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**Application:**

Factory sealed enclosures are installed in a rigid metallic conduit system for surface mounting adjacent to or remote from equipment being controlled and are used:

- to prevent arcing of enclosed device from causing ignition of a specific hazardous atmosphere or atmospheres external to the enclosure
- in industrial areas such as chemical plants, oil and gas refineries, paint and varnish manufacturing plants, gasoline bulk loading terminals, grain elevators, grain processing industries, coal processing or handling areas, or metal handling or finishing areas where atmosphere may contain hazardous gases and/or dust
- in non-hazardous areas where sturdy, durable enclosures are required
- in conjunction with magnetic starters or contactors for remote control of motors

Manual motor starting switch enclosures are used:

- for manual starting of small ac or dc motors
- to provide manual starting and stopping and, in the case of units with heaters, motor running protection

**Features:**

Factory sealed devices have many distinct advantages:

- reduce installation problems
- eliminate external seals
- lower installation costs
- improve safety
- are used with general purpose snap and pushbutton type switches
- standard neoprene covers for front operated pushbuttons. Prevents accumulation of dirt and entrance of water around operating shafts
- mounting lugs and taper tapped hubs with integral bushings
- large machine screws for fastening covers to bodies
- lockout provisions on front operated push button (marked "STOP" and "OFF") and selector switch covers
- lockout hole for padlock having 1/4" hasp is provided when used with covers for front lever and side rocker type operation
- close tolerances in machining of wide, mating flanges and journalled shafts and bearings for front button operation, produces flametightness of enclosure joints
- on enclosures with front lever and side rocker type operating handles, threaded type shafts and bushings are used to ensure flametightness
- dead end (EFS or EDS) or through feed (EFSC or EDSC) hubs – 1/2" to 1" sizes

**Standard Materials:**

- Bodies – *Feraloy*® iron alloy; copper-free aluminum.
- Front operated pushbutton and pilot light covers – *Feraloy* iron alloy
- Side operated type pushbutton covers – copper-free aluminum

- Shafts – stainless steel
- Shaft bushings – stainless steel
- Rocker handle and pushbutton guards – type 6/6 nylon
- Sealing enclosures – copper-free aluminum

**Standard Finishes:**

- Feraloy* iron alloy – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural
  - Type 6/6 nylon – black
  - Stainless steel – natural

**Options:**

The following special options are available from the factory by adding suffix to Cat. No.

**Certifications and Compliances:**

- NEC/CEC:
  - Class I, Division 1 & 2, Groups B\*,C,D
  - Class II, Division 1, Groups E,F,G
  - Class II, Division 2, Groups F,G
  - Class III
- NEMA/EEMAC: 3,7B\*CD,9EFG
- UL Standard: 894, 698
- CSA Standard: C22.2 No. 30

**Description**

	<b>Suffix to be Added to Cat. #</b>
Emergency "Stop" button (momentary) – front operated red mushroom button .....	S111
Lockout provision on front operated pushbutton cover (standard on buttons marked "OFF" and "STOP") .....	S153
For 24 VDC operation on pilot lights .....	S300
Three-position selector switches with modified operation:	
Momentary contact clockwise operation, spring return to center, maintained contact counter-clockwise operation .....	S634
Momentary contact counter-clockwise operation, spring return to center, maintained contact clockwise operation .....	S635
Bodies and covers (single and two gang units) – copper-free aluminum .....	SA
Where indicated in the catalog listings, EDS units suitable for Class I, Division 1, Group B usage can be supplied, add suffix - GB, EFS units are suitable for Class I, Division 1, Group B as standard. ....	
Maintained contact mushroom head with lockout and guard. Maximum one per cover and cannot be used with a pilot light with a transformer or another standard pushbutton...	S769

EDS bodies and factory sealed cover and device sub-assemblies are available for field assembly (see pages 394 to 396).



Suffix S769

\* See Options: suffix GB

# EFS and EDS Factory Sealed Control Devices and Manual Motor Starting Switches

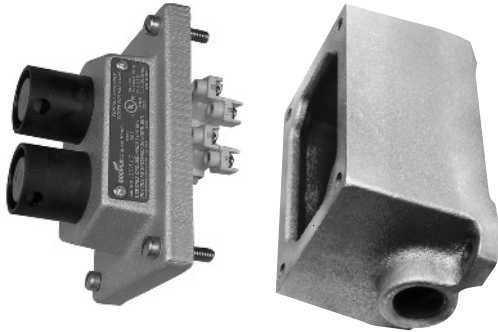
Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B\*,C,D Explosionproof  
 Cl. II, Div. 1, Groups E,F,G Dust-Ignitionproof  
 Cl. II, Div. 2, Groups F,G Raintight  
 Cl. III Wet Locations  
 NEMA 3,7B\*CD,9EFG

**5C**

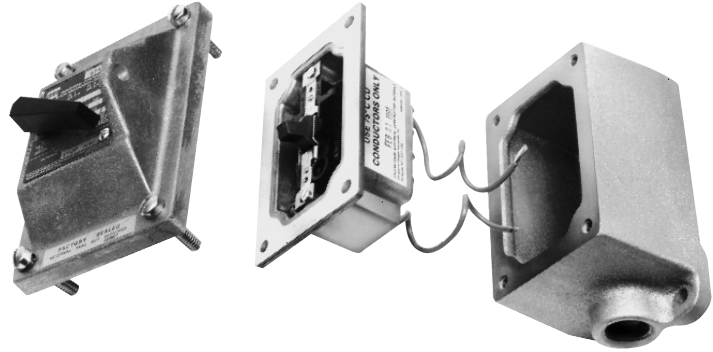
## Methods of Factory Sealing

### EFS/EDS Series



Factory sealed EDS and EFS pilot light, pushbutton and selector switch control stations do not need external sealing. Device contacts are factory sealed in explosionproof ESWP contact blocks. Small compact enclosures have accurately ground wide flanges on both the body and cover for a flame-tight joint.

