





# BZC5310Series

## Explosion-proof operating column

## Scope of application

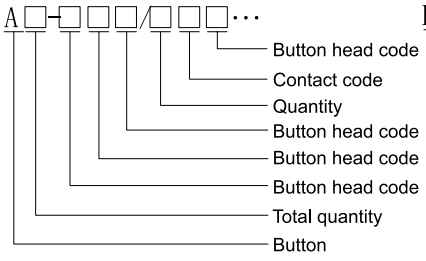
- Widely used in flammable and explosive gas environments such as oil mining, oil refining, chemical industry, offshore oil platform tankers, and also in combustible dust places such as military industry and metal processing;
- Applicable to explosive gas environment Zone 1 and Zone 2 places;
- Applicable to explosive gas environments of Class ⅡA, ⅡB, and ⅡC;
- Applicable to combustible dust environment Zone 21 and Zone 22 places;
- Applicable to temperature groups T1~T6.

## Catalogue number logic

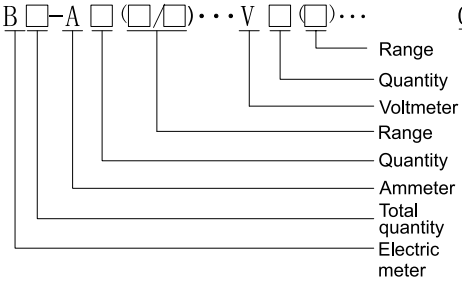
BZC 5310-A□ B□ C□ D□ K□ P□ □ □

- □ (last): No requirement, no note; F1, medium corrosion protection Wf1; F2, strong corrosion protection Wf2
- □: installation form — G: hanging type; L: vertical type
- P□: Unit 6: Potentiometer specification code — potentiometer quantity (no note if not installed)
- K□: Unit 5: Switch specification code — switches quantity (no note if not installed)
- D□: Unit 4: Indicator specification code — indicator quantity (no note if not installed)
- C□: Unit 3: Illuminated button specification code — illuminated button quantity (no note if not installed)
- B□: Unit 2: Electric meter specification code — electric meter quantity (no note if not installed)
- A□: Unit 1: Button specification code — button quantity (no note if not installed)
- 5310: Design serial number
- BZC: explosion-proof operating column

