EDS / EFS Series Control Stations

FlexStation™ Control Station Components

Cl. I, Div. 1 & 2, Groups B (Div. 2 only) C, D
Cl. II, Div. 1 & 2, Groups E, F, G
Cl. III
Zone 1 & 2 Group IIB
NEMA 3R, 7B* (Div. 2) CD, 9 EFG, 12

Applications:

Five modular components – operators, contact blocks, covers, legend plates, and bodies – are combined to provide a variety of control stations which are:

• For use indoors or outdoors, in areas which are hazardous due to the presence of flammable gases and vapors, or combustible dust.

• Used in conjunction with magnetic starters or contactors for remote control of motors and other electrical apparatus.

• For installation in petroleum refineries, chemical, petrochemical, and other industrial process facilities; grain processing and storage facilities; and other heavy industrial applications where Class I, Class II, or Class III hazards are present.

Features:

• Momentary contact pushbuttons, maintained contact pushbuttons, and pilots lights offer a choice of functions.

• Selector switches in 2 or 3 position configurations including keyed and spring return options.

• Single-hole, two-hole, and three-hole covers for one, two, or three devices respectively per station.

• Rugged control devices for safe, reliable operation in industrial applications.

• Bodies, with extra room for wire pulling and termination, also include two integral mounting feet for fast, secure installation.

• Bodies have ½", ¾", or 1" dead-end or through-feed conduit hubs with integral bushing for protection of wire insulation.

• Covers and bodies are available in *Feraloy*® or copper-free aluminum for light weight and corrosion resistance.

• DL legend plates have large lettering to give clear indication of device function. Space is available for field markings.

Certifications and Compliances:

• NEC
   Class I, Division 1 & 2, Groups B* (Div. 2), C, D
   Class II, Division 1 & 2, Groups E, F, G
   Class III
• Zone 1 & 2 Group IIB*
• NEMA: 3R, 7B (Div. 2) CD, 9EFG, 12
• UL Standard: 1203

Standard Materials:

• Bodies, covers – *Feraloy*® or copper-free aluminum.
• Pushbuttons and guards – Type 6 / 6 nylon.
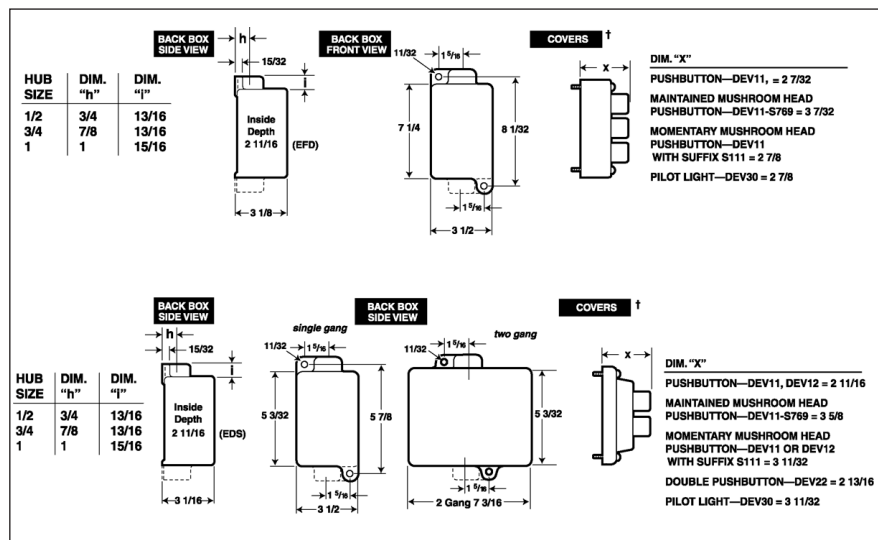• Operating shafts, bearings – stainless steel.

Standard Finishes:

• *Feraloy*® iron alloy – electrogalvanized and aluminum acrylic paint.
• Copper-free aluminum – natural.
• Stainless steel – natural.

