

# off-the-shelf turnaround times.



The FlexStation offering is a complete system of interchangeable control station devices that can be quickly and easily assembled on-site into hundreds of configurations, to meet your specific application requirements.

### Applications

FlexStation factory-sealed control stations are installed in a rigid metallic conduit system for surface mounting adjacent to or remote from equipment being controlled. They are used:

- in conjunction with magnetic starters or contactors for remote control of motors
- to prevent arcing of an enclosed device from causing ignition of hazardous atmosphere(s) outside the enclosure
- in industrial areas where the atmosphere may contain hazardous gases and/or dusts, 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, and metal handling or finishing areas
- in nonhazardous areas where sturdy, durable enclosures are required

### A COMPLETE SYSTEM OF DEPENDABLE DEVICES AND COMPONENTS

- |   |  |  |
|---|--|--|
| <ul style="list-style-type: none"> <li>■ Device operators                     <ul style="list-style-type: none"> <li>- Pushbuttons, including single and double maintained and momentary buttons (red/green/black)</li> <li>- Pilot lights in five colors with and without transformers</li> <li>- Selector switches including keyed and spring return to center options</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>■ Covers                     <ul style="list-style-type: none"> <li>- Iron or aluminum</li> <li>- One, two or three device holes</li> <li>- Cover subassemblies with various combinations of operators on a single cover</li> </ul> </li> <li>■ Back boxes                     <ul style="list-style-type: none"> <li>- Iron or aluminum</li> </ul> </li> </ul> | <ul style="list-style-type: none"> <li>■ Contact blocks                     <ul style="list-style-type: none"> <li>- Factory sealed</li> </ul> </li> <li>■ Device legend plates including premarked and blank</li> <li>■ Hinged and open-front environmental control station covers</li> </ul> |
|---|--|--|

The FlexStation line also includes a three-operator cover. The following combinations may be used on the three-operator cover; order by components.

- Triple pushbutton
- Triple pilot light
- Plus any other combination of pushbuttons, pilot lights and selector switches, limited to one contact block per device
- Two pilot lights plus single pushbutton
- Two pushbuttons plus single pilot light

### Standard Materials

- Back boxes and covers – Feraloy® or copper-free aluminum
- Device operators
  - guard – nylon
  - operator bearing – stainless steel
  - operating shaft – stainless steel
  - mounting block – iron with zinc plate finish
  - pushbutton button – nylon
  - pilot light jewel – tempered glass
- Legend plate – aluminum
- Contact blocks – thermoplastic with brass contacts

### Standard Finishes

- Feraloy – electrogalvanized and aluminum acrylic paint
- Copper-free aluminum – natural
- Stainless steel – natural

### Electrical Ratings

- Pushbuttons – 600 VAC heavy-duty (NEMA A600)
- Pilot lights – 120 V (higher voltages available, see options)

### Compliances

- |                                      |                        |
|--------------------------------------|------------------------|
| Class I, Division 1, Groups* C, D    | Class III              |
| Class I, Division 2, Groups B, C, D  | Zone 1 & 2 Groups IIB* |
| Class II, Division 1, Groups E, F, G | UL/cUL Listed          |
| Class II, Division 2, Groups F, G    |                        |



Hinged and open-front environmental covers are available. See page 5 for ordering information.

\* For Class I, Division 1, Group B or Zone 1 Hydrogen applications, use the EFS(C) complete control station catalog numbers listed in Product Catalog.

# 5 Steps

To make component selection simple we have developed the following five-step process. A worksheet that can be completed and used as a reference when pulling components from stock is available from the Resources area of the Cooper Crouse-Hinds website.



## Step 1 Select a Cover

Cover only – No Device Operators or Contact Blocks	Cat. #
Single gang (Iron cover with single hole)	DS441
Single gang (Iron cover with 2 holes)	DS442
1½ gang (Aluminum cover with 3 holes, to be used with EFD1491-SA series of back boxes)	DS443-SA
Replacement cover plug for unused device operator openings	DS: 0206765

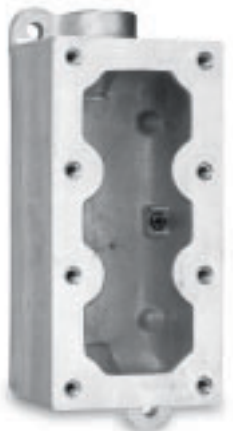
Options	Suffix to be added to cat. #
Aluminum cover (mandatory suffix on DS443)	SA
Exterior epoxy powder coat finish	S752
Interior & exterior epoxy powder coat finish. Not available on three-operator cover (DS443-SA)	S753