### EDS Series



EDS factory sealed snap switches or manual motor starting switches do not need external sealing. The switches are enclosed in a unique sealing well with double flanges which mate with the cover and the body. Small compact enclosures have accurately ground wide flanges on body, cover and sealing well for flame-tight joints. Wiring pigtails are factory sealed from under the sealing well. Reliable pouring of seals at the factory ensures safe sealing.

5C Factory Sealed Control Devices

\* Check listings for Group B suitability  
 See Options page 428.

# 5C

# EFS and EDS Factory Sealed Control Devices and Manual Motor Starting Switches

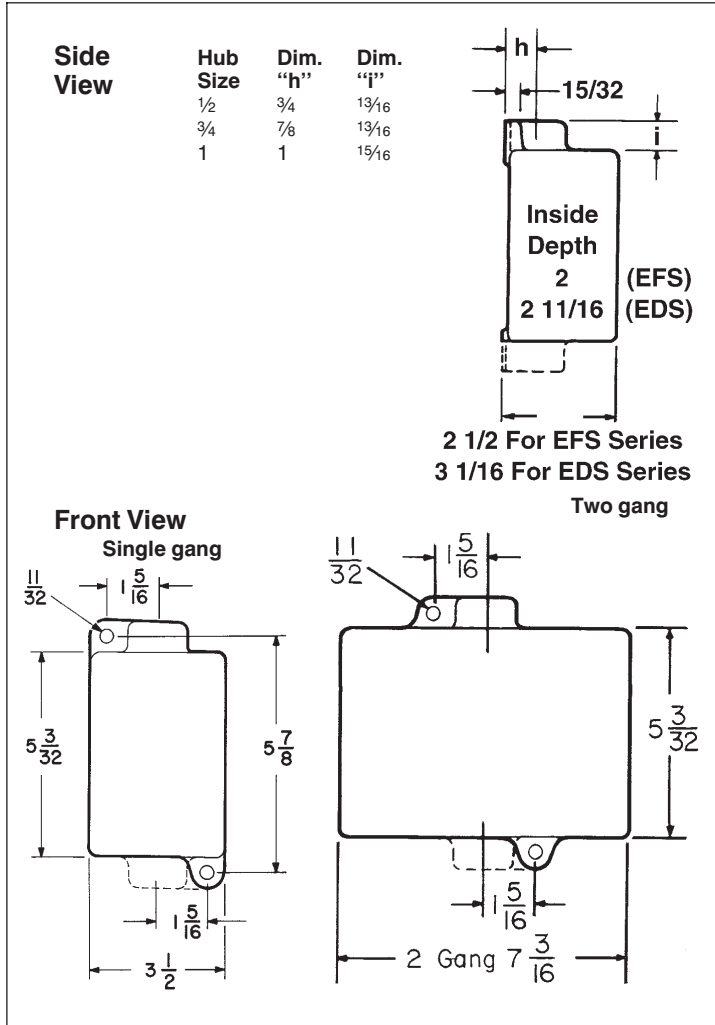
## Dimensions

Cl. I, Div. 1 & 2, Groups B\*,C,D Explosionproof  
 Cl. II, Div. 1, Groups E,F,G Dust-Ignitionproof  
 Cl. II, Div. 2, Groups F,G Raintight  
 Cl. III Wet Locations  
 NEMA 3,7B\*CD,9EFG

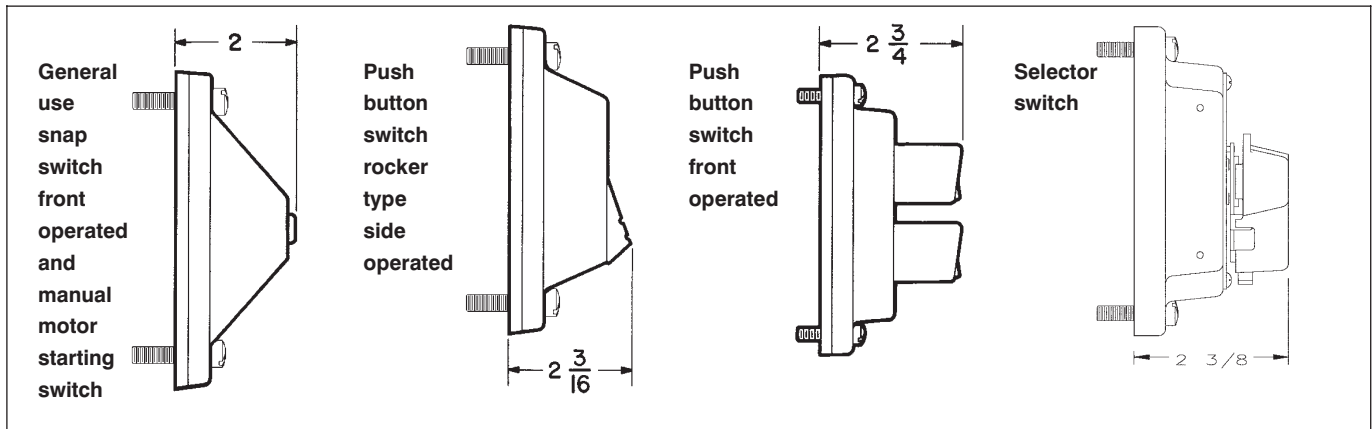
Factory Sealed Control Devices

### Dimensions (inches)\*\*

#### Bodies



#### Covers †



\*\* Dimensions are approximate, not for construction purposes.

\* See listings.

† Surface covers have same length and width as bodies.

