

Accessories

Description	Material	Ordering code	Weight (kg)
Emergency pushbutton protection cover 	PC	40196	0.03
Emergency pushbutton protection cover 	Stainless steel	40197	0.15

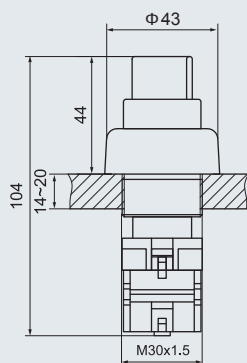


Dimension drawings (all dimensions in mm) - subject to alteration



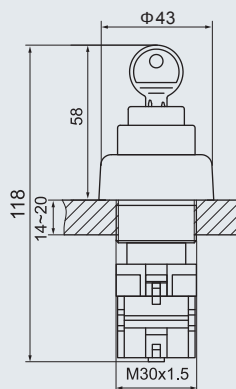
Components for BZC Control Stations HA Flameproof pushbutton Компоненты для BZC Станции управления HA пожаробезопасности кнопки

Dimension drawings (all dimensions in mm) - subject to alteration



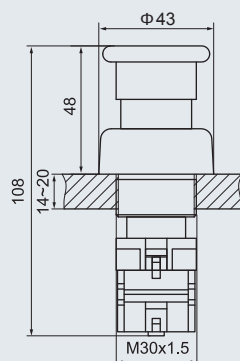
Flameproof Thread

Rotary pushbutton



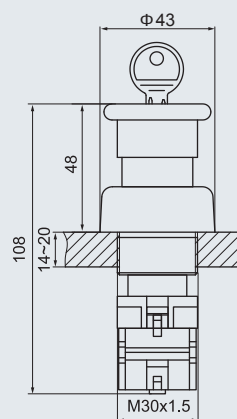
Flameproof Thread

Key-operated pushbutton



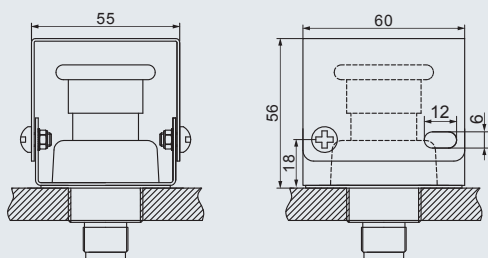
Flameproof Thread

Mushroom stay-put/ turn-to-release
emergency pushbutton

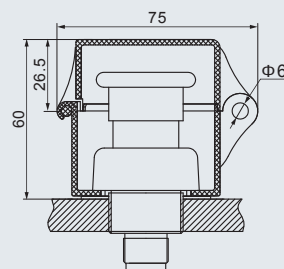


Flameproof Thread

Key-operated mushroom
stay-put emergency
pushbutton



HA Emergency pushbutton with
stainless steel protection cover



HA Emergency pushbutton with
PC protection cover



Components for BZC Control Stations

HD Series Indicators



Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

Zone 21 and Zone 22

Class I, Zone 1 and Zone 2

Class I, Division 1, Groups A, B, C, D

Available in

-red

-green

-yellow

-blue

-white

Two versions

-screw connection

-2m cable connection

■ Catalogue number logic

HD(D for short)

D - □ □

Indicator code

I: Screw connection (optional)

II: 2m cable connection

Indicators



Technical data

Indicator HD-**

Explosion protection

Gas explosion protection

Dust explosion protection

Ex II 2 G Ex db IIC Gb

Ex II 2 D Ex tb IIIC Db IP66

Certificates

EPT 17 ATEX 2649U; IECEX CQM 17.0008U

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

Rated voltage

400V AC, 50/60Hz; 220~415V AC, 50/60Hz;

220V DC; 48~120V AC/DC; 12~36V AC/DC

Degree of protection

IP66

Ambient temperature

-60 ~+70

Zones 1&2; 21&22

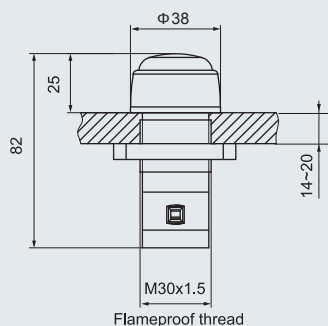
Components for BZC Control Stations

HD Series Indicators

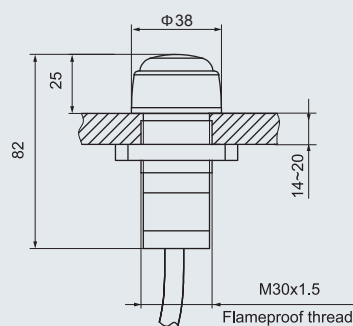
Selection table

Version	Rated voltage	Schematic diagram	Colour	Code	Ordering code	Weight (kg)
I: Screw connection 	220~415V AC		Red	Ra	40041A	0.10
			Green	Ga	40042A	
			Yellow	Ya	40043A	
			Blue	Ba	40162A	
			White	Wa	40044A	
	220V DC		Red	Rb	40045A	0.10
			Green	Gb	40046A	
			Yellow	Yb	40047A	
			Blue	Bb	40163A	
			White	Wb	40048A	
	48~120V AC/DC		Red	Rc	40049A	0.10
			Green	Gc	40050A	
			Yellow	Yc	40051A	
			Blue	Bc	40164A	
			White	Wc	40052A	
	12~36V AC/DC		Red	Rd	40053A	0.10
			Green	Gd	40054A	
			Yellow	Yd	40055A	
			Blue	Bd	40165A	
			White	Wd	40056A	
II: 2m cable connection 	220~415V AC		Red	Ra	40041B	0.30
			Green	Ga	40042B	
			Yellow	Ya	40043B	
			Blue	Ba	40162B	
			White	Wa	40044B	
	220V DC		Red	Rb	40045B	0.30
			Green	Gb	40046B	
			Yellow	Yb	40047B	
			Blue	Bb	40163B	
			White	Wb	40048B	
	48~120V AC/DC		Red	Rc	40049B	0.30
			Green	Gc	40050B	
			Yellow	Yc	40051B	
			Blue	Bc	40164B	
			White	Wc	40052B	
	12~36V AC/DC		Red	Rd	40053B	0.30
			Green	Gd	40054B	
			Yellow	Yd	40055B	
			Blue	Bd	40165B	
			White	Wd	40056B	

Dimension drawings (all dimensions in mm) - subject to alteration



I: Screw connection



II: 2m cable connection (cable specification: 2 × 1.5mm²)

Components for BZC Control Stations

HK Series Control Switches



Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

Zone 21 and Zone 22

Class I, Zone 1 and Zone 2

Class I, Division 1, Groups A, B, C, D

Available in latching and spring-return forms.

Different function options.

Number of pole: 2P, 3P, 4P, 6P.

The switch shall be fitted inside Ex d enclosure.

■ Catalogue number logic

HK(K for short)

K - □

Control switch code

Control switches



Technical data

HK Control Switch

Explosion protection

Gas explosion protection

Ex II 2 G Ex db IIC Gb

Dust explosion protection

Ex II 2 D Ex tb IIIC Db

Certificates

CML 17 ATEX 1036U; IECEx CML 17.0166U

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-31

Rated voltage

500V AC, 400V DC

Rated current

16A

Degree of protection

IP66

Ambient temperature

-60 ~+70

Zones 1&2; 21&22

Components for BZC Control Stations

HK Series Control Switches

Selection table

Switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
a				a.Functional wiring is the same as double buttons with auto-reset function.
b				b.Functional wiring is the same as double buttons; auto-reset after start; lock-stop gear added to avoid mistake operation.
c				c.Button with 2 NO contacts and available at auto-reset function. Suitable for high-voltage engine control circuit or function panel uses switch code "a".
d				d.Low-power switch.
e				e.Function is same as three buttons; able to control engine in forward and backward rotation. FW&BW starting positions can auto-reset.
f				f.Selection switch with stop gear in the intermediate zone.
g				g.Be equal to mounting two buttons and one changeover switch in one axis. Possible to output contact signal or monitoring signal between start and stop.
h				h.Multi-signals transmit gradually.
i				i.Add function of transmitting resultant signal on the base of function panel uses switch code "h".

Components for BZC Control Stations

HK Series Control Switches

Selection table

Switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
j				j. Two positions step; change-over gradually.
k				k. Changeover switch.
l				l. Selection switch with three poles and two launches.
m				m. Three-position changeover switch among auto, manual and start; auto-reset after start; it can convert to auto gear only after passing stop gear.
n				n. Structure is a little different to universal structure of switch code "m"; it directly rotates to auto gear without passing stop gear after starts.
o				o. Double contacts auto reset for start, with lock-stop gear.
p				p. Double contacts for stop, to substitute switch code "a" and "c" for start and stop; auto-reset.
q				q. Stop with double contacts, with lock stop gear; auto-reset after start.
r				r. Double contacts for both start and stop; it is same as universal panel of switch code "a", with auto-reset for start and stop.

Components for BZC Control Stations

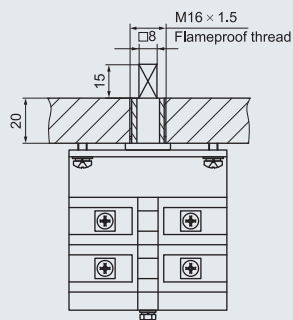
HK Series Control Switches

Selection table

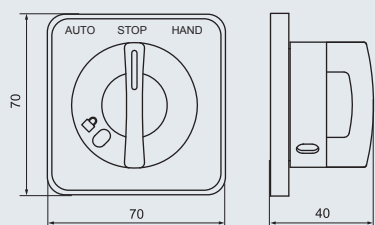
Switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
S				s. Transmit a contact signal before start and stop.
t				t. With lock-stop gear for start and stop to prevent mistake operation; without auto-reset.
u				u. Double-control selection switch.
v				v. Changeover switch for voltage phase-changing and measuring.
w				w. One 2NO auto-reset pushbutton, both left and right are the same.
x				x. Two 2NO auto-reset buttons.



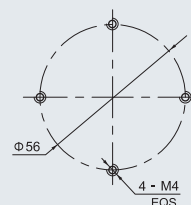
Dimension drawings (all dimensions in mm) - subject to alteration



Cover mounting



Rotary actuator



Mounting hole

Control Unit Systems

BZA8050 Series Explosion-proof Control Unit Systems



Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

Zone 21 and Zone 22

Class I, Zone 1 and Zone 2

Class I, Division 2, Groups A, B, C, D

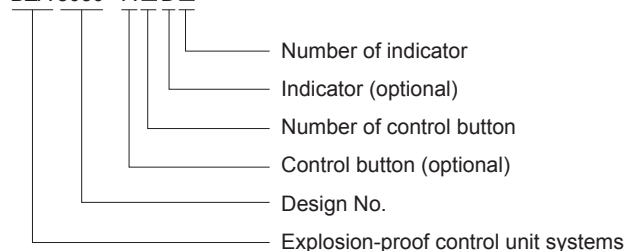
GRP (glass fibre-reinforced polyester resin) enclosure.

