# EFD/EFDB and EDS Series Factory Sealed Control Stations <br> Explosionproof, Dust-Ignitionproof 

## NEC:

Class I, Division 1 and 2, Groups B \&, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 3, 7CD, 9EFG

## Applications

- Push buttons and selector switches are used in conjunction with contactors or magnetic starters for remote control of motors. They provide circuit control and/or selection.
- Pilot lights provide visual assurance that an electrical function is being performed at a remote or local location.
- EFD/EFDB and EDS factory sealed control stations confine arcing of device within the enclosure, preventing ignition of ignitable atmospheres during control operation of motors and other equipment.
- Used in classified areas where flammable vapors, gases or highly combustible dusts are present.
- For installation in chemical and petrochemical plants, refineries, and other process industries.


## Features

- EFD/EFDB Push Buttons and Selector Switches
- Eliminate need for adding sealing fittings and compound at each conduit entrance.
- Heavy-duty push buttons, 10 Amp, 600 Vac rated.
- Dozens of possible combinations of push buttons, pilot lights and selector switches.
- Smooth, rounded integral bushing in each EFD/EFDB hub protects conductor insulation.
- Accurately tapped, tapered hubs for tight, rigid joints and ground continuity.
- Stainless steel push button shaft operates within stainless steel bushing assuring long, maintenance free operation.
- Push button and selector switch contacts are silver cadmium oxide which are "sealed" in lower phenolic chamber isolated from corrosive elements. Assures positive contact and long, trouble-free operation.
- Enclosed stainless steel helper spring prevents accidental operation of push button in severe vibration installations.
- Push button models also available with dust cap for use in areas where excessive dust, moisture or corrosive conditions are encountered.
- Corrosion resistant captive stainless steel hex head cap screws hold EFKB covers to body.
- All EFD/EFDB momentary push buttons are supplied with lockout type guards as standard. Hole in guard will accept locks with up to $1 / 4$ " hasp. Permits locking of push button to prevent unauthorized operation.
- Clearly marked terminals with brass screws assure quick, easy wiring.
- EFD/EFDB Pilot Lights
- Factory sealed pilot lights supplied with red jewel/guard assembly and $120 \mathrm{Vac} / \mathrm{Vdc}, 50 / 60 \mathrm{~Hz}, 6$ Watt, Type 6 S 6 lamp.
- Models also available in combination with factory sealed push buttons and selector switches.
- EFD/EFDB Selector Switches
- Factory sealed selector switches furnished with nylon camoperated, heavy-duty push buttons for either 2-position or 3-position maintained contact operation.
- High thermal and arc resistance, high dielectric strength.
- EDS Push Buttons
- Factory sealed - eliminates need for adding sealing fittings and compound at each conduit entrance.
- Heavy duty, 10 Amp, 600 Vac.
- Switch is enclosed in separate sealing chamber.



## Standard Materials

- EFDB control stations: malleable iron body with copperfree (4/10 of 1\% max.) aluminum cover
- SPBB push putton: copperfree (4/10 of $1 \%$ max.) aluminum upper barrel and phenolic lower barrel with nylon plastic button (dust cap models have neoprene buttons)
- SPLN/SPLS pilot light: copperfree (4/10 of $1 \%$ max.) aluminum guard and body assembly; steel clamping ring; and tempered glass jewel
- SSBA selector switch: copperfree (4/10 of $1 \%$ max.) aluminum operator mechanism, nylon cam, and sealed phenolic contact block
- EDS control stations: malleable iron body and cover; copperfree (4/10 of $1 \%$ max.) aluminum sealing chamber; and nylon operating handle
- Select items suitable for Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G and Class III. See product selection pages for suitable items.


# EFD/EFDB and EDS Series Factory Sealed Control Stations <br> Explosionproof, Dust-Ignitionproof 

## NEC/CEC:

Class I, Division 1 and 2, Groups B *, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 3, 7CD, 9EFG

## Standard Finishes

- EFD/EFDB control stations: body, triple-coat-(1) zinc electroplate, (2) chromate, and (3) epoxy powder coat
- SPBB push button, SPLN/SPLS pilot light and SSBA selector switch: natural finish
- EDS control stations: body and cover: triple-coat-(1) zinc electroplate, (2) chromate, and (3) epoxy powder coat sealing chamber, natural finish


## Options

- 1- or 2-gang copperfree (4/10 of $1 \%$ max.) aluminum bodies and covers available. Add suffix - A.
- Three position selector switches with modified operation.
- Momentary contact right position, spring return to center, maintained contact left position. Add suffix - SRC.
- Momentary contact left position, spring return to center, maintained contact right position. Add suffix -SLC.
- Alternate contacts add suffix - ALT.
- EFD/EFDB selector switch lockout locks two or three position handle in any position. Add suffix -LD.
- Push button front operated mushroom head (momentary contact): Order by suffixes for desired color as follows:
- Red - NMRBRE
- Green -NMRBGR
- Black -NMRBBL
- EFD/EFDB pilot light jewel/guard assembly. Order by suffixes if color desired is other than red, as follows:
- Amber - JGBA
- Blue -JGBB
- Clear -JGBC
- Green -JGBG;
- Opal -JGBO
- For colored LED jewel/guard assembly, order by suffixes:
- Red - LEDR
- Green - LEDG
- Amber - LEDA
- EFD/EFDB pilot light transformers for single pilot light per gang. Order by suffix:

| Primary Voltage | Lamp Voltage | Suffix |
| :---: | :---: | :---: |
| 220 | 120 | -TR-2 |
| 277 | 120 | -TR-3 |
| 440 | 120 | -TR-4 |
| 550 | 120 | -TR-5 |