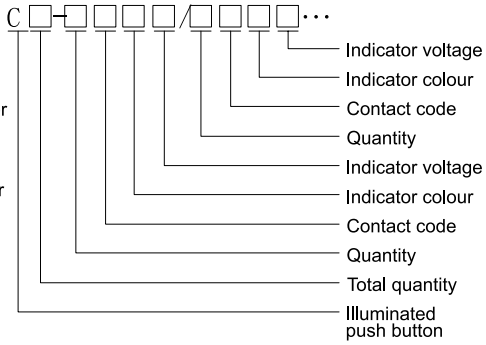
### Unit 1



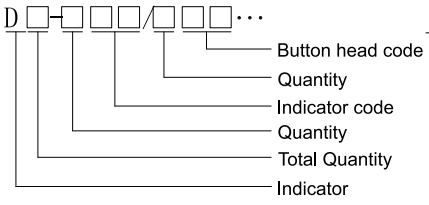

### Unit 2



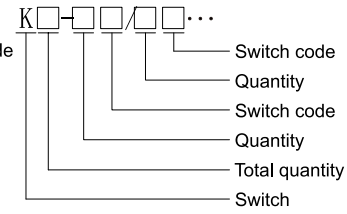

### Unit 3



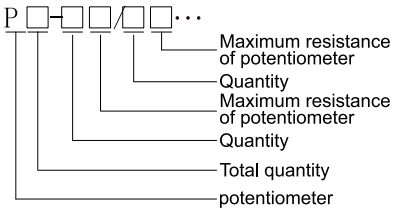

### Unit 4




### Unit 5




### Unit 6




## Product Features

- The shell is made of aluminum alloy die-casting, and the surface is sprayed with high-voltage electrostatic plastic;
- The shell and upper cover adopt a curved sealing structure, and the sealing ring is made of high-temperature resistant and anti-aging silicone rubber, which has strong waterproof and dustproof performance;
- The increased safety shell is equipped with explosion-proof components (universal control switch, control button, indicator light, potentiometer, electric meter, etc.);
- The explosion-proof components adopt a top-mounted structure, which is easy to install, with modular design of functional areas and strong component interchangeability;
- The shell and cover are installed with stainless steel hinges for easy installation and maintenance;
- Stainless steel exposed fasteners and anti-drop structure are easy to install and maintain;
- Two installation methods, vertical and hanging, meet the needs of different scenarios.

## Technical data

| | |
|---|---|
| Standard: | GB/T 3836.1、GB/T 3836.2、GB/T 3836.3、GB/T 3836.31、IEC 60079-0、IEC 60079-1、IEC 60079-7、IEC 60079-31、EN 60079-0、EN 60079-1、EN 60079-7、EN 60079-31 |
| Ex marking: | Ex db eb ⅡC T6 Gb/Ex tb ⅢC T80℃ Db |
| Rated voltage: | AC 220/380V、AC 230/400V、DC 220V |
| Rated current: | 10A |
| Degree of protection: | IP66 |
| Anti-corrosive degree: | WF1*WF2 |
| Ambient temperature: | -40℃~+55℃ |
| Applicable categories: | AC-15、DC-13 |
| Internal components: | explosion-proof buttons, explosion-proof electric meters, explosion-proof indicator lights, explosion-proof conversion switches, explosion-proof potentiometers, etc. |
| Cable entry thread: | Inlet and outlet thread: vertical type uses special vertical through-head, G1" inlet specification, please indicate if you have special requirementsHanging type uses DQM-VII series cable clamping and sealing joint, G1" inlet specification, please indicate if you have special requirements |
| Applicable cable outer diameter: | Applicable to 13mm~17mm cable |
| Installation method: | hanging, vertical |
| Wiring method: | cable wiring (please specify steel pipe wiring) |

## Ordering Instructions

- When selecting, please indicate the quantity, specifications, installation method, inlet and outlet direction of buttons, meters, indicators, switches, etc. according to the meaning of the main unit and sub-unit, and specify the model of the required product in detail;
- In the main unit, indicate the quantity, installation method, inlet method, specifications and quantity of the required buttons, meters, indicators, switches;
- In the sub-unit, indicate the quantity and specifications of the buttons, meters, indicators, switches;
- If there are no special requirements, our company's red buttons are equipped with a group of normally closed contacts, and green or yellow buttons are equipped with a group of normally open contacts; the indicator voltage level is AC220~380V, red represents stop, and green represents operation; if there are different requirements, please provide a schematic diagram;
- After the main unit and sub-unit are selected, they are combined together to form a complete selection code;

For example, the order code is: BZC5310-A2B1D2G WF2；

A2-1 Ⅰa1/1 Ⅱ a2

B1-A1(100/5)

D2-1Rd/1Gd

This product is a two-button, one-meter, two-light hanging type, with two standard buttons, one red, one normally closed; one green, one normally open. The ammeter range is 100/5, and the indicator lights are 220V~380V, with one red color and one green color;

BZC5310-B1C2K1L WF2；

B1-A1 (100/5)

C2-1 IRd/1 Ⅱ Gd

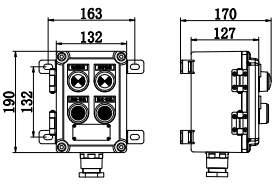
K1-1A

This product is: one meter, with two lighted buttons, and one switch, the ammeter range is 100/5,and the specifications of the two lighted buttons are one normally closed and one light,one normally open and one light. The indicator lights are 220V~380v with one red color and one green color, and the switch is A universal.