Three types of enclosure.

Individual unit can be combined into larger units.

■ Catalogue number logic

BZA 8050 - A □ □ □



■ Note

1. Please refer to the Selection table on P4/19~20.

2. Please select internal components as below:

Selection table of BA8050 control button on P4/38~41 (Nominal contact is 1NO+1NC);

Selection table of BD8050 indicator on P4/42~44;

3. Example: BZA8050-A2

Components: two control buttons

Tech. Details: One start control button (40092B + 40090-1+40091-1, green, 1NO+1NC);

One stop control button (40092A+ 40090-1+40091-1, red, 1NO+1NC);

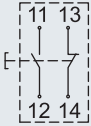
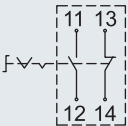
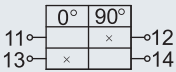
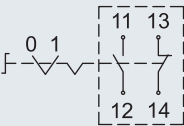
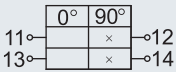
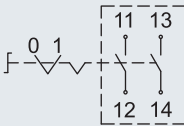
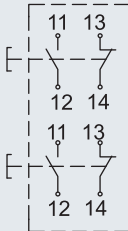
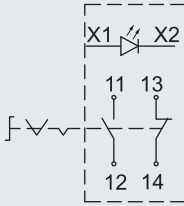
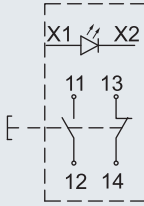
4. Special requirements on request.



Zones 1&2; 21&22

Control Unit Systems

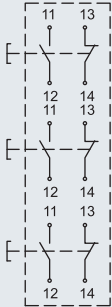
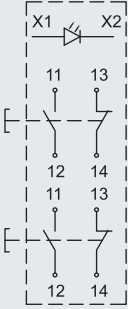
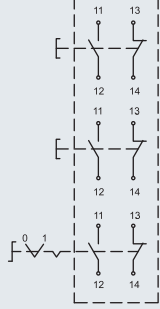
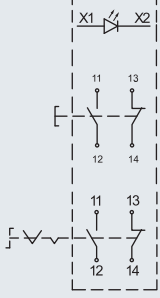
BZA8050 Series Explosion-proof Control Unit Systems

Selection table				
Outline	Colour	Chart of contact	Ordering code	Weight (kg)
Spring-return button 	Red 		40063A	0.65
	Green 		40063B	
Mushroom stay-put emergency button 	Red 		40064	0.65
Rotary button 			40065A	0.65
			40065B	0.65
Spring-return button 	Green 		40066	0.85
	Red 			
Indicator and mushroom stay-put emergency button 	Red 		40067	0.85
	Red 			
Indicator and spring-return button 	Red 		40068	0.85
	Red 			

Control Unit Systems

BZA8050 Series Explosion-proof Control Unit Systems

Selection table

Outline	Colour	Chart of contact	Ordering code	Weight (kg)
Spring-return button 	Yellow 		40069	1.10
	Green 			
	Red 			
Spring-return button and indicator 	Red 		40070	1.10
	Green 			
	Red 			
Spring-return button and mushroom stay-put emergency button 	Green 		40071	1.10
	Red 			
	Red 			
Spring-return button and rotary button 	Green 		40072	1.10
	Red 			
	Red 			
Indicator, spring-return button and mushroom stay-put emergency button 	Red 		40073	1.10
	Red 			
	Red 			

Control Unit Systems

BZA8050 Series Explosion-proof Control Unit Systems

Technical data

Explosion-proof control unit systems BZA8050

Explosion protection

Gas explosion protection

Ex II 2 G Ex d e IIC T6 Gb

Dust explosion protection

Ex II 2 D Ex tb IIIC T80 Db IP65

Certificates

LCIE 09 ATEX 3097; IECEx CQM 11.0018

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

Enclosure material

GRP (glass fibre-reinforced polyester resin)

Enclosure colour

Black

Наружное крепление

Нержавеющая сталь

Rated voltage

Max. 415V AC

Rated current

10A

Degree of protection

IP65

Ambient temperature

-20 ~+55

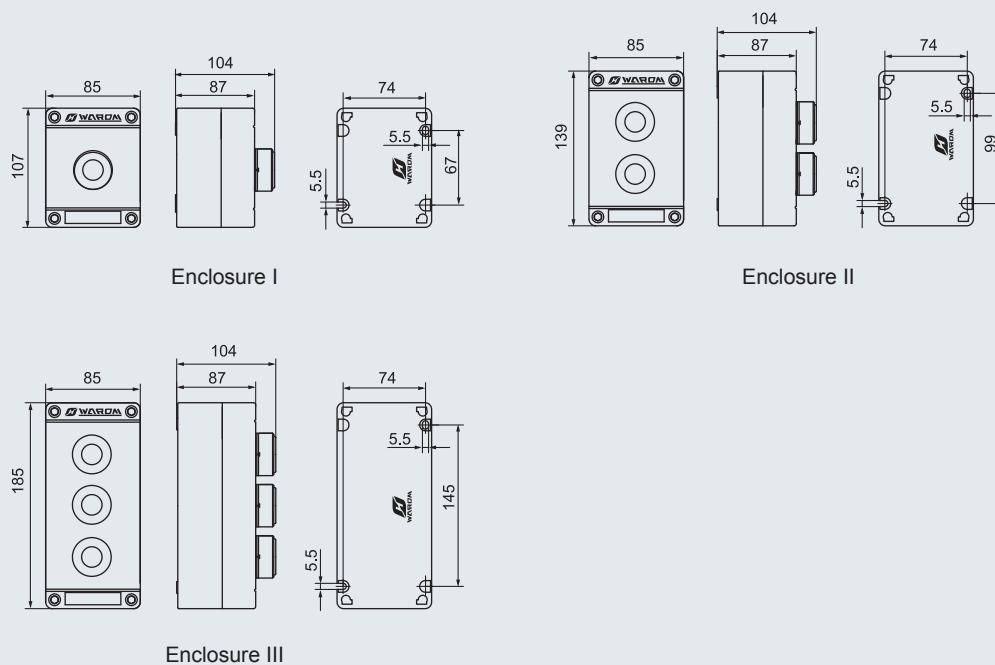
Cable entries

1 x M25 x 1.5 cable gland (DQM- I, plastic)

Available cable outer diameter

9~16 (mm)

Dimension drawings (all dimensions in mm) - subject to alteration



Control Unit Systems

BZA85 Series Explosion-proof Control Unit Systems



Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

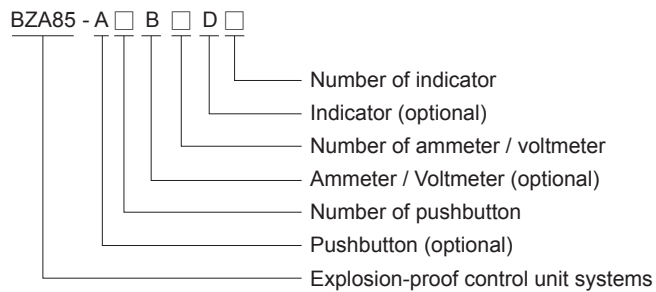
Zone 21 and Zone 22

Class I, Zone 1 and Zone 2

Class I, Division 1, Groups A, B, C, D

Copper-free aluminium, powder coated surface.

■ Catalogue number logic



■ Note

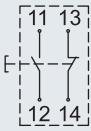
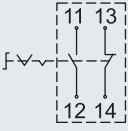
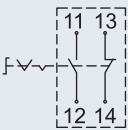
1. Please refer to the Selection table on P4/23~24.
2. Please select internal components as below:
 Selection table of HA pushbutton on P4/8~11 (nominal contact is 1NO+1NC);
 Selection table of HD indicator on P4/12~13;
 Dimension drawings of ammeter (type 48) and voltmeter (type 48) see P4/25.
3. Example: BZA85-A1
 Components: One control button
 Tech. Details: One start control button (40036B + 40033, green, 1NO+1NC)
4. Special requirements on request.

Zones 1&2; 21&22

Control Unit Systems

BZA85 Series Explosion-proof Control Unit Systems

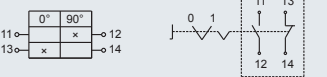
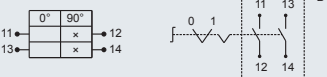
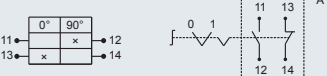
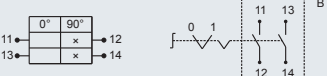
Technical data				
Explosion-proof control unit systems BZA85				
Explosion protection Gas explosion protection Dust explosion protection Certificates Conformity to standards Enclosure material Enclosure colour Exposed fastener Rated voltage Rated current Degree of protection Ambient temperature Components HA pushbutton HD indicator Ammeter (type 48) / Voltmeter (type 48) Cable entries Cable gland (optional)	II 2 G Ex db IIC T6 Gb			
	II 2 D Ex tb IIIC T80 Db IP66			
	ATEX (applied for); IECEx CQM 17.0021X; CU-TR			
	EN 60079-0, EN 60079-1, EN 60079-31			
	IEC 60079-0, IEC 60079-1, IEC60079-31			
	Copper-free aluminium, powder coated surface			
	Window grey (RAL7040)			
	Stainless steel			
	Max.500V AC, 250V DC			
	Max.10A (AC), 6A (DC)			
	IP66, IP67(optional)			
	-60 ~+60			
	Technical data on P4/8~11			
Technical data on P4/12~13				
	Working mode	Accuracy	Overload times	
Ammeter	Electromagnetic type (moving iron)	Class 1.5	5 times (2 or 6 times on request)	
Voltmeter			-	
Standard 2 x M25 x 1.5 plugs				
2 x G3/4" plugs or 2 x NPT3/4" plugs on request				
DQM-II (Ex d) or DQM-III (Ex d) is recommended. Please see P7/20~29.				