# EDS Factory Sealed Pushbutton Stations

Front Operated, 600VAC Heavy Duty, Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B\*,C,D  
Cl. II, Div. 1, Groups E,F,G  
Cl. II, Div. 2, Groups F,G  
Cl. III  
NEMA 3,7B\*CD,9EFG

Explosionproof  
Dust-Ignitionproof  
Raintight  
Wet Locations

**5C**



EDS2184

EDS2190

## Single Gang

<b>Normal Pos.</b>	1 Circuit Universal	2 Circuits Universal	2 Circuits**
<b>Marking †</b>	Specify	Specify	START-STOP unless otherwise specified



<b>Replacement Pushbuttons ‡</b>	ED11	ED12	ED12**
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### Enclosure with Pushbuttons

Hub Size	Dead End		
	Cat. #	Cat. #	Cat. #
1/2	EDS1184		EDS115
3/4	EDS2184	EDS2190	EDS215
1	EDS3184	EDS3190	EDS315
Through Feed			
1/2	EDSC1184	EDSC1190	EDSC115
3/4	EDSC2184	EDSC2190	EDSC215
1	EDSC3184	EDSC3190	EDSC315

<b>Normal Pos.</b>	2 Circuits Universal	2 Circuits**
<b>Marking †</b>	Specify	Specify



<b>Replacement Pushbuttons ‡</b>	ED12	ED12**
----------------------------------	------	--------

### Enclosure with Pushbuttons

Hub Size	Dead End	
	Cat. # §	Cat. # §
1/2		EDS1155
3/4	EDS2192	EDS2155
1	EDS3192	EDS3155
Through Feed		
1/2	EDSC1192	EDSC1155
3/4	EDSC2192	EDSC2155
1	EDSC3192	EDSC3155

\* **Class I, Group B:** Consider using EFS series pushbuttons, see page 433. All enclosures listed above can be modified for Class I, Group B, Div. 1 usage. Add suffix GB to the Cat. No. Seals must be installed within 1 1/2" of each conduit opening in Division 1. These products are suitable for Group B, Div. 2 as listed, without external seals. In Canada, for Group B applications consult factory.

\*\* Two universal contact blocks, must be wired as two circuits, with one normally open and one normally closed.

§ Single external button operates both inner buttons simultaneously.

† Standard markings available are as follows:

START	OFF	RESET	LIGHT ON	EMERGENCY	OPEN	DOWN	RAISE
STOP	RUN	TRIP	HAND	FORWARD	CLOSE	IN	LOWER
ON	JOG	TEST	AUTOMATIC	REVERSE	UP	OUT	

‡ For replacement contact blocks, see page 400.

**5C****EDS Factory Sealed  
Pushbutton Stations****Front Operated, 600VAC Heavy Duty,  
Dimensions Pg. 430**Cl. I, Div. 1 & 2, Groups B\*,C,D  
Cl. II, Div. 1, Groups E,F,G  
Cl. II, Div. 2, Groups F,G  
Cl. III  
NEMA 3,7B\*CD,9EFGExplosionproof  
Dust-Ignitionproof  
Raintight  
Wet Locations
**5C** Factory Sealed  
Control Devices
**EDSC225****Two Gang**

<b>Normal Pos.</b>	1 Circuit Universal	2 Circuits Universal	2 Circuits**
<b>Marking†</b>	Specify	Specify	START-STOP unless otherwise specified

<b>Diagram</b>			
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<b>Replacement Pushbuttons‡</b>	ED11	ED12	ED12**
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**Enclosure with Pushbuttons**

<b>Hub Size</b>	<b>Dead End Cat. #</b>	<b>Cat. #</b>	<b>Cat. #</b>
3/4	EDS2284	EDS2290	EDS225
1	EDS3284	EDS3290	EDS325
	<b>Through Feed</b>		
1/2	EDSC1284	EDSC1290	EDSC125
3/4	EDSC2284	EDSC2290	EDSC225
1	EDSC3284	EDSC3290	EDSC325

\* **Class I, Group B:** Consider using EFS series pushbuttons, see page 433. All enclosures listed above can be modified for Class I, Group B, Div. 1 usage. Add suffix GB to the Cat. No. Seals must be installed within 1½" of each conduit opening in Division 1. These products are suitable for Group B, Div. 2 as listed, without external seals. In Canada, for Group B applications consult factory.

\*\* Two universal contact blocks, must be wired as two circuits, with one normally open and one normally closed.

§ Single external button operates both inner buttons simultaneously.

† Standard markings available are as follows:

START	OFF	RESET	LIGHT ON	EMERGENCY	OPEN	DOWN	RAISE
STOP	RUN	TRIP	HAND	FORWARD	CLOSE	IN	LOWER
ON	JOG	TEST	AUTOMATIC	REVERSE	UP	OUT	

‡ For replacement contact blocks, see page 400.

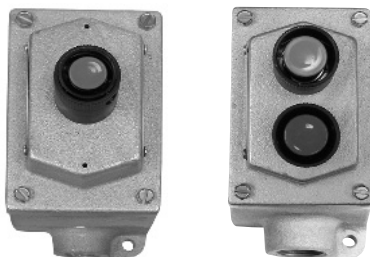
# EFS Factory Sealed Pushbutton Stations

Front Operated, 600VAC Heavy Duty, Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B\*,C,D  
 Cl. II, Div. 1, Groups E,F,G  
 Cl. II, Div. 2, Groups F,G  
 Cl. III  
 NEMA 3,7B\*CD,9EFG

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations

**5C**



**EFS2184**

**EFSC2190**

Normal Pos.	1 Circuit Universal	2 Circuits Universal	2 Circuits**
Marking†	Specify	Specify	START-STOP unless otherwise specified
Diagram			
Replacement Pushbuttons‡	ED11	ED12	ED12**

Normal Pos.	2 Circuits Universal	2 Circuits**
Marking†	Specify	Specify
Diagram		
Replacement Pushbuttons‡	ED12	ED12**