- EFD and EDS units may be supplied with brazed hubs as 3-, $4-$, and $5-$ gang in a variety of hub configurations. See Ordering Information page for how to order these and other "custom" units by adding suffixes to mounting body catalog numbers.
- Securing Rod for EFD/EFDB Push Button Lockout Guard. Add suffix - SR.
- NPBRKT Nameplate Mounting Bracket to make circuit description/identification easy.
- Pre-drilled holes in bottom of bracket allow direct mounting to control stations with existing cover bolts.
- Pre-drilled holes in middle of bracket allow mounting of customer's circuit identification nameplate; epoxy glue may also be used for mounting (phenolic nameplate not included).
- Bracket eliminates costly field installation of drilling and tapping to accommodate circuit identification nameplate.
- Brackets fit side-by-side on 2-, 3- and 4-gang boxes and 3-devices.


## NEC Certifications and Compliances

- UL Standards: UL 508, UL 698, UL 1203
- cULus Listed: E10449, E81751


## Related Products

- For Hazardous Location Photocontrols, see Lighting Section.


## Illustrated Features



EDS factory sealed rocker arm push button control station shows separate sealing chamber and device construction. Rocker arm has holes for lock.


## SPBB Design Features



[^0]
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Catalog Numbering Guide


Full Catalog \# EFDCT10-J1U2-JGBG-SNPTESTQ-U2-SNPTESTQ-SNPRUNQ
Feed-Thru Tandem Box with 1" Hubs.
In Gang \#1: 2 Momentary Push Buttons and a Green Pilot Light.
In Gang \#2: 2 Momentary Push Buttons with One Securing Rod.
With Special "Test" and "Run" Push Button Nameplates.
Options

| Options Description | Suffix |
| :--- | :--- |
| Momentary Push Button Securing Rod | SR |
| Selector Switch Lockout | LD |
| Spring Return From Right Selector Switch (3 Positions Only) | SRC |
| Spring Return From Left Selector Switch (3 Positions Only) | SLC |
| Alternate Contacts Selector Switch | ALT |
| Change One Red Lens to Green Lens | JGBG |
| Change One Red Lens to Opal Lens | JGBO |
| Change One Red Lens to Amber Lens | JGBA |
| Change One Red Lens to Blue Lens | JGBB |
| Change One Red Lens to Clear Lens | JGBC |
| Add 220/120 Vac Transformer (J1 Device Only) | TR2 |
| Add 277/120 Vac Transformer (J1 Device Only) | TR3 |
| Add 440/120 Vac Transformer (J1 Device Only) | TR4 |
| Add 550/120 Vac Transformer (J1 Device Only) | TR5 |
| Change One Red Pilot to Red LED | LEDR |
| Change One Red Lens to Green LED | LEDG |
| Change One Red Lens to Amber LED | LEDA |
| Add Red Mushroom Head to Momentary Push Button | NMRBRE |
| Add Black Mushroom Head to Momentary Push Button | NMRBBL |
| Add Green Mushroom Head to Momentary Push Button | NMRBGR |
| Locking Guard for Maintained Push Button | SMPBLG |

- Select items suitable for Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G and Class III. See product selection pages for suitable items.


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Explosionproof, Dust-Ignitionproof

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NEC/CEC:
Class I, Division 1 and 2, Groups B \&, C, D
Class II, Division 1 and 2, Groups E, F, G
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```