Selection table (Pushbutton / Indicator)				
Outline	Colour	Chart of contact	Ordering code	Weight (kg)
Indicator 	Red		40171A	0.65
	Green		40171B	
Spring-return button 	Red		40172A	0.65
	Green		40172B	
Mushroom stay-put emergency pushbutton 	Red		40173	0.7
Mushroom turn-to-release emergency pushbutton 	Red		40174	0.7

Control Unit Systems

BZA85 Series Explosion-proof Control Unit Systems

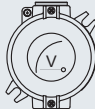
Selection table (Pushbutton)

Outline	Chart of contact	Ordering code	Weight (kg)
Key-operated pushbutton 		40175A	0.7
		40175B	0.7
Rotary button 		40176A	0.7
		40176B	0.7

Selection table (Ammeter)

Version	Description	Overload scale	Measuring range	Ordering code	Weight (kg)
	Direct measuring	2 times	0~20/40 mA	40177	0.70
			4~20/40 mA	40178	
	Direct measuring	2 times	0~1 A	40179	
			0~5 A	40180	
	For CT (current transformer)	2 times or 6 times	sek. 1 A	40181	
			sek. 5 A	40182	

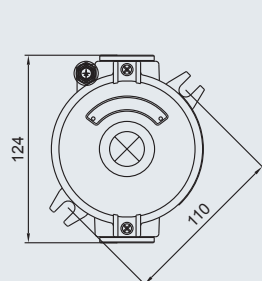

Selection table (Voltmeter)

Version	Description	Measuring range	Ordering code	Weight (kg)
	Direct measuring	0~10 V	40183	0.70
		0~25 V	40184	
		0~40 V	40185	
		0~60 V	40186	
		0~100 V	40187	
		0~150 V	40188	
		0~250 V	40189	
		0~300 V	40190	
		0~450 V	40191	
		0~500 V	40192	
	For PT (potential transformer)	sek. 100 V	40193	
		sek. 110 V	40194	
		sek. 120 V	40195	

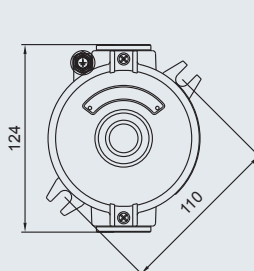
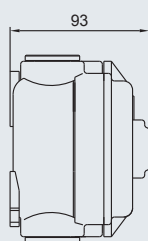
Control Unit Systems

BZA85 Series Explosion-proof Control Unit Systems

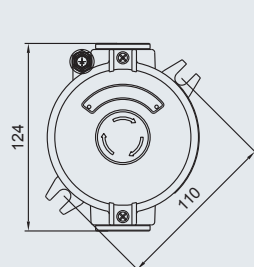
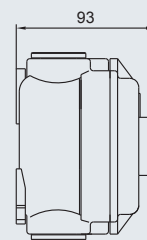
Dimension drawings (all dimensions in mm) - subject to alteration



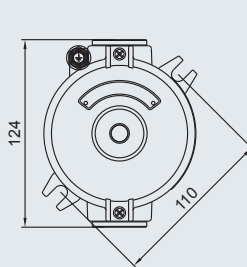
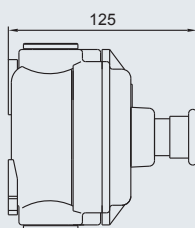
Indicator



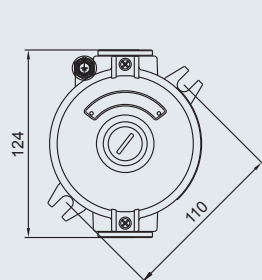
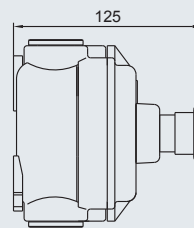
Spring-return button



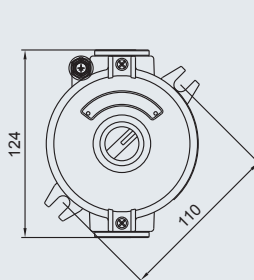
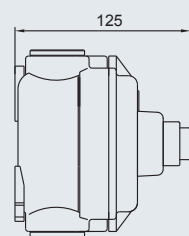
Mushroom turn-to-release
emergency pushbutton



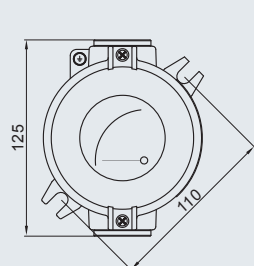
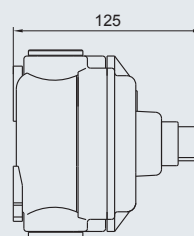
Mushroom stay-put
emergency pushbutton



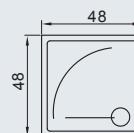
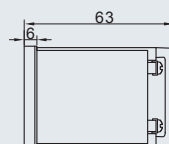
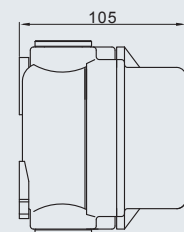
Key-operated pushbutton



Rotary button



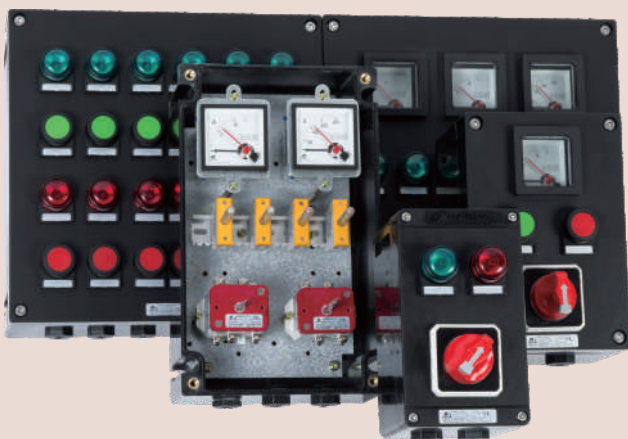
Ammeter / Voltmeter



Ammeter (48 type) / Voltmeter (48 type)

Control Stations

BZC8050 Series Control Stations (GRP)



Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

Zone 21 and Zone 22

Class I, Zone 1 and Zone 2

Class I, Division 2, Groups A, B, C, D

GRP (glass fibre-reinforced polyester resin) enclosure.

Four types of enclosure.

■ Catalogue number logic

BZC 8050 - A □ B □ D □ K □ □ □

Mounting { G: surface type
L: pole type

Number of control switch

Control switch (optional)

Number of indicator

Indicator (optional)

Number of ammeter/voltmeter

Ammeter/Voltmeter (optional)

Number of control button

Control button (optional)

Design No.

Control stations

■ Note

1. Please refer to the Selection table on P4/27.

2. Please select internal components as below:

Selection table of BA8050 control button on P4/38~41 (nominal contact is 1NO+1NC);

Selection table of BD8050 indicator on P4/42~44;

Selection table of BK8050 control switch on P4/45~50;

Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;

3. Example: BZC8050-A2D2G

Components: Two control buttons, two indicators; surface type

Tech. Details: One start control button (40092B + 40090-1+40091-1, green, 1NO+1NC);

One stop control button (40092A+ 40090-1+40091-1, red, 1NO+1NC);

One indicator (40116+40100-2, green, 230V AC);

One indicator (40115+40099-2, red, 230V AC);

4. Special requirements on request.

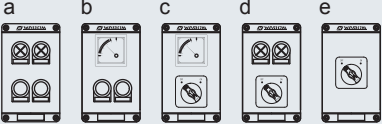
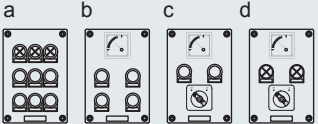
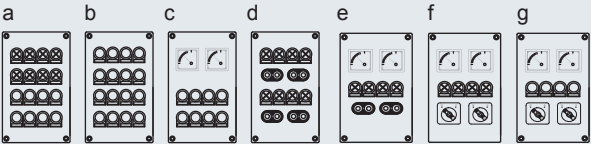
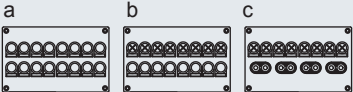
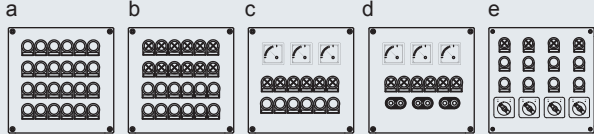


Zones 1&2; 21&22

Control Stations

BZC8050 Series Control Stations (GRP)

Selection table of control station BZC8050(GRP)

Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I		2-M25 x 1.5 Bottom entry	40074.....	1.30
II		1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40075.....	2.10
III		1-M32 x 1.5 or 3-M25 x 1.5 Bottom entry	40076.....	3.25
IIIx		1-M40 x 1.5 or 2-M32 x 1.5 or 4-M25 x 1.5 Bottom entry	40077.....	3.25
IV		1-M40 x 1.5 or 2-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40078.....	4.15

Control Stations

BZC8050 Series Control Stations (GRP)

Technical data

Control stations BZC8050 (GRP)

Explosion protection

Gas explosion protection

Ex II 2 G Ex d e IIC T6 Gb

Dust explosion protection

Ex II 2 D Ex tb IIIC T80 Db IP65

Certificates

LCIE 09 ATEX 3099; IECEx CQM 11.0029

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

Enclosure material

GRP (glass fibre-reinforced polyester resin)

Enclosure colour

Black

Exposed fastener

Stainless steel

Rated voltage

Max. 415V AC

Rated current

Main circuit current: 6A (for BZC8050-A2D2, BZC8050-A2B1)

16A (for BZC8050-K1)

10A (for others)

Degree of protection

IP65

Ambient temperature

-20 ~+55

Components

1. Technical data of BA8050 control button on P4/38~41;

2. Technical data of BD8050 indicator on P4/42~44;

3. Technical data of BK8050 control switch on P4/45~50;

4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;

Cable entries

M□ x 1.5 plug, please see the Selection table on P4/27

Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/16

Mounting

Surface type

Pole type (for enclosure I, II, III only)

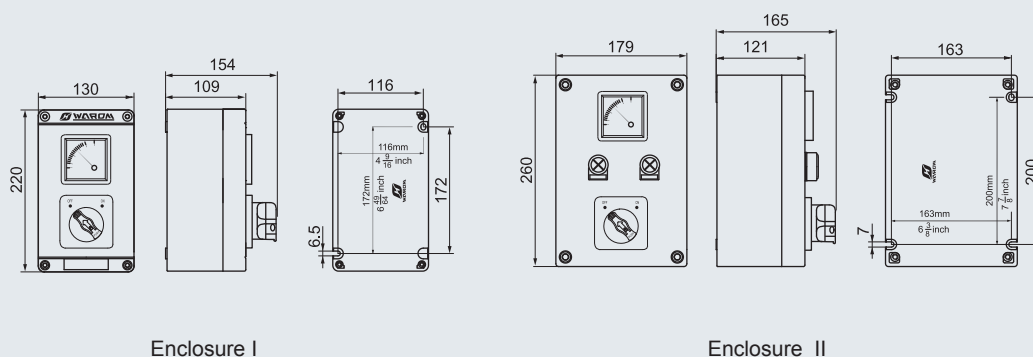
Note

1. Please specify the number and size of entries (applicable for surface type only);

2. For pole type, only G1" entry is applicable;



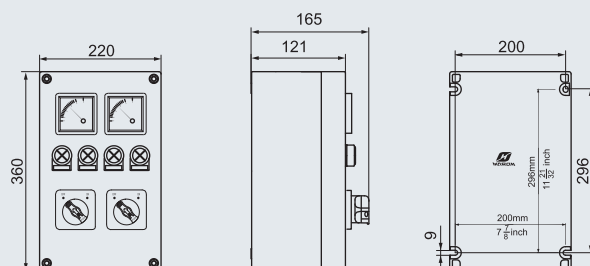
Dimension drawings (all dimensions in mm) - subject to alteration