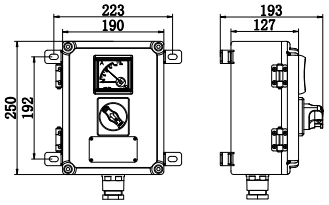
- Lighted button can only be one button, one light core;
- For internal explosion-proof accessories, please refer to the accessories details page. If the switch needs to be customized, please provide an electrical schematic or contact diagram;
- The conventional configuration of the hanging inlet thread is G thread DQM-I explosion-proof cable clamping and sealing joint. If other types are required, please refer to our company's relevant product selection manual;
- Default cable wiring (please specify steel pipe wiring).

## Dimension and installation (e、ia、IIC)

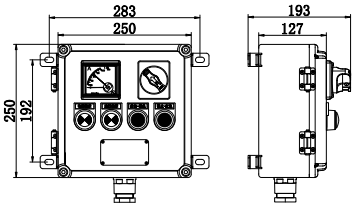
### Hanging type



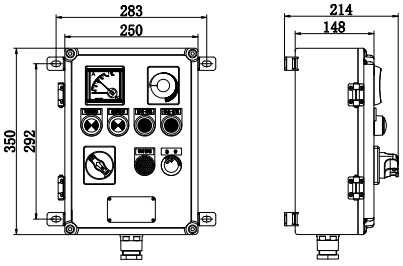

Ⅰ Type




Ⅱ Type

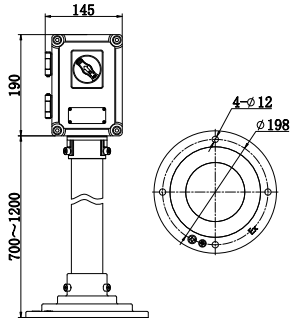



Ⅲ Type




Ⅳ Type

### Vertical type

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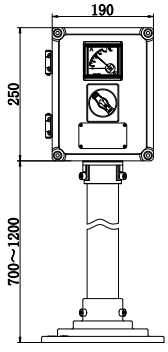
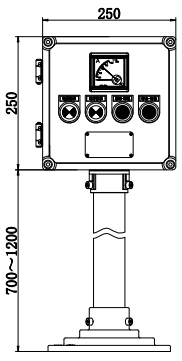
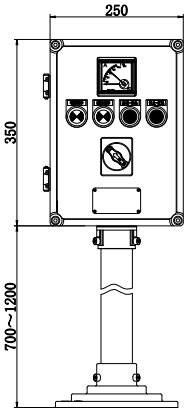



Ⅱ Type

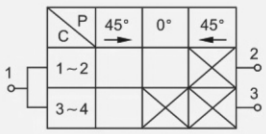
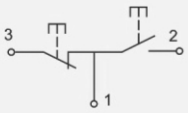
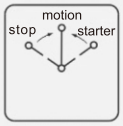
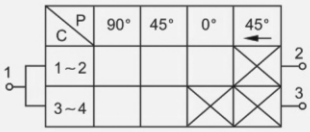
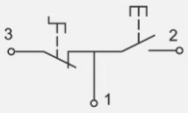
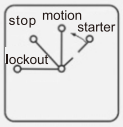
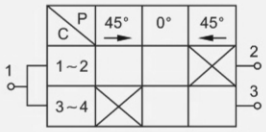
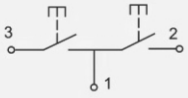
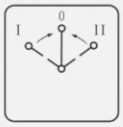
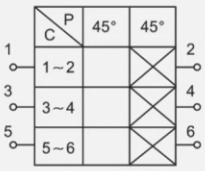
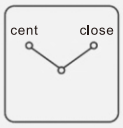
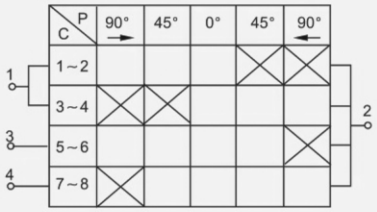
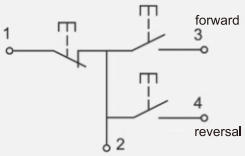
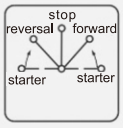
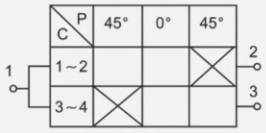
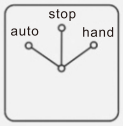
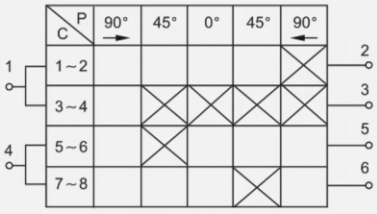
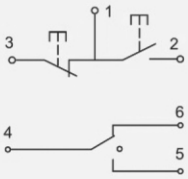
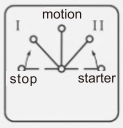
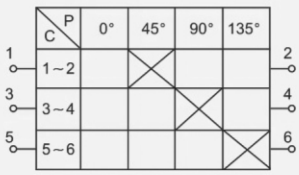
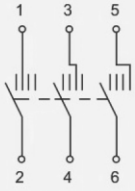