Options:

Description	Suffix
Copper-free aluminum bodies and covers	SA
Corro-free™ epoxy finish for use in severely corrosive environments. FlexStation covers and bodies.	S752

Electrical Ratings:

• Pushbuttons and selector switches – 600 VAC heavy duty (NEMA A600).
• Pilot lights – 120 VAC.

Dimensions
In Inches:

HUB SIZE	DIM. "h"	DIM. "I"
1/2	3/4	13/16
3/4	7/8	13/16
1	1	15/16

Inside Depth 2 11/16 (EFD)

DIM. "X"
PUSHBUTTON—DEV11, = 2 7/32
MAINTAINED MUSHROOM HEAD PUSHBUTTON—DEV11-S769 = 3 7/32
MOMENTARY MUSHROOM HEAD PUSHBUTTON—DEV11 WITH SUFFIX S111 = 2 7/8
PILOT LIGHT—DEV30 = 2 7/8

HUB SIZE	DIM. "h"	DIM. "I"
1/2	3/4	13/16
3/4	7/8	13/16
1	1	15/16

Inside Depth 2 11/16 (EDS)

DIM. "X"
PUSHBUTTON—DEV11, DEV12 = 2 11/16
MAINTAINED MUSHROOM HEAD PUSHBUTTON—DEV11-S769 = 3 5/8
MOMENTARY MUSHROOM HEAD PUSHBUTTON—DEV11 OR DEV12 WITH SUFFIX S111 = 3 11/32
DOUBLE PUSHBUTTON—DEV22 = 2 13/16
PILOT LIGHT—DEV30 = 3 11/32

†Covers have same length and width as back boxes.
*For Class I, Division 1, Group B or Zone 1 Hydrogen applications, use the EFS(C) complete control station catalog numbers see page 522.
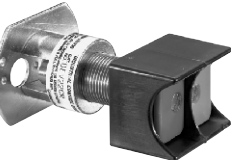
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STEP 1 – Select Operator
Pushbutton – front operated, standard black button

Description	Cat. #
Single button for 1 contact block	**DEV11**
Single button for 2 contact blocks	**DEV12**
Double buttons for 2 contact blocks	**DEV22**

Options	Suffix
Specify color for each pushbutton button (ex: DEV11G, DEV22GR). Color is black if unspecified.	
Green button - unmarked	**G**
Red button - unmarked	**R**
Momentary red mushroom head style (not available with lockout or with DEV22)	**S111**
Lockout with bar and chain (available on DEV11 and DEV12)	**S153**
Maintained red mushroom head style (lockout comes standard, do not specify S153; not available on DEV22) (Push to stop only)	**S769**

Pilot Light – factory sealed, incandescent lamp

Description	Cat. #
Pilot light with red jewel	**DEV30 J1**
Pilot light with green jewel	**DEV30 J3**
Pilot light with amber jewel	**DEV30 J6**
Pilot light with clear jewel	**DEV30 J10**
Pilot light with blue LED and clear jewel	**DEV30 J11 LED**

Options	Suffix
LED lamps (standard clear jewel with colored lamp)	**LED**
24 V lamp (not available with transformer feature)	**S300**
240 / 120 V pilot light transformer	**T2**
480 / 120 V pilot light transformer	**T4**
600 / 120 V pilot light transformer	**T5**

Selector Switch – with standard lockout

Description	Cat. #
2-position (pos. 1 – N.O., pos. 2 – N.C.) for use with 1 or 2 contact blocks	**DEV42**
3-position (pos. 1 – N.O., pos. 2 – Open, pos. 3 – N.C.) for use with 1 or 2 contact blocks	**DEV43**
3-position (pos. 1 – N.C., pos. 2 – N.O., pos. 3 – N.O. for Switch A) (pos. 1 – N.O., pos. 2 – N.O., pos. 3 – N.C. for Switch B) for use with 2 contact blocks	**DEV44**