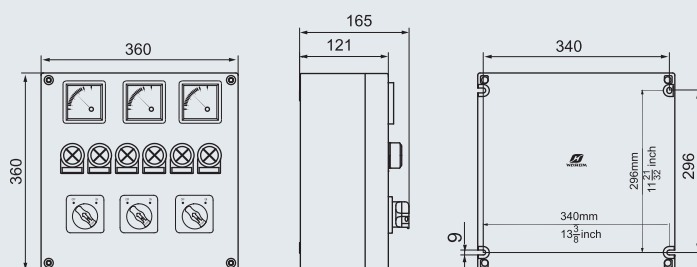
Control Stations

BZC8050 Series Control Stations (GRP)

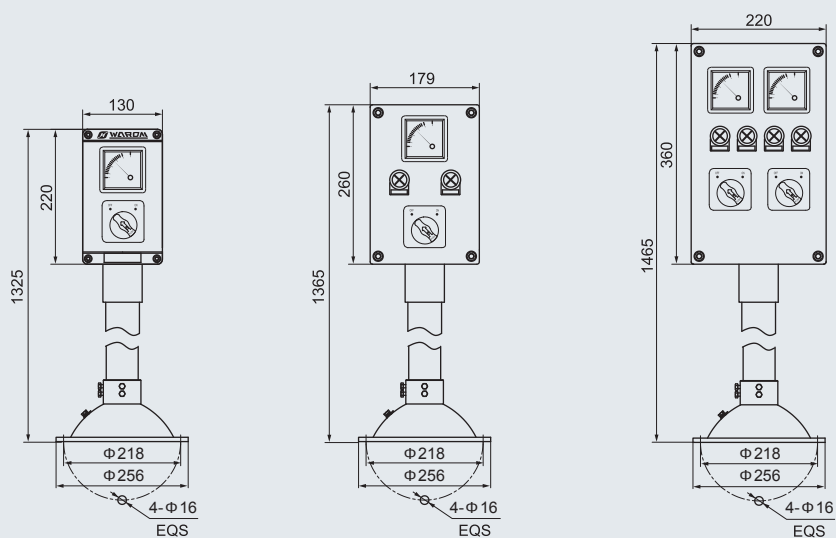
Dimension drawings (all dimensions in mm) - subject to alteration



Enclosure III



Enclosure IV



Pole type (for enclosure I, II, III only)



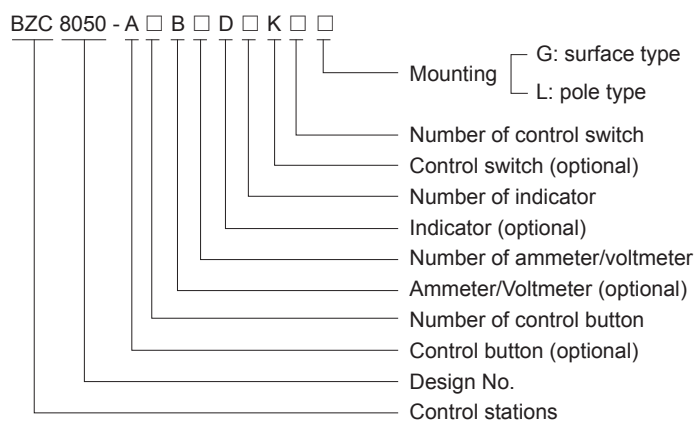
Control Stations

BZC8050 Series Control Stations (Aluminium Alloy)



Explosion protection to
 -CENELEC
 -IEC
 -NEC
 Can be used in
 Zone 1 and Zone 2
 Zone 21 and Zone 22
 Class I, Zone 1 and Zone 2
 Class I, Division 2, Groups A, B, C, D
 Copper-free aluminium enclosure, powder coated surface.
 Seven types of enclosure.

■ Catalogue number logic

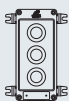
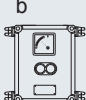
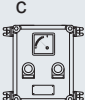
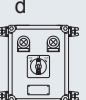
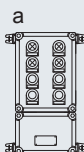
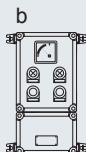
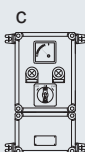
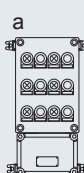
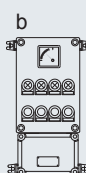
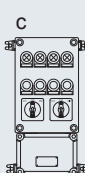
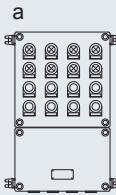
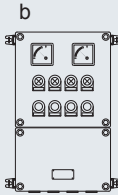
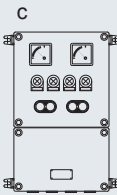
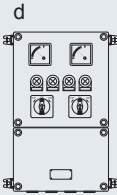


■ Note

1. Please refer to the Selection table on P4/31.
2. Please select internal components as below:
 Selection table of BA8050 control button on P4/38~41 (Nominal contact is 1NO+1NC);
 Selection table of BD8050 indicator on P4/42~44;
 Selection table of BK8050 control switch on P4/45~50;
 Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC8050-A2D2G
 Components: Two control buttons, two indicators; surface type
 Tech. Details: One control start button (40092B + 40090-1+40091-1, green, 1NO+1NC);
 One control stop button (40092A+ 40090-1+40091-1, red, 1NO+1NC);
 One indicator (40116+40100-2, green, 230V AC);
 One indicator (40115+40099-2, red, 230V AC);
4. Special requirements on request.

Zones 1&2; 21&22

Control Stations станции посты управления
BZC8050 Series Control Stations (Aluminium Alloy)

Selection table of control station BZC8050 (aluminium alloy)				
Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I		1-M25 x 1.5 Bottom entry	40079	0.65
II		1-M25 x 1.5 Bottom entry	40080	0.85
III		1-M25 x 1.5 Bottom entry	40081	1.10
IV	    	2-M25 x 1.5 Bottom entry	40082.....	3.75
V	  	1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40083.....	6.50
VI	  	1-M40 x 1.5 or 2-M32 x 1.5 or 4-M25 x 1.5 Bottom entry	40084.....	9.00
VII	   	1-M40 x 1.5 or 2-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40085.....	13.70



Control Stations

BZC8050 Series Control Stations (Aluminium Alloy)

Technical data

Control stations BZC8050 (aluminium alloy)

Explosion protection

Gas explosion protection

Ex II 2 G Ex d e IIC T6 Gb

Dust explosion protection

Ex II 2 D Ex tb IIIC T80 Db IP65

Certificates

LCIE 09 ATEX 3099; IECEx CQM 11. 0029

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

Enclosure material

Copper-free aluminium, powder coated surface

Enclosure colour

Window grey (RAL7040)

Exposed fastener

Stainless steel

Rated voltage

Max. 415V AC

Rated current

Main circuit current: 6A (for BZC8050-A2D2, BZC8050-A2B1)

16A (for BZC8050-K1)

10A (for others)

Degree of protection

IP65

Ambient temperature

-20 ~+55

Internal&external earthing

I, II, III: M4/M4; IV, V, VI, VII: M6/M6

Components

1. Technical data of BA8050 control button on P4/38~41;

2. Technical data of BD8050 indicator on P4/42~44;

3. Technical data of BK8050 control switch on P4/45~50;

4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;

Cable entries

M□ x 1.5 plug, please see the Selection table on P4/31

Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/17~19

Mounting

Surface type

Pole type (for enclosure IV, V, VI only)

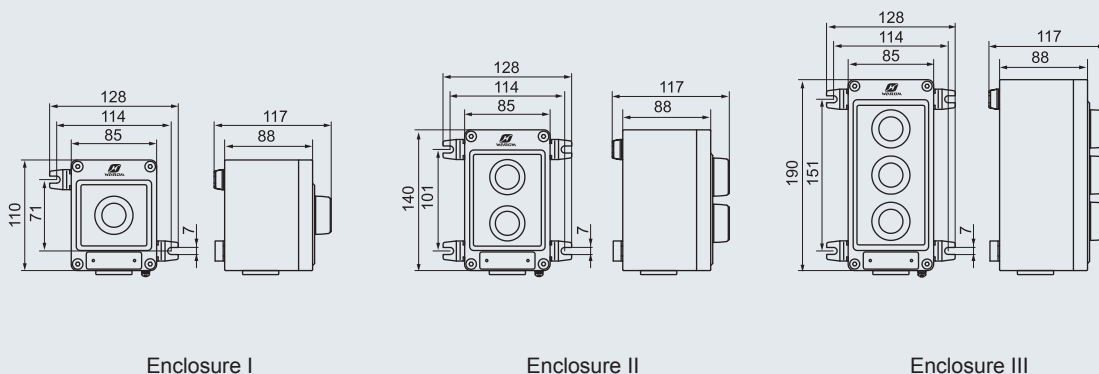
Note

1. Please specify the number and size of entries (applicable for surface type only);

2. For pole type, only G1" entry is applicable;



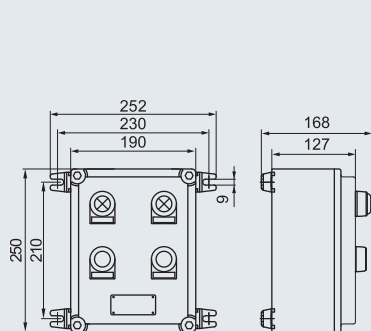
Dimension drawings (all dimensions in mm) - subject to alteration



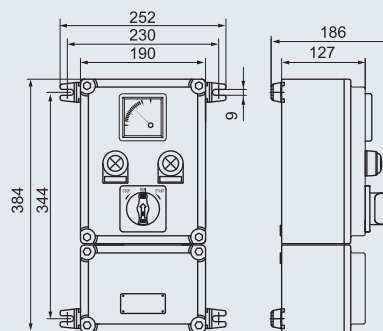
Control Stations

BZC8050 Series Control Stations (Aluminium Alloy)