**Enclosure with Pushbuttons**

Hub Size	Dead End Cat. #	Cat. #	Cat. #
1/2	EFS1184		EFS115
3/4	EFS2184	EFS2190	EFS215
1	EFS3184	EFS3190	EFS315
<b>Through Feed</b>			
1/2	EFSC1184	EFSC1190	EFSC115
3/4	EFSC2184	EFSC2190	EFSC215
1	EFSC3184	EFSC3190	EFSC315

**Enclosure with Pushbuttons**

Hub Size	Dead End Cat. #§	Cat. #§
1/2		EFS1155
3/4	EFS2192	EFS2155
1	EFS3192	EFS3155
<b>Through Feed</b>		
1/2	EFSC1192	EFSC1155
3/4	EFSC2192	EFSC2155
1	EFSC3192	EFSC3155

\* **Class I, Group B:** All enclosures listed above are suitable for Class I, Group B, Div. 1 usage. Seals only have to be installed on 1 inch conduit within 5 ft. in Division 1.

\*\* Two universal contact blocks, must be wired as two circuits, with one normally open and one normally closed.

§ Single external button operates both inner buttons simultaneously.

† Standard markings available are as follows:

START	OFF	RESET	LIGHT ON	EMERGENCY	OPEN	DOWN	RAISE
STOP	RUN	TRIP	HAND	FORWARD	CLOSE	IN	LOWER
ON	JOG	TEST	AUTOMATIC	REVERSE	UP	OUT	

‡ For replacement contact blocks, see page 400.

5C Factory Sealed Control Devices

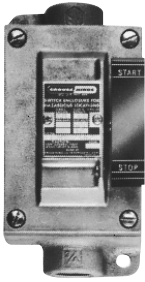
**5C**

# EDS Factory Sealed Push Button Stations

Side Rocker Handle, 600VAC  
Heavy Duty, Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B\*,C,D  
Cl. II, Div. 1, Groups E,F,G  
Cl. II, Div. 2, Groups F,G  
Cl. III  
NEMA 3,7B\*CD,9EFG

Explosionproof  
Dust-Ignitionproof  
Raintight  
Wet Locations



EDSC2162

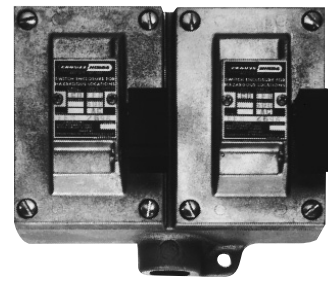
## Single Gang

<b>Normal Pos.</b>	1 Circuit Universal	2 Circuits Universal	2 Circuits**
<b>Marking †</b>	Specify	Specify	START-STOP unless otherwise specified

<b>Diagram</b>			
<b>Replacement Push Buttons ‡</b>	ED11	ED12	ED12**

### Enclosure with Push Buttons

Hub Size	Dead End Cat. #	Cat. #	Cat. #
1/2	EDS1596		EDS1162
3/4	EDS2596	EDS2194	EDS2162
1	EDS3596	EDS3194	EDS3162
Through Feed			
1/2	EDSC1596	EDSC1194	EDSC1162
3/4	EDSC2596	EDSC2194	EDSC2162
1	EDSC3596	EDSC3194	EDSC3162



EDS2696

## Two Gang

<b>Normal Pos.</b>	1 Circuit Universal	2 Circuits Universal	2 Circuits
<b>Marking †</b>	Specify	Specify	START-STOP unless otherwise specified

<b>Diagram</b>			
<b>Replacement Push Buttons ‡</b>	ED11	ED12	ED12**

### Enclosure with Push Buttons

Hub Size	Dead End Cat. #	Cat. #	Cat. #
3/4	EDS2696	EDS2294	EDS2262
1	EDS3696	EDS3294	EDS3262
Through Feed			
1/2	EDSC1696	EDSC1294	EDSC1262
3/4	EDSC2696	EDSC2294	EDSC2262
1	EDSC3696	EDSC3294	EDSC3262

\* **Class I, Group B:** All enclosures listed above can be modified for Class I, Group B, Div. 1 usage. Add suffix GB to the Cat. No. Seals must be installed within 1 1/2" of each conduit opening in Division 1. These products are suitable for Group B, Div. 2 as listed, without external seals.

\*\* Two universal contact blocks, must be wired as two circuits, with one normally open and one normally closed.

† Standard markings available, heat stamped in nylon rocker handle, are as follows:

START	OFF	RESET	LIGHT ON	EMERGENCY	OPEN	DOWN	RAISE
STOP	RUN	TRIP	HAND	FORWARD	CLOSE	IN	LOWER
ON	JOG	TEST	AUTOMATIC	REVERSE	UP	OUT	

‡ For replacement contact blocks, see page 400.



# EFS Factory Sealed Pilot Lights

Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B,C,D  
 Cl. II, Div. 1, Groups E,F,G  
 Cl. II, Div. 2, Groups F,G  
 Cl. III  
 NEMA 3,7BCD,9EFG

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations

**5C**

Pilot lights listed below are factory sealed and do not require external seals. Lamps ♦ are 6 watt, type S6, candelabra base for use on 110-125 volt circuits.

Enclosures with single pilot covers **only** can be equipped with a transformer for the lamp for higher voltages as shown.

Pilot light covers with 2 pilot lights cannot be provided with transformer, as the transformer occupies the space of one pilot light.

Transformer Voltages Above 125		
Nominal Volts	Primary Voltage Range	Cat. No. Suffix
50-60 hertz		
220/110	220-240	T2
440/110	440-480	T4
550/110	550-600	T5

### Class I, Group B:

All enclosures listed above are suitable for Class I, Group B, Div. 1 usage. Seals only have to be installed on 1 inch conduit within 5 ft. in Division 1.