Devices

| Device Description | Available in 1-G, 2-G, Tandem | Available in 3-Device | Suffix |
| :---: | :---: | :---: | :---: |
| One Pilot Light (Red Standard) | Y |  | J1 |
| Two Pilot Lights | Y |  | J2 |
| One Pilot Light and One Momentary Push Button | Y |  | J1U1 |
| One Pilot Light and Two Momentary Push Buttons | Y | Y | J1U2 |
| One Pilot Light and One Maintained Push Button | Y |  | J1UM1 |
| One Pilot Light and One Dust Cap Push Button | Y |  | J1DU1 |
| One Pilot Light and One 12 Selector Switch (2 Position, 2 Circuit) | Y |  | J112 |
| One Pilot Light and One 35 Selector Switch (2 Position, 4 Circuit) | Y |  | J135 |
| One Pilot Light and One 102 Selector Switch (3 Position, 2 Circuit) | Y |  | J1102 |
| One Pilot Light and One 345 Selector Switch (3 Position, 4 Circuit) | Y |  | J1345 |
| One Monetary Push Button | Y |  | U1 |
| Two Monetary Push Buttons | Y |  | U2 |
| Two Side-By-Side Momentary Push Buttons | Y |  | U2DBL |
| Three Monetary Push Buttons | Y | Y | U3 |
| One Momentary Push Button and One Maintained Push Button | Y |  | U1UM1 |
| One Momentary Push Button and One Dust Cap Push Button | Y |  | U1DU1 |
| One Momentary Push Button and One 12 Selector Switch (2 Position, 2 Circuit) | Y |  | U112 |
| One Momentary Push Button and One 35 Selector Switch (2 Position, 4 Circuit) | Y |  | U135 |
| One Momentary Push Button and One 102 Selector Switch (3 Position, 2 Circuit) | Y |  | U1102 |
| One Momentary Push Button and One 345 Selector Switch (3 Position, 4 Circuit) | Y |  | U1345 |
| One Maintained Push Button (Mushroom Head - Red) | Y |  | UM1 |
| Two Maintained Push Button | Y |  | UM2 |
| One Maintained and One Dust Cap Push Button | Y |  | UM1DU1 |
| One Maintained Push Button and One 12 Selector Switch (2 Position, 2 Circuit) | Y |  | UM112 |
| One Maintained Push Button and One 35 Selector Switch (2 Position, 4 Circuit) | Y |  | UM135 |
| One Maintained Push Button and One 102 Selector Switch (3 Position, 2 Circuit) | Y |  | UM1102 |
| One Maintained Push Button and One 345 Selector Switch (3 Position, 4 Circuit) | Y |  | UM1345 |
| One Dust Cap Push Button | Y |  | DU1 |
| Two Dust Cap Push Buttons | Y |  | DU2 |
| One Dust Cap and One 12 Selector Switch (2 Position, 2 Circuit) | Y |  | DU112 |
| One Dust Cap and One 35 Selector Switch (2 Position, 4 Circuit) | Y |  | DU135 |
| One Dust Cap and One 102 Selector Switch (3 Position, 2 Circuit) | Y |  | DU1102 |
| One Dust Cap and One 345 Selector Switch (3 Position, 4 Circuit) | Y |  | DU1345 |
| One 12 Selector Switch (2 Position, 2 Circuit) | Y |  | 12 |
| One 35 Selector Switch (2 Position, 4 Circuit) | Y |  | 35 |
| One 102 Selector Switch (3 Position, 2 Circuit) | Y |  | 102 |
| One 345 Selector Switch (3 Position, 4 Circuit) | Y |  | 345 |
| 120 Vac Photocell | Y |  | PC120 |
| 277 Vac Photocell | Y |  | PC277 |
| Three Dust Cap Push Buttons |  | Y | DU3 |
| One Momentary and Two Maintained Push Buttons |  | Y | U1UM2 |
| Two Momentary and One Maintained Push Buttons | Y | Y | U2UM1 |
| Three Maintained Push Buttons |  | Y | UM3 |
| Three Pilot Lights |  | Y | J3 |
| Two Pilot Lights and One Momentary Push Button |  | Y | J2U1 |
| One Pilot Light and Two Dust Cap Push Buttons |  | Y | J1DU2 |
| Two Pilot Lights and One Dust Cap Push Button |  | Y | J2DU1 |
| One Pilot Light and Two Maintained Push Buttons |  | Y | J1UM2 |
| Two Pilot Lights and One Maintained Push Button |  | Y | J2UM1 |

- Select items suitable for Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G and Class III. See product selection pages for suitable items.

```
NEC/CEC:
Class I, Division 1 and 2, Groups B*, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 3, 7CD, 9EFG
```

Nameplates (1)

| Description | Suffix |
| :---: | :---: |
| Mushroom Head Push Buttons (Maintained and Momentary) |  |
| Start | MNPSTQ |
| Stop | MNPSPQ |
| Emergency Stop | MNPESTPQ |
| Blank | MNPBQ |
| Pilot Light Nameplates |  |
| Blank | LNPBQ |
| Forward | LNPFWDQ |
| Jog | LNPJOGQ |
| Run | LNPRUNQ |
| Stop | LNPSPQ |
| Start | LNPSTQ |
| Down | LNPDOWNQ |
| Fast | LNPFASTQ |
| Slow | LNPSLOWQ |
| Raise | LNPRAISEQ |
| Lower | LNPLOWERQ |
| Reset | LNPRESETQ |
| Off | LNPOFFQ |
| On | LNPONQ |
| Reverse | LNPREVQ |
| Close | LNPCLOSEQ |
| Open | LNPOPENQ |
| Up | LNPUPQ |
| Test | LNPTESTQ |
| Low | LNPLOWQ |
| High | LNPHIGHQ |
| Two Position Selection Switch Nameplates |  |
| Forward-Reverse | SLNPFRQ |
| Hand-Auto (2) | SLNPHAQ |
| On-Off | SLNPOO |
| Start-Stop | SLNPSS |
| Blank | SLNPBQ |
| Up-Down | SLNPUDQ |
| Run-Jog | SLNPRJQ |
| Auto-Hand | SLNPAHQ |
| Off-Remote | SLNPORQ |


| Description | Suffix |
| :---: | :---: |
| Three Position Selection Switch Nameplates |  |
| Forward-Off-Reverse | SLNPFORQ |
| Hand-Off-Auto (2) | SLNPHOAQ |
| Run-Off-Jog | SLNPROJQ |
| Blank | SLNPB3 |
| Reverse-Off-Forward | SLNPROFQ |
| Auto-Off-Hand | SLNPAOHQ |
| Hand-Off-Remote | SLNPHORQ |
| 1-Off-2 | SLNP102Q |
| Jog-Off-Run | SLNPJORQ |
| Stop-Run-Start | SLNPSRSQ |
| Local-Off-Remote | SLNPLORQ |
| Momentary Push Buttons |  |
| For Rectangular Weatherboot Style Only (Not for round weatherboot style) |  |
| Blank (2) | SNPBQ |
| Forward | SNPFWDQ |
| Jog | SNPJOGQ |
| Run | SNPRUNQ |
| Stop (2) | SNPSPQ |
| Start (2) | SNPSTQ |
| Down | SNPDOWNQ |
| Fast | SNPFASTQ |
| Slow | SNPSLOWQ |
| Raise | SNPRAISEQ |
| Lower | SNPLOWERQ |
| Reset | SNPRESETQ |
| Off | SNPOFFQ |
| On | SNPONQ |
| Reverse | SNPREVQ |
| Close | SNPCLOSEQ |
| Open | SNPOPENQ |
| Up | SNPUPQ |
| Test | SNPTESTQ |
| Low | SNPLOWQ |
| High | SNPHIGHQ |

(1) Custom nameplates are not available.
(2) Included as standard (no need to use suffix).