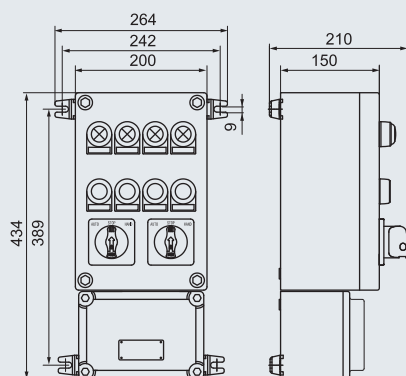
Dimension drawings (all dimensions in mm) - subject to alteration



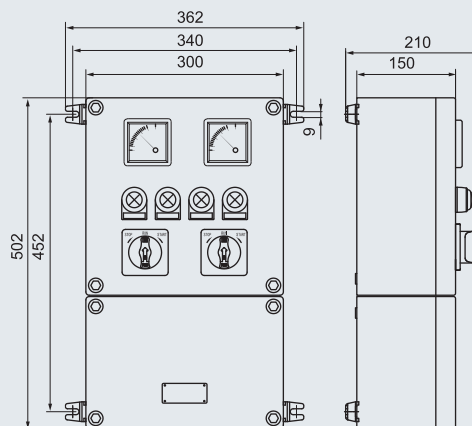
Enclosure IV



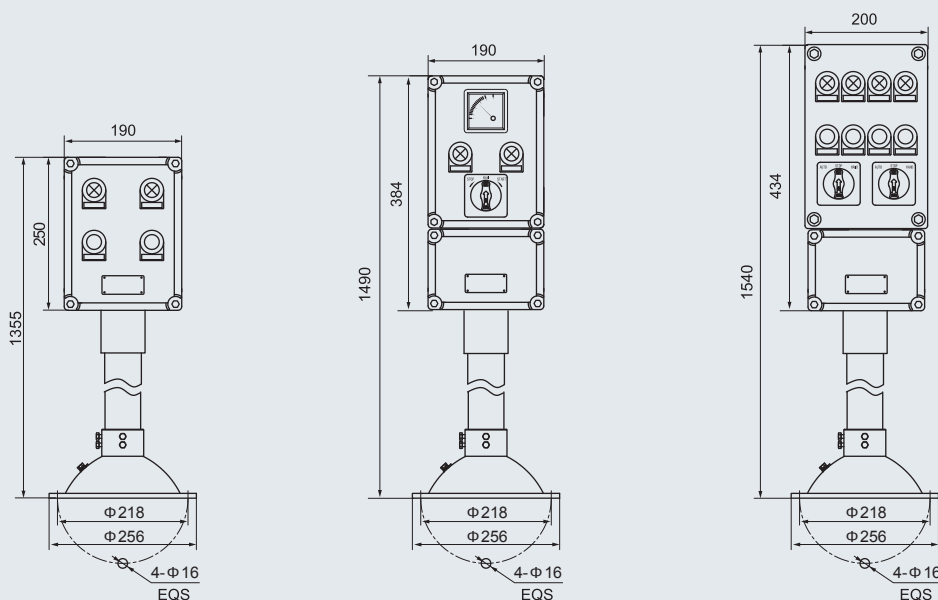
Enclosure V



Enclosure VI



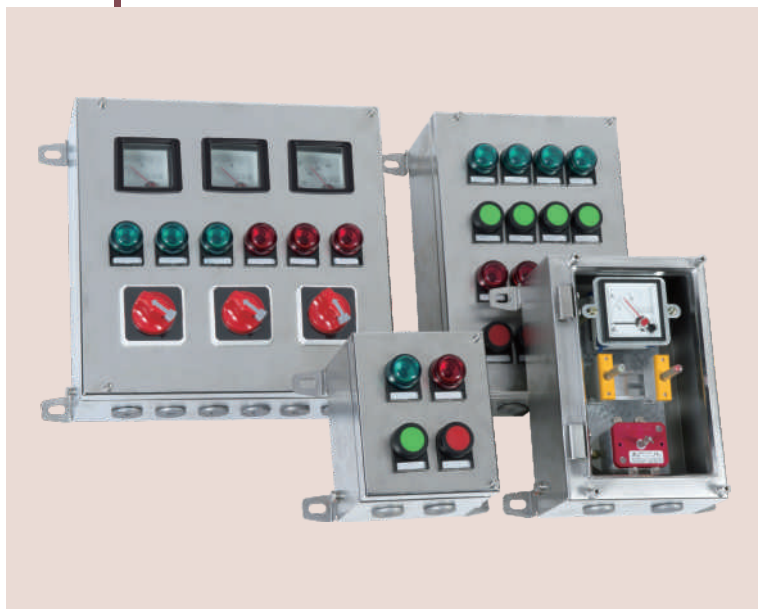
Enclosure VII



Pole type (for enclosure IV, V, VI only)

Control Stations

BZC8050 Series Control Stations (Stainless Steel)



Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

Zone 21 and Zone 22

Class I, Zone 1 and Zone 2

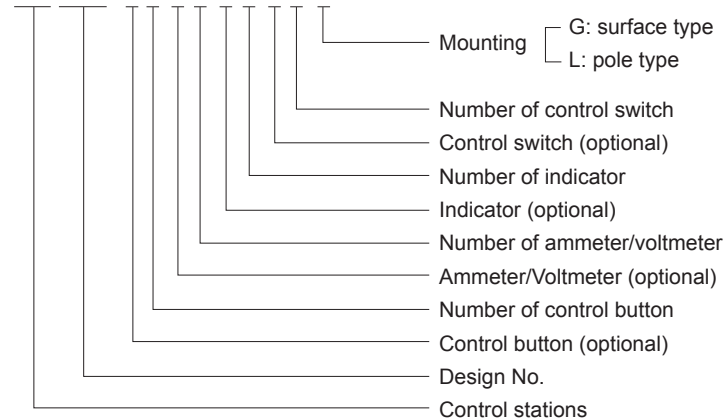
Class I, Division 2, Groups A, B, C, D

Stainless steel enclosure.

Four types of enclosure.

■ Catalogue number logic

BZC 8050 - A □ B □ D □ K □ □



■ Note

1. Please refer to the Selection table on P4/35.
2. Please select internal components as below:
 Selection table of BA8050 control button on P4/38~41 (Nominal contact is 1NO+1NC);
 Selection table of BD8050 indicator on P4/42~44;
 Selection table of BK8050 control switch on P4/45~50;
 Selection table of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;
3. Example: BZC8050-A2D2G
 Components: Two control buttons, two indicators; surface type
 Tech. Details: One control start button (40092B + 40090-1+40091-1, green, 1NO+1NC);
 One control stop button (40092A+ 40090-1+40091-1, red, 1NO+1NC);
 One indicator (40116+40100-2, green, 230V AC);
 One indicator (40115+40099-2, red, 230V AC);
4. Special requirements on request.

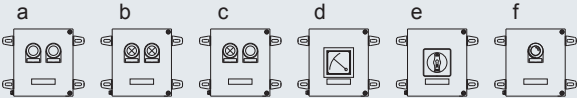
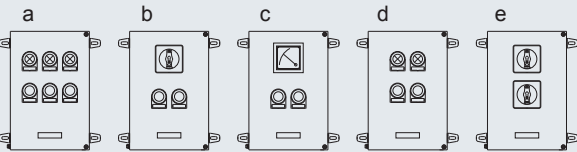
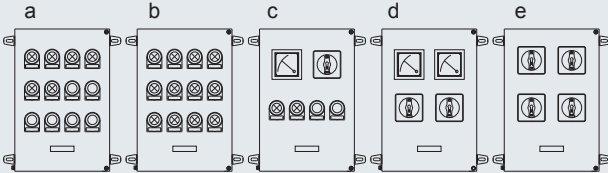
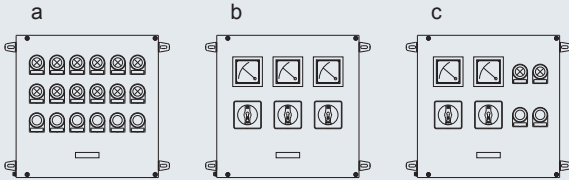
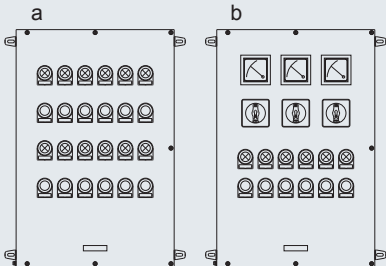


Zones 1&2; 21&22

Control Stations

BZC8050 Series Control Stations (Stainless Steel)

Selection table of control station BZC8050 (stainless steel)

Enclosure type	Components arrangement	Cable entries and direction	Ordering code	Enclosure weight (kg)
I		2-M25 x 1.5 Bottom entry	40086.....	2.80
II		1-M32 x 1.5 or 2-M25 x 1.5 Bottom entry	40087.....	4.50
III		1-M40 x 1.5 or 2-M32 x 1.5 or 4-M25 x 1.5 Bottom entry	40088.....	6.75
IV		1-M40 x 1.5 or 2-M32 x 1.5 or 6-M25 x 1.5 Bottom entry	40089.....	10.25
V		1-M50 x 1.5 or 2-M40 x 1.5 or 6-M32 x 1.5 Bottom entry	40090.....	16.50



Control Stations

BZC8050 Series Control Stations (Stainless Steel)

Technical data

Control stations BZC8050 (stainless steel)

Explosion protection

Gas explosion protection

Ex II 2 G Ex d e IIC T6 Gb

Dust explosion protection

Ex II 2 D Ex tb IIIC T80 Db IP65

Certificates

LCIE 09 ATEX 3099; IECEx CQM 11. 0029

Conformity to standards

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31

Enclosure material

Stainless steel

Enclosure colour

Metal colour

Exposed fastener

Stainless steel

Rated voltage

Max. 415V AC

Rated current

Main circuit current: 6A (for BZC8050-A2D2, BZC8050-A2B1)

16A (for BZC8050-K1)

10A (for others)

Degree of protection

IP65

Internal&external earthing

M6/M6

Ambient temperature

-20 ~+55

Components

1. Technical data of BA8050 control button on P4/38~41;

2. Technical data of BD8050 indicator on P4/42~44;

3. Technical data of BK8050 control switch on P4/45~50;

4. Technical data of BB8050 explosion-proof ammeter/voltmeter on P4/51~53;

Cable entries

M□ x 1.5 plug, please see the Selection table on P4/35

Cable gland (optional)

DQM-I (Ex e) is recommended. Please see P7/17~19

Mounting

Surface type

Pole type (for enclosure I,II, III only)

