

# Control Stations & Switches: Control Stations – Flameproof

## D Series: Aluminum Control Stations



1 Function



2 Functions



2 Functions



3 Functions

### Compliance Data:

ATEX - IEC:

Zone 1 & 2 – 21 & 22	ATEX	II 2 GD	IEC	CE
Ex d IIB / Ex d IIC	T6 to T5	Ex tD A21	T95°C	IP66 – IK10

### Operating Temperature:

-40°C to +55°C				
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# Control Stations & Switches: Control Stations – Flameproof

## D Series: Aluminum Control Stations

Zone 1 & 2 - 21 & 22

Ex II 2 GD

ATEX / IEC

IP66 - IK10

### Applications:

- Local control stations for use in hazardous areas.
- Control of electrical equipment at power plants, chemical and petrochemical plants, petroleum refineries, pulp and paper processing plants and various industrial applications.

### Features:

#### 1 & 2 Function Ex d IIC:

- Supplied with actuators, contact blocks and pilot lights.
- TS35 rail mounted contact blocks.
- Threaded flameproof joint.
- Connection: 2 x 2.5 mm<sup>2</sup> maximum.
- Internal earth: 2 x 4 mm<sup>2</sup>.
- External ground: M5
- 1 x M20 or M25 threaded entry at bottom.
- Cable glands and plugs to be ordered separately.

#### 2 & 3 Function Exd IIB:

- Supplied with actuators and rail mounting pilot lights and contact blocks.
- Flanged flameproof joint.
- Yellow laminated plastic legend plate with black lettering.
- Connection : 2 x 2.5 mm<sup>2</sup> max.
- Internal earth: 2 x 4 mm<sup>2</sup>.
- External earth: M6 screw.
- 2 x M20 threaded entries at the bottom.
- Cable glands and plugs to be ordered separately.

### Standard Material of Fixtures:




- Gray painted marine grade aluminum alloy box.

### Options:

- For other configurations, see pre-drilled control stations or consult factory.

### Ordering Information:

#### 1 Function Ex d IIC Control Stations:

Type	Description/Function	Bottom Entries	Weight (kg)	Volume (dm <sup>3</sup> )	Catalog Number	Old Catalog Number
<b>Spring Return Push Button</b>						
	BR1d 1x black spring return push button with 1NO + 1NC momentary contacts	1 x M20	1	3.75	DA1W1T101	093881
	BR1d 1x black spring return push button with 1NO + 1NC momentary contacts	1 x M25	1	3.75	DA1W3T101	093880
<b>Mushroom Head Push Button</b>						
	BR1d 1x red mushroom head push-pull with 1NO + 1NC maintained contacts Padlockable in both positions	1 x M20	1.2	3.75	DA1W1T102	093887
	BR1d 1x red mushroom head push-pull with 1NO + 1NC maintained contacts Padlockable in both positions	1 x M25	1.2	3.75	DA1W3T102	093885
	BR1d Red mushroom head key release with 1NO + 1NC maintained contact Unlocked with key (MS1)	1 x M20	1.2	3.75	DA1W1T104	–
	BR1d Red mushroom head key release with 1NO + 1NC maintained contact Unlocked with key (MS1)	1 x M25	1.2	3.75	DA1W3T104	–
<b>Time Delayed Push Button 230 V 50/60 Hz</b>						
	BR1d 1x time delayed black impulse push button adjustable from 25s to 15mn For 1000 W incandescent or 400 W fluorescent max.	1 x M20	1.2	3.75	DA1W1T103	093888
	BR1d 1x time delayed black impulse push button adjustable from 25 s to 15 mn For 1000 W incandescent or 400 W fluorescent max.	1 x M25	1.2	3.75	DA1W3T103	093889

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## D Series: Aluminum Control Stations

Zone 1 & 2 - 21 & 22


Ex II 2 GD

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IP66 - IK10

### Ordering Information – Continued:

#### 2 Function Ex d IIC Control Stations:

Type	Description/Function	Bottom Entries	Weight (kg)	Volume (dm <sup>3</sup> )	Catalog Number	Old Catalog Number	
<b>Twin Push Buttons</b>							
	BR1d	1x green spring return 'I' push button with 1NO momentary contact 1x red spring return 'O' push button with 1NC momentary contact	1 x M20	1.2	3.75	DA1W1T201	–
	BR1d	1x green spring return 'I' push button with 1NO momentary contact 1x red spring return 'O' push button with 1NC momentary contact	1 x M25	1.2	3.75	DA1W3T201	093890