Options	Suffix
Spring return to center from right (For DEV43 or DEV44 only)	**S634**
Spring return to center from left (For DEV43 or DEV44 only)	**S635**
Spring return to center from right and left (For DEV43 or DEV44 only)	**S842**
Key Operated – removable from all positions	**S847 K1**
Key Operated – removable from left position for DEV42 or from center for DEV43 and DEV44	**S847 K2**
Key Operated – removable from right position for DEV42 or from left for DEV43 and DEV44	**S847 K3**
Key Operated – removable from right position for DEV43 and DEV44	**S847 K4**

STEP 2 – Select Contact Block (if required).
Contact Block

Description	Cat. #
Contact block, 1 NO and 1 NC, 10A, 600VAC, A600 rating	**ESWP126**

For additional technical information see page 0000.

Note - Each control station will accept a maximum of three contact blocks. Select device operators accordingly. DEV12, DEV22 and DEV44 may not be used on a three-operator (DS443-SA) cover. DEV42 and DEV43 may not be used on a three-operator cover when using them with two contact blocks.

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STEP 3 – Select Desired Legend Plates

For use with single hole covers

Cat. #	Inscription
DL101	Blank
DL128	Run-Jog
DL129	Hand-Auto
DL130	Forward-Reverse
DL132	Open-Close
DL133	Up-Down
DL135	In-Out
DL136	Raise-Lower
DL137	Start-Stop
DL138	Run-Off-Jog
DL139	Hand-Off-Auto
DL140	For-Off-Rev
DL141	Fast-Off-Slow
DL142	1-Off-2
DL143	Open-Off-Close
DL144	Up-Off-Down
DL148	Off-On
DL149	Auto-Off-Hand
DL165	Slow-Fast
DL186	Safe-Run
DL187	Raise-Off-Lower
DL188	Slow-Off-Fast
DL189	Odd-Off-Even
DL190	Stop-Start
DL191	On-Off
DL192	Fast-Slow
DL193	Local-Remote
DL194	Trip-Reset
DL195	Auto-Manual
DL196	Start-Emer Stop
DL197	Alarm-Silence
DL198	Maint-Manual
DL199	Test-Reset

For use with 2 or 3 hole covers

Cat. #	Inscription	Cat. #	Inscription
DL01	Blank w/no fields	DL32	Open-Close
DL02	Blank w/single field	DL33	Up-Down
DL03	Blank w/2 fields	DL35	In-Out
DL05	Start	DL36	Raise-Lower
DL06	Stop	DL37	Start-Stop
DL07	On	DL38	Run-Off-Jog
DL08	Off	DL39	Hand-Off-Auto
DL09	Run	DL40	For-Off-Rev
DL10	Jog	DL41	Fast-Off-Slow
DL11	Trip	DL42	1-Off-2
DL12	Reset	DL43	Open-Off-Close
DL13	Test	DL44	Up-Off-Down
DL14	Power On	DL46	Fast
DL15	Hand	DL47	Slow
DL16	Automatic	DL48	Off-On
DL17	Emer Stop	DL49	Auto-Off-Hand
DL18	Forward	DL65	Slow-Fast
DL19	Reverse	DL85	Safe
DL20	Open	DL86	Safe-Run
DL21	Close	DL87	Raise-Off-Lower
DL22	Up	DL88	Slow-Off-Fast
DL23	Down	DL89	Odd-Off-Even
DL24	In	DL90	Stop-Start
DL25	Out	DL91	On-Off
DL26	Raise	DL92	Fast-Slow
DL27	Lower	DL93	Local-Remote
DL28	Run-Jog	DL94	Trip-Reset
DL29	Hand-Auto	DL95	Auto-Manual
DL30	Forward-Reverse	DL96	Start-Emer Stop
		DL97	Alarm-Silence
		DL98	Maint-Manual
		DL99	Test-Reset

Note: For special markings order DL101-"desired markings" or DL01-"desired markings"