## Step 2 Select a Back Box



### DEAD END

Back Box Arrangement	Hub Size	Cat. #	Use with Cover
Single gang back box	1/2"	EDS171*	DS441 or DS442
Single gang back box	3/4"	EDS271*	DS441 or DS442
Single gang back box	1"	EDS371*	DS441 or DS442
Two gang back box	1/2"	EDS172*	DS441 or DS442
Two gang back box	3/4"	EDS272*	DS441 or DS442
Two gang back box	1"	EDS372*	DS441 or DS442
1½ gang back box	1/2"	EFD1491-SA	DS443-SA
1½ gang back box	3/4"	EFD2491-SA	DS443-SA
1½ gang back box	1"	EFD3491-SA	DS443-SA



### THROUGH FEED

Back Box Arrangement	Hub Size	Cat. #	Use with Cover
Single gang back box	1/2"	EDSC171*	DS441 or DS442
Single gang back box	3/4"	EDSC271*	DS441 or DS442
Single gang back box	1"	EDSC371*	DS441 or DS442
Two gang back box	1/2"	EDSC172*	DS441 or DS442
Two gang back box	3/4"	EDSC272*	DS441 or DS442
Two gang back box	1"	EDSC372*	DS441 or DS442
1½ gang back box	1/2"	EFDC1491-SA	DS443-SA
1½ gang back box	3/4"	EFDC2491-SA	DS443-SA
1½ gang back box	1"	EFDC3491-SA	DS443-SA

Options	Suffix to be added to cat. #
*Aluminum body	SA
Exterior epoxy powder coat finish	S752
Interior & exterior epoxy powder coat finish	S753

# Step 3

## Select Device Operators\*

### PUSHBUTTON *front operated, standard black button*



Description	Cat. #
Single button for 1 contact block .....	DEV11
Single button for 2 contact blocks .....	DEV12
Double buttons .....	DEV22
Options	Suffix to be added to cat. #
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) .....	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 J11LED
Options	Suffix to be added to cat. #
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.) .....	DEV42
3-position (pos. 1 – N.O., pos. 2 – Open, pos. 3 – N.C.) .....	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) .....	DEV44
Options	Suffix to be added to cat. #
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

\*Each control station will accept a maximum of three contact blocks. Select device operators accordingly (see step 4 for # of contact blocks required per operator). 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.

## Step 4

# Determine Number of Required Contact Blocks

(DETERMINE NUMBER REQUIRED FOR EACH DEVICE OPERATOR SELECTED IN STEP 3.)



### PUSHBUTTON

Operator	Quantity Required	Cat. #
DEV11 (single button for 1 contact block)	1	ESWP126
DEV12 (single button for 2 contact blocks)	2	ESWP126
DEV22 (double buttons)	2	ESWP126

### PILOT LIGHT

Operator	Quantity Required	Cat. #
DEV30 (no contact block required)	0	N/A

### SELECTOR SWITCH

Operator	Quantity Required	Cat. #
DEV42 (2 position)	1 or 2	ESWP126
DEV43 (3 position)	1 or 2	ESWP126
DEV44 (3 position)	2	ESWP126

## Step 5

# Select Device Legend Plates

(CHOOSE ONE FOR EACH OPERATOR.)

Aluminum Device Legend Plates are used for Identification of Operator/Function. Customer-specific markings may be stamped on blank legend plates with fields (except on DL01). Standard package quantity is 10. For special markings order DL01 – “desired marking.” Optional lamacoid identification plates are available – consult the factory for ordering information.



### PUSHBUTTON & PILOT LIGHT *one function markings*

Cat. #	Description	Cat. #	Description	Cat. #	Description	Cat. #	Description
DL16	Automatic	DL46	Fast	DL20	Open	DL47	Slow
DL01	Blank w/ no fields	DL18	Forward	DL25	Out	DL05	Start
DL02	Blank w/ single field	DL15	Hand	DL14	Power On	DL06	Stop
DL21	Close	DL24	In	DL26	Raise	DL13	Test
DL23	Down	DL10	Jog	DL12	Reset	DL11	Trip
DL17	Emer Stop	DL27	Lower	DL19	Reverse	DL22	Up
		DL08	Off	DL09	Run		
		DL07	On	DL85	Safe		

### DOUBLE PUSHBUTTON & 2-POSITION SELECTOR SWITCH *two function markings; first marking is on top left, second is on bottom right*