Ⅲ Type

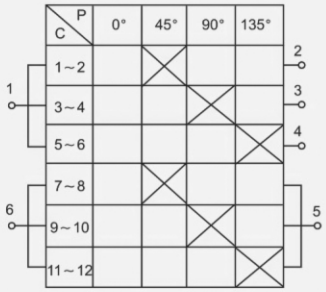
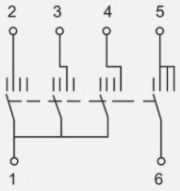
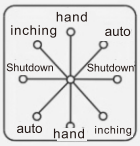
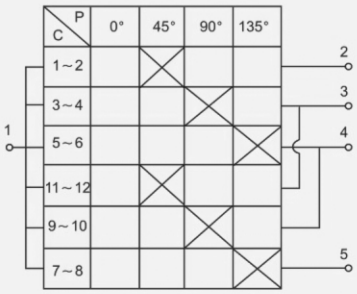
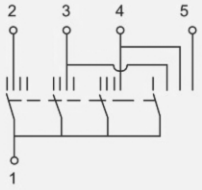
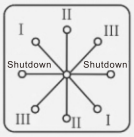
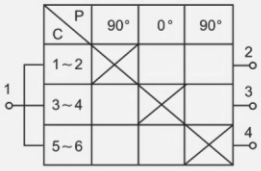
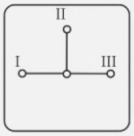
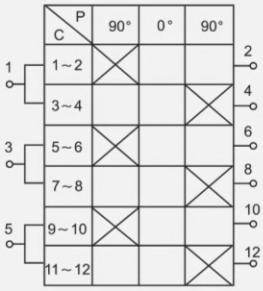
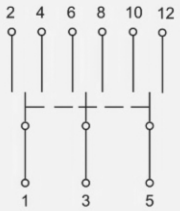
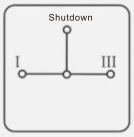
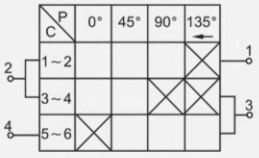
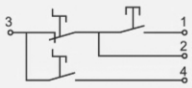
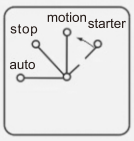
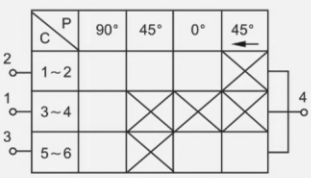
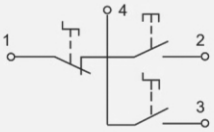
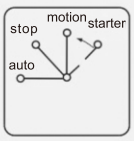