- Select items suitable for Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G and Class III. See product selection pages for suitable items.


## EFD/EFDB Series Factory Sealed Control Stations

## Explosionproof, Dust-Ignitionproof

10 Amp, 600 Vac Max. for Heavy Duty Use. Furnished with Internal Ground Screw.

## NEC/CEC:

Class I, Division 1,Groups B B, C, D
Class I, Division 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 3, 7CD, 9EFG


[^1]
## EFD/EFDB Series Factory Sealed Control Stations

## Combination Push Button and Pilot Light. Explosionproof, Dust-Ignitionproof

10 Amp, 600 Vac Max. for Heavy Duty Use. Momentary Contact. Furnished with Internal Ground Screw.

NEC/CEC:
Class I, Division 1,Groups B *, C, D
Class I, Division 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 3, 7CD, 9EFG

|  | Hub Size <br> (Inches) | Description |  | Nameplate <br> Marking | Catalog Number <br> Dead-End |
| :--- | :--- | :--- | :--- | :--- | :--- |
| Feed-Thru |  |  |  |  |  |

1 Circuit, 1 Pilot Light 2 Circuit, 1 Pilot Light
2-Gang

| स9? | 9\% | $1 / 2$ $3 / 4$ 1 | 2 Circuit Universal and 1 Pilot Light | $0: 1$ | Start/Stop | $\begin{aligned} & \text { EFD250-J1U2 } \\ & \text { EFD275-J1U2 } \\ & \text { EFD210-J1U2 } \end{aligned}$ | EFDC250-J1U2 <br> EFDC275-J1U2 <br> EFDC210-J1U2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1/2 | 2 Circuit | (0) 1. |  | EFD250-J2U2 | EFDC250-J2U2 |
|  |  | 3/4 | Universal and |  | Start/Stop | EFD275-J2U2 | EFDC275-J2U2 |
| 2 Circuit, 1 Pilot Light | 2 Circuit, 2 Pilot Light | 1 | 2 Pilot Lights |  |  | EFD210-J2U2 | EFDC210-J2U2 |

3-Device (2)


2-Gang Tandem (2)


| $1 / 2$ |  |  |
| :---: | :---: | :---: |
| $3 / 4$ | 2 Circuit <br> Universal and <br> 1 | Silot Light |


| EFDT50-J1U2 | EFDCT50-J1U2 |
| :--- | :--- |
| EFDT75-J1U2 | EFDCT75-J1U2 |
| EFDT10-J1U2 | EFDCT10-J1U2 |
|  |  |
| EFDT50-J2U2 | EFDCT50-J2U2 |
| EFDT75-J2U2 | EFDCT75-J2U2 |
| EFDT10-J2U2 | EFDCT10-J2U2 |

2 Circuit, 2 Pilot Lights 2 Circuit, 1 Pilot Light

For tandem bodies, external seals must be installed within 1.5 meters ( 5 feet) of each conduit entrance for Class I, Groups $C$ and $D$.
Pilot Lights furnished with 6 Watt, 120 Vac 6 S6 lamp and red jewel-Other colored jewels and LED's listed under accessories and parts.
(1) Malleable iron body and aluminum cover. For aluminum body, add suffix -A.
(2) Aluminum body not available.

- Shaded area indicates items suitable for Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G and Class III. For Class I, Division 1, Group B, external seals must be installed at each conduit entrance.


## EDS Series Factory Sealed Control Stations

## Push Button. With Rocker Arm Handle. Explosionproof, Dust-Ignitionproof

10 Amp, 600 Vac Max. for Heavy Duty Use. Furnished with Internal Ground Screw.

(1) For aluminum body add suffix -A (Not suitable for Class I, Group B).

- Shaded area indicates items suitable for Class I, Group B, in addition to Class I, Groups C and D; Class II, Groups E, F, and G; and Class III.


## EFD/EFDB Series Factory Sealed Control Stations

Dust Cap Push Button. Explosionproof, Dust-Ignitionproof
10 Amp, 600 Vac Max. for Heavy Duty Use. Momentary Contact. Furnished with Internal Ground Screw.

NEC/CEC:
Class I, Division 1,Groups B *, C, D
Class I, Division 2, Groups B, C, D
Class I, Division 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class II, Dil
NEMA 3, 7CD, 9EFG

|  | Hub Size (Inches) | Description |  | Nameplate Marking | Catalog Number |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Dead-End | Feed-Thru |
| 1-Gang (1) |  |  |  |  |  |  |
| $1$ | $\begin{gathered} 3 / 4 \\ 1 \end{gathered}$ | 1 Circuit Universal | $:$ |  | Start/Stop | EFDB175-DU1 <br> EFDB110-DU1 | EFDCB175-DU1 <br> EFDCB110-DU1 |
|  | $\begin{gathered} 3 / 4 \\ 1 \end{gathered}$ | 2 Circuits Universal |  | Start/Stop | EFDB175-DU2 EFDB110-DU2 | EFDCB175-DU2 <br> EFDCB110-DU2 |

3-Device (2)

(1) Malleable iron body and aluminum cover. For aluminum body, add suffix - $\boldsymbol{A}$.
(2) Aluminum body not available.

