

# EFS Non-Sealed Tumbler Switches

## Explosionproof, Dust-Ignitionproof

Malleable Iron Body and Cover. Furnished with Internal Ground Screw.

### NEC:

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

### Applications

- Designed to prevent arcing of enclosed switches in ignitable atmospheres during connect and disconnect operation of lighting and light power loads.
- For use in classified areas where ignitable vapors, gases or highly combustible dusts are present.
- For installation in:
  - Chemical and petrochemical plants
  - Refineries
  - Other process industries

### Features

- Enclosures have external mounting lugs for ease of mounting.
- Smooth, rounded integral bushing in each hub protects conductor insulation.
- Enclosures furnished with internal ground screw.
- 20 Amp and 30 Amp units available for use with 120-277 Vac.
- Smooth ground mating surfaces assure flame-tight joint between cover and mounting enclosure.
- Stainless steel hex head cap screws for attaching cover to mounting enclosure.
- Choice of front-operating or side rocker arm handle—each may be locked in ON or OFF position.
- Each handle has close-tolerance threaded stainless steel shaft to meet explosionproof requirements.
- Enclosures furnished with internal ground screw.

### Options

- 1- or 2-gang copperfree (4/10 of 1% max.) aluminum bodies and covers available. Add suffix – **A**.
- **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.

### Standard Materials

- Body and cover: malleable iron
- Handle: nylon 6/6
- Optional nameplate mounting bracket: corrosion resistant stainless steel

### Standard Finishes

- Tumbler switch body: triple-coat—(1) zinc electroplate, (2) chromate, and (3) epoxy powder coat

### NEC Certifications and Compliances

- UL Standards: UL 894, UL 1203
- UL Listed: E10523, E81751

### Ordering Information for "Custom" Units

- Devices, covers and bodies may be ordered separately so that a different EFS switch may be used in each gang.
- Order components separately as follows:
  - (1) select body catalog number,
  - (2) select cover catalog number, and



Front Operated



Rocker Arm Operated

### Illustrated Features



Handles may be locked in ON or OFF position

- (3) select switch or switch assembly catalog number (1-pole, 2-pole, 3-way or 4-way available in listings).

### How to Order Hub Arrangements

- Simply send sketch indicating sizes and locations for brazed hubs on body or bodies selected from catalog listings. Orient sketch so that cover opening faces front and mounting lugs face upward and downward (box wall opposite cover should be referred to as the *back* of box).

### Bodies and Hubs Available

- Tumbler switches may be ordered in single thru five gang deep malleable iron blank bodies with brazed hubs as specified at any location.
- Tumbler switches may be ordered with tandem malleable iron boxes with additional brazed hubs as specified.
- Standard malleable iron single and 2-gang tumbler switches may be ordered with additional brazed hubs as specified.
- Single and 2-gang tumbler switches may be ordered with aluminum boxes with additional brazed hubs as specified.

### Related Products

- For classified-location push button, pilot light and selector switch control stations, see *EFD/EFDB and EDS Control Stations and Pilot Lights*.

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|  |   | Hub Size<br>(Inches)   | Switch     | Catalog Number ① |            |
|--|---|------------------------|------------|------------------|------------|
|  |   |                        |            | Dead-End         | Feed-Thru  |
| 1-Gang   |   |                        |            |                  |            |
| <br><br><b>Dead-End</b>   | 20 Amp — 120-277 Vac ②  |                        |            |                  |            |
|  | 1/2   | 1-Pole                 | EFS150-F1  | EFSC150-F1       |            |
|  | 1/2   | 2-Pole                 | —          | EFSC150-F2       |            |
|  | 1/2   | 3-Way                  | EFS150-F3W | EFSC150-F3W      |            |
|  | 1/2   | 4-Way                  | EFS150-F4W | EFSC150-F4W      |            |
|  | 3/4   | 1-Pole                 | EFS175-F1  | EFSC175-F1       |            |
|  | 3/4   | 2-Pole                 | EFS175-F2  | EFSC175-F2       |            |
|  | 3/4   | 3-Way                  | EFS175-F3W | EFSC175-F3W      |            |
|  | 3/4   | 4-Way                  | EFS175-F4W | EFSC175-F4W      |            |
|  | <br><br><b>Feed-Thru</b>   | 30 Amp — 120-277 Vac ③ |            |                  |            |
| 3/4  |   | 1-Pole                 | EFS175-F13 | EFSC175-F13      |            |
| 3/4  |   | 2-Pole                 | EFS175-F23 | EFSC175-F23      |            |
| 2-Gang   |   |                        |            |                  |            |
| <br><br><b>Dead-End</b> | 20 Amp — 120-277 Vac ②  |                        |            |                  |            |
|  | 1/2   | 1-Pole                 | EFS250-F1  | EFSC250-F1       |            |
|  | 1/2   | 2-Pole                 | —          | EFSC250-F2       |            |
|  | 1/2   | 3-Way                  | —          | EFSC250-F3W      |            |
|  | 1/2   | 4-Way                  | —          | EFSC250-F4W      |            |
|  | 3/4   | 1-Pole                 | EFS275-F1  | EFSC275-F1       |            |
|  | 3/4   | 2-Pole                 | —          | EFSC275-F2       |            |
|  | 3/4   | 3-Way                  | —          | EFSC275-F3W      |            |
|  | 3/4   | 4-Way                  | —          | EFSC275-F4W      |            |
|  | <br><br><b>Feed-Thru</b> | 1                      | 2-Pole     | EFS210-F2        | EFSC210-F2 |
| 1  |   | 3-Way                  | EFS210-F3W | EFSC210-F3W      |            |
| 1  |   | 4-Way                  | EFS210-F4W | EFSC210-F4W      |            |
| 30 Amp — 120-277 Vac ③   |   |                        |            |                  |            |
|  | 3/4   | 1-Pole                 | EFS275-F13 | EFSC275-F13      |            |
|  | 3/4   | 2-Pole                 | —          | EFSC275-F23      |            |
|  | 1   | 2-Pole                 | EFS210-F23 | EFSC210-F23      |            |

① For aluminum backbox and cover, add suffix -A.

② 20 Amp — 1 HP at 120 Vac and 2 HP at 240 Vac.

③ 30 Amp — 2 HP at 120 Vac or 240 Vac.