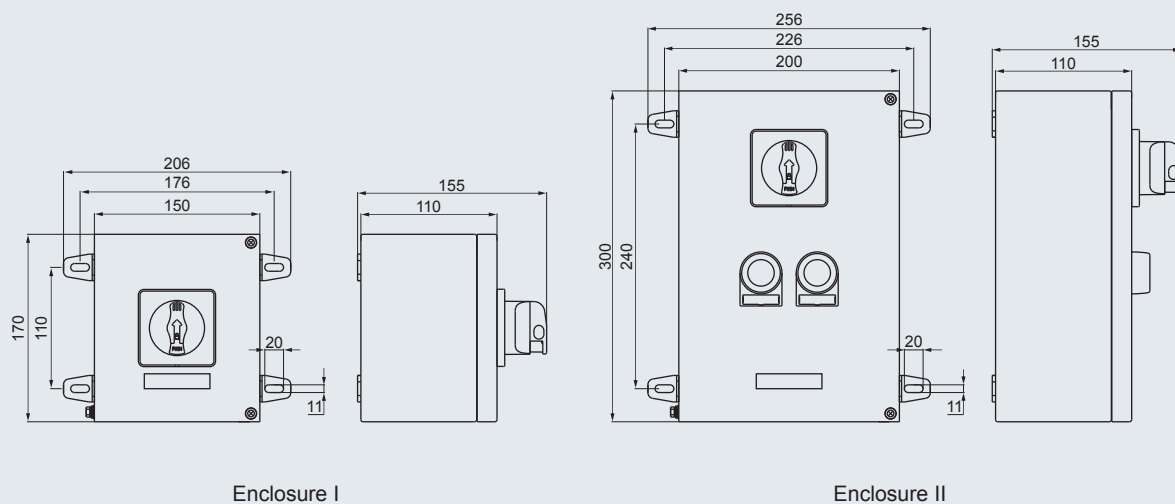
Note

1. Please specify the number and size of entries (applicable for surface type only);

2. For pole type, only G1" entry is applicable;



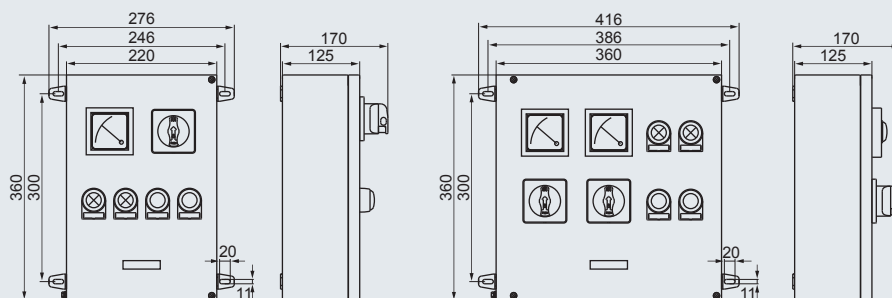
Dimension drawings (all dimensions in mm) - subject to alteration



Control Stations

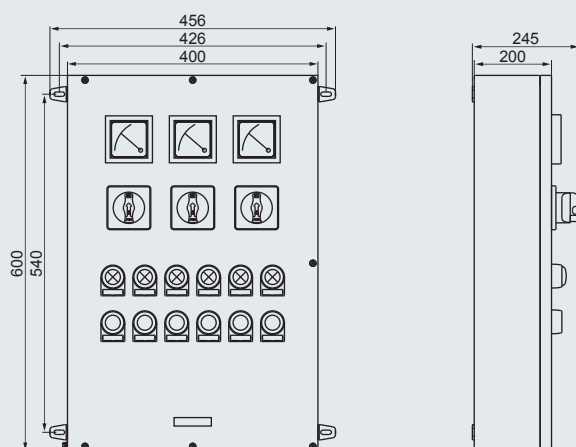
BZC8050 Series Control Stations (Stainless Steel)

Dimension drawings (all dimensions in mm) - subject to alteration

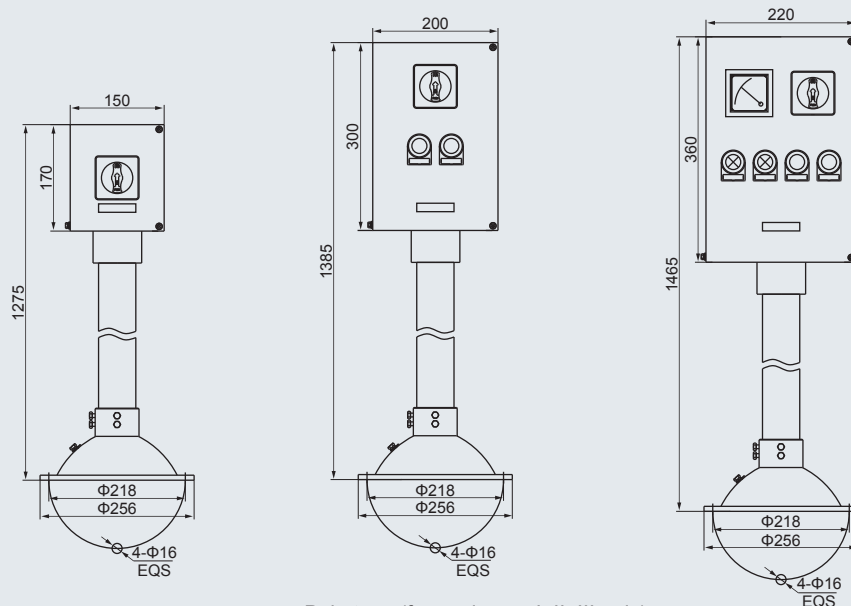


Enclosure III

Enclosure IV



Enclosure V



Pole type (for enclosure I, II, III only)



Components for BZC8050 Control Stations

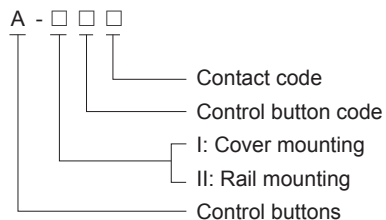
BA8050 Series Control Buttons



- ◆ Explosion protection to
 - CENELEC
 - IEC
 - NEC
- ◆ Can be used in
 - Zone 1 and Zone 2
 - Zone 21 and Zone 22
 - Class I, Zone 1 and Zone 2
 - Class I, Division 2, Groups A, B, C, D
- ◆ 2 versions of component
 - 1 NO
 - 1 NC
- ◆ Six different ways of operation
 - Spring-return control button
 - Mushroom stay-put emergency control button
 - Key-operated control button
 - Rotary control button
 - Double control button
 - Mushroom turn-to-release emergency control button
- ◆ Mushroom stay-put emergency pushbutton/ mushroom turn-to-release emergency pushbutton can be equipped with protection cover, please specify when ordering. Material of protection cover: stainless steel and PC, please specify when ordering.

■ Catalogue number logic

BA8050(A for short)

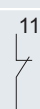
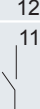


Zones 1&2; 21&22

Components for BZC8050 Control Stations

BA8050 Series Control Buttons

Selection table

Version	Description	Contact code	Ordering code	Weight (kg)
 a: Cover mounting	 1NC	R	40090-1	0.06
	 1NO	S	40090-2	0.06
 b: Rail mounting	 1NC	R	40091-1	0.05
	 1NO	S	40091-2	0.05

The last number of ordering code: 1 - cover mounting; 2 - rail mounting

Selection table

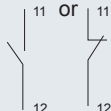
Version	Description		Code	Ordering code	Weight (kg)
	Spring-return control button	 Red	a	40092A	0.05
		 Green	b	40092B	
		 Yellow	c	40092C	
	Mushroom stay-put emergency control button	Red	d	40093	0.05
	Key-operated control button	Black	e	40094	0.05
	Rotary control button	Red	f	40095	0.05
	Mushroom turn-to-release emergency control button	Red	g	40096	0.05
	Double control button	Red/Green	h	40097	0.05
	Pushbutton with indicator	 Red	i	40098A	0.05
		 Green	j	40098B	
		 Yellow	k	40098C	

Components for BZC8050 Control Stations

BA8050 Series Control Buttons

Technical data

Control buttons BA8050

Explosion protection	II 2 G Ex d e IIC Gb																	
Certificates	LCIE 07 ATEX 0006U; IECEX LCI 08.0013U; KZ.7500525.22.01.00374 (CU-TR)																	
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7																	
Enclosure material	Polyamide (PA66)																	
Rated voltage	Max. 415V AC																	
Rated current	6A																	
Contact type																		
Switch capacity	<table><tr><td>AC 11, cosj=0.7</td><td>230V-4A</td><td>415V-2.5A</td></tr><tr><td>DC1 L/R=1ms</td><td>60V-4A</td><td>110V-2.5A</td></tr><tr><td>DC11 L/R=15ms</td><td>60V-6A</td><td>110V-2.5A</td></tr><tr><td>L/R=30ms</td><td>4A</td><td>1.6A</td></tr><tr><td>L/R=100ms</td><td>2.5A</td><td>1.0A</td></tr></table>			AC 11, cosj=0.7	230V-4A	415V-2.5A	DC1 L/R=1ms	60V-4A	110V-2.5A	DC11 L/R=15ms	60V-6A	110V-2.5A	L/R=30ms	4A	1.6A	L/R=100ms	2.5A	1.0A
AC 11, cosj=0.7	230V-4A	415V-2.5A																
DC1 L/R=1ms	60V-4A	110V-2.5A																
DC11 L/R=15ms	60V-6A	110V-2.5A																
L/R=30ms	4A	1.6A																
L/R=100ms	2.5A	1.0A																
Mechanical life	10 ⁶ times																	
Electrical life	10 ⁶ times																	
Ambient temperature	-20 ~+70																	
Terminal	Suitable for 2.5mm ² cable																	
Button element																		
Material	Polyamide (PA66)																	
Washer	Silicon rubber																	
Function																		
Spring-return control button	Spring-return control button																	
Mushroom stay-put emergency control button	Self-latching when pulled, self-locking																	
Key-operated control button	Rotate to lock; release with key, key movable in both ways																	
Rotary control button	Two-position switch function, key movable in 90°																	
Double control button	Spring-return control button, 1 control button element has the function of 2 control buttons																	
Mushroom turn-to-release emergency control button	Rotary resetting control button; self-locking																	



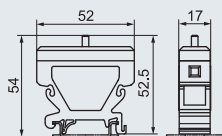
Accessories

Description	Material	Ordering code	Weight (kg)	Description	Material	Ordering code	Weight (kg)
Cover mounting bracket 	PC	40098	0.01	Emergency pushbutton protection cover 	PC	40198	0.02
Rail 	aluminium alloy (1m)	40120	0.12	Emergency pushbutton protection cover 	Stainless steel	40199	0.10