- Shaded area indicates items suitable for Class I, Groups B, C and D; Class II, Groups E, F, and G; and Class III. For Class I, Group B external seals must be installed at each conduit entrance.


## EFD/EFDB Series Factory Sealed Control Stations

## Pilot Lights. Explosionproof, Dust-Ignitionproof

Pilot Light Furnished with 6 Watt, 120 Vac 6 S6 Lamp and Red Jewel. ${ }^{\dagger}$ Furnished with Internal Ground Screw.

NEC/CEC:
Class I, Division 1,Groups B B, C, D
Class I, Division 2, Groups B, C, D
Class II, Division 1 and 2, Groups E, F, G
Class II, D
Class III
NEMA 3, 7CD, 9EFG

3-Device (2)
2-Gang Tandem (2)
Two Pilot Lights
(1) Malleable iron body and aluminum cover. For aluminum body, add suffix - $\boldsymbol{A}$.
(2) Aluminum body not available. For tandem bodies, external seals must be installed within 1.5 meters (5 feet) of each conduit entrance for Class I, Groups C and D. (3) Other colored jewels, pilot lights and LED's listed under accessories and parts.

- Shaded area indicates items suitable for Class I, Groups B, C and D; Class II, Groups E, F, and G; and Class III. For Class I, Division 1, Group B, external seals must be installed at each conduit entrance.


## EFDB Series Factory Sealed Control Stations

## Selector Switches and Photocontrols. Explosionproof, Dust-Ignitionproof

10 Amp, 600 Vac Max. for Heavy Duty Use. Furnished with Internal Ground Screw.

## NEC/CEC:

Class I, Division 1 and 2, Groups B \&, C, D
Class II, Division 1 and 2, Groups E, F, G
Class III
NEMA 3, 7CD, 9EFG

| Hub Size(Inches) |  | Description | Diagram |  |  | Catalog Number |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Left | Center | Right | Dead-End | Feed-Thru |
| 2 Position Selector Switches - 1-Gang (1) - Maintained Contact |  |  |  |  |  |  |  |
|  | 1/2 |  |  |  |  |  | EFDB150-12 | EFDCB150-12 |
|  | 3/4 | 2 Position, 2 Circuit | $\because$ | None | $1:$ | EFDB175-12 | EFDCB175-12 |
|  | 1 |  |  |  |  | EFDB110-12 | EFDCB110-12 |
|  | 1/2 |  |  |  |  | EFDB150-35 | EFDCB150-35 |
| Nameplate: Hand-Auto | 3/4 | 2 Position, 4 Circuits | -1. | None | $\cdots$ | EFDB175-35 | EFDCB175-35 |
|  | 1 |  |  |  |  | EFDB110-35 | EFDCB110-35 |

3 Position Selector Switches - 1-Gang • (1) - Maintained Contact
Three position units can be supplied for momentary contact right position, spring return to center, maintained contact left position. Add suffix -SRC.

| 1/2 | 3 Position, 2 Circuit | $\because$ |  | $1:$ | EFDB150-102 <br> EFDB175-102 <br> EFDB110-102 | EFDCB150-102 <br> EFDCB175-102 <br> EFDCB110-102 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 3/4 |  |  |  |  |  |  |
| 1 |  |  |  |  |  |  |
| 1/2 |  |  |  |  | EFDB150-345 | EFDCB150-345 |
| 3/4 | 3 Position, 4 Circuits | - : |  | $\because 1: 1^{\bullet}$ | EFDB175-345 | EFDCB175-345 |
| 1 |  |  |  |  | EFDB110-345 | EFDCB110-345 |

Selector Switches Nameplates (2)


Two Position


Three Position

| Two Position Nameplates |  |
| :--- | :--- |
| Forward-Reverse | SLNP-FRQ |
| Hand-Auto | SLNP-HAQ |
| On-Off | SLNP-OO |
| Start-Stop | SLNP-SS |
| Blank | SLNP-BQ |
| Up—Down | SLNP-UDQ |
| Run-Job | SLNP-RJQ |
| Auto-Hand | SLNP-AHQ |
| Off—Remote | SLNP-ORQ |
| Local Remote | SLNP-LRQ |
| Off-On | SLNP-OFON |


| Three Position Nameplates |  |
| :---: | :---: |
| Forward-Off-Reverse | SLNP-FORQ |
| Hand-Off-Auto | SLNP-HOAQ |
| Run-Off-Jog | SLNP-ROJQ |
| Blank | SLNP-B3 |
| Reverse-Off-Forward | SLNP-ROFQ |
| Auto-Off-Hand | SLNP-AOHQ |
| Hand-Off-Remote | SLNP-HORQ |
| 1-Off-2 | SLNP-102Q |
| Jog-Off—Run | SLNP-JORQ |
| Stop-Run-Start | SLNP-SRSQ |
| Local-Off-Remote | SLNP-LORQ |