Ⅳ Type

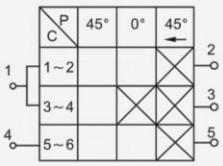
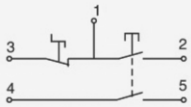
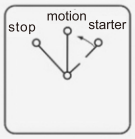
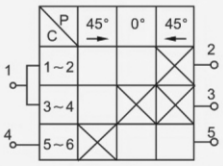
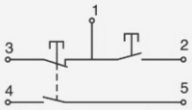
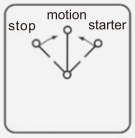
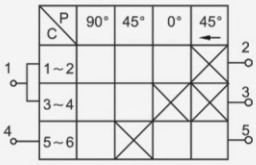
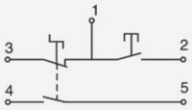
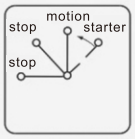
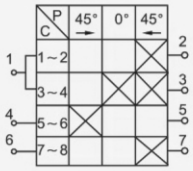
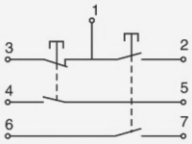
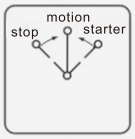
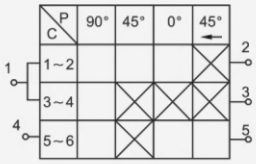
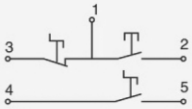
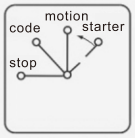
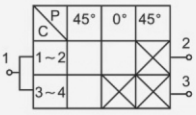
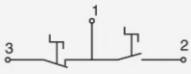
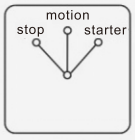
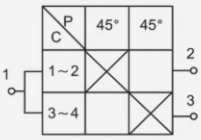
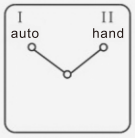
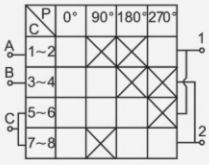
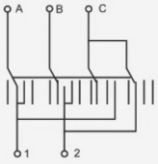
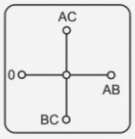
## Switch code brief description

| Switch combi symbol | contact graph | Equivalent switch | Knob position (Solid line indicates positioning, dotted line indicates self-reset) | Equivalent function description |
|---|---|---|---|---|
| A |  |  |  | A. Function wiring is the same as double control button, automatic reset. |
| B |  |  |  | B. Function is the same as double button, automatic reset at start, can be equipped with locking device, lock the switch in stop gear to avoid misoperation. |
| C |  |  |  | C. Function is 2 buttons with normally open contacts, automatic reset, suitable for high-voltage motor control circuit. Or use A function panel. |
| D |  |  |  | D. Low-power power switch. |
| E |  |  |  | E. Function is the same as three buttons, used to control the forward and reverse rotation of the motor, and the forward and reverse starting positions are automatically reset. |
| F |  |  |  | F. Selector switch, with stop gear in the middle. |
| G |  |  |  | G.equivalent to 2 buttons and a switch installed on one shaft, can output communication signals or monitoring signals before starting and stopping. |
| H |  |  |  | H. multi-signal transmission, arbitrary direction rotation. |