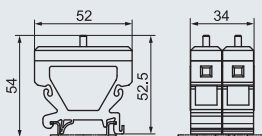
Components for BZC8050 Control Stations

BA8050 Series Control Buttons

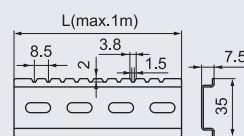
Dimension drawings (all dimensions in mm) - subject to alteration



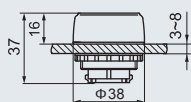
Control button, single (rail mounting)



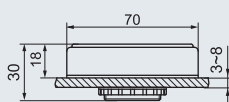
Control button, double (rail mounting)



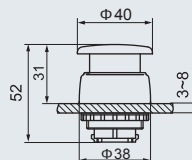
Rail



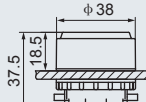
Spring-return control button



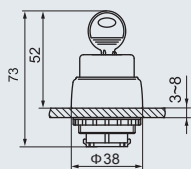
Double control button



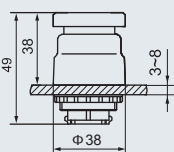
Mushroom stay-put emergency control button



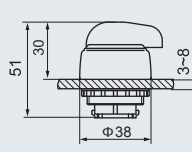
Pushbutton with indicator



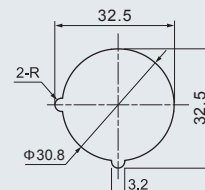
Key-operated control button



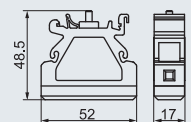
Mushroom turn-to-release emergency control button



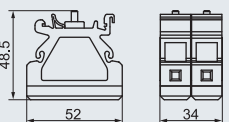
Rotary control button



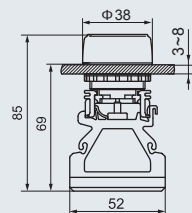
Mounting hole



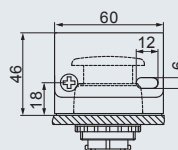
Control button, single (cover mounting)



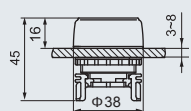
Control button, double (cover mounting)



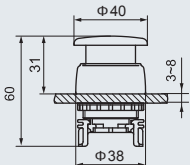
Control button cover mounting



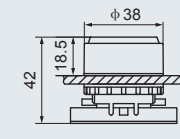
BA8050
Emergency pushbutton with
stainless steel protection cover



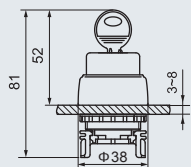
Operation for spring-return control button



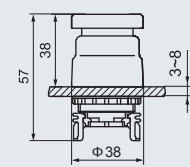
Mushroom stay-put emergency control button



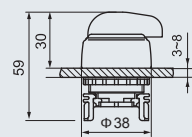
Pushbutton with indicator



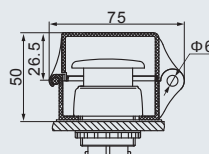
Key-operated control button



Mushroom turn-to-release emergency control button



Rotary control button



BA8050
Emergency pushbutton with
PC protection cover

Components for BZC8050 Control Stations

BD8050 Series Indicators



Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

Zone 21 and Zone 22

Class I, Zone 1 and Zone 2

Class I, Division 2, Groups A, B, C, D

Available in

-red

-green

-yellow

-blue

-white

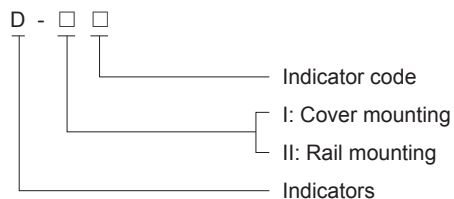
Two mounting types

-cover mounting

-rail mounting

■ Catalogue number logic

BD8050(D for short)



Zones 1&2; 21&22

Components for BZC8050 Control Stations

BD8050 Series Indicators

Selection table

Version	Voltage	Schematic diagram	Colour	Code	Ordering code	Weight (kg)
Indicator  a: Cover mounting  b: Rail mounting	Rated voltage: AC 230V...AC 415V Voltage range: -10%...+6% Frequency: 0Hz...60Hz		Red	Ra	40099A/40099B	0.05
			Green	Ga	40100A/40100B	
			Yellow	Ya	40101A/40101B	
			Blue	Ba	40166A/40166B	
			White	Wa	40102A/40102B	
	Rated voltage: AC/DC 48V...110V Voltage range: -10%...+6% Frequency: 0Hz...60Hz		Red	Rb	40103A/40103B	0.05
			Green	Gb	40104A/40104B	
			Yellow	Yb	40105A/40105B	
			Blue	Bb	40167A/40167B	
			White	Wb	40106A/40106B	
	Rated voltage: AC/DC 12V...36V Voltage range: -10%...+6% Frequency: 0Hz...60Hz		Red	Rc	40107A/40107B	0.05
			Green	Gc	40108A/40108B	
			Yellow	Yc	40109A/40109B	
			Blue	Bc	40168A/40168B	
			White	Wc	40110A/40110B	
	Rated voltage: DC 220V, 380V Voltage range: -10%...+6%		Red	Rd	40111A/40111B	0.05
			Green	Gd	40112A/40113B	
			Yellow	Yd	40113A/40113B	
			Blue	Bd	40169A/40169B	
			White	Wd	40114A/40114B	
Indicator cover  I: Cover mounting			Red	a	40115A	0.05
			Green	b	40116A	
			Yellow	c	40117A	
			White	d	40118A	
			Blue	e	40170A	
Indicator cover  II: Rail mounting			Red	a	40115B	0.05
			Green	b	40116B	
			Yellow	c	40117B	
			White	d	40118B	
			Blue	e	40170B	



The last letter of ordering code: A-cover mounting; B-rail mounting.

Components for BZC8050 Control Stations

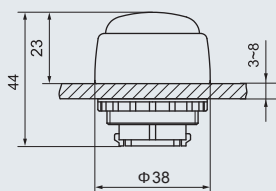
BD8050 Series Indicators

Technical data

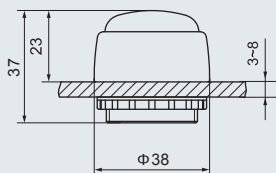
Indicators BD8050

Explosion protection	Ex II 2 G Ex d e IIC Gb
Certificates	LCIE 09 ATEX 3098U; IECEx CQM 11.0012U; KZ.7500525.22.01.00374 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Rated voltage	12V...415V AC/DC (-10%...+6%)
Rated current	Max.15mA
Frequency	0Hz...60Hz
Rated output wattage	Max.1W
Service life	10 ⁵ hours
Ambient temperature	-20 ~+70
Colour	Red, green, yellow, blue, white
Lamp	LED
Enclosure material	Polyamide (PA66)
Terminal	Suitable for 2.5mm ² cable
Indicator cover material	PC

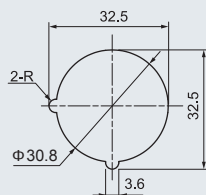
Dimension drawings (all dimensions in mm) - subject to alteration



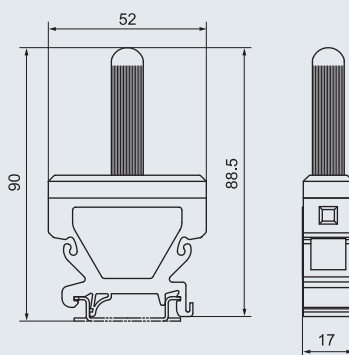
I: Cover mounting



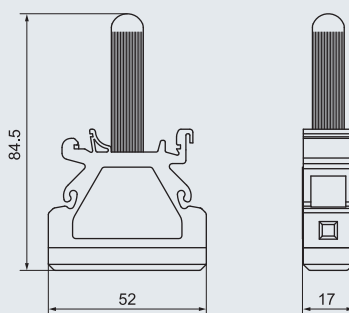
II: Rail mounting
Indicator cover



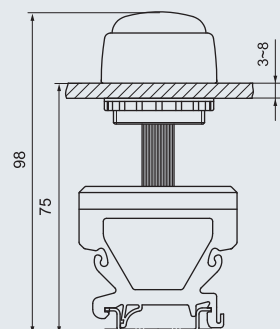
Mounting hole



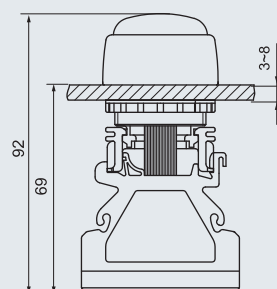
Indicator
(rail mounting)



Indicator
(cover mounting)



Rail mounting



Cover mounting

Components for BZC8050 Control Stations

BK8050 Series Control Switches

Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

Zone 21 and Zone 22

Class I, Zone 1 and Zone 2

Class I, Division 2, Groups A, B, C, D

Number of pole: 2P, 3P, 4P, 6P.

Available in latching and spring-return forms.



■ Catalogue number logic

BK8050(K for short)

K - □

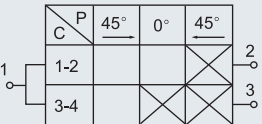
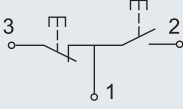
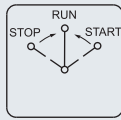
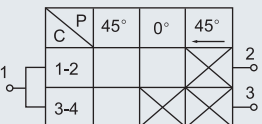
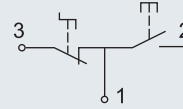
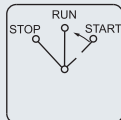
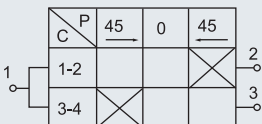
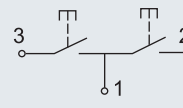
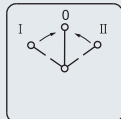
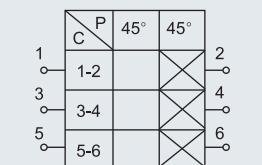
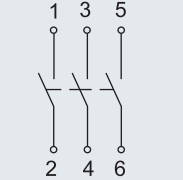
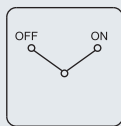
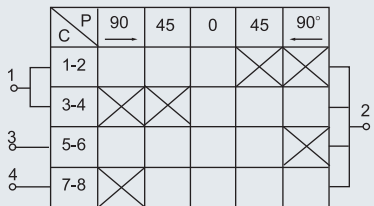
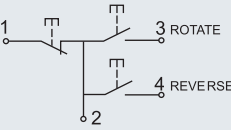
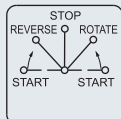
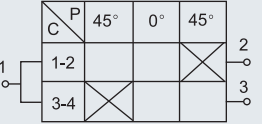
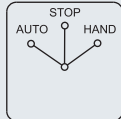
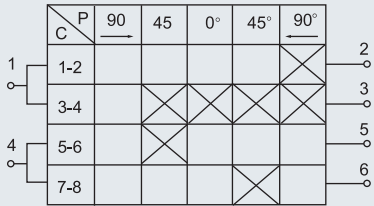
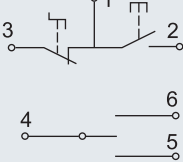
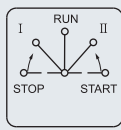
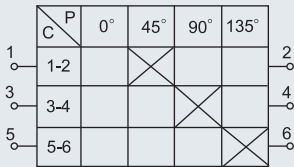
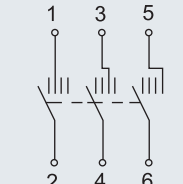
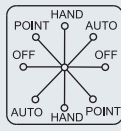