Selector Switch Locking Devices - Permit locking in any position

| Description | Catalog Number |
| :---: | :---: |
| Two or Three Positions | SBL-3-Q |

[^2]
## EFDB Series Factory Sealed Control Stations

Selector Switch Cover Assemblies. Explosionproof, Dust-Ignitionproof
10 Amp, 600 Vac Max. for Heavy Duty Use.

```
NEC/CEC:
    Class I, Division 1 and 2,Groups B *,, C, D
    Class II, Division }1\mathrm{ and 2,,Groups E, F,G
    Class II,
    NEMA 3, 7CD, 9EFG
```

|  | Thread Size (In., NPSM) | Description |  | Diagram |  | Catalog Number |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Left | Center | Right | Switch Assembly Only | Switch Assembly with Cover |
| 2 Position |  |  |  |  |  |  |  |
|  | 1/2 | 2 Position, 2 Circuit | $\because$ | None | 1 | SSBA1-2Q | EFKB-12 |
|  | 1/2 | 2 Position, 4 Circuits |  | None | $\cdots 0^{\bullet}$ | SSBA2-2Q | EFKB-35 |
| Nameplate: Hand-Auto |  |  |  |  |  |  |  |
| 3 Position |  |  |  |  |  |  |  |
|  | 1/2 | 3 Position, 2 Circuit | $\because$ | $\because 1$ | 1 | SSBA1-3Q | EFKB-102 |
|  | 1/2 | 3 Position, 4 Circuit | - |  | $: 1:$ | SSBA2-3Q | EFKB-345 |
| Nameplate: Hand-Off-Auto |  |  |  |  |  |  |  |

EFDB Selector Switch Operator/Switch Assembly - Modified Operations (1)


3 Position
Momentary contact right position. Spring return to center. Maintained contact left position.
Note: Standard legend plate reads Hand/Off/Auto


Momentary contact left position. Spring return to center. Maintained contact right position.
Note: Standard legend plate reads Auto/Off/Hand


4 Circuit


Momentary contact right position. Spring return to center. Maintained contact left position. Note: Standard legend plate reads Stop/Run/Start


[^3]NEC/CEC:
Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class III

| Coser complete with Push Button - Factory Sealed - Momentary Contact (1) (2) | Nameplate <br> Marking |  |
| :--- | :--- | :--- |
| For use on standard EFD bodies |  |  |
| Number |  |  |

Cover complete with Red Mushroom Head Push Button - Factory Sealed - Maintained Contact (1) (2)


For use on standard EFD bodies - Emergency Stop Nameplate
1 Circuit Universal (Red)
$\because:$
Emergency Stop
EFKB-UM1

Cover complete with Pilot Lights - Factory Sealed - Momentary Contact (1) (2)
6 Watt, 120 Vac, Type 6S6 Lamp. For use on standard EFD bodies


J1U2


J1


J1U1


J2


PC

[^4]```
NEC/CEC:
    Class I, Division 1 and 2, Groups C, D
    Class II, Division 1 and 2,Groups E, F, G
    Class II,
```


## Covers Only - for use on standard EFD bodies

Supplied with 4 cover bolts and blank cover nameplate.

|  |  | Description |
| :--- | :--- | :--- |
| Push Button or Pilot Light Covers $-\mathbf{3 / 4 "}$ Tapped Openings $\mathbb{1}$ |  | Catalog Number |

Push Button or Selector Switch Cover - 1/2" Tapped Openings (1)


[^5]
## NEC/CEC:

Class I, Division 1 and 2, Groups B, C, D Class II, Division 1 and 2, Groups E, F, G
Class III

| Description |  |  | Catalog Number |
| :---: | :---: | :---: | :---: |
| Push Button, Factory Sealed - Momentary Contact |  |  |  |
|  | 10 Amp 600 Vac Heavy Duty $1 / 2^{\prime \prime}$ thread size (NPSM). Furnished with $1 / 2^{\prime \prime}$ to $3 / 4$ " enlarger, Weather Boot, Guard, Start, Stop and Blank Nameplates. |  |  |
|  | Single Push Button | Universal | SPBB-U1-Q |
|  | Double Push Button | Universal | SPBB-U2DBL |

## Push Button, Red, Factory Sealed - Maintained Contact

10 Amp 600 Vac Heavy Duty 1/2" thread size (NPSM). Furnished with 1/2" to 3/4" enlarger and Emergency Stop Nameplate (guard not furnished).

Single Push Button Universal : L: SMPB-U1-Q

Rectangular Button with Weather Boot
Furnished with Start, Stop and Blank Nameplates
NBN-WB

|  | Description | Nameplate Marking | Catalog Number |
| :---: | :---: | :---: | :---: |
| Push Button and Replacement Cap |  |  |  |
| Has 1/2-14 thread size (NPSM). Supplied with $1 / 2^{\prime \prime}$ to $3 / 4^{\prime \prime}$ enlarger. |  |  |  |
|  | Dust Cap - Push Button | STOP-START-BLANK | SPBB-DU1-Q |
| SPBB-DU1-Q DC-Q | Replacement Dust Cap Only | STOP-START-BLANK | DC-Q |
| STOP-START-BLANK | Nameplate | STOP-START-BLANK | DU-NP-Q |

Covers Complete with Pilot Lights, Push Buttons - Factory Sealed
When installed on a single gang box the cover assembly is suitable for use in Group B environments but will not be marked Group B.

(1) For use with three device mounting bodies.

