

# EDS Series Factory Sealed Manual Motor Starting Switches and Enclosures

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

## Applications:

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:

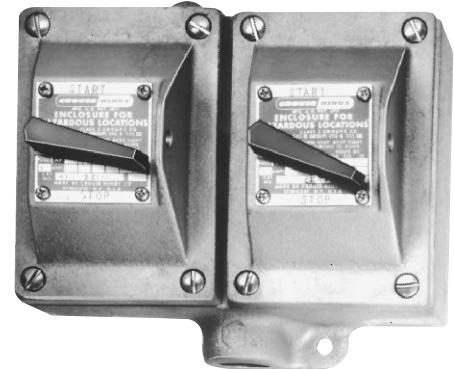
- Reduce installation problems
- Eliminate external seals
- Lower installation costs
- Improve safety
- Mounting lugs and taper tapped hubs with integral bushings
- Large machine screws for fastening covers to bodies
- Lockout hole for padlock having 1/4" hasp is provided
- Close tolerances in machining of wide, mating flanges and journalled shafts and bearings produce flametightness of enclosure joints
- Dead end (EDS) or through feed (EDSC) hubs - 3/4" or 1" sizes

## 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: 1203
- CSA Standard: C22.2 No. 30



EDSC2199



EDS2299

## Standard Materials:

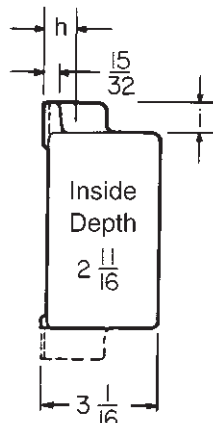
- Bodies - *Feraloy*® iron alloy (U.S.); copper-free aluminum (Canada)
- Shafts & bushings - stainless steel
- Sealing enclosures - copper-free aluminum

## Standard Finishes:

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

## Dimensions In Inches:

### Side View



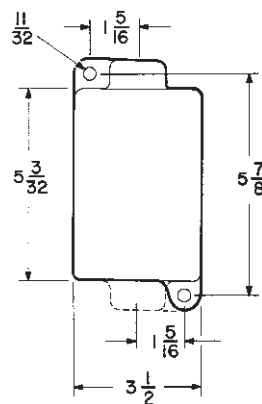
## Options:

Description	Suffix
For use in Group B hazardous areas	GB*
Bodies and covers (single and two gang units) - copper-free aluminum	SA

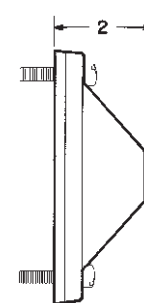
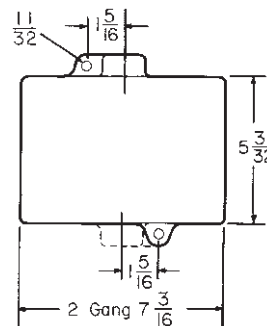
Hub Size	Dim. "h"	Dim. "i"
3/4	13/16	
1	15/16	

## Front View

### Single gang



### Two gang



Surface covers have same length and width as single & 2 gang bodies.

Dimensions are approximate, not for construction purposes.

\*Seals must be installed within 1/2" of each conduit opening in Division 1.

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**2C**

## Ordering Information

### With Allen-Bradley Bulletin 600 Switches

Maximum HP Ratings				
Poles	115-230 Volts AC	115-230 Volts DC	Cat. #	
1	1 hp		A B BUL 600 TOX4	
2	1 hp	¾ hp	A B BUL 600 TOX5	
Poles	Hub Size in.	Dead end Cat. #	Through feed Cat. #	
<b>Single Gang</b>				
1	¾	EDS2199 ①	EDSC2199 ①	
	1	EDS3199 ①	EDSC3199 ①	
2	¾	EDS21100 ①	EDSC21100 ①	
	1	EDS31100 ①	EDSC31100 ①	
<b>Two Gang</b>				
1	¾	EDS2299 ①	EDSC2299 ①	
	1	EDS3299 ①	EDSC3299 ①	
2	¾	EDS22100 ①	EDSC22100 ①	
	1	EDS32100 ①	EDSC32100 ①	

