

4C EDS / EFS Series Control Stations

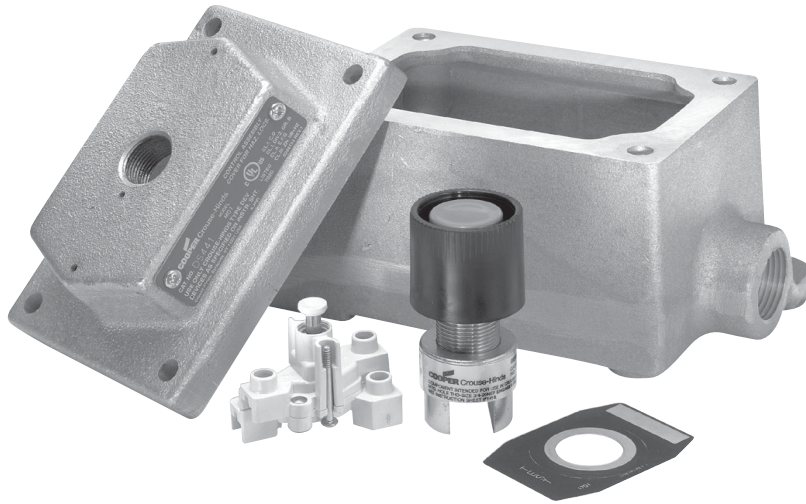
FlexStation™ Control Station Components

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 1/2", 3/4", 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.

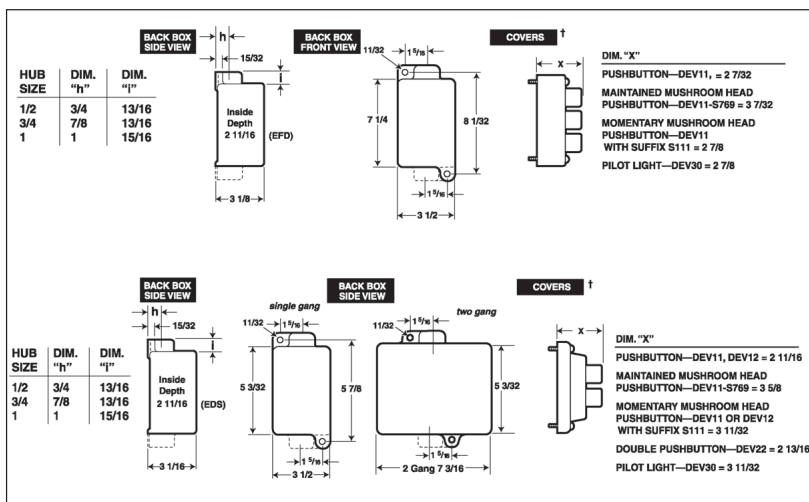
Options:

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

Electrical Ratings:

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

Dimensions In Inches:



†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 526.

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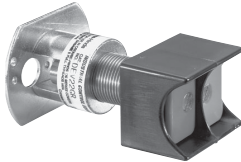
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STEP 1 – Select Operator

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 (breaks normally closed contacts only, not available with lockout or DEV22)	S111
Lockout with bar and chain (available on DEV11 and DEV12)	S153
Maintained red mushroom head (breaks normally closed and makes normally open contacts, push to stop, lockout standard, not available with DEV22)	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

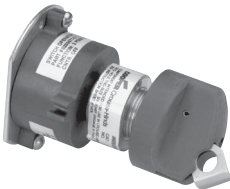


Options	Suffix
LED lamps (standard clear jewel with colored lamp)	LED
24 V lamp (not available with transformer feature)	S300
240 / 120 V pilot light transformer	T2
480 / 120 V pilot light transformer	T4
600 / 120 V pilot light transformer	T5

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*

*Additional key lock housings available; please contact Customer Service.

STEP 2 – Select Contact Block (if required). For product details see page 571.

Contact Block



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

For additional technical information see page 571.

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

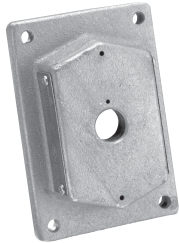
Cat. #	Inscription
DL101	Blank
DL128	Run-Jog
DL129	Hand-Auto
DL130	Forward-Reverse
DL132	Open-Close
DL133	Up-Down
DL135	In-Out
DL136	Raise-Lower
DL137	Start-Stop
DL138	Run-Off-Jog
DL139	Hand-Off-Auto
DL140	For-Off-Rev
DL141	Fast-Off-Slow
DL142	1-Off-2
DL143	Open-Off-Close
DL144	Up-Off-Down
DL148	Off-On
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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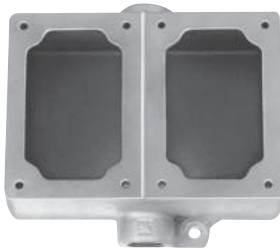
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STEP 5 – Select Back Box