#### 2 Function Ex d IIB Control Stations:

<b>Twin Push Buttons</b>							
	CF2D	1x green spring return 'I' push button with 1NO momentary contact 1x red spring return 'O' push button with 1NC momentary contact	2 x M20	2.5	7	D4W2T201	–
	CF2D	1x green spring return 'I' push button with 1NO momentary contact 1x red mushroom head push-pull with 1NO+1NC maintained contacts	2 x M20	2.5	7	D4W2T202	–

#### 3 Function Ex d IIB Control Stations:

##### Pilot Light and Twin Push Buttons



CF2D	1x red/green LED light 85 to 264 Vac 1x green spring return 'I' push button with 1NO momentary contact 1x red spring return 'O' push button with 1NC momentary contact	2 x M20	3.3	9	DA5W2T301	093891
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##### Ammeter and Twin Push Buttons

CF2D	1x ammeter 48 x 48 CT1A 3 x FLC 0-1-3A 1x green spring return 'I' push button with 1NO momentary contact 1x red spring return 'O' push button with 1NC momentary contact	2 x M20	3.3	9	DA5W2T302	–
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#### Ex d IIC Limit Switch:

Limit Switch – Stainless steel roller control perpendicular for surface fixing.

1/4 turn fixing (may be modified by end user).



BR1d	1x roller plunger - travel 7 mm max. - Force 22 newtons with 1NO+1NC momentary contacts	1 x M20	1	4.6	DA1W1L001	093807
BR1d	1x roller plunger - travel 7 mm max. - Force 22 newtons with 1NO+1NC momentary contacts	1 x M25	1	4.6	DA1W3L001	093805

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## D Series: Aluminum Control Stations

Zone 1 & 2 - 21 & 22

Ⓜ II 2 GD

ATEX / IEC

IP66 - IK10

### Technical Data:

#### Contact Block

Insulation Voltage (Ui)	500 V
Switching Capacity	AC 15 4 A/115 V 4 A/230 V 2 A/500 V DC 13 3 A/24 V 1.7 A/42 V 1.2 A/60 V 0.8 A/110 V 0.3 A/220 V
Terminal connections	0.75 to 2.5 mm <sup>2</sup>
Operation life	>5,000,000 Operations

#### Light Switch

Insulation Voltage (Ui)	500 V
Switching Capacity	AC 15 450 W/48 V 900 W/110 V 1900 W/230 V DC 13 100 W/48 V 100 W/110 V 95 W/230 V
Terminal connections	0.75 to 2.5 mm <sup>2</sup>
Operation life	> 1,000,000 Operations

#### LED Pilot Light

Rated Voltage	85 Vac to 264 Vac, 50/60 Hz
Rating	5-15 mA
Max. Power	0.33 W
Operation life	Average 100,000 Hours at +25°C

### Compliances:

Hazardous Area	Gas	Dust
Certification Type	BR1d	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081ⓂII 2 G	CE 0081ⓂII 2 D
Symbol of Protection ATEX	Ex d IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6 for Ta = +40°C T5 for Ta = +55°C	NA
Surface Temperature	NA	T95°C
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50230	
ATEX Certificate	LCIE 02 ATEX 6056	
IEC Certificate	LCIE Ex 02.005	
Other Certifications	GOST	
Ingress Protection (solid and liquid)	IP66	
Impact Resistance (shock)	IK10	
Internal Volume	≤ 2 dm <sup>3</sup> (2 liters)	

Hazardous Area	Gas	Dust
Certification Type	CF2D	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081ⓂII 2 G	CE 0081ⓂII 2 D
Symbol of Protection ATEX	Ex d IIB	Ex tD A21
Symbol of Protection IEC		
T Rating	T6 for Ta ≤ +40°C T5 for +40°C < Ta ≤ +55°C	NA
Surface Temperature	NA	T95°C
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50254	
ATEX Certificate	LCIE 03 ATEX 6061X	
IEC Certificate	LCIE Ex 03.006X	
Other Certifications	GOST	
Ingress Protection (solid and liquid)	IP66	
Impact Resistance (shock)	IK10	
Internal Volume	≤ 2 dm <sup>3</sup> (2 liters)	