These products are suitable for Group B, Div. 2 as listed, without external seals.



## EFS Single Gang

### Enclosure with Single Pilot Light ♦

Hub Size	Dead End Cat. #	Through Feed Cat. #
1/2	EFS11524-†	EFSC11524-†
3/4	EFS21524-†	EFSC21524-†
1	EFS31524-†	EFSC31524-†

### Enclosure with Two Pilot Lights ♦

1/2	EFS11561-†	EFSC11561-†
3/4	EFS21561-†	EFSC21561-†
1	EFS31561-†	EFSC31561-†

† Add color symbol for each pilot light from table below.  
 Example: EFS1561 with red and green lights is EFS1561-J1-J3.

Color	Symbol	Color	Symbol	Color	Symbol
Red	J1	Amber	J6	Blue	J11
Green	J3	Clear	J10		

♦ LED pilot lights can be furnished in place of standard incandescent pilot lamps. Add suffix LED to catalog number after color symbol.  
 For 24 VDC operation, add suffix S300.

5C Factory Sealed Control Devices

# 5C

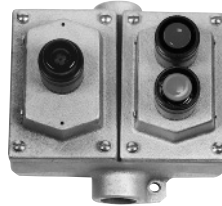
## EDS Factory Sealed Combination Pushbutton and Pilot Light Stations

600VAC Heavy Duty, Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B\*,C,D Explosionproof  
 Cl. II, Div. 1, Groups E,F,G Dust-Ignitionproof  
 Cl. II, Div. 2, Groups F,G Raintight  
 Cl. III Wet Locations  
 NEMA 3,7B\*CD,9EFG

Pushbutton contacts and pilot light receptacles are sealed in separate chambers. External seals are not required. Lamps ♦ are 6 watt, type S6, candelabra base for use on 110-125 volt circuits.

Two gang units with single pilot light covers can be furnished with transformers. See page 435 for details and suffixes. Specify markings for each button. See table below listings.



Factory Sealed Control Devices

### Single Gang

No. Pushbuttons	1	1
No. Pilot Lights ♦	1	1
Diagram		
Hub Size	<b>Dead End</b> Cat. #	<b>Through Feed</b> Cat. #
	1/2 EDS11473-‡	EDSC11473-‡
	3/4 EDS21473-‡	EDSC21473-‡
	1 EDS31473-‡	EDSC31473-‡

### Two Gang

No. Push-buttons	2	2	2	2
No. Pilot Lights ♦	1	1	2	2
Diagram				
Hub Size	<b>Dead End</b> Cat. #	<b>Through Feed</b> Cat. #	<b>Dead End</b> Cat. #	<b>Through Feed</b> Cat. #
	1/2 EDS12471-‡	EDSC12471-‡	EDS22868-‡	EDSC22868-‡
	3/4 EDS22471-‡	EDSC22471-‡	EDS32868-‡	EDSC32868-‡
	1 EDS32471-‡	EDSC32471-‡		

‡ Add color symbol for each pilot light from table on page 435. Example: EDS21473 with a red light is EDS21473-J1.

♦ LED pilot lights can be furnished in place of standard incandescent pilot lamps. Add suffix LED to catalog number after color symbol. For 24 VDC operation on pilot lights add suffix S300.

Standard markings available are as follows:

START	LIGHT ON	DOWN	RUN	FORWARD	ON	AUTOMATIC	OUT
OFF	EMERGENCY	RAISE	TRIP	CLOSE IN	JOG	REVERSE	
RESET	OPEN	STOP	HAND	LOWER	TEST	UP	

\* All enclosures listed above can be modified for Class I, Group B, Division 1 usage. Add suffix GB to the Cat. No. Example: EDS11473-J1-GB. Conduit seal(s) must be installed within 1 1/2" of each conduit opening. These products are suitable for Group B, Div. 2 as listed, without external conduit seals.

# EDS Factory Sealed Selector Switches

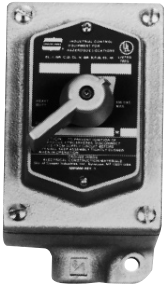
Maintained Contact, 600VAC Heavy Duty, Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B\*,C,D  
 Cl. II, Div. 1, Groups E,F,G  
 Cl. II, Div. 2, Groups F,G  
 Cl. III  
 NEMA 3,7B\*CD,9EFG

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations

**5C**

Furnished with pushbuttons, cam actuated by a maintained contact selector mechanism to operate in the sequences shown in the diagrams below. Specify indicating plate markings. See table below listings.



EDS11271



EDS11273

## Single Gang

Style	Position 1	Position 2	Position 3	Replacement contact blocks†	Enclosure With Switch		
					Hub Size	Dead End Cat. #	Through Feed Cat. #
Two-Position, Two-Circuit	A1			ED11	1/2	EDS11271	EDSC11271
	A2				3/4	EDS21271	EDSC21271
					1	EDS31271	EDSC31271
Two-Position, Four-Circuit	A1			ED12	1/2	EDS11272	EDSC11272
	A2				3/4	EDS21272	EDSC21272
	B1				1	EDS31272	EDSC31272
	B2						
Three-Position, Two-Circuit	A1			ED11	1/2	EDS11273	EDSC11273
	A2				3/4	EDS21273	EDSC21273
					1	EDS31273	EDSC31273
Three-Position, Four-Circuit	A1			ED12	1/2	EDS11274	EDSC11274
	A2				3/4	EDS21274	EDSC21274
	B1				1	EDS31274	EDSC31274
	B2						
	A1			ED12	1/2	EDS11275	EDSC11275
	A2				3/4	EDS21275	EDSC21275
	B1				1	EDS31275	EDSC31275
	B2						

Standard indicating plate markings available are as follows:

### Two-Position

RUN, JOG	FAST, SLOW	IN, OUT
HAND, AUTOMATIC	OPEN, CLOSE	RAISE, LOWER
FORWARD, REVERSE	UP, DOWN	START, STOP
	ON, OFF	

### Three-Position

RUN, OFF, JOG	1, OFF, 2
HAND, OFF, AUTOMATIC	OPEN, OFF, CLOSE
FORWARD, OFF, REVERSE	UP, OFF, DOWN
FAST, OFF, SLOW	

\* For Class I, Group B: Consider using EFS series selector switches, see page 420. All enclosures listed above can be modified for Class I, Group B, Div. 1 usage. Add suffix GB to the Cat. No. Seals must be installed within 1/2" of each conduit opening in Division 1. These products are suitable for Group B, Div. 2 as listed, without external seals. In Canada, for Group B applications consult factory.