Cat. #	Description	Cat. #	Description	Cat. #	Description	Cat. #	Description
DL97	Alarm-Silence	DL29	Hand-Auto	DL32	Open-Close	DL37	Start-Stop
DL95	Auto-Manual	DL35	In-Out	DL36	Raise-Lower	DL90	Stop-Start
DL03	Blank w/ 2 fields	DL93	Local-Remote	DL28	Run-Jog	DL99	Test-Reset
DL92	Fast-Slow	DL98	Maint-Manual	DL86	Safe-Run	DL94	Trip-Reset
DL30	Forward-Reverse	DL48	Off-On	DL65	Slow-Fast	DL33	Up-Down
		DL91	On-Off	DL96	Start-Emer Stop		

## Step 5 Continued



### 3-POSITION SELECTOR SWITCH *three function markings; markings are left to right*

Cat. #	Description	Cat. #	Description	Cat. #	Description	Cat. #	Description
DL42	1-Off-2	DL41	Fast-Off-Slow	DL89	Odd-Off-Even	DL38	Run-Off-Jog
DL49	Auto-Off-Hand	DL40	For-Off-Rev	DL43	Open-Off-Close	DL88	Slow-Off-Fast
DL04	Blank w/3 fields	DL39	Hand-Off-Auto	DL87	Raise-Off-Lower	DL44	Up-Off-Down

2-position and 3-position selector switch device legend plates are available in large-print versions. These larger plates are only for use with DS441 (1-device covers) or DS443-SA (3-device covers). To order, add "1" to the device legend plate catalog number. Example: for a large-print "Auto-Off-Hand" for a 3-position selector switch, order DL149. Markings are to left and right.

**Your FlexStation Control Station is now complete!**

## Optional Hinged & Open-Front Environmental Covers

Patented design provides added environmental protection.

### HINGED COVERS



- Heavy-duty, impact-resistant, polycarbonate cover with stainless steel or heavy-duty Lexan hinge.
- Clear material allows visibility of all controls.
- Superior sealing provided by heavy-duty neoprene gaskets.
- Lock out/tag out ability provides personnel safety.
- Unique patented design allows installation in seconds without any interruption of service.
- Specific chemical-resistant covers available (may not be clear) – consult factory for minimum order quantity.
- Capability to engineer cover to fit any size device – consult factory.

#### Description

#### Cat. #

For single gang back box .....	NC-CH1
For two gang back box .....	NC-CH2

### OPEN-FRONT COVERS

- Heavy-duty, impact-resistant, polycarbonate cover.
- Clear material allows visibility of all controls.
- Unique patented design allows installation in seconds without any interruption of service.
- Specific chemical-resistant covers available (may not be clear) – consult factory for minimum order quantity.
- Capability to engineer cover to fit any size device – consult factory.

#### Description

#### Cat. #

For single gang back box .....	NC-CH1-QA
For two gang back box .....	NC-CH2-QA

# Control Station Cover Assemblies

New cover assemblies with a selector switch and a pilot light are now available in five configurations by simply ordering the catalog items below. For all other DSD cover assemblies, see section 4C of Cooper Crouse-Hinds Product Catalog.



## ORDERING INFORMATION

### Description (all with pilot light)

### Cat. #

2 position selector switch, two circuit (pos. 1 – N.O., pos. 2 – N.C.) .....	DSD973*
2 position selector switch, four circuit (pos. 1 – N.O., pos. 2 – N.C. for both switches).....	DSD974*
3 position selector switch, two circuit (pos. 1 – N.O., pos. 2 – open, pos. 3 – N.C.) .....	DSD975*
3 position selector switch, four circuit (pos. 1 – N.O., pos. 2 – open, pos. 3 – N.C. for both switches) .....	DSD976*
3 position selector switch, four circuit (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).....	DSD977*

### \*Select color for pilot light

### Suffix to be added to cat. #

Red jewel .....	J1
Green jewel .....	J3
Amber jewel .....	J6
Clear jewel .....	J10
Blue LED with clear jewel .....	J11 LED

For selector switch markings, add the desired marking as a suffix.