### Standards:

<b>Ex Standards</b>	EN / IEC 60079-0; 60079-1; 61241-0; 61241-1
<b>Product Standards</b>	EN / IEC 60947-1; 60947-5
<b>EMC Standards</b>	–
<b>Other Standards</b>	EN / IEC 60529 (IP); 62262 (IK)

# Control Stations & Switches: Control Stations – Flameproof

## D Series: Aluminum Control Stations

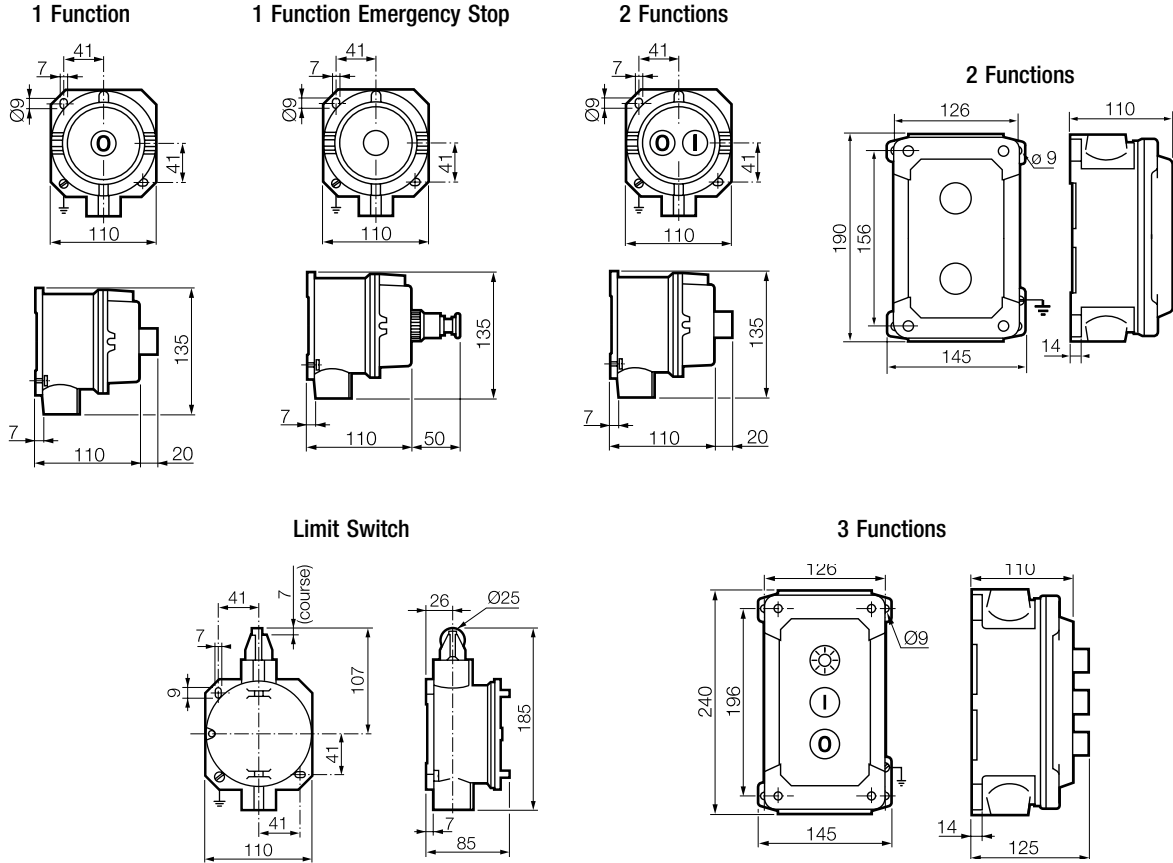
Zone 1 & 2 - 21 & 22

II 2 GD

ATEX / IEC

IP66 - IK10

Dimensions (mm):

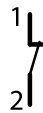


Electrical Diagrams:

NO Contact Block



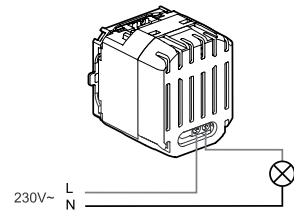
NC Contact Block



LED Pilot Light



Time Delayed Push Button



# Control Stations & Switches: Control Stations – Flameproof

## D Series: Pre-drilled Control Stations



1 Function



2 Functions



2 Functions



3 Functions



6 Functions

### Compliance Data:

ATEX - IEC:

Zone 1 & 2 – 21 & 22	ATEX	II 2 GD	IEC	CE
Ex d IIB / Ex d IIC	T6 to T5	Ex tD A21	T80°C to T95°C	IP66 – IK10

### Operating Temperature:

-40°C to +55°C				
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# Control Stations & Switches: Control Stations – Flameproof

## D Series: Pre-drilled Control Stations

Zone 1 & 2 - 21 & 22

Ex II 2 GD

ATEX / IEC

IP66 - IK10

### Applications:

- Local control stations for use in hazardous areas.
- Control of equipment at power plants, chemical and petrochemical plants, petroleum refineries, pulp and paper processing plants and various industrial applications.