† For replacement contact blocks, see page 400.

# EFS Factory Sealed Selector Switches

Maintained Contact, 600VAC Heavy Duty, Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B\*,C,D  
 Cl. II, Div. 1, Groups E,F,G  
 Cl. II, Div. 2, Groups F,G  
 Cl. III  
 NEMA 3,7B\*CD,9EFG

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations

Furnished with pushbuttons, cam actuated by a maintained contact selector mechanism to operate in the sequences shown in the diagrams below. Specify indicating plate markings. See table below listings.



EFS11271



EFS11273

5C Factory Sealed Control Devices

## Single Gang

Style	Position 1	Position 2	Position 3	Replacement Contact Blocks †	Enclosure With Switch		
					Hub Size	Dead End Cat. #	Through Feed Cat. #
Two-Position, Two-Circuit	A1			ED11	1/2	EFS11271	EFSC11271
	A2				3/4	EFS21271	EFSC21271
					1	EFS31271	EFSC31271
Two-Position, Four-Circuit	A1			ED12	1/2	EFS11272	EFSC11272
	A2				3/4	EFS21272	EFSC21272
	B1				1	EFS31272	EFSC31272
	B2						
Three-Position, Two-Circuit	A1			ED11	1/2	EFS11273	EFSC11273
	A2				3/4	EFS21273	EFSC21273
					1	EFS31273	EFSC31273
Three-Position, Four-Circuit	A1			ED12	1/2	EFS11274	EFSC11274
	A2				3/4	EFS21274	EFSC21274
	B1			ED12	1	EFS31274	EFSC31274
	B2						
	A1				1/2	EFS11275	EFSC11275
	A2				3/4	EFS21275	EFSC21275
B1				1	EFS31275	EFSC31275	

Standard indicating plate markings available are as follows:

### Two-Position

RUN, JOG	FAST, SLOW	IN, OUT
HAND, AUTOMATIC	OPEN, CLOSE	RAISE, LOWER
FORWARD, REVERSE	UP, DOWN	START, STOP
	ON, OFF	

### Three-Position

RUN, OFF, JOG	1, OFF, 2
HAND, OFF, AUTOMATIC	OPEN, OFF, CLOSE
FORWARD, OFF, REVERSE	UP, OFF, DOWN
FAST, OFF, SLOW	

\* Class I, Group B: All enclosures listed above are suitable for Class I, Group B, Div. 1 usage. Seals only have to be installed on 1 inch conduit within 5 ft. in Division 1.

† For replacement contact blocks see page 400.

# EDS Factory Sealed General Use Snap Switches

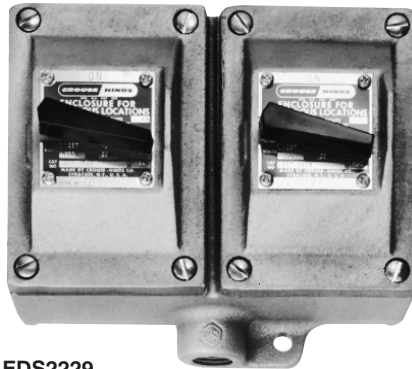
Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B\*,C,D Explosionproof  
 Cl. II, Div. 1, Groups E,F,G Dust-Ignitionproof  
 Cl. II, Div. 2, Groups F,G Raintight  
 Cl. III Wet Locations  
 NEMA 3,7B\*CD,9EFG

**5C**



EDS2129



EDS2229

## General Use Snap Switch – Front Operated

Hub Size	Style †	Amperes		Single Gang		Two Gang ‡	
		120VAC §	277VAC §	Dead End Cat. #	Through Feed Cat. #	Dead End Cat. #	Through Feed Cat. #
3/4	1-pole	20	20	EDS2129	EDSC2129†	EDS2229	EDSC2229†
3/4	2-pole	20	20	EDS218	EDSC218†		EDSC228†
3/4	3-way	20	20	EDS2130	EDSC2130	EDS2230	EDSC2230
3/4	4-way	20	20	EDS2140	EDSC2140		EDSC2240
1	1-pole	20	20	EDS3129	EDSC3129†	EDS3229	EDSC3229†
1	2-pole	20	20	EDS318	EDSC318†	EDS328	EDSC328†
1	3-way	20	20	EDS3130	EDSC3130	EDS3230	EDSC3230
1	4-way	20	20	EDS3140	EDSC3140	EDS3240	EDSC3240

† ON-OFF standard marking for 1-pole and 2-pole units.

‡ Combinations of switches can be furnished.

§ AC rated switches are tested for resistive, inductive and tungsten filament loads up to the full current rating and for motor loads up to 80% of the ampere rating.

\* **Class I, Group B:** All units on this page can be modified for Class I, Group B usage. Add suffix GB to the Cat. No. Seals must be installed within 1½" of each conduit opening in Division 1. In Canada, for Group B applications consult factory.