Zones 1&2; 21&22

Components for BZC8050 Control Stations

BK8050 Series Control Switches

Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
a				a. Functional wiring is the same as double buttons with auto-reset function.
b				B. Functional wiring is the same as double buttons; auto-reset after start; lock-stop gear added to avoid mistake operation.
c				c. Button with 2 NO contacts and available at auto-reset function. Suitable for high-voltage engine control circuit or function panel uses switch code "a".
d				d. Low-power switch.
e				e. Function is the same as three buttons; able to control engine in forward and backward rotation. FW&BW starting positions can auto-reset.
f				f. Selection switch with stop gear.
g				g. Be equal to mounting two buttons and one changeover switch in one axis. Possible to output contact signal or monitoring signal between start and stop.
h				h. Multi-signals transmit gradually.

Components for BZC8050 Control Stations

BK8050 Series Control Switches

Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
i				I. Add function of transmitting resultant signal on the base of function panel uses switch code "h" .
j				j. Two positions step; change-over gradually.
k				k. Changeover switch.
i				I. Selection switch with three poles and two launches.
m				m. Three-position changeover switch among auto, manual and start; auto-reset after start; it can convert to auto gear only after passing stop gear.
n				n. Structure is a little different to universal structure of switch code "m" ; it directly rotates to auto gear without passing stop gear after starts.

Components for BZC8050 Control Stations

BK8050 Series Control Switches

Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
o				O. Double contacts auto reset for start, with lock-stop gear; lock switch at stop gear to prevent mistake operation.
p				p. Double contacts for stop, to substitute switch code "a" and "c" for start and stop; auto-reset.
q				q. Stop with double contacts, with lock stop gear; auto-reset after start; possible to add lock-stop gear to lock switch at stop to prevent mistake operation.
r				r. Double contacts for both start and stop; it is same as universal panel of switch code "a", with auto-reset for start and stop.
s				s. Transmit a contact signal before start and stop.
t				t. With lock-stop gear for start and stop to prevent mistake operation; without auto-reset.
u				u. Double-control selection switch.
v				v. Changeover switch for voltage phase-changing and measuring.

Components for BZC8050 Control Stations

BK8050 Series Control Switches

Selection table of control switches

Control switch code	Chart of contact	Equivalent switch	Position (solid line: location; dash line: spring return)	Instruction for equivalent function
W				w. One 2NO auto-reset pushbutton, both left and right are the same.
X				x. Two 2NO auto-reset buttons.

Technical data

Control switches BK8050

Explosion protection	Ex II 2 G Ex d e IIC Gb
Certificates	LCIE 09 ATEX 3096U; IECEx CQM 11.0011U; KZ.7500525.22.01.00374 (CU-TR)
Conformity to standards	EN 60079-0, EN 60079-1, EN 60079-7 IEC 60079-0, IEC 60079-1, IEC 60079-7
Enclosure material	Plastic
Rated voltage	Max. 415V AC
Rated current	16A
Switch angle	n x 45°/n x 90°
Service life	10 ⁵ times
Ambient temperature	-20 ~ +70
Cable connection	2.5mm ²
Material of rotary actuator	Polycarbonate (PC)
Panel material	Acrylonitrile-butadiene-styrene (ABS)
Seal material	Nitrile butadiene rubber (NBR)



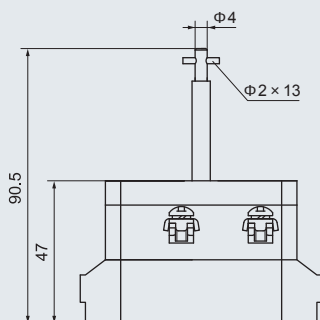
Accessories

Description	Illustration	Ordering code	Weight (kg)
Rotary actuator (padlockable)		40119	0.05

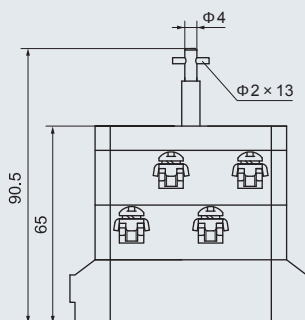
Components for BZC8050 Control Stations

BK8050 Series Control Switches

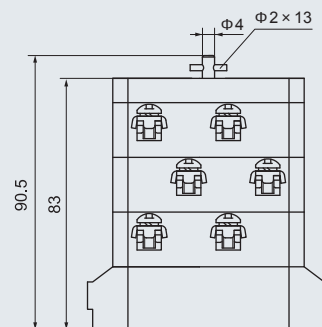
Dimension drawings (all dimensions in mm) - subject to alteration



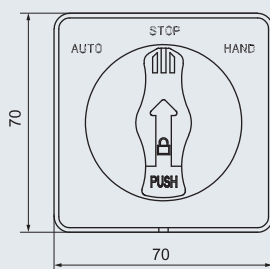
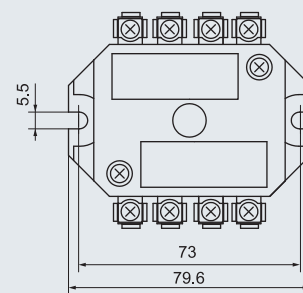
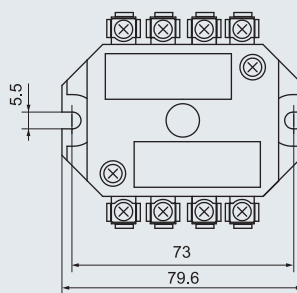
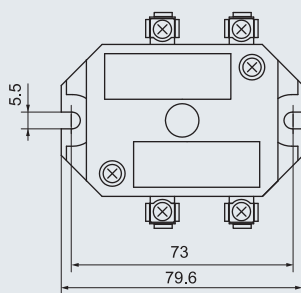
Control switch 2 poles



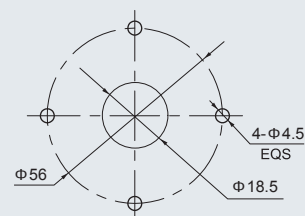
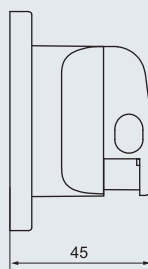
Control switch 3 or 4 poles



Control switch 6 poles



Rotary actuator



Mounting hole

Components for BZC8050 Control Stations

BB8050 Series Explosion-proof Ammeters/Voltmeters

Explosion protection to

-CENELEC

-IEC

-NEC

Can be used in

Zone 1 and Zone 2

Zone 21 and Zone 22

Class I, Zone 1 and Zone 2

Class I, Division 2, Groups A, B, C, D

Fast comparison of measured with set values

Versions available

-Ammeter (type 72)

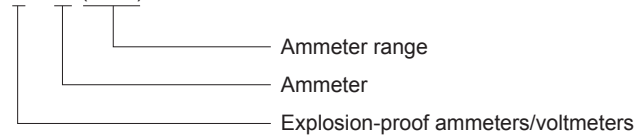
-Voltmeter (type 72)



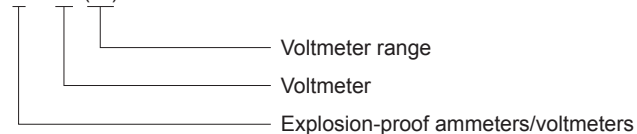
■ Catalogue number logic

BB8050(B for short)

B - A (□/□)



B - V (□)



Zones 1&2; 21&22

Components for BZC8050 Control Stations

BB8050 Series Explosion-proof Ammeters/Voltmeters

Selection table

Version	Description	Overload scale	Measuring range	Ordering code	Weight (kg)
Ammeter BB8050-A(□/□) 	Direct measuring	2 times	0~20/40 mA	40121	0.20
			4~20/40 mA	40122	
	Direct measuring	2 times	0~1 A	40123	
			0~5 A	40124	
	For CT (current transformer)	2 times or 6 times	sek. 1 A	40125	
			sek. 5 A	40126	

Selection table

Version	Description	Measuring range	Ordering code	Weight (kg)
Voltmeter BB8050-V(□) 	Direct measuring	0~10 V	40127	0.20
		0~25 V	40128	
		0~40 V	40129	
		0~60 V	40130	
		0~100 V	40131	
		0~150 V	40132	
		0~250 V	40133	
		0~300 V	40134	
		0~450 V	40135	
		0~500 V	40136	
		0~600 V	40137	
	For PT (potential transformer)	sek. 100 V	40138	
		sek. 110 V	40139	
		sek. 120 V	40140	

Components for BZC8050 Control Stations

BB8050 Series Explosion-proof Ammeters/Voltmeters

Technical data		
Explosion-proof ammeters/voltmeters BB8050		
Explosion protection	Ammeter Ex II 2 G Ex e IIC Gb	Voltmeter Ex II 2 G Ex e IIC Gb
Certificates	DNV 11 ATEX 92527U; IECEx CQM 11.0031U	DNV 11 ATEX 92527U; IECEx CQM 11.0031U
Conformity to standards	EN 60079-0, EN 60079-7 IEC 60079-0, IEC 60079-7	EN 60079-0, EN 60079-7 IEC 60079-0, IEC 60079-7
Enclosure material	Flame retardant plastic	Flame retardant plastic
Insulation voltage	690V AC	690V AC
Frequency	50/60Hz DC available	50/60Hz DC available
Working mode	Electromagnetic type (moving iron)	Electromagnetic type (moving iron)
Accuracy	Class 1.5	Class 1.5
Overload times	6 times	
Ambient temperature	-20°C~+80°C	-20°C~+80°C
Cable connection	2.5mm ²	2.5mm ²
Size	72x72mm	72x72mm

Dimension drawings (all dimensions in mm) - subject to alteration