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	1/2"	Single gang back box
EDS271	EDSC271	3/4"	Single gang back box
EDS371	EDSC371	1"	Single gang back box
EDS172	EDSC172	1/2"	Double gang back box
EDS272	EDSC272	3/4"	Double gang back box
EDS372	EDSC372	1"	Double gang back box



Options:	Suffix
Aluminum body	SA
Exterior epoxy powder coat finish	S752
Interior & exterior epoxy powder coat finish	S753

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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	1/2"	1½ gang back box
EFD2491 SA	EFDC2491 SA	3/4"	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

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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	

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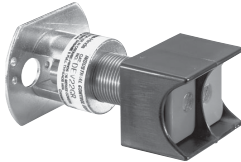
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STEP 1 – Select Operator

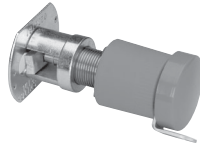
Pushbutton – front operated, standard black button



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 (breaks normally closed contacts only, not available with lockout or DEV22)	S111
Lockout with bar and chain (available on DEV11 and DEV12)	S153
Maintained red mushroom head (breaks normally closed and makes normally open contacts, push to stop, lockout standard, not available with DEV22)	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

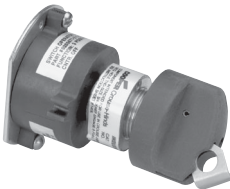


Options	Suffix
LED lamps (standard clear jewel with colored lamp)	LED
24 V lamp (not available with transformer feature)	S300
240 / 120 V pilot light transformer	T2
480 / 120 V pilot light transformer	T4
600 / 120 V pilot light transformer	T5

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*

*Additional key lock housings available; please contact Customer Service.

STEP 2 – Select Contact Block (if required). For product details see page 571.

Contact Block



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

For additional technical information see page 571.

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

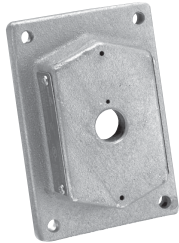
Cat. #	Inscription
DL101	Blank
DL128	Run-Jog
DL129	Hand-Auto
DL130	Forward-Reverse
DL132	Open-Close
DL133	Up-Down
DL135	In-Out
DL136	Raise-Lower
DL137	Start-Stop
DL138	Run-Off-Jog
DL139	Hand-Off-Auto
DL140	For-Off-Rev
DL141	Fast-Off-Slow
DL142	1-Off-2
DL143	Open-Off-Close
DL144	Up-Off-Down
DL148	Off-On
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

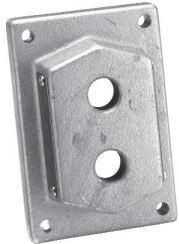
Cat. #	Inscription	Cat. #	Inscription
DL01	Blank w/no fields	DL32	Open-Close
DL02	Blank w/single field	DL33	Up-Down
DL03	Blank w/2 fields	DL35	In-Out
DL05	Start	DL36	Raise-Lower
DL06	Stop	DL37	Start-Stop
DL07	On	DL38	Run-Off-Jog
DL08	Off	DL39	Hand-Off-Auto
DL09	Run	DL40	For-Off-Rev
DL10	Jog	DL41	Fast-Off-Slow
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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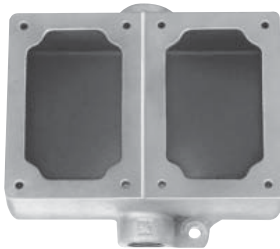
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STEP 5 – Select Back Box

Back Boxes - for use with DS441 and DS442 covers or with 1 gang and 2 gang DS/DSD Series covers



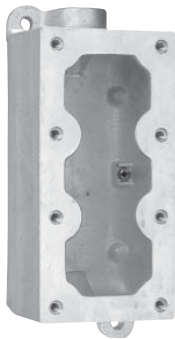
Dead End	Through Feed	Hub Size	Back Box Arrangement
EDS171	EDSC171	1/2"	Single gang back box
EDS271	EDSC271	3/4"	Single gang back box
EDS371	EDSC371	1"	Single gang back box
EDS172	EDSC172	1/2"	Double gang back box
EDS272	EDSC272	3/4"	Double gang back box
EDS372	EDSC372	1"	Double gang back box



Options:	Suffix
Aluminum body	SA
Exterior epoxy powder coat finish	S752
Interior & exterior epoxy powder coat finish	S753

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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	1/2"	1½ gang back box
EFD2491 SA	EFDC2491 SA	3/4"	1½ gang back box
EFD3491 SA	EFDC3491 SA	1"	1½ gang back box

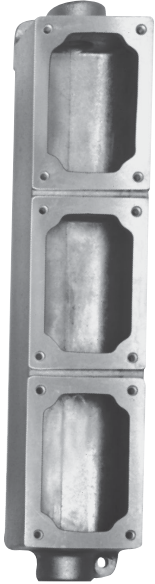
Options	Suffix
Exterior epoxy powder coat finish	S752
Interior & exterior epoxy powder coat finish	S753

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 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

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	