5C Factory Sealed Control Devices

# EDS Factory Sealed Manual Motor Starting Switches and Enclosures

Dimensions Pg. 430

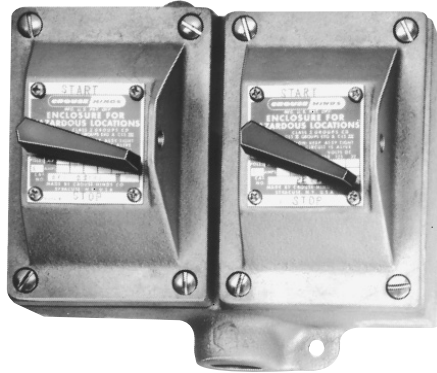
Cl. I, Div. 1 & 2, Groups B\*,C,D  
 Cl. II, Div. 1, Groups E,F,G  
 Cl. II, Div. 2, Groups F,G  
 Cl. III  
 NEMA 3,7B\*CD,9EFG

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations

Factory Sealed Control Devices



EDSC2199



EDS2299

With Allen-Bradley Bulletin 600 Switches §

**Maximum HP Ratings**

Poles	115-230 Volts AC	115-230 Volts DC	Allen-Bradley Switch Cat. #
1	1 hp		A-B BUL 600 T0X4
2	1 hp	¾ hp	A-B BUL 600 T0X5

**Single Gang**

Poles	Hub Size	Dead End Cat. #	Through Feed Cat. #
1	¾	EDS2199†	EDSC2199†
	1	EDS3199†	EDSC3199†
2	¾	EDS21100†	EDSC21100†
	1	EDS31100†	EDSC31100†

**Two Gang**

1	¾	EDS2299†	EDSC2299†
	1	EDS3299†	EDSC3299†
2	¾	EDS22100†	EDSC22100†
	1	EDS32100†	EDSC32100†

**Heater Table (Allen Bradley)**

Max. Motor Full-Load Amps	Crouse-Hinds Symbol Number	Max. Motor Full-Load Amps	Crouse-Hinds Symbol Number
0.17	P1	2.40	P20
0.21	P2	2.58	P21
0.25	P3	2.92	P22
0.32	P4	3.09	P23
0.39	P5	3.32	P24
0.46	P6	3.77	P25
0.57	P7	4.16	P26
0.71	P8	4.51	P27
0.79	P9	4.93	P28
0.87	P10	5.43	P29
0.98	P11	6.03	P30
1.08	P12	6.83	P31
1.19	P13	7.72	P32
1.30	P14	8.24	P33
1.43	P15	8.90	P34
1.58	P16	9.60	P35
1.75	P17	10.80	P36
1.88	P18	12.00	P37
2.13	P19	13.50	P38
		15.20	P39

These heaters are for motors rated 40°C continuously. For motors rated 50°C or 55°C, multiply full load motor current by 0.9 and use this value to select heaters. Symbol 0 (zero) must be used to indicate heater omitted.

\* **Class I, Group B:** All units on this page can be modified for Class I, Group B usage. Add suffix GB to the Cat. No. Seals must be installed within 1½" of each conduit opening in Division 1. In Canada, for Group B applications consult factory.

§ See page 441 for enclosures with General Electric and Cutler-Hammer switches.

† Includes one interchangeable heater. Select from the heater table and use symbol number as second section of the Cat. No. Example: EDS2199-P5. Insert symbol 0 (zero) to omit heater.

# EDS Factory Sealed Manual Motor Starting Switches and Enclosures

Dimensions Pg. 430

Cl. I, Div. 1 & 2, Groups B\*,C,D  
 Cl. II, Div. 1, Groups E,F,G  
 Cl. II, Div. 2, Groups F,G  
 Cl. III  
 NEMA 3,7B\*CD,9EFG

Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations

**5C**

## With General Electric Switches

### Maximum HP Ratings

Poles	115-230 Volts AC	115 Volts DC	230 Volts DC	G.E. Switch Cat. #
1	1 hp	1 hp	¼ hp	CR101-Y
2	1 hp	1 hp	1 hp	CR101-H

### Single Gang

Poles	Hub Size	Dead End Cat. #	Through Feed Cat. #
1	¾	EDS21093†	EDSC21093†
	1	EDS31093†	EDSC31093†
2	¾	EDS21094†	EDSC21094†
	1	EDS31094†	EDSC31094†

### Two Gang

1	¾	EDS22093†	EDSC22093†
	1	EDS32093†	EDSC32093†
2	¾	EDS22094†	EDSC22094†
	1	EDS32094†	EDSC32094†

## With Cutler-Hammer Switches

### Maximum HP Ratings

Poles	120-240 Volts AC	32 Volts DC	120 Volts DC	240 Volts DC	Cutler-Hammer Switch Cat. #
1	1 hp	¼ hp			MST01
2	1 hp	¼ hp	1 hp	1 hp	MST02

### Single Gang

Poles	Hub Size	Dead End Cat. #	Through Feed Cat. #
1	¾	EDS21101†	EDSC21101†
	1	EDS31101†	EDSC31101†
2	¾	EDS21102†	EDSC21102†
	1	EDS31102†	EDSC31102†

### Two Gang

1	¾	EDS22101†	EDSC22101†
	1	EDS32101†	EDSC32101†
2	¾	EDS22102†	EDSC22102†
	1	EDS32102†	EDSC32102†

5C Factory Sealed Control Devices

These heaters are for motors rated 40°C continuously. For motors rated 50°C or 55°C, multiply full load motor current by 0.9 and use this value to select heaters. Symbol 0 (zero) must be used to indicate heater omitted.