Example: DSD976-J1-RUN-OFF-JOG

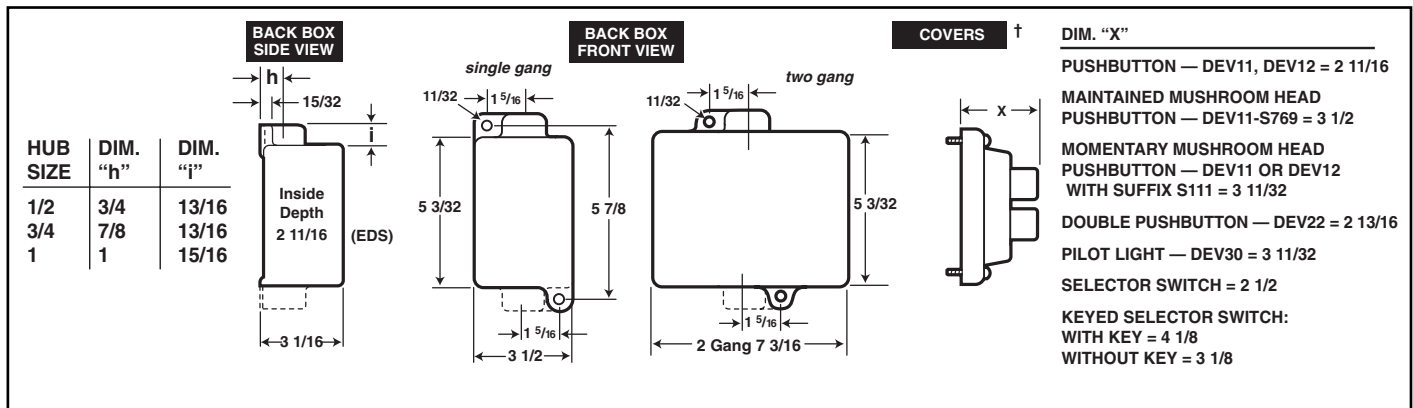
Two-Position: RUN-JOG, HAND-AUTOMATIC, FORWARD-REVERSE, FAST-SLOW,  
OPEN-CLOSE, UP-DOWN, ON-OFF, IN-OUT, RAISE-LOWER, START-STOP

Three-Position: RUN-OFF-JOG, HAND-OFF-AUTO, FORWARD-OFF-REVERSE,  
FAST-OFF-SLOW, 1-OFF-2, OPEN-OFF-CLOSE, UP-OFF-DOWN

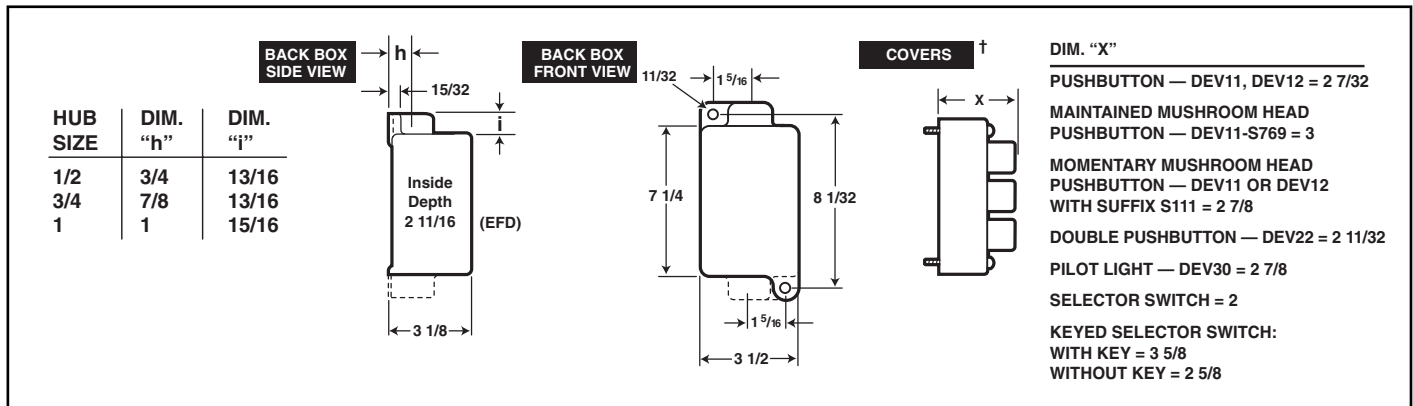
**Many additional control station cover assemblies are available from Cooper Crouse-Hinds. See product catalog section 4C for a complete listing of cover assemblies including manual motor starters, pushbuttons, snap switches, selector switches and pilot light devices.**

## Dimensions\* (inches)

### ONE- AND TWO-OPERATOR CONTROL STATIONS – SINGLE AND TWO GANG



### THREE-OPERATOR CONTROL STATIONS



\* Dimensions are approximate, not for construction purposes.

† Covers have same length and width as back boxes.

### Distributed by:

### For more information:

If further assistance is required, please contact an authorized Cooper Crouse-Hinds Distributor, Sales Office or Customer Service Department:

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