```
NEC/CEC:
    Class I, Division 1 and 2, Groups B, C, D
    Class II, Division 1 and 2,,Groups E, F, G
    Class III
```

| Description |  |  |  | Catalog Number |
| :---: | :---: | :---: | :---: | :---: |
| Nameplates for Rectangular Push Buttons |  |  |  |  |
|  | Blank | SNP-B-Q | Off | SNP-OFF-Q |
| OFF | Forward | SNP-FWD-Q | On | SNP-ON-Q |
| OFF | Jog | SNP-JOG-Q | Reverse | SNP-REV-Q |
|  | Run | SNP-RUN-Q | Open | SNP-OPEN-Q |
| SNP-0FF-Q | Stop | SNP-SP-Q | Close | SNP-CLOSE-Q |
|  | Start | SNP-ST-Q | Up | SNP-UP-Q |
|  | Down | SNP-DOWN-Q | Test | SNP-TEST-Q |
| ON | Fast | SNP-FAST-Q | Low | SNP-LOW-Q |
|  | Slow | SNP-SLOW-Q | High | SNP-HIGH-Q |
|  | Raise | SNP-RAISE-Q |  |  |
| SNP-ON-Q | Lower | SNP-LOWER-Q |  |  |
|  | Reset | SNP-RESET-Q |  |  |

Push Button Replacement Locking Guards - Glass Reinforced Polypropylene - Gasketed
Push Button Securing Rod with Chain - Stainless Steel


## EFD/EFDB and EDS Series Factory Sealed Control Stations <br> EFD/EFDB Push Button Accessories

NEC/CEC:
Class I, Division 1 and 2, Groups B \&, C, D Class II, Division 1 and 2, Groups E, F, G Class III
Description Catalog Number

Pilot Light, Factory Sealed

|  |  | Incandescent |  |
| :---: | :---: | :---: | :---: |
|  |  | Furnished with 6S6 120 Vac incandescent lamp, jewel and guard. Has 457 mm (18") long, type SFF-2 pigtail leads; $+150^{\circ} \mathrm{C}\left(+302{ }^{\circ} \mathrm{F}\right)$. Body has $3 / 4$ " straight thread (NPSM). |  |
|  |  | With Red Jewel | SPLSREB |
|  |  | With Green Jewel | SPLSGRB |
|  |  | With Amber Jewel | SPLSAMB |
| $2=12$ |  | With Blue Jewel | SPLSBLB |
|  |  | With Clear Jewel | SPLSCLB |
|  |  | With Opal Jewel | SPLSOPB |
|  |  | LED |  |
|  |  | Furnished with candelabra base 120 Vac LED, jewel and guard. Has 457 mm (18") long, type SFF-2 pigtail leads; $+150^{\circ} \mathrm{C}\left(+302{ }^{\circ} \mathrm{F}\right)$. Body has $3 / 4$ " straight thread (NPSM). |  |
| 17 |  | With Red LED, Clear Jewel | SPLNSREB |
|  |  | With Green LED, Clear Jewel | SPLNSGRB |
| Pilot Light | Chamber Only | With Amber LED, Clear Jewel | SPLNSAMB |
|  |  | Chamber Only (Same as above, less jewel, guard and lamp) | SPLSSCB |

Pilot Light Jewel/Guard Assembly
The below catalog numbers indicate an assembly of the Pilot Light Jewels and Guards. Jewels and Guards are not available as separate items.

| Amber Jewel/Guard | JGBNA |
| :--- | :---: |
| Blue Jewel/Guard | JGBNB |
| Clear Jewel/Guard | JGBNC |
| Green Jewel/Guard | JGBNG |
| Opal Jewel/Guard | JGBNO |
| Red Jewel/Guard | JGBNR |

Replacement Bulbs


- Suitable for Class I, Group B when installed in an enclosure rated for Class I, Group B.

EFD/EFDB and EDS Series Factory Sealed Control Stations
EFD/EFDB Push Button Accessories

NEC/CEC:
Class I, Division 1 and 2, Groups B, C, D Class II, Division 1 and 2, Groups E, ${ }^{\text {F, }}$ G
Class III

|  | Description | Catalog Number |
| :---: | :---: | :---: |
| Nameplates for Pilot Light |  |  |
|  | Blank | LNPBQ |
|  | Forward | LNPFWDQ |
| RUN | Jog | LNPJOGQ |
|  | Run | LNPRUNQ |
|  | Stop | LNPSPQ |
|  | Start | LNPSTQ |
|  | Down | LNPDOWNQ |
|  | Fast | LNPFASTQ |
| LNPRUNQ | Slow | LNPSLOWQ |
|  | Raise | LNPRAISEQ |
|  | Lower | LNPLOWERQ |
|  | Reset | LNPRESETQ |
|  | Off | LNPOFFQ |
|  | On | LNPONQ |
|  | Reverse | LNPREVQ |
|  | Close | LNPCLOSEQ |
|  | Open | LNPOPENQ |
|  | Up | LNPUPQ |
|  | Test | LNPTESTQ |
|  | Low | LNPLOWQ |
|  | High | LNPHIGHQ |

## EFD/EFDB and EDS Series Factory Sealed Control Stations

## Mounting Bodies

Furnished with Internal Ground Screw.