### With General Electric Switches

Maximum HP Ratings				
Poles	115-230 Volts AC	115 Volts DC	230 Volts DC	Cat. #
1	1 hp	1 hp	¼ hp	GE CR101 Y
2	1 hp	1 hp	1 hp	GE CR101 H
Poles	Hub Size in.	Dead end Cat. #	Through feed Cat. #	
<b>Single Gang</b>				
1	¾	EDS21093 ①	EDSC21093 ①	
	1	EDS31093 ①	EDSC31093 ①	
2	¾	EDS21094 ①	EDSC21094 ①	
	1	EDS31094 ①	EDSC31094 ①	
<b>Two Gang</b>				
1	¾	EDS22093 ①	EDSC22093 ①	
	1	EDS32093 ①	EDSC32093 ①	
2	¾	EDS22094 ①	EDSC22094 ①	
	1	EDS32094 ①	EDSC32094 ①	

### 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	2.92	P22
0.21	P2	3.09	P23
0.25	P3	3.32	P24
0.32	P4	3.77	P25
0.39	P5	4.16	P26
0.46	P6	4.51	P27
0.57	P7	4.93	P28
0.71	P8	5.43	P29
0.79	P9	6.03	P30
0.87	P10	6.83	P31
0.98	P11	7.72	P32
1.08	P12	8.24	P33
1.19	P13	8.9	P34
1.30	P14	9.6	P35
1.43	P15	10.8	P36
1.58	P16	12.0	P37
1.75	P17	13.5	P38
1.88	P18	15.2	P39
2.13	P19		
2.40	P20		
2.58	P21		

### 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	10.6	G37
2.13	G18	11.4	G38
2.32	G19	12.5	G39
2.53	G20	13.6	G40
2.76	G21	14.8	G41
		16.0	G42

① Includes one interchangeable heater. Select heater from the table below individual listings and use symbol number as second section of the Cat. No. Example: EDS2199-P5. Insert symbol 0 (zero) to omit heater.

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.

\*Add GB suffix. Seals must be installed within 1/2" of each conduit opening for Group B usage.

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Explosionproof  
 Dust-Ignitionproof  
 Raintight  
 Wet Locations

## With Cutler-Hammer Switches

### Maximum HP Ratings

Poles	120-240		32	120	240	Cat. #
	Volts AC	Volts DC	Volts DC	Volts DC	Volts DC	
1	1 hp	¼ hp	¼ hp	¼ hp	¼ hp	WEST MST01
2	1 hp	¼ hp	¼ hp	1 hp	¾ hp	WEST MST02

Poles	Hub Size in.	Dead end Cat. #	Through feed Cat. #
<b>Single Gang</b>			
1	¾	EDS21101 ①	EDSC21101 ①
	1	EDS31101 ①	EDSC31101 ①
2	¾	EDS21102 ①	EDSC21102 ①
	1	EDS31102 ①	EDSC31102 ①
<b>Two Gang</b>			
1	¾	EDS22101 ①	EDSC22101 ①
	1	EDS32101 ①	EDSC32101 ①
2	¾	EDS22102 ①	EDSC22102 ①
	1	EDS32102 ①	EDSC32102 ①

## Heater Table (Cutler-Hammer)

Max. Motor Full-Load Amps	Crouse-Hinds Symbol Number	Max. Motor Full-Load Amps	Crouse-Hinds Symbol Number
.43	W 1	2.95	W21
.48	W 2	3.27	W22
.53	W 3	3.59	W23
.58	W 4	3.99	W24
.64	W 5	4.39	W25
.71	W 6	4.79	W26
.78	W 7	5.26	W27
.87	W 8	5.83	W28
.95	W 9	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		

① Includes one interchangeable heater. Select heater from the table below individual listings and use symbol number as second section of the Cat. No. Example: EDS2199-P5. Insert symbol 0 (zero) to omit heater.

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.

\*Add GB suffix. Seals must be installed within 1½" of each conduit opening for Group B usage.