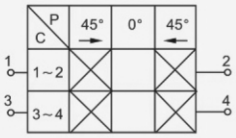
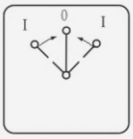
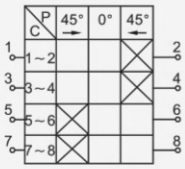
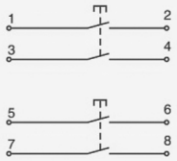
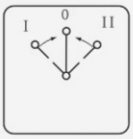
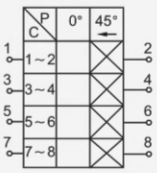
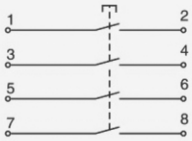
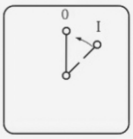
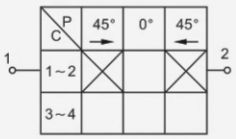
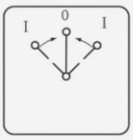
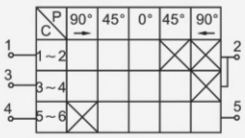
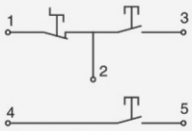
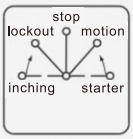
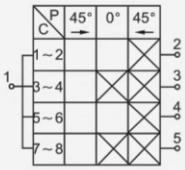
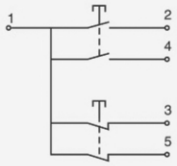
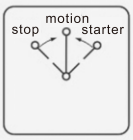
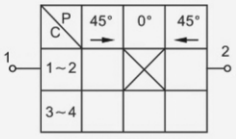
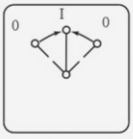
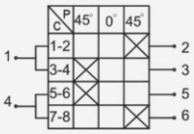
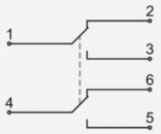
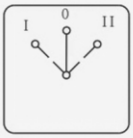
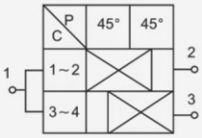
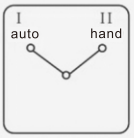
## Switch code brief description

| Switch combi symbol | contact graph | Equivalent switch | Knob position (Solid line indicates positioning, dotted line indicates self-reset) | Equivalent function description |
|---|---|---|---|---|
| I |  |  |  | I. added total signal transmission function on the basis of H. |
| J |  |  |  | J. two-position step-by-step switching. |
| K |  |  |  | K. switch. |
| L |  |  |  | L. three-pole double-throw selection switch. |
| M |  |  |  | M. automatic, manual, start three-position conversion switch, self-reset at start, must pass the stop gear position to turn to the automatic gear position after starting. |
| N |  |  |  | N. slightly different from the M universal structure, directly turn to the automatic gear position without passing the stop gear position after starting. |

## Switch code brief description

| Switch combi symbol | contact graph | Equivalent switch | Knob position (Solid line indicates positioning, dotted line indicates self-reset) | Equivalent function description |
|---|---|---|---|---|
| O |  |  |  | O. Start is double contact, startself-reset. Can be equipped with a locking device to lock the switch in the stop position to avoid misoperation. |
| P |  |  |  | P. Stop is double contact, can replace A and C respectively, start and stop, automatic reset. |
| Q |  |  |  | Q. Stop with double contacts, start self-reset, can be equipped with a locking device, lock the switch in the lock stop position to avoid misoperation. |
| R |  |  |  | R. Start and stop are both equipped with double contacts,start and stop are automatically reset, same as A universal panel. |
| S |  |  |  | S. Send a contact signal before starting and stopping. |
| T |  |  |  | T. Start and stop can be equipped with a locking device to lock the switch in the start or stop position to avoid misoperation, no automatic reset. |
| U |  |  |  | U. double control selection switch |
| V |  |  |  | V. voltage phase change measurement conversion switch |

## Switch code brief description

| Switch combi symbol | contact graph | Equivalent switch | Knob position (Solid line indicates positioning, dotted line indicates self-reset) | Equivalent function description |
|---|---|---|---|---|
| W |  |  |  | W. 1pcs 2 normally open self-reset button, same on left and right. |
| X |  |  |  | X. 2pcs self-reset buttons with 2 normally open contacts. |
| Y |  |  |  | Y. self-reset button with 4 normally open contacts. |
| Z |  |  |  | Z. power program switch, disconnected in the middle, close on both sides, can be used as a fire switch. |
| a |  |  |  | a. used for starting and inching mixed circuits. |
| b |  |  |  | b. double linkage switch. |
| e |  |  |  | e. Emergency stop switch. |
| f |  |  |  | f. 2 normally open 2 normally closed selection switch |
| g |  |  |  | g. Double control selection switch(first on then off) |