```
NEC/CEC:
    Class I, Division 1 and 2, Groups C, D
    Class II, Division }1\mathrm{ and 2, Groups E, F, G
    Class III
    NEMA 7CD, 9EFG
```

|  |  | Hub Size <br> (Inches) | Catalog Number |
| :--- | :--- | :--- | :--- |
| 1-Gang | Type |  | Malleable Iron |

Blank Bodies for Brazed Hubs (2)
Construct complete catalog numbers per EFD Cast Device Boxes Ordering Information on following page. Hubs will be located in center of walls and evenly spaced unless otherwise specified. Where spacings are critical, submit sketch showing exact spacing requirements.

| 1-Gang | EFD1NL | - |
| :--- | :--- | :--- |
| 2-Gang | EFD2NL | - |
| 3-Gang | EFD3NL | - |
| 4-Gang | EFD4NL | - |
| 5-Gang | EFD5NL | - |

(1) For tandem bodies, external seals must be installed within 1.5 meters (5 feet) of each conduit entrance for Class I, Groups C and D.
(2) Blank EFD bodies are Non-UL Listed.

# EFD/EFDB and EDS Series Factory Sealed Control Stations 

EFD Cast Device Box Ordering Information. Blank Bodies for Brazed Threaded Hubs
1-, 2-, 3-, 4- and 5-Gang Boxes. Brazed Threaded Hubs for Rigid Conduit, 1/2" thru 1"; Brazed Union Hubs, 1/2" thru 1".

Determine catalog number as follows:
(1) Select EFD device box catalog number;
(2) Select "Standard Hub Arrangement Diagram" number; and
(3) Select symbols that represent hub sizes from "Symbol Table." (Use "0" where no hub is required, and separate the various divisions of the complete catalog number by dashes.)

## Example

The blank body device box selected is EFD3NL and the hub arrangement is diagram \#8. Hub "a" is to be $3 / 4$ " brazed threaded; hub "b", 1" brazed threaded; hub "c", 3/4" brazed threaded; hub "d", no hub is required; and hub "e", 1 " brazed union.
The complete catalog number will be: EFD-3NL-8-23203E

If a "Standard Hub Arrangement" is not suitable for the application, or when hubs are to be more accurately spaced, submit sketch locating hubs (1) from centerlines of walls and (2) from outside back of box (or from mounting lug surface if lugs are supplied).

All hubs will be located in centerlines of walls and evenly spaced unless otherwise specified.

| Symbol Table |  |  |
| :---: | :---: | :---: |
| Hub Size <br> (Inches) | Brazed <br> Threaded Hub <br> Symbol | Brazed Union <br> Hub Symbol |
| Blank | 0 | 0 |
| $1 / 2$ | 1 | 1 E |
| $3 / 4$ | 2 | 2 E |
| 1 | 3 | 3 E |

Standard Hub Arrangement Diagrams
Hub "a" is always TOP of box
2-, 3-, 4- and 5-Gang (Front View)


1-Gang (Front View)


## EFD/EFDB and EDS Series Factory Sealed Control Stations

EFD/EFDB 1- and 2-Gang

NEC/CEC:
Class I, Division 1 and 2, Groups C, D
Class II, Division 1 and 2, Groups E, F, G
Class II,
Class III
Class
NEMA
$7 C D$

Dimensions in Millimeters (Inches)
EFD/EFDB - 1- and 2-Gang Combination Pilot Light and Push Buttons


EFD/EFDB - 1-Gang Dust Cap Push Button and 1-Gang Maintained Contact Push Button
7.9 mm


EDS - 1- and 2-Gang Rocker Arm Push Button


| Hub Size <br> (Inches) | A | Dimensions in Millimeters (Inches) |  |
| :---: | :---: | :---: | :---: |
| $1 / 2$ and $3 / 4$ | $136.7(5.38)$ | B | C |
| 1 | $139.7(5.50)$ | $155.7(6.13)$ | $19.8(0.78)$ |
|  |  | $160.3(6.31)$ | $23.9(0.94)$ |


[^0]:    - Select items suitable for Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G and Class III. See product selection pages for suitable items.

[^1]:    (1) Malleable iron body and aluminum cover. For aluminum body, add suffix - A.
    (2) Aluminum body not available.

    - Shaded area indicates items suitable for Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G and Class III. For Class I, Division 1, Group B, external seals must be installed at each conduit entrance.

[^2]:    (1) Malleable iron body and aluminum cover. For aluminum body add suffix - A (Suitable for Class I, Division 1 and 2, Group B-single gang only).
    (2) Custom nameplates are not available.

    - Shaded area indicates items suitable for Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G and Class III. For Class I, Division 1, Group B, external seals must be installed at each conduit entrance.

[^3]:    (1) When installed on a single gang box the cover assembly is suitable for use in Group B environments but will not be marked Group $B$.

    - Select items suitable for Class I, Division 1 and 2, Groups B, C and D; Class II, Groups E, F and G and Class III. See product selection pages for suitable items.

[^4]:    (1) All covers are copperfree aluminum. Supplied with four captive stainless steel bolts.
    (2) When installed on a single gang box the cover assembly is suitable for use in Group B environments but will not be marked Group B.
    (3) Colored jewels, pilot lights and LED's listed under accessories and parts

[^5]:    (1) All covers are copperfree aluminum. Supplied with four captive stainless steel bolts.
    (2) Catalog number EFKL-3HQ supplied with 6 stainless steel non-captive bolts.