### Features:

#### 1 & 2 Function Ex d IIC:

- For TS35 rail mounted contact block.
- Actuators and contact blocks to be ordered separately.
- Up to 3 contacts per function.
- Threaded flameproof joint.
- Internal earth terminal 2 x 4 mm<sup>2</sup>.
- External ground terminal: M5.
- 1 x M20 or M25 threaded entry at bottom.
- Cable glands and plugs to be ordered separately.

#### 2 to 6 Function Ex d IIB:

- For TS35 rail mounted contact block.
- Actuators and contact blocks to be ordered separately.
- Up to 3 contacts per function.
- Flanged flameproof joint.
- Yellow laminated plastic legend plate with black lettering.
- Internal earth terminal: 2 x 4 mm<sup>2</sup>.
- External earth terminal: M6 screw and M8 earth stud (CF2B type).
- 2 x M20 threaded entries at the bottom.
- Cable glands and plugs to be ordered separately.


#### Standard Material of Fixtures:

- Gray painted marine grade aluminum alloy.
- Gray painted cast iron for CF2B.


### Ordering Information:

#### For TS35 Rail Mounted Actuators


#### 1 Function Ex d IIC Control Stations:

Type	Description/Function	Bottom Entries	Weight (kg)	Volume (dm <sup>3</sup> )	Catalog Number	Old Catalog Number
 BR1d	For push button, pilot light or selector switch	1 x M20	0.9	2	DA1W1E101	-
BR1d	For push button, pilot light or selector switch	1 x M25	0.9	2	DA1W3E101	093151



#### 2 Function Ex d IIC Pre-drilled Box:

 BR1d	For push button (non-mushroom type) 2 contacts maximum for each function	1 x M20	0.9	2	DA1W1E201	-
BR1d	For push button (non-mushroom type) 2 contacts maximum for each function	1 x M25	0.9	2	DA1W3E201	093152

#### 2 Function Ex d IIB Pre-drilled Box:

 CF2D	For push button, pilot light or selector switch	2 x M20	2.3	7	DA4W2E202	093158
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#### 3 Function Ex d IIB Pre-drilled Box:

 CF2D	For push button, pilot light or selector switch (2 switches maximum)	2 x M20	3	7	DA5W2E301	093159
 CF2D	For push button, pilot light and ammeter 48 x 48 mm (ammeter with round barrel)	2 x M20	3	7	DA5W2E302	093160

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## D Series: Pre-drilled Control Stations

Zone 1 & 2 - 21 & 22


Ex II 2 GD

ATEX / IEC



IP66 - IK10

### Ordering Information – Continued:


#### 4 Function Ex d IIB Pre-drilled Box:

Type	Description/Function	Bottom Entries	Weight (kg)	Volume (dm <sup>3</sup> )	Catalog Number	Old Catalog Number
 CF2D	For push button, pilot light and ammeter 48 x 48 mm (ammeter with round barrel)	2 x M20	3	7	DA5W2E401	–

#### 6 Function Ex d IIB Pre-drilled Box:

 CF2D	For push button and pilot light 2 Contacts maximum for each function	2 x M20	3	7	DA5W2E601	–
 CF2B	For push button, pilot light or selector switch (3 switches maximum)	2 x M20	13	13	DA3W2E601	093161

#### 1 Meter Ex d IIC Pre-drilled Box:

 BR2d	For indicator 72 x 72 mm or 96 x 96 mm with round barrel Mounting plate for indicator dia. 67 mm	2 x M20	4	11	DA2W2E102	093155
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### Compliances:

Hazardous Area	Gas	Dust
Certification Type	BR1d	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081 Ex II 2 G	CE 0081 Ex II 2 D
Symbol of Protection ATEX	Ex d IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6 (Ta = +40°C) T5 (Ta = +55°C)	NA
Surface Temperature	NA	T95°C
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50230	
ATEX Certificate	LCIE 02 ATEX 6056	
IEC Certificate	LCIE Ex 02.005	
Other Certifications	GOST	
Ingress Protection (solid and liquid)	IP66	
Impact Resistance (shock)	IK10	
Internal Volume	≤2 dm <sup>3</sup> (2 liters)	

Hazardous Area	Gas	Dust
Certification Type	CF2D	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081 Ex II 2 G	CE 0081 Ex II 2 D
Symbol of Protection ATEX	Ex d IIB	Ex tD A21
Symbol of Protection IEC		
T Rating	T6 for Ta ≤ +40°C T5 for +40°C < Ta ≤ +55°C	NA
Surface Temperature	NA	T95°C
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50254	
ATEX Certificate	LCIE 03 ATEX 6061X	
IEC Certificate	LCIE Ex 03.006X	
Other Certifications	GOST	
Ingress Protection (solid and liquid)	IP66	
Impact Resistance (shock)	IK10	
Internal Volume	≤2 dm <sup>3</sup> (2 liters)	



# Control Stations & Switches: Control Stations – Flameproof

## D Series: Pre-drilled Control Stations

Zone 1 & 2 - 21 & 22

⊕ II 2 GD

ATEX / IEC

IP66 - IK10

### Compliances – Continued:

Hazardous Area	Gas	Dust
Certification Type	CF2B	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081⊕ II 2 G	CE 0081⊕ II 2 D
Symbol of Protection ATEX	Ex d IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6 for $T_a \leq +40^\circ\text{C}$ T5 for $+40^\circ\text{C} < T_a \leq +55^\circ\text{C}$	NA
Surface Temperature	NA	T95°C
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50254	
ATEX Certificate	LCIE 03 ATEX 6061X	
IEC Certificate	LCIE Ex 03.006X	
Other Certifications	GOST	
Ingress Protection (solid and liquid)	IP66	
Impact Resistance (shock)	IK10	
Internal Volume	$\leq 2 \text{ dm}^3$ (2 liters)	

Hazardous Area	Gas	Dust
Certification Type	BR2d	
Zones	1–2	21–22
Conforming to ATEX 94/9/CE	CE 0081⊕ II 2 G	CE 0081⊕ II 2 D
Symbol of Protection ATEX	Ex d IIC	Ex tD A21
Symbol of Protection IEC		
T Rating	T6	NA
Surface Temperature	NA	T80°C
Ambient Temperature	-40°C to +55°C	
CE Declaration of Conformity	50256	
ATEX Certificate	LCIE 03 ATEX 6062	
IEC Certificate	LCIE Ex 03.007	
Other Certifications	GOST	
Ingress Protection (solid and liquid)	IP66	
Impact Resistance (shock)	IK10	
Internal Volume	$\leq 2 \text{ dm}^3$ (2 liters)	

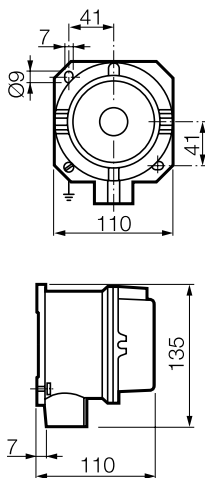
### Standards:

<b>Ex Standards</b>	EN / IEC 60079-0; 60079-1; 61241-0; 61241-1
<b>Product Standards</b>	EN / IEC 60947-1; 60947-5
<b>EMC Standards</b>	–
<b>Other Standards</b>	EN / IEC 60529 (IP); 62262 (IK)

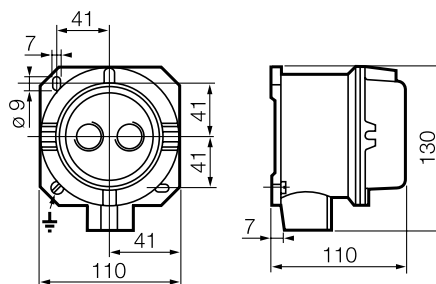
### Dimensions (mm):

For TS35 Rail Mounted Operators

BR1d (1 Function)



BR1d (2 Functions)



# Control Stations & Switches: Control Stations – Flameproof

## D Series: Pre-drilled Control Stations

Zone 1 & 2 - 21 & 22

Ex II 2 GD

ATEX / IEC

IP66 - IK10

Dimensions (mm) – Continued:

For TS35 Rail Mounted Operators