## Heater Table (General Electric)

Max. Motor Full-Load Amps	Crouse-Hinds Symbol Number	Max. Motor Full-Load Amps	Crouse-Hinds Symbol Number
.48	G2	3.01	G22
.53	G3	3.27	G23
.58	G4	3.56	G24
.65	G5	3.88	G25
.71	G6	4.22	G26
.78	G7	4.60	G27
.86	G8	5.00	G28
.95	G9	5.43	G29
1.04	G10	5.90	G30
1.14	G11	6.41	G31
1.25	G12	6.98	G32
1.37	G13	7.60	G33
1.49	G14	8.25	G34
1.63	G15	8.95	G35
1.78	G16	9.75	G36
1.95	G17	10.60	G37
2.13	G18	11.40	G38
2.32	G19	12.50	G39
2.53	G20	13.60	G40
2.76	G21	14.80	G41
		16.00	G42

## Heater Table (Cutler-Hammer)

Max. Motor Full-Load Amps	Crouse-Hinds Symbol Number	Max. Motor Full-Load Amps	Crouse-Hinds Symbol Number
.43	W1	2.95	W21
.48	W2	3.27	W22
.53	W3	3.59	W23
.58	W4	3.99	W24
.64	W5	4.39	W25
.71	W6	4.79	W26
.78	W7	5.26	W27
.87	W8	5.83	W28
.95	W9	6.39	W29
1.03	W10	7.03	W30
1.15	W11	7.74	W31
1.27	W12	8.46	W32
1.35	W13	9.35	W33
1.51	W14	10.30	W34
1.67	W15	11.35	W35
1.83	W16	12.47	W36
1.99	W17	13.67	W37
2.23	W18	15.12	W38
2.47	W19	16.00	W39
2.71	W20		

† Includes one interchangeable heater. Select heater from the table below individual listings and use symbol number as second section of the Cat. No. Example: EDS21101-W5. Insert symbol 0 (zero) to omit heater.

\* **Class I, Group B:** All units on this page can be modified for Class I, Group B usage. Add suffix GB to the Cat. No. Seals must be installed within 1½" of each conduit opening in Division 1. In Canada, for Group B applications consult factory.

# D2X Series FLEXITITE™ Attachable Pendant Pushbutton Stations for Class I, Div. 2 Areas Factory Sealed

NEMA 3,4X,5,6,7BCD(Div. 2),9FG(Div. 2),12  
Watertight  
Raintight  
Dust-tight  
Wet Locations

## Application:

FLEXITITE attachable pendant pushbutton stations are used:

- for safe multi-function motor circuit control of:

- Hoists
- Cranes
- Machine Tools
- Electromagnets

- in hazardous areas such as Class I, Division 2, Groups B, C and D (classified) areas or Class II, Division 2, Groups F and G, as defined by the National Electrical Code
- where wash downs are necessary – in damp, wet, dirty or corrosive locations
- for control applications requiring 2 to 8 functions

## Features:

- Safety cushioned – neoprene encapsulations protects internal switches and connectors from impact damage and provides extra protection for personnel.
- Stress relief for your cable is built-in. A separate cable grip is not needed.
- Uses Cooper Crouse-Hinds ESWP factory sealed contacts suitable for use in Class I, Division 2, Groups B, C and D
- Switches are rated for 10 amps 600 VAC (NEMA A600).
- Indicator plates meet OSHA requirements for clear identification of functions. A full set of plates is included with each station.
- Jam resistant operator buttons are raised flexible diaphragms – an integral part of the molded one-piece cover.
- Compact design
- Safety yellow finish.

## Standard Materials:

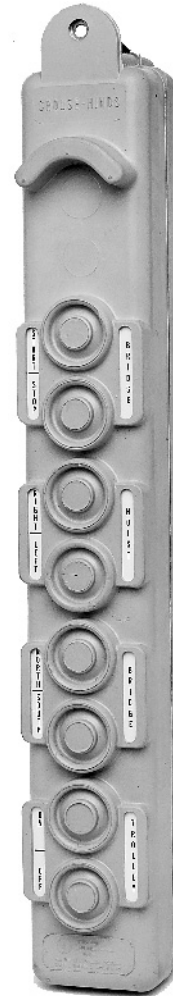
- Body and Cover – steel reinforced neoprene
- Strain relief and reinforcement plates – stainless steel
- Exterior hardware – stainless steel

## Standard Finishes:

- Neoprene – safety yellow
- Stainless steel – natural

## Certifications and Compliances:

- NEMA: 3,4X,5,6,7BCD(Div. 2),9FG(Div. 2),12
- UL Standard: 508
- CSA Standard C22.2 No.14



8-Button Control Station



# D2X FLEXITITE™ Attachable Pendant Pushbutton Stations for Class I, Div. 2 Areas

Factory Sealed

NEMA 3,4X,5,6,7BCD(Div. 2),9FG(Div. 2),12  
Watertight  
Raintight  
Dust-Tight  
Wet Locations

**5C**

5C Factory Sealed Control Devices

## Ordering Information

### Control Stations

Description	Cable Dia.	Catalog #
2-Button	.31 - .75	D2X8635-210
4-Button	.50 - .75	D2X8635-410
6-Button	.59 - .81	D2X8635-610
8-Button	.59 - .92	D2X8635-810

### Replacement Indicator Plates (A full set is included with each control station)

#### 2-Button

Part No.	Description	Part No.	Description
315116-1	Down/West	315116-7	Rev/Left
315116-2	Start/North	315116-8	Up/East
315116-3	Stop/South		
315116-4	Off/In		
315116-5	On/Out		
315116-6	Fwd/Right		

#### 4, 6 and 8-Button

Part No.	Description	Part No.	Description
314850-1	Bridge	314850-6	Fwd/Rev
314850-2	Trolley		North/South
314850-3	Hoist	314850-9	On/Off
	In/Out		Start/Stop
314850-4	Up/Down		
	Right/Left		
314850-5	East/West		

### Replacement Switch

Part No.  
ESWP126

### Dimensions (inches)