STEP 4 – Select Cover

Covers
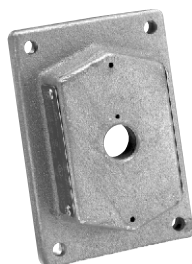
Description	Cat. #
Blank cover with single hole (Single gang)	DS441
Blank cover with 2 holes (Single gang)	DS442
Blank cover with 3 holes (To be used with EFD(C)1491-SA, 2491-SA or 3491-SA series of back boxes)	DS443 SA
Replacement cover plug for unused device operator openings	206765

| Options:	Suffix
Aluminum body (mandatory suffix on DS443 must be included in catalog number)	SA
Exterior epoxy powder coat finish	S752
Interior & exterior epoxy powder coat finish. Not available on three operator cover (DS443-SA)	S753

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STEP 5 – Select Back Box

Back Boxes - for use with DS441 and DS442 covers or with 1 gang and 2 gang DS/DSD Series covers
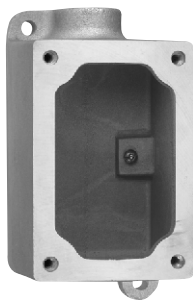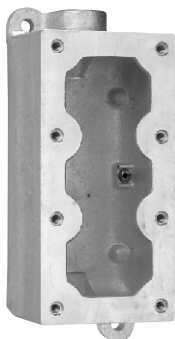
Dead End	Through Feed	Hub Size	Back Box Arrangement
EDS171	EDSC171	½"	Single gang back box
EDS271	EDSC271	¾"	Single gang back box
EDS371	EDSC371	1"	Single gang back box
EFS172	EFSC172	½"	Double gang back box
EFS272	EFSC272	¾"	Double gang back box
EFS372	EFSC372	1"	Double gang back box
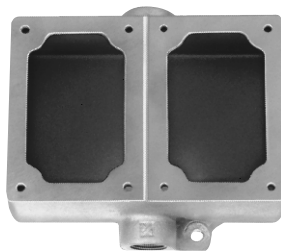
Options:	Suffix
Aluminum body	SA
Exterior epoxy powder coat finish	S752
Interior & exterior epoxy powder coat finish	S753

Back Boxes – for use with DS443-SA cover or with 1½ gang DS511 (3-operator) Series covers

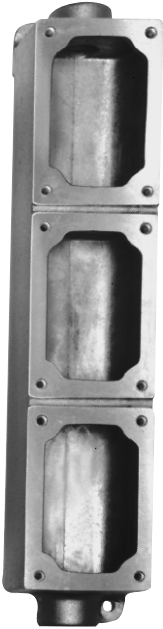| Dead End	Through Feed	Hub Size	Back Box Arrangement
EFD1491 SA	EFDC1491 SA	½"	1½ gang back box
EFD2491 SA	EFDC2491 SA	¾"	1½ gang back box
EFD3491 SA	EFDC3491 SA	1"	1½ gang back box

Options	Suffix
Exterior epoxy powder coat finish	S752
Interior & exterior epoxy powder coat finish	S753

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Back Boxes – for use with DS441 and DS442 covers

Through Feed	Hub Size	Back Box Arrangement
EDSC378	1"	3 gang tandem

Common Cover Assemblies

Cat. #	Description
DS455 ①	With one pilot light
DS476 ① ②	With one pilot light and transformer
DS456 ① ①	With two pilot lights
DS429§	With one pushbutton
DS454§	With two pushbuttons
DS510 ①§	With one pushbutton and one pilot light

①Add color symbol for each pilot light from table below.

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

②Add suffix below for transformer primary voltage:

Transformers – Voltages above 125

Nom. Volts 50–60Hz Transformer	Primary Voltage Range	Suffix
220 / 110	220–240	**T2**
440 / 110	440–480	**T4**
550 / 110	550–600	**T5**

§ If desired, markings on indicating plates may be added to catalog number. Select from the list of standard markings below:

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

COOPER Crouse